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The Relationships of the Laticaudine Sea Snakes

(FAMILY ELAPIDAE GENUS LATICAUDA)

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ABSTRACT

C.J.McCarthy Relationships of the laticaudine sea snakes

The genus *Laticauda* is regarded by some workers as the most primitive member of the sea snake family Hydrophiidae. However others consider that *Laticauda* and "true" sea snakes (Hydrophiinae) are more likely to have had separate origins within the front-fanged "proteroglyphous" snakes (Elapidae); laticaudines are thought to be most closely allied to a group comprising terrestrial Asiatic and American coral snakes together with a Solomon Islands (Bougainville) endemic proteroglyph.

The present study of laticaudine affinities is divided into three main parts:-

1) An introductory section reviews the theory supporting the analytical methods used, considers some of the biological and distributional aspects of the Elapidae *sensu lato* and examines current theories of relationships within the "family".
2) A wide range of external and internal anatomical features of a variety of elapids are described and states of these characters are arranged into most likely transformation series, attempts also being made to determine polarities (primitive and derived conditions).
3) In the analysis and discussion section three topics are considered:-
a) The issue of monophyly of the family Elapidae is examined and a recent proposal that New World proteroglyphs represent an independent derivation from American colubrids is rejected on the basis of critical re-evaluation of the evidence alleged to support the theory.
b) Intra- and inter-specific variation in *Laticauda* is described.
c) A sample of fifteen elapid species for 89 binary characters is analysed using several numerical techniques (i.e. phenetic, compatibility and parsimony methods). The main conclusion is that although the data, with most forms of analysis, tends to support the theory that the closest allies of *Laticauda* are some hydrophiine sea snakes, there is a considerable amount of conflicting information. It is suggested that this uncertain situation is best reflected in a classification which treats Laticaudinae, Hydrophiinae and Elapinae as equivalent subfamilies of the Elapidae.

CONTENTS

1 (A) OBJECTIVES

The principal aim of this study is to investigate the relationships between members of the genus _Laticauda_ ("sea kraits") and species currently assigned to the family Elapidae, using a range of anatomical features drawn from preserved specimens. A number of methods have been used to analyse this data (see section (B) of the Introduction). The problem of laticaudine relationships was considered by Smith in his now classic "Monograph of Sea Snakes" (1926 p.xi). He regarded _Laticauda_ as the most primitive sea snake genus "from which branched off _Emydocephalus_ and _Aipysurus_". Smith (1926 p.vi) also implied that the sea snakes may not be monophyletic, "Whether they were derived from a single ancestor or not, it is clear that two groups originated early. One of these, the Laticaudinae, was Australian in origin, the other, the Hydrophiinae, Indo-Malayan." Later Smith (1943 p.439) appeared to modify his opinions somewhat and stated that the Laticaudinae and the Hydrophiinae "are united through _Ephalophis_." Smith's views are summarized in Figs. 1(a) and 1(b),p.

McDowell (1967,1969,1972,1974) argues that _Laticauda_ is not closely related to the Hydrophiinae (including _Aipysurus_ and _Emydocephalus_) but represents an independent marine adaptation of a group of elapids comprising the Asiatic coral snakes (_Calliophis_, _Maticora_), the American coral snakes (_Micrurus_ and _Micruroides_) and an endemic elapid from Bougainville, Solomon Islands (_Parapistocalamus_). McDowell's views are summarized in Fig. 1(c).

Voris (1977) recently analysed the sea snakes (Hydrophiidae _sensu_ Smith) using both phenetic and phylogenetic methods; three main groups were indicated (1977 p.116-118):-

(A) _Laticauda_ which are a"group of very closely related species distinct from all other sea snakes and either represent an independent evolutionary line or a very early separation from all other sea snakes."

(B) _Aipysurus_ (and _Emydocephalus_) which "shows weak affinity with both _Laticauda_ and the other sea snakes and like _Laticauda_ has either an independent origin among the elapids or a very early separation from the ancestral sea snakes."

(C) The third group comprises the remainder of the sea snakes. Voris' views are summarized in Fig. 1(d).

My approach to the problem was initially to examine the genus _Laticauda_ for a number of characters in order to ascertain intrageneric relationships. When an idea of these affinities had thus been obtained, taxa outside the genus were surveyed for a list of apparent "special features" likely to be of potential value in working out the wider relationships of _Laticauda_; the aim being to construct a "cladogram" expressing these relationships. Ultimately no very clear picture has emerged. Although it is possible to construct schemes relating _Laticauda_ to its apparent closest terrestrial relatives with comparatively little conflict of evidence, when some "true" snakes are added to the analysis the "noise" from discordant characters increases markedly.

There seem to be two main ways of responding to extensive incongruity in the results of systematic analysis:-

(i) Assume that the scheme least "falsified" is correct and either ignore less well supported alternatives or regard the characters supporting those weaker schemes as having developed convergently or in parallel.

(ii) Assume nature is orderly and that any disorder is due to human error (Nelson & Platnick 1981 p.23).

Strategy (ii) has much heuristic value in that new knowledge might well be revealed by stubborn refusal to accept irregularities; it is a spur to critically re-examine the evidence. However testing assumption (ii) against information pertaining to relationships among organisms in the real world leads to the conclusion, I believe, that nature really is not as orderly as some systematists would like it to be. It is the experience of many workers (e.g. Mayr 1970 p.365, Bock 1977, Hecht & Edwards 1977, Charig 1981 p.19, Panchen 1982 p.320) that parallelisms and convergences abound (particularly at low systematic levels, see for instance Arnold 1981).

A somewhat pragmatic approach to the problem of incongruence is adopted in the present study. A number of different analytical techniques have been used with the aim of gaining more perspectives on the problem. It is hoped that this will prove to be a useful representation of the available data and that it will now be easier for more evidence and different methods to yield further insights into the relationships of sea kraits. In this connection data on chromosomes and biochemical characters, derived from very recently published sources, is briefly reviewed (p.260) to assess how far this information is consistent with the evidence from gross morphology.

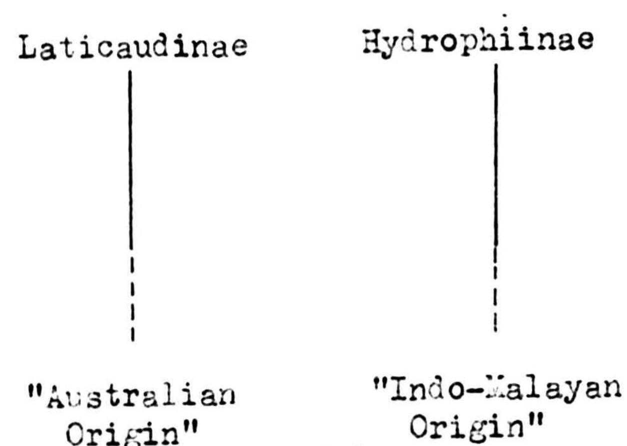

Fig.1(a)

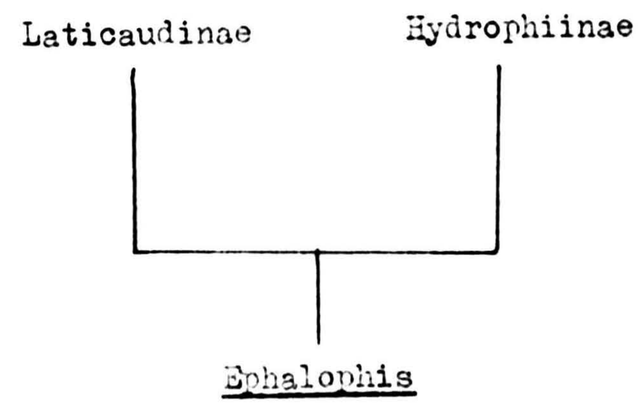

Fig.1(b)

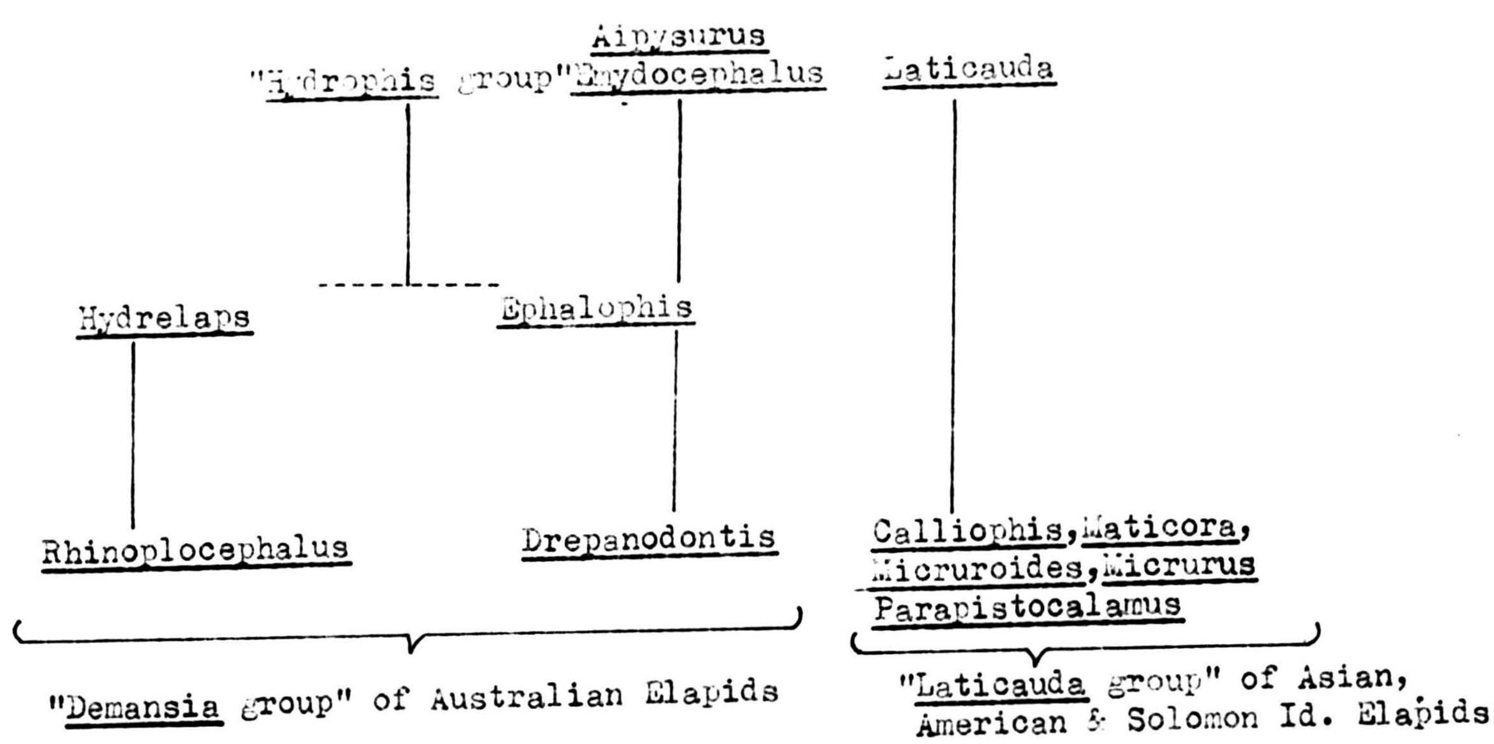

Fig.1(c)

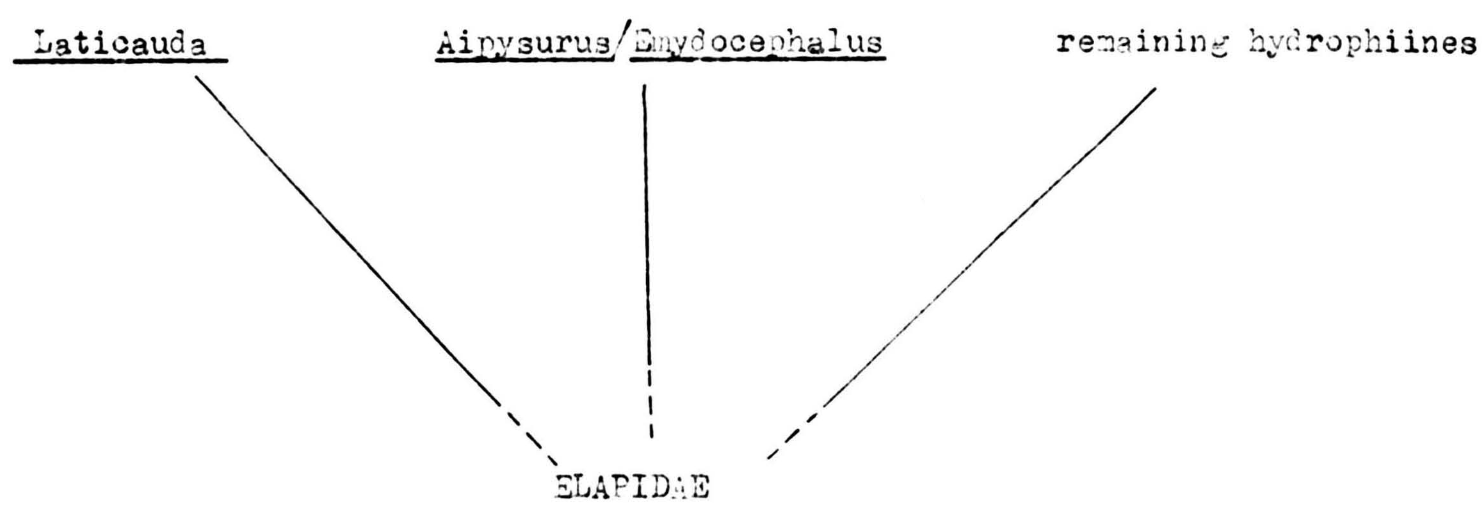

Fig.1(d)

1 (B) METHODS

(i) Introduction

Ernst Mayr (1969 p.55) observed "Zoological classification is the ordering of animals into groups on the basis of their similarity and relationship. The two terms, similarity and relationship, used in this definition, are the reason for controversies that have raged for hundreds of years". That the arguments still show no signs of abating is partly evinced by the recent publication of a number of major books on the subject (e.g. Eldredge & Cracraft 1980, Wiley 1981, Nelson & Platnick 1981).

There are three main schools of biological systematists for whom concepts of relationship have rather different meanings:-

(1) Phenetics (excellently reviewed by Sneath & Sokal 1973)

(2) Evolutionary Systematics (Simpson 1961 & Mayr 1969 are classic examples)

(3) Cladistics

(i) "Hennigian" cladistics (e.g. Hennig 1966 and Wiley 1981, who both prefer the title "Phylogenetic Systematics")

(ii) "Transformed" cladistics (e.g.Platnick 1980 & Nelson & Platnick 1981)

To do real justice to these various schools would need much more space than can be allocated here. However, in that each school commonly depicts concepts of relationship in terms of taxa linked together on branching diagrams, it may be helpful to discuss the different meanings each reads into these "trees" (Fig.2).

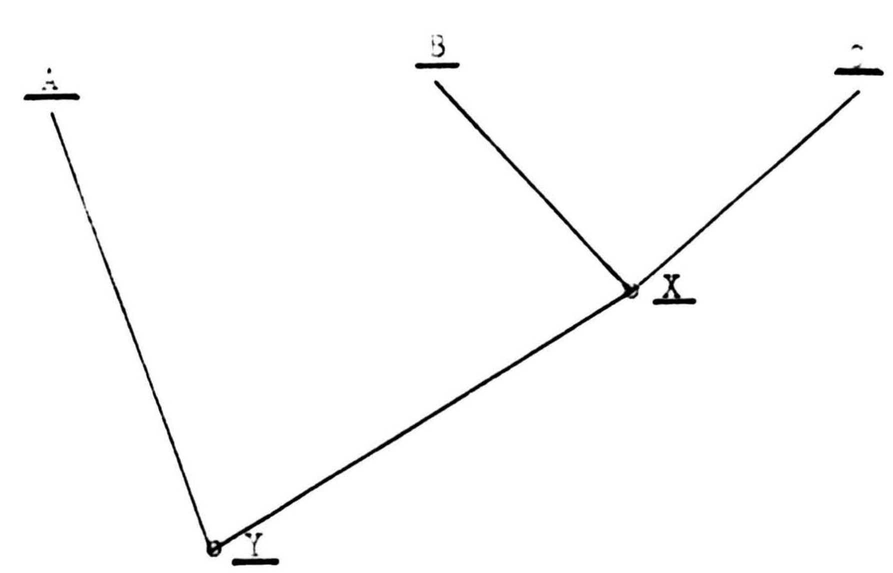

Fig. 2

A,B and C are extant organisms. It is possibly fair to say that no systematist would disagree that the above scheme depicts that B and C are more closely related to each other than either is to A. However, as mentioned previously, the meaning of "relationship" is disputed. The nodes on the above diagram (labelled X and Y) have different significance for the various schools.

To pheneticists, who group organisms on the basis of overall similarity, X and Y might represent clustering levels. If, for instance, the parameter being considered is percentage similarity; B and C might be 80% similar at point X and A,B and C 60% similar at point Y.

To evolutionists and "Hennigian" cladists X and Y are ancestors(or "stem species"), i.e. B and C share ancestor X which is not shared with A. A,B,C and X all share ancestor Y. For Hennigian cladists and some evolutionists (e.g.Mayr 1974) the evidence for close common ancestry is provided by shared derived characters ("synapomorphies") inherited from a recent ancestor. In the above example B and C would share synapomorphies inherited from X. The characters inherited from a more remote common ancestor, e.g. Y, are relatively primitive (symplesiomorphies) and irrelevant to the particular hypothesis that B and C are most closely related to each other. This is because features inherited from Y are found not only in B and C but also in A.

"Transformed" cladists would regard X and Y simply as representing the defining characters (synapomorphies or homologies) of groups B,C and A,B,C respectively. The main significance of this shift in emphasis is that the branching diagram (cladogram) becomes simply a summary of the pattern of character distribution (Patterson 1982) and therefore is a more general hypothesis than is an evolutionary (or phylogenetic) tree. Cladograms are more general because they represent sets of possible evolutionary trees. At each node three possibilities for evolutionary interpretation exist e.g. in the given example, at node X, the following three trees are possible (Fig.3)

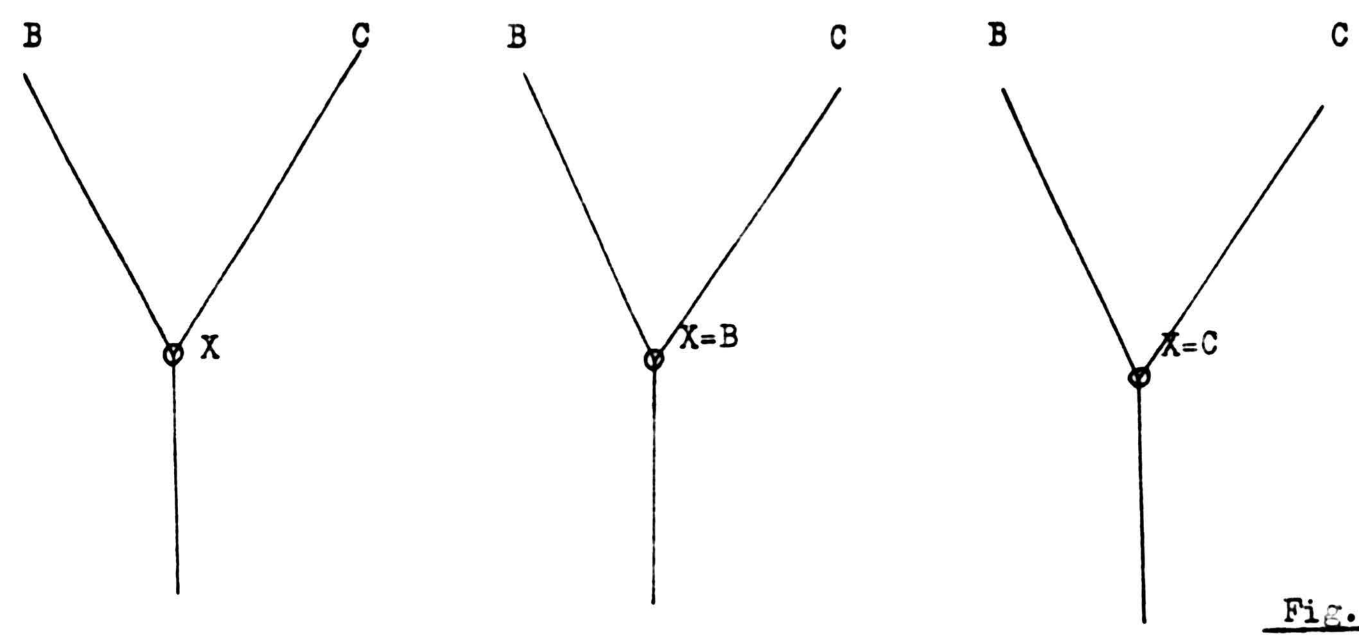

Fig. 3

Thus B and C may simply share a common ancestor that is no longer extant; B might be ancestral to C; or C might be ancestral to B. An evolutionary tree claims to demonstrate, therefore, the process whereby the observed pattern was produced. In contrast, the transformed cladist's cladogram need not necessarily be evolutionary at all. Charig (1981 p.19) prefers to call transformed cladistics "natural order systematics" to emphasise that such workers demand " a hierarchical arrangement of shared characters and of the organisms which possess them, preferred over all other possible arrangements on the sole criterion of maximal congruence or parsimony".

(ii) Systematic Analysis

There are two main approaches to the systematic analysis of organisms, namely phenetics and cladistics (see pp.9,10). Evolutionists (e.g.Mayr 1974, Charig 1976) now generally seem prepared to admit that the "synapomorphy" concept of cladistic analysis is very useful in that the reasons (in terms of shared derived characters) why two groups are thought to be particularly closely related must be specified. Where evolutionists and cladists part company is over the vexed issue of classification. Natural order systematists (or transformed cladists) e.g. Nelson & Platnick (1981) and Patterson (1982) extend, to its logical conclusion, the argument put forward by Eldredge & Cracraft (1980), i.e. that in systematics we should only consider the observable pattern in nature and not necessarily concern ourselves with the process that produced the pattern. They however adopt a cladistic approach to analysis and operationally the procedure seems to be identical to the approach used by many Hennigian cladists and again like other cladists they believe that the cladogram should form the basis for the classification of groups. Marked differences exist however between transformed cladists and Hennigian cladists over attitudes regarding, for instance, the significance of synapomorphies; e.g. are they homologies in the pre-Darwinian sense of the term (Owen 1848) or are they truly shared derived characters inherited from close common ancestors? (For further discussion see pp.10ff.).

Both phenetic and cladistic analyses have been used in this study but it is mainly the latter that has been preferred. The reasons for this, briefly, are twofold:-

a) When this study commenced (1976) it appeared that cladistic analysis was unquestionably a method of phylogenetic systematics, that is, it was concerned with the evolutionary history of groups; it therefore had intuitive appeal. Some systematists strongly believe that it still is, or should be, a study of process (e.g. Wiley 1981, Hill 1981). However, as discussed above, there are now others who regard evolutionary theory as irrelevant to the exercise.

b) Whilst phenetic analysis superficially appears to be more objective than phylogenetics (e.g. Sneath & Sokal 1973 p.11) it has long been clear that results are strongly influenced by the subjective selection of taxa, characters and clustering techniques (Mayr 1969 p.208-210). A fundamental weakness of phenetics was also exposed by Farris (1977). Phenetic clustering by overall similarity tends to be a closed-system, that is, similarity coefficients are worked out on similarity <u>within</u> a particular sample (Wiley 1981). The strength of phylogenetic methods, in contrast, is that they are "open" systems i.e. comparison is made, for instance, between an in-group and an out-group in order to assess the generality (or universality) of the statements being made about members of the in-group. The coefficient of overall similarity is thus potentially inefficient (Farris 1977) in that it does not necessarily contain information that is relevant to the issue of whether or not a grouping is "natural" (for further discussion of these issues see p. 22).

(iii) Cladistic Analysis

Clades were defined by Huxley (1957 p.455) as "delimitable monophyletic units"; attempts to detect such units ("cladistic methods" Mayr 1969 p.211 ff) received a great deal of impetus from the work of Hennig (especially 1966). Unfortunately there has been some confusion about what the term monophyletic means. Charig (1976 p.68-70) clearly demonstrated that the conventional "evolutionary" view of monophyly (e.g.Simpson 1961 p.124) was "quite meaningless in any phylogenetic sense". The conventional assessment of monophyly involved arbitrary taxonomic boundaries being drawn between "daughter-groups" and "parent-groups". The daughter-group was regarded as monophyletic if the common ancestor of the group happened to lie above this boundary (Fig.4).

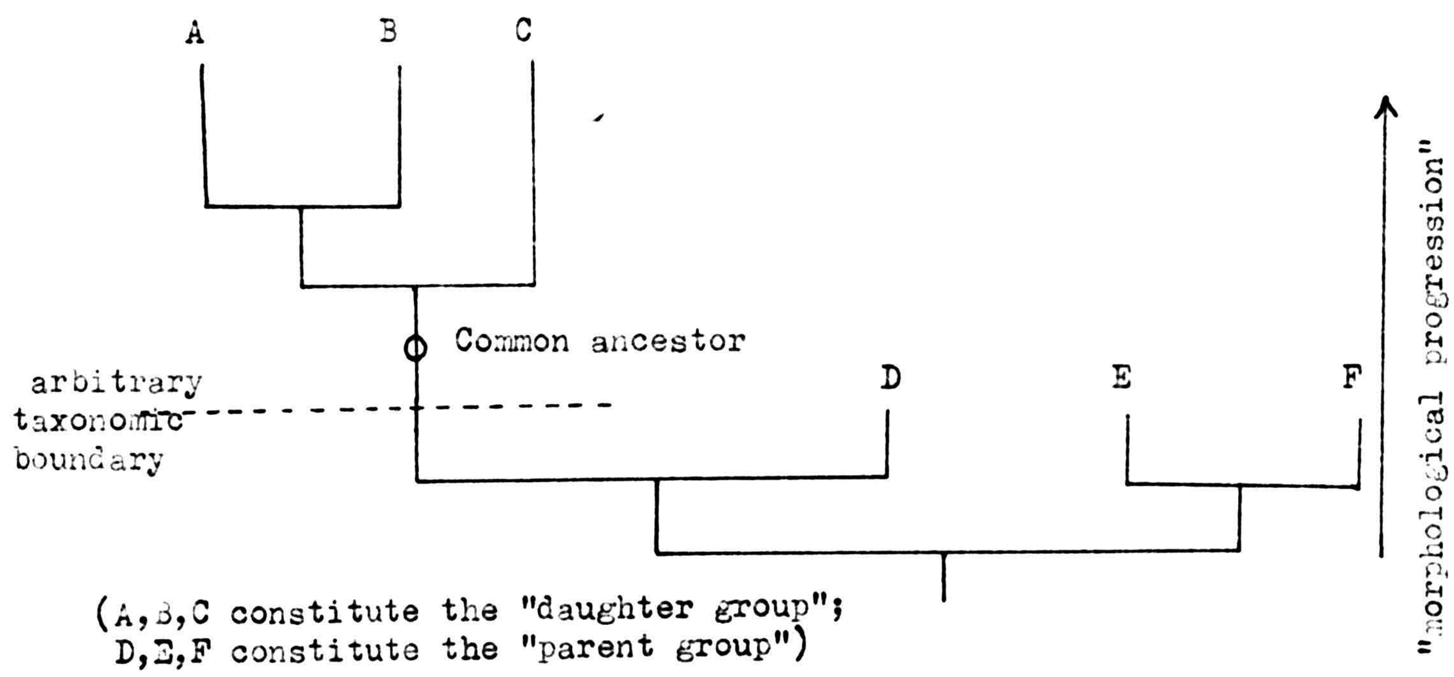

Fig.4

As Charig points out, the taxonomic boundary "exists only in the mind of the systematist" and is therefore subject to arbitrary alteration by other systematists who might have different opinions about the morphological level at which to draw the boundary.

In Hennigian systematics there is no attempt to draw horizontal boundaries between parent and daughter-groups. Two groups are regarded as forming a single monophyletic taxon if they share a common ancestor which is not the ancestor of anything else. Degree of phylogenetic

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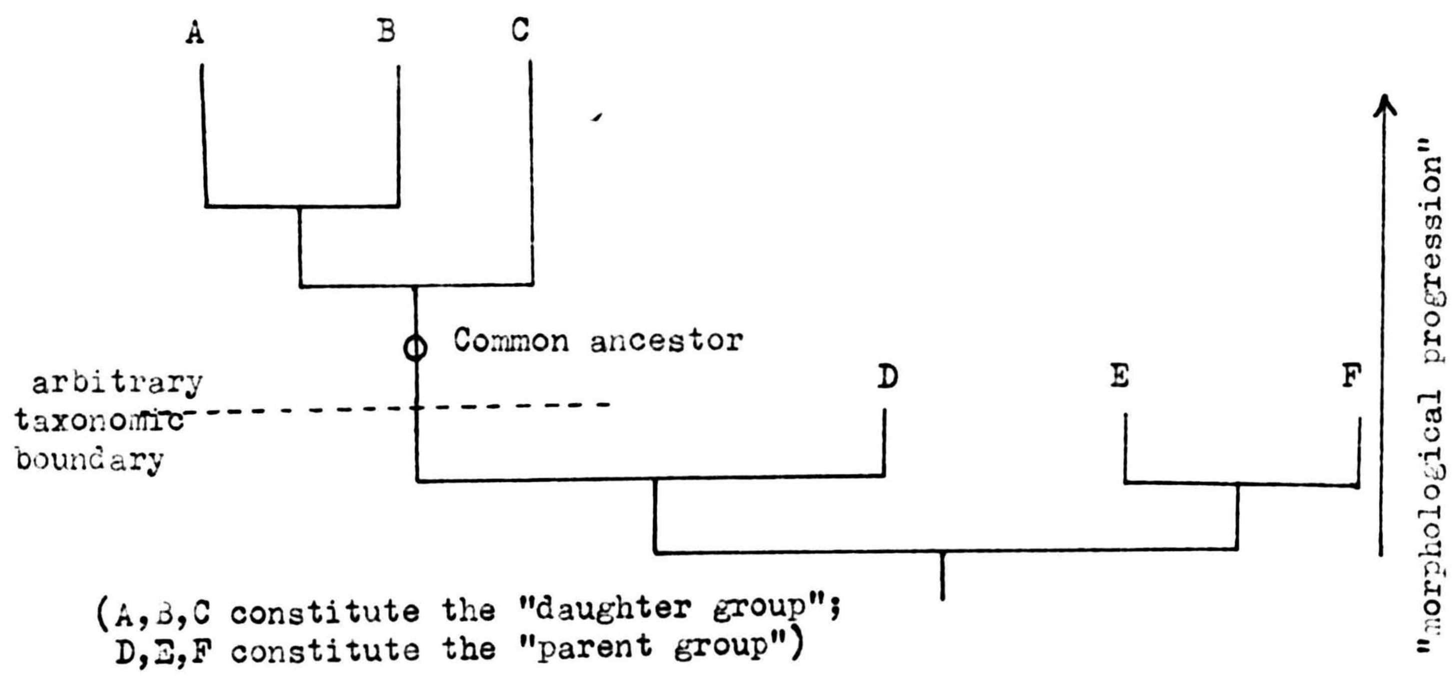

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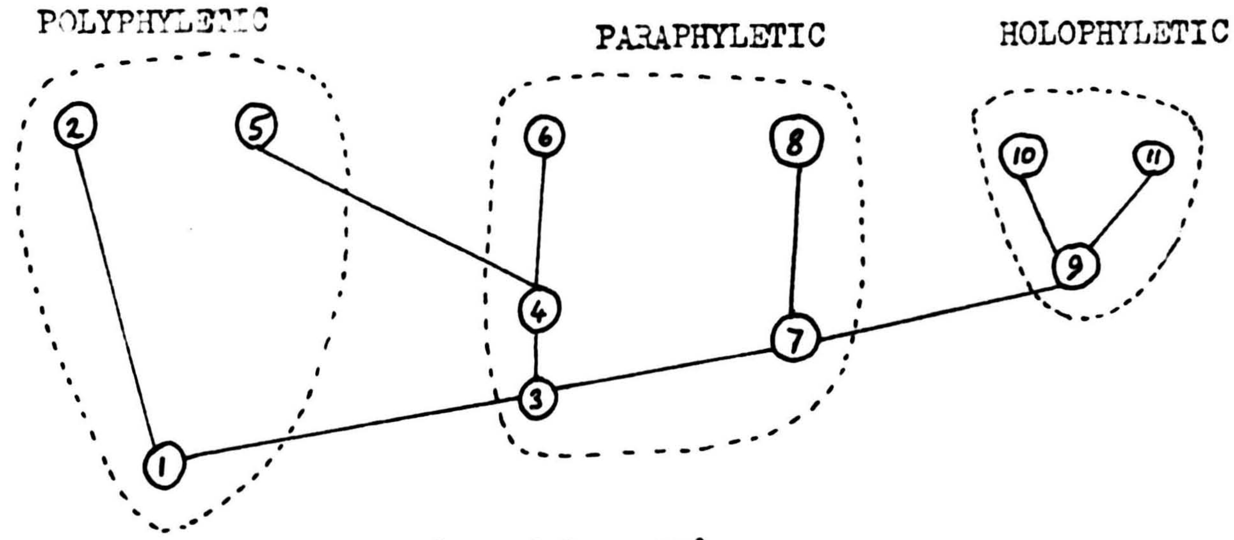
In Hennigian systematics there is no attempt to draw horizontal boundaries between parent and daughter-groups. Two groups are regarded as forming a single monophyletic taxon if they share a common ancestor which is not the ancestor of anything else. Degree of phylogenetic relationship depends on recency of closest common ancestor as indicated by synapomorphies or derived character states shared by the stem-species and the sister-groups.

There are two types of monophyly:- holophyly, which pertains to "a group of species comprising a single ancestral species and all its descendants" (Ashlock 1971, Holmes 1980 p.83) and paraphyly, which pertains to "a monophyletic group that excludes one or more discrete groups descended from the most recent common ancestral species of the entire group" (Ashlock 1971, Holmes 1980 p.83). The antonym of monophyletic is polyphyletic, which may be defined as "pertaining to a group of species that does not include both the most recent common ancestor of the entire group and all more recent inferred ancestors of each species of the group" (Holmes 1980 p.83). The above three concepts are illustrated in Fig.5 (adapted from Fig.1 of Holmes 1980).



Six extant species (2,5,6,8,10,II)
Five inferred ancestors (I,3,4,7,9)
Dashed lines represent group boundaries

Fig.5

If the above definitions are accepted then perhaps a better definition of "cladistic" is "pertaining to holophyletic groups" (Holmes 1980 p.82). Other definitions of monophyly, polyphyly and paraphyly are provided by Hennig (1966), Nelson (1971), Farris (1974) and Platnick (1977).

(iv) <u>Characters and character state transformations</u>

The significance of synapomorphies (shared derived characters) in elucidating cladistic relationships has already been mentioned (p. 6) but some clarification of the theory of characters and character "polarity" is in order. The term "character" has been used in broad and in very narrow senses by various workers. Mayr (1969, p.121) gave a fairly broad definition:- " A taxonomic character is any attribute of a member of a taxon by which it differs or may differ from a member of a different taxon". He (p.127) went on to list five main kinds of taxonomic character:- "Morphological, Physiological, Ecological, Ethological and Geographical". Nelson and Platnick (1981,p. 301), in contrast, give a rather different definition:- "A character is a theory, a theory that two attributes which appear different in some way are nonetheless the same (homologous)".

For present purposes a character may be defined (following Groombridge 1980 p.12) as "a homologous feature that varies from one organism to another and that cannot be reasonably further subdivided for the purpose at hand". Character states are also recognised here; these are conditions of characters that are shared by groups of organisms. For example, the character'condition of subcaudal scales' might have the states 'subcaudal scales single' and 'subcaudal scales paired'. Where more than two states of a character are recognised it is convenient to place them in a "<u>transformation series</u>" (term from Hennig 1966) or "<u>morphocline</u>" (term from Maslin 1952). The order in which transformation series are assembled is usually determined by phenetic resemblance of states, i.e. states that are most similar in appearance are placed adjacent to one another. Underwood (1982) has suggested that the sequence may be ascertained, in some cases, by inferring genotypic similarity between states using such clues as bilateral symmetry or knowledge of embryology.

(v) Polarity

The next stage in cladistic analysis is to deduce the primitive end of the morphocline; in other words, establish the polarity of the transformation series. Some of the workers who have reviewed likely polarity indicators are:- Maslin 1952; Hennig 1966, p.95 ff.; Marx & Rabb 1970, 1972; Kluge 1976; Crisci & Stuessy 1980; Arnold 1981; Bishop 1982; Underwood 1982. The list presented below is from Arnold's excellent summary:-

1. Distribution of states in outgroups.
2. Frequency and distribution of states within the studied group.
3. Non-coinciding minority states.
4. Correlation with states of other characters.
5. Ontogenetic clues.
6. Complexity.
7. Functional clues.
8. Hierarchical structure of character state distribution.
9. Fossil evidence.
10. Biogeographical indicators.
11. Ecological specialisation.
12. Adaptations of general use.

No attempt will be made here at an exhaustive critical evaluation of these methods of assessing polarity; critiques of this kind are already available (e.g. Sneath & Sokal 1973, p.42-46; Arnold 1981; Bishop 1982; Underwood 1982). Generally however, it may be said that the situation is still much as Hennig (1966 p.146) described it; there is no indicator considered to be of "absolute validity".

A possible exception to this statement is ontogeny (criterion 6) which "transformed" cladists consider "apparently foolproof" (Patterson 1982 p.304). The ontogenetic criterion has not been used in this study, but in view of the recent seemingly extravagent claims made for it (see also Nelson & Platnick 1981 p.338 ff.) the proposition will briefly be considered here.

The criterion assumes (Wiley 1981 p.153) that ontogenetic transformation towards a particular character state "reflects the phylogenetic development of that ontogeny". Other workers see embryology as " the only direct evidence we have of transformation of form" (Patterson 1982 p.304). The criterion is based on Baer's rules (1828 & 1837, re-outlined by Eldredge & Cracraft 1980 p.59) or alternatively on Haeckel's biogenetic law (1866, resurrected and re-worded by Nelson 1978; Nelson & Platnick 1981 p.338). Essentially, what is being investigated under this criterion is the distribution of character states, i.e. states occurring early in the development of an organism are assumed to have a more general distribution (primitive), whereas states occurring only in adults are less general (derived).

Nelson & Platnick (1981 p.342) imply that ontogeny best survives one test of what makes good science (Popper e.g.1972), i.e. out of all the criteria that they considered, it is the one "least protected from falsification". Failure of other criteria can be disguised by invoking convergence or homoplasy. In some cases ad hoc items also include "revising judgements", e.g. re-classifying a member of an out-group as a member of an in-group or re-assessing the fossil record as "not as complete as previously believed". There are, in contrast, two potential falsifiers from which the "biogenetic law" has no ad hoc protection:-

a). "Contradictory ontogenetic character transformations".

b). Neoteny.

They (p.353) state that (a) is "a falsifier in the broadest sense, but we are unaware of any example of it". The threat that (b) neoteny, poses may perhaps be best understood by reference to the following figures, (6(a) & 6(b), which are based on Fig.2.13 in Eldredge & Cracraft 1980 p.61).

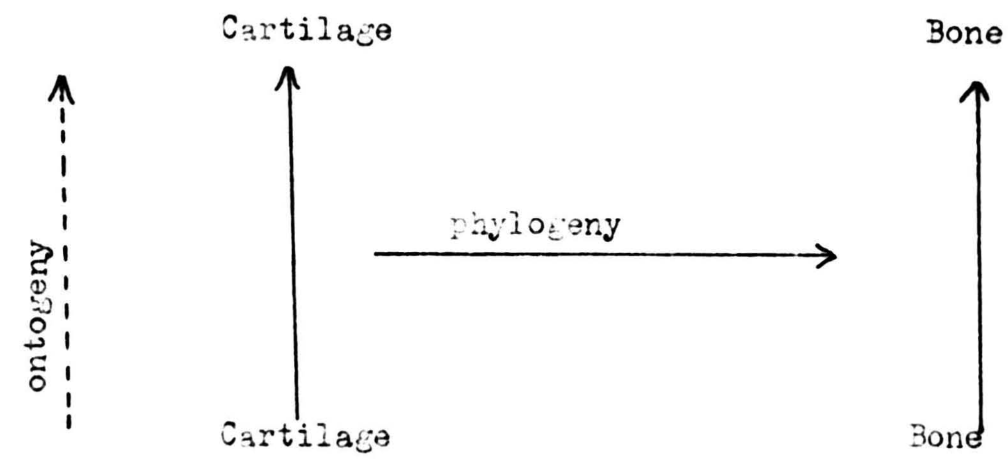


Fig.6(a)

In the above Fig.6(a) the situation is completely consistent with the biogenetic law in that species 2 has had a general character (cartilage) modified through ontogeny to a specific character (bone)

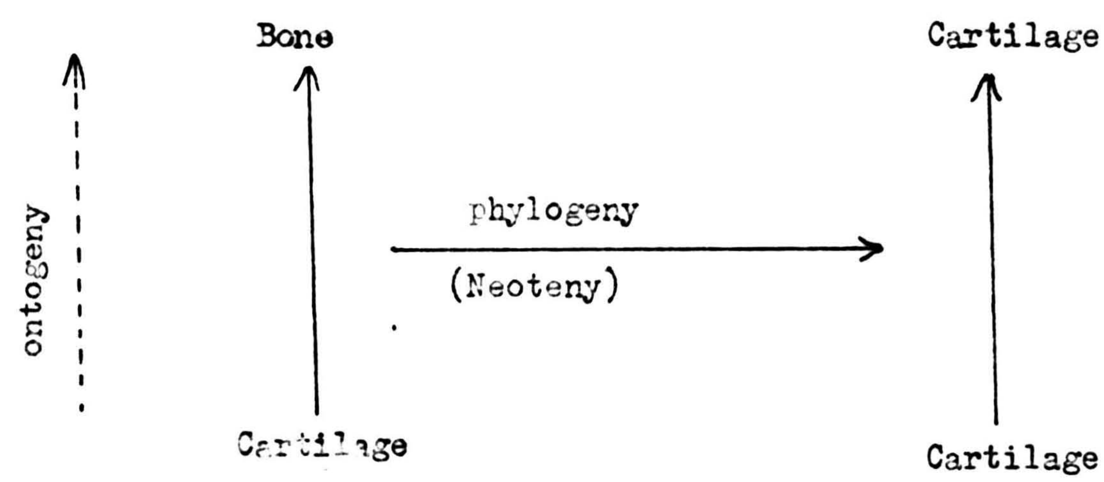


Fig.6(b)

In Fig.6(b) neoteny has occurred and falsified the biogenetic law, i.e. the ontogeny of descendant species 1 has been modified and the change is now from the specific to the general. Thus neoteny does indeed pose a strong challenge to the ontogeny criterion. Nelson & Platnick (1981) however present a complex, almost mystical, argumentation which concludes in the statement (p.353) that perhaps neoteny "is not a falsifier at all, but only a reflection of lack of information". In other words, they imply that cases of neoteny, when more thoroughly studied, will be found not to be cases of neoteny at all! This is a very surprising statement in view of the existence of such a celebrated instance of neoteny as the "axolotl" (Ambystoma mexicanum) a salamander which is fully able to breed in the larval state. Their response to this case (p.40) is that as it is possible, under certain experimental conditions, to transform these larvae into normal adults, the ontogenetic technique has not been falsified. What has instead been falsified in this case is the theory that "reproducing axolotls with gills are adults". However, this fails to account for other apparent examples of neoteny, such as the "olm" (Proteus anguinus), a European cave-dwelling salamander which is an example of a permanent larva; "only the neotenous larval form is known and normal adults do not exist" (Arnold & Burton 1978 p.230).

It seems that, despite the assertions of Nelson & Platnick (1981) to the contrary, neoteny is a real phenomenon; although it is probably fair to assume that it is not of common occurrence. The biogenetic law is not therefore to be regarded as more important than, say, the criterion of out-group comparison (see below). Its main strength seems to be as an independent check on other criteria, e.g. Wiley (1981 p.158) suggests, for instance, that when the choice of outgroup is not obvious "ontogeny may be used to do intragroup analysis". He concludes "It is my opinion that this little used criterion is a powerful phylogenetic tool".

The main criteria most commonly used for elucidating polarity have been summarised by Kluge (1976). The primitive state is:-

a) Frequently observed among the groups (out-groups) hypothesized to be related to the one being studied.
b) Frequently observed within the group chosen for study ("commonality principle", e.g. Schaeffer, Hecht & Eldredge 1972; Greenwood 1979).
c) Exhibited by taxa estimated to possess primitive states of other characters on the basis of rules (a) and (b).

The above rules are listed in descending order of priority.

In the present study out-group comparison has been used whenever possible ((a) above and (1) in Arnold's list, p.13).

The concept of out-group comparison is perhaps best understood with reference to a simple hypothetical example:-

Suppose that four species (A,B,C,D) are being studied for a character called "1" and it is found that two species share state i of character 1 and the other two share state ii of character 1. To attempt to find which of these conditions is primitive we search for states of that character in an out-group. If, for example, state ii is found in the out-group state i is supposed to have evolved independently in the group under study (see fig. 7).

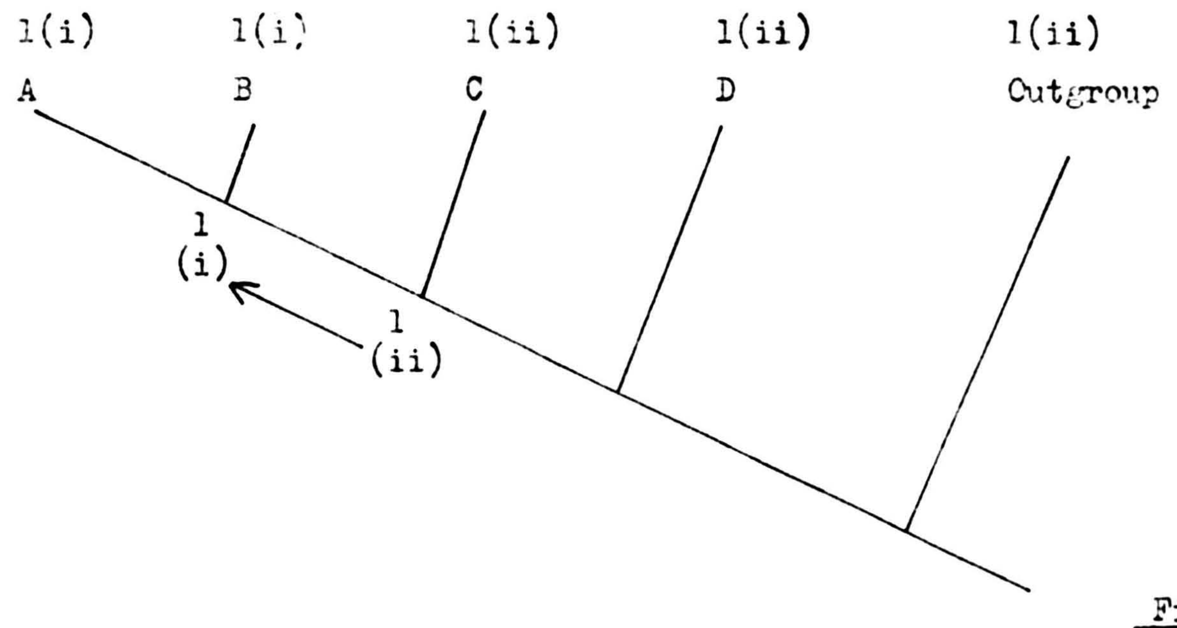


Fig.7

There are at least two ways of looking at the significance of the out-group test:-

1. The above decision is alleged to be founded on the principle of parsimony. The assumption is made that convergent evolution is a priori less likely than similarity inherited from a common ancestor. In other words an attempt is made to minimise the number of character transformations required to explain the observable pattern of character state distributions.
2. A view espoused by transformed cladists is that "features shared by organisms, (homologies) manifest a hierarchical pattern in nature" (Patterson 1980 p. 234). Thus by nesting narrowly distributed states within widely distributed states we are merely reflecting natural order; we need not make assumptions about how that order arose. (This is criterion 8 in Arnold's list).

The out-group chosen in any particular instance is often defined as the taxon most closely related to the one being studied (e.g. definitions of Kluge 1976 and Crisci & Stuessy 1980) sometimes the implication is that this out-group taxon constitutes the "ancestral group" (Marx & Rabb 1972). To Underwood (1982 p.249) "the choice of the out-group depends upon the character"; the only condition that need be fulfilled is that "members of the outgroup must bear sufficient resemblance to the ingroup to allow detailed comparison". A number of likely out-group possibilities have been considered by Arnold (1981) and Underwood (1982), and these authors have suggested the most likely solutions to particular hypothetical situations.

In the present study the in-group was taken to be Elapidae; the out-group in most cases consists of the remainder of the Caenophidia (the higher snakes). Criterion (b) ("commonality principle"; Arnold's criterion 2) applies the concept of "common is primitive" to the in-group. This criterion has been strongly criticized by Van Valen 1978; Arnold 1981; Bishop 1982 and Underwood 1982.The main criticism is fundamentally systematic; Arnold (1981) and Underwood (1982) demonstrate that the success of the "commonality principle" depends on the actual phylogeny of the group being studied. Consider an example (based on one given by Underwood 1982) of four taxa, A,B,C,D; there are fifteen possible dichotomous cladograms which could express the relationships of these taxa but these possiblities are divisible into two basic topologies:- successive symmetrical dichotomies (fig.8a) and successive asymmetrical dichotomies (fig.8b).

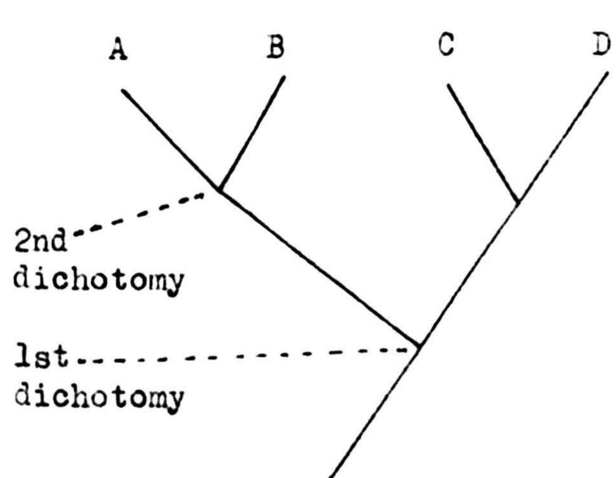


Fig.8(a)

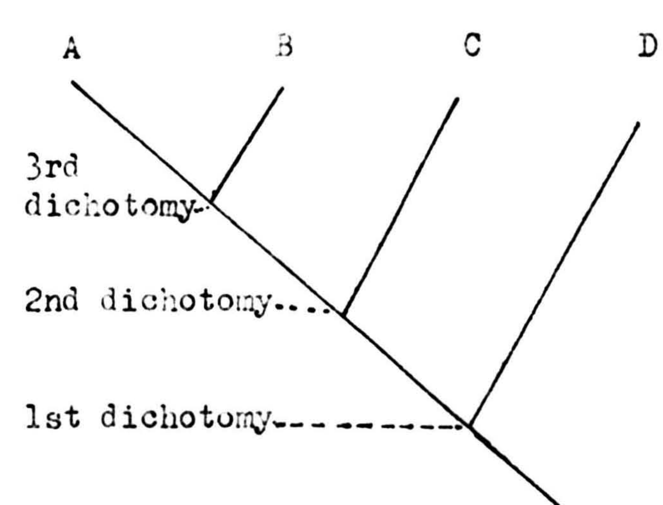


Fig.8(b)

In Fig. 8a any character state transforming after the first dichotomy and before the second will be present in 50% of the taxa and the "commonality principle" could not operate. A character state transforming after a second dichotomy will be present in 25% of the taxa and will be correctly identified as derived using the "commonality principle". In Fig. 8b only characters occurring after the third dichotomy will be correctly interpreted (present in 25% of the taxa), characters transforming after the second dichotomy and before the third dichotomy will be present in 50% of the taxa and no decision could be reached regarding their polarity. A serious challenge to commonality is presented by character states transforming after the first dichotomy and before the second in Fig.8b; they will be present in 75% of the taxa and therefore applying the "commonality rule" to them will lead to an erroneous conclusion. Arnold (1981 p.11) considers that commonality is overall "more likely to be right than wrong", however, he also says that it is "sure to give misleading results in a very significant proportion of cases". Underwood (1982 p.252) believes the criterion is "not admissable because it is liable to systematic error", and "systematic errors cannot be accepted because they can only lead to distortion of our analysis".

The weakest of the three criteria listed by Kluge (1976) is the third, namely correlation with states of other characters (criterion 4 in Arnold's list). This method has been called "the principle of paradromism" (Maslin 1952 p.69). It is sometimes tempting, if direct out-group evidence is lacking for the polarity of a particular character state, to assume that its polarity and sequence of character state transformations will correlate with a better established character state sequence. Underwood (1982 p.252) believes however "that this is, for the purposes of phylogenetic analysis, logically inadmissable". It is best to assemble a phylogeny on the basis of legitimately scored character states and compare the arbitrary characters with the <u>cladogram</u> rather than with any particular character.

(vi) Numerical cladistic analysis

It is quite possible for cladograms to be assembled "by hand", however it must be realised that as the number of taxa being analysed increases, so the number of possible cladograms to be considered becomes very large; e.g. there are fifteen possible dichotomous cladograms for a set of four taxa; if trichotomous and tetrachotomous cladograms are also admitted, 26 possibilities , for ten taxa there are 282,137,824 potential arrangements (Patterson 1980 p.237).

The chances of detecting the best cladogram to fit available information must be especially remote when extensive incongruence (noise) is present in the data set. It is something of a testimony to Man's intellectual capabilities that, in these circumstances, so many apparently robust cladograms have been published even without resort to computer-assisted methods.

In the course of this study cladograms were assembled "by hand" at various stages in order to check on progress. It was found that the easiest way of doing this was to first select the confidently scored characters that tended to partition moderate numbers of taxa, and use these to put together a preliminary frame-work. Additional, more narrowly distributed, characters were then fitted into the existing frame-work until an arrangement was reached that appeared to minimise the assumptions of convergence and homoplasy (parallelism and reversals). This is probably the basic way many cladograms are intuitively assembled. However, if we are anxious to avoid prejudicing results it seems best to have, for comparison, schemes that have been derived using possibly more rigorous procedures in order to force us to consider equally good or perhaps better alternatives. Computer methods are well suited to produce schemes that depend, for their derivation, on subjecting data to sets of logically sequenced procedures. Three main approaches to numerical cladistic analysis currently exist, namely:- special similarity clustering, compatibility methods and parsimony methods. Before discussing each of these methods it is worth considering the nature of the information that is being analysed, i.e. the data matrix.

Compiling a matrix

Most forms of numerical cladistic analysis require that the data is in binary form. This is no problem for characters composed of two states; the convention is to label the primitive state "0" and the derived state "1". For multistate characters there are a number of possibilities for scoring. The method adopted here is "additive binary coding", suggested by Farris, Kluge & Eckardt (1970) and Kluge (1976). Take for example a three state character (X) with states 0,1 and 2. 0 is the primitive state with 1 derived from it and 2 is derived from 1 thus:-

0 ⟶ 1 ⟶ 2

It is possible to expand this one multistate character into two binary characters X(a) and X(b). The binary score for each state depends on the position of that state relative to the character state transformations (Fig. 9).

	0 —(a)⟶	1 —(b)⟶	2
X(a)	0	1	1
X(b)	0	0	1

Fig.9

In the above example (Fig.9), state 0 is primitive relative to both transformations (a) and (b) it is therefore given the score X(a) = 0; X(b) = 0. State 1 is derived relative to transformation (a) but primitive relative to transformation (b), it is given the score X(a) = 1; X(b) = 0. State 2 is derived relative to both transformations and it is given the score X(a) = 1; X(b) = 1.

The convention established by Underwood (1982), is used whereby if a multistate character is broken down into its binary parts; decimals are used to number them. For instance, if a character, say character 4, is treated in this way, the binary characters are called 4.1 and 4.2. The various conditions of characters in this study together with their binary expressions are given on p. 222.

Matrices

A data matrix forms the basic information source for numerical analysis. A matrix is a table comprising rows and columns. It may conventionally be depicted (e.g. Sneath & Sokal 1973; Everitt 1974; Farris 1977) as follows (Fig.10).

Taxa		1	2 ....t		
Variables					
	1	X11	X12	....	X1t
	2	X21	X22	....	X2t
	⋮	⋮	⋮		⋮
	n	Xn1	Xn2	....	Xnt

Fig.10

Each of t taxa (the columns of the table, Fig.10) is described by each of n variables (the rows of the table, Fig.10). An entry Xij is the score of taxon j for the ith variable (ith characters state). The arrangement of the matrix however in this and many other studies is to have taxa in rows and character states in columns (p. 229).

"Special similarity" clustering

It has previously been mentioned (p. 9) that phenetic clustering by overall ("raw") similarity results in groups that are likely to share many features , but the method does not explicitly seek for the features that truly distinguish (define) the groups. Farris (1977,1980) suggests more efficient and "natural" groupings could be achieved by clustering on the basis of a matrix of "special similarity" coefficients. Special similarity a(i,j) between taxa i and j is calculated as follows:-

$$a(i,j) = (\tfrac{1}{2})\,(d(i,r) + d(j,r) - d(i,j))$$

In the above formula r is a reference taxon (which according to Farris 1980 is "plesiomorphic in every character") and d is the distance (Farris

A series of conformationally-restricted analogues of GABA have been synthesized and tested using two in vitro assay systems, viz. the rat superior cervical ganglion and a radioligand binding assay. These studies revealed that the class of GABA agonist, in which the amino groups are incorporated into six-membered rings exhibit an unexpected variety of activities with respect to their ability to inhibit ^{3}H-GABA binding; their affinity for GABA uptake sites and their interaction with the coupled GABA/benzodiazepine sites.

(vii) Compatibility methods

Most currently used compatibility methods are based on ideas first outlined by Le Quesne (1969, 1972). The aim of compatibility tests is to detect uniquely derived characters and to use these as a basis for the construction of networks and cladograms.

The concept of the compatibility test can be demonstrated by reference to a simple hypothetical situation. Two characters (A & B) each have two states; 0 represents a primitive state and 1 a derived state. A total of four combinations of character states are possible for these two characters (AO BO, A1 BO, AO B1, A1 B1) but if all four are found it is a logical consequence that at least one of the characters is not uniquely derived (Fig. 11)

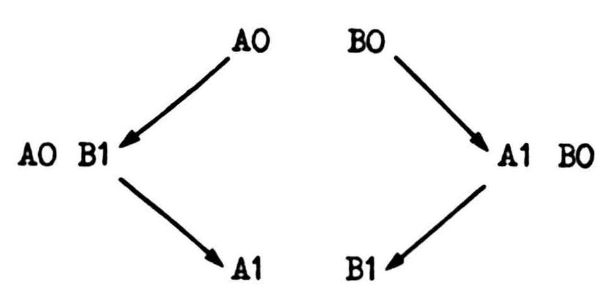


Fig. 11

Thus if all four states are present, at least one character state has either evolved twice or perhaps there have been reversals. An attractive feature of the test is that it is not essential to have correctly identified which are the primitive and which the derived states (Underwood 1982).

However, although this test draws our attention to the presence of a "noisy" character, there is unfortunately no clear evidence concerning which of the pair of characters being compared is responsible for the incompatibility. For example, in Fig.11 we cannot be sure whether it is A1 or B1 that is or is not uniquely derived. Two methods were suggested by Le Quesne (1969,1972), for inferring which characters are likely not to be uniquely derived. One consists of drawing up a character-pair matrix to display character compatibility. All characters with the largest number of incompatibilities are then eliminated. The process of elimination continues until no more incompatibilities remain.

An alternative method is to accept characters with the smallest number of incompatibilities and to steadily eliminate those characters incompatible with them.

In each of the above strategies the ultimate result is a set of compatible characters that may be used for constructing a network or cladogram. However, if a situation arises where a great deal of incompatibility is present in the original data, the resulting set may be composed of only a small number of relatively uninformative characters.

As a compromise, in order to obtain a rather larger set of characters, the results of the actual Le Quesne test survival may be compared with the theoretical failure rate that would be expected on the basis of random distribution. Thus a set of characters can eventually be used that have survived the Le Quesne test better than could be predicted by chance alone.

Dr G.Underwood has devised a program which (for a set of binary characters) compiles a character-pair matrix, works out the number of Le Quesne test failures per character and then computes the ratio between actual and expected failure rates (based on Le Quesne's (1972) "coefficient of character state randomness"). This program has been used in the present study and the results obtained are discussed on p.239.

Other compatibility test strategies (e.g. those of Estabrook et al 1976,1977; Kluge 1976; Moody 1980) result in the production of sets ("cliques") of compatible characters. These cliques can sometimes be very numerous, e.g. Kluge (1976) generated 1006 cliques for a set of 139 binary characters and Moody (1980) 24,207 for a set of 143 binary characters. Choice of the best set can be difficult in such circumstances. One way is to use the clique with the largest number of characters, but even this dubious criterion runs into difficulties because frequently there is a tie between several cliques that are all of the same size. This method has recently been strongly criticized by Farris & Kluge (1979) and it is interesting that Le Quesne himself seems to mistrust it, suggesting (1982 p.270) that selection of the largest possible set of compatible characters "might bring out parallelisms based on function".

(viii) Parsimony methods

Parsimony methods seek to derive trees, or networks, of minimum length, from data matrices. Unfortunately, the exact role of parsimony appears unclear not only in systematics but also in general scientific method (Friday 1982). It seems that the success of parsimony methods in solving problems is very dependant on the appropriateness of the particular model in each case. The model chosen for many of these methods of tree-building relies on the hypothesis that parallelism is a priori an improbable evolutionary event. It seems that cladistic methods in general rely on this assumption, e.g. Patterson (1980 p.237) suggests accepting a particular cladogram "because it requires one to argue away, or neglect, fewer characters". Patterson does not directly attribute any discordance in the data set to parallelism, probably because one of the aims of his paper was to demonstrate that cladistics works independently of theories about evolutionary process. However, to anyone who accepts evolutionary theory as a reasonable working hypothesis (or "metaphysical research programme" Popper 1974), concepts of parallelism (or convergence) may be seen to account for at least some of the incongruent ("noisy") data. Reversals might also account for discordance in the data and are allowed in some parsimony methods, e.g. "Wagner method", discussed below.

Several numerical parsimony methods have been suggested, three are available in a recently compiled computer package (Felsenstein 1981b). The most widely used approach however is the "Wagner parsimony method" for which Kluge & Farris (1969) and Farris (1970) devised a program. This is the method that has been used in the present study. In trees (and networks) taxa are linked together in such a way as to indicate the character state changes necessary to convert one taxon into another. The length of the links between taxa is determined by the number of changes. The strategy with parsimony methods (as mentioned earlier) is to minimise the overall length of the tree. It is usually possible to minimise the distance between more than two points (taxa) in the tree by postulating common ancestors (hypothetical taxonomic units or "HTU"s) at nodes. In graph theory such graphs are known as "Steiner minimal trees" and the concept of hypothetical taxonomic units translates into "Steiner points" (Sneath & Sokal 1973 p.326).

The steps leading to the construction of a Wagner <u>network</u> are demonstrated in Fig.12 (p. 29). This demonstration is on an artificial data set comprising 3 taxa and 8 characters and is, in part, based on an example given by Sneath & Sokal (1973 p.330-332).

The construction of a "rooted" Wagner <u>tree</u> is rather similar except that first one taxon is normally selected as an "ancestor" (A). If desired, the ancestor might be purely hypothetical and consist entirely of plesiomorphic states. Next the "advancement index", AD(I) = d(I,A) is computed for taxon I. Thirdly the OTU with the smallest advancement index is connected to the ancestor to form a tree with one linkage. The construction then proceeds in a similar manner to the network construction (Fig.12) except that the order in which taxa are placed in the tree is governed by the advancement index, i.e. those taxa with the fewest derived characters are incorporated first and those with the greatest number of derived characters last.

Variations to the order in which taxa are incorporated into the network/tree can be introduced, for instance, they can be added in any specified order. This sometimes produces trees of differing topologies (Felsenstein 1981b). The criterion used for choosing any one of these possible trees is "parsimony", that is, the procedure is undertaken with the express purpose of producing trees or networks of <u>minimum length</u>. Therefore we will naturally select the shortest, that is, the "most parsimonious" network or tree.

These and other aspects of parsimony methods will be considered further in the "Analysis" section of this work (p.243).

Fig.12 Demonstration of Wagner Network Construction

Hypothetical Data Matrix

Characters	1	2	3	4	5	6	7	8
Taxa								
A	1	0	0	0	0	0	0	1
B	1	1	1	1	1	1	0	0
C	1	0	0	1	0	1	1	1

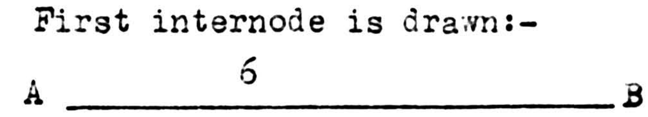
Manhattan distance matrix

	A	B	C
A	x		
B	6	x	
C	3	5	x

Step 1

Take d (A,B)=6

First internode is drawn:-



Step 2

Compute distance to HTU ij representing the interval INT(A,B) for the given j according to following formula:-

$$d_1(jINT(A,B)) = \frac{1}{2}\left[d_1(a,j) + d_1(b,j) - d_1(a,b)\right]$$

Thus

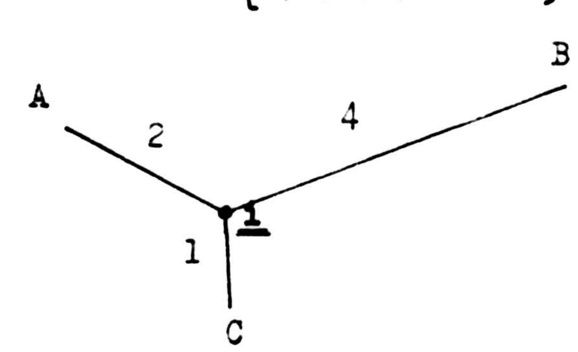
$$d_1(C\ INT\ (A,B)) = \frac{1}{2}(3 + 5 - 6) = 1$$

Step 3

HTU i is constructed between taxa A,B,C. The character states for this vector are the median states for the OTUs. For character 1 the states are 1,1,1 ; the median is therefore 1.For character 2 the states are 0,1,0 ; the median is 0 etc.

Thus the character state vector of i is obtained as:-

[1,0,0,1,0,1,0,1]



1 (C) The family Elapidae

(i) Introduction

The higher snakes (Caenophidia) exhibit four major types of maxillary dentition:-

1) Aglyphous Maxillary teeth solid, of even size or with posterior, anterior or medial teeth enlarged. No grooved teeth present.
2) Opisthoglyphous Rather similar to aglyphous dentitions but with enlarged teeth, bearing venom-conducting grooves situated on the posterior part of the maxilla.
3) Proteroglyphous Anterior teeth on the maxilla deeply grooved; the lips of the groove generally meeting to enclose a venom-conducting canal. The anterior fangs are frequently followed, usually after an interspace, by a series of smaller but often grooved teeth. The fangs are permanently erect.
4) Solenoglyphous Large tubular fangs set on the rear of a very short maxilla; no other maxillary teeth present. The fangs can be brought from their horizontal "stored" position to the erect "striking" position by rotation of both the maxillary and prefrontal bones.

All four types of dentition have occasionally been used to characterise taxonomic groups. Sometimes however they are merely regarded as "grades" which have been achieved independently by different stocks.

The proteroglyphous dentition (type 3 above) is the main distinguishing feature of the family Elapidae. The issue of whether or not this family is monophyletic is discussed on p. 188 . Elapids are of world-wide distribution and are mainly limited to the tropical and sub-tropical zones (see map p. 37). They generally have a large "neurotoxic" component to their venoms. A major division of the Elapidae is into the mainly land-dwelling elapines (subfamily Elapinae) and the sea snakes (sometimes regarded as two subfamilies:- Laticaudinae and Hydrophiinae). The genera and numbers of elapid species are given in table 1 (p. 31).

Table 1

Elapid genera

Elapinae	Number of species
Acanthophis	2
Aspidelaps	2
Aspidomorphus	3
Austrelaps	1
Boulengerina	2
Bungarus	13
Cacophis	3
Calliophis	10
Cryptophis	2
Demansia	6
Dendroaspis	4
Denisonia	4
Drysdalia	4
Echiopsis	2
Elapognathus	1
Elapsoidea	7
Furina	1
Glyphodon	3
Hemachatus	1
Hemiaspis	2
Homoroselaps	2
Hoplocephalus	3
Loveridgelaps	1
Maticora	2
Micropechis	1
Micruroides	1
Micrurus	approx 50

Table 1 (continued)

Naja	approx 8
Neelaps	2
Notechis	2
Ogmodon	1
Ophiophagus	1
Oxyuranus	2
Paranaja	1
Parapistocalamus	1
Pseudechis	5
Pseudohaje	2
Pseudonaja	6
Rhinoplocephalus	1
Salamonelaps	1
Simoselaps	6
Suta	1
Toxicocalamus	8
Tropidechis	1
Unechis	6
Vermicella	2
Walterinnesia	1
Laticaudinae	
Laticauda	5
Hydrophiinae	
Acalyptophis	1
Aipysurus	7
Astrotia	1
Emydocephalus	2
Enhydrina	1
Ephalophis	1
Hydrelaps	1
Hydrophis	25

Table 1 (continued)

Kerilia	1
Kolpophis	1
Lapemis	2
Parahydrophis	1
Pelamis	1
Thalassophina	1
Thalassophis	1

This table summarizes information from the following major works and checklists:- Burger & Natsuno (1974); Cogger (1979); Gans (1978a); Hoge & Romano (1971); Klemmer (1963); Leviton (1968); McDowell (1969a, 1970, 1972); Roze (1967); Smith (1926); Underwood (1979); Voris (1977).

Additions and emendations include:-

"*Brachyaspis*" (?=*Echiopsis*) *atriceps* Storr (1980)

Bungarus andamanensis Biswas & Sanyal (1978)

Demansia simplex Storr (1978)

Drysdalia rhodogaster (Jan 1863) is regarded as a good species by Coventry & Rawlinson (1980).

Elapsoidea chelazzi Lanza (1979)

Homoroselaps Jan 1858 is used instead of *Elaps* Schneider 1801 following the recommendations of Smith & Smith (1976a)and "Opinion 1201" (1982).

Parademansia = *Oxyuranus* fide Covacevich *et al* (1981)

(ii) Geographic divisions of the Elapinae (fig.13 p. 37)

Four geographic "groups" are distinguishable in this subfamily:-

1) African and Middle-Eastern

2) Asiatic

3) Australasian

4) American

These four groups delimit endemic sets of genera, with one exception, the genus *Naja*, which is found in both geographic zones (1) and (2).

The genera and some aspects of the biology of the various geographical divisions of elapinae are listed in tables 2-4 (pp.38-42). A few general points seem worth amplifying at this stage.

Habitat:- The elapines of Africa (p.40) are notable for their comparatively broad range of habitats; terrestrial, semi-fossorial, fossorial, arboreal and aquatic forms all occur. This contrasts with the Asian (p.41) and Australasian (p.42) genera with members largely confined to terrestrial and sub-fossorial/fossorial niches. A single Australian genus (*Hoplocephalus*) has arboreal tendencies but only one of the included three species is regularly found in trees (*H.bitorquatus*).

Very few truly aquatic elapines exist, except for the African *Boulengerina* and possibly two of the approx.50 species of the "New World" elapines. *Boulengerina* (two species) are virtually entirely aquatic and two *Micrurus* are aquatic at least in the sense that they feed on eel-like fish but the full extent of their aquatic life-style has not been evaluated. These aquatic elapines appear to lack any obvious special adaptive features for life in water. An exception perhaps is *Micrurus surinamensis* which has rather different skull proportions and teeth counts from other members of its genus; differences which could be interpreted as adaptations for eating fish (p. 181). Fish-eating has also been recorded in the following elapines: *Naja melanoleuca* (Branch 1979), *Bungarus multicinctus* (Mao 1970) but these are not otherwise notably aquatic species.

Reproduction

Shine & Bull (1979) consider that "live-bearing" reproduction has evolved in lizards and snakes "at least 38 times". The distribution of viviparity in the Elapidae shows some interesting aspects. In the elapines viviparity is almost entirely confined to the Australasian group, a large proportion of which are live-bearing (see table 4, p.42). Apparently the only non-Australasian viviparous elapine is the African genus Hemachatus with up to 60 live young recorded in one brood. Parenthetically it may be noted that sea snakes are largely viviparous; the exception is the genus Laticauda which lay their eggs in rock crevices on land (p. 55).

Defence

Defensive strategies of snakes have conveniently been summarized by Parker & Grandison (1977 pp.44-49). The last line of defence of an elapine is obviously its venomous bite but there are a number of potential strategies that may be adopted to "warn-off" an attacker before envenoming becomes necessary. The full repertoire of elapine defensive behaviour will not be considered here, however, two strategies will be briefly mentioned:-

1) "Cobra strategy". A dramatic display behaviour is adopted by some elapines (e.g. Naja, Ophiophagus, Hemachatus) which rear up and spread a "hood" (an area of extensible skin in the neck area that is stretched by the outward and upward movement of ribs). This intimidatory behaviour is reinforced in some cobras (e.g. Naja nigricollis; N.mossambica; some populations of N.naja; Hemachatus) by a special counter-attack strategy; that of "spitting" venom into the eyes of an adversary causing at least temporary blindness. The venom is actually sprayed from modified fang tips. The modifications to the fangs of "spitters" concern the angles and shapes of the discharge orifaces which cause the venom to be ejected

forward with respect to the tangent of curvature of the fang (Bogert 1943). Additionally, "spitters" have the wall of the venom canal "ridged" (analogous to the rifling in the barrel of a gun) to produce a vortex effect (Branch pers.comm.)

2) "Coral snake strategy". Warning colouration is used by a number of mainly cryptozoic elapines, a type which is represented in all four geographic groups. Examples are Neelaps, Simoselaps, Vermicella in Australia; Elapsoidea, Homoroselaps in Africa; Calliophis, Bungarus in Asia; Micrurus and Micruroides in the New World. Shine (1980b) has discussed this "convergence" and concluded that the banding patterns are not only aposematic (acting as a warning to potential predators) but may also contribute to visual confusion ("flicker-fusion") a phenomenon which makes it difficult to locate a banded snake moving rapidly in dim light.

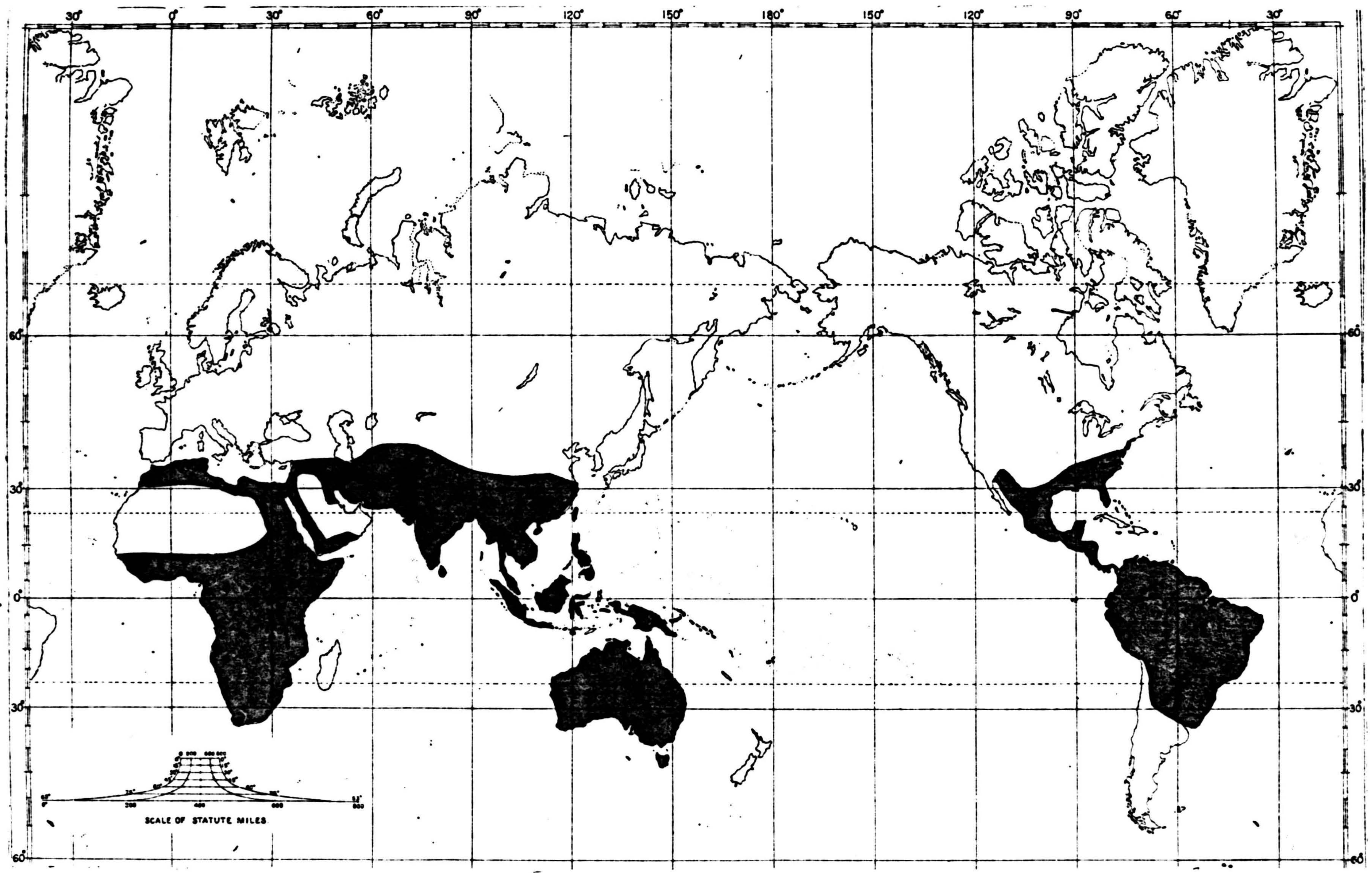


Fig.13 **Geographic Distribution of the Elapinae**

Review of the Elapinae

Key to abbreviations in tables

Activity	D =	Diurnal
	N =	Nocturnal (and/or secretive)
	N*=	Nocturnal (but basks during the day)
Habitat	T =	Terrestrial
	S-F =	Semi-fossorial
	F =	Fossorial
	Aq =	Aquatic
	Arb =	Arboreal
Food	A =	"Amphibians"
	B =	Birds
	Fi =	Fish
	Gen =	General "catholic" diet
	L =	Lizards and/or Amphisbaenians
	M =	Mammals
	R =	"Reptiles"
	S =	Snakes

References used in compiling tables

General: Parker & Grandison 1977; Underwood 1979; U.S.A. (Dept. of Navy) 1968

African/Middle Eastern: Branch 1979,1981; Broadley 1968a & b,1971,1974, 1975; Cansdale 1961; Corkill & Cochrane 1965; Fitzsimons 1962,1970; Hughes 1976; Marx 1953; Pitman 1974; Visser & Chapman 1978; Zinner 1971.

Asiatic Campden-Main 1970; De Silva 1980; Hwang Mei-Hwa et al 1965; Kuntz R.E.1963; Leviton 1964a & b;

Lim Boo Liat 1979; Mao 1970; Pope 1935; Smith 1943; Soderberg 1973; Taylor 1965; Tweedie 1954; Wall 1913,1918,1921,1928; Whitaker 1978.

American	Dixon & Soini 1977, Greene & McDiarmid 1981, Neill 1957, Savitsky 1979, Schmidt 1952,1957; Vitt & Hulse 1973.
Australasian	Cogger 1971,1979; Gow 1976; McCoy 1980; McDowell 1967,1969a,1970; Shine 1980a,b,c,d, 1981a & b; Worrell 1963.

Table 2

African and Middle Eastern Elapines

Genera		Activity	Habitat	Food
Aspidelaps	Southern & South-eastern Africa	N	S-F	Gen.
Boulengerina	Central Africa(L.Nyassa to Cameroun)	D	Aq.	Fi.
Dendroaspis	Tropical Africa(Somalia & Senegal south to Transkei,Southern Africa)	D	Arb. /(T)	Gen./M
Elapsoidea	Sub-Saharan Africa	N	F	R/A
Hemachatus	Mainly South Africa(& one pop.in Zimbabwe)	N*	T	A(M/B)
Homoroselaps	South Africa(& Swaziland & Lesotho)	-	S-F	S/L
Naja	Africa (except for shifting sand desert zones), western & southern Arabian Peninsula	N*	T	A/Gen.
Paranaja	Central Africa	-	-	-
Pseudohaje	Tropical rain forest(Sierra Leone to Kakamega Forest, Kenya, south to Namibia)	N	Arb.	A
Walterinnesia	Egypt through to Persian Gulf	N	T	R(A)

Table 3

Asiatic and American Elapines

Genera	Distribution	Activity	Habitat	Food
Bungarus	S.E.Asian mainland & Sri Lanka, Andaman Is., Western Indonesia (including Sulawesi)	N	T	S(Fi.)
Calliophis	S.E.Asian mainland & Sumatra, Philippines, Taiwan & Ryukyu Is.	N	S-F	S
Maticora	Indo-China, Thailand, Malaysia, Western Indonesia, Philippines	N	S-F	S
Naja	Widespread S.E.Asian mainland & Malaysia, Indonesia, Philippines, Andamans, Taiwan	N*	T	Gen.
Ophiophagus	S.E.Asian mainland & western Indonesia (including Sulawesi), Philippines	D	T	S(L)
Micruroides	Arizona, Texas, New Mexico, Mexico	N	F	S
Micrurus	South-eastern USA, Central & South America	N/D	F/S-F/Aq.	S(L,A, Fi.,W)

Australasian Elapines

Genera	Distribution (by sub-region)	Reproduction	Activity	Habitat	Food
Acanthophis	Australia/New Guinea	Viv.	N	T/S-F	L/M
Aspidomorphus	New Guinea	-	-	-	-
Austrelaps	Australia	Viv.	D/N	T	A
Cacophis	Australia	Ov.	N	T/S-F	L
Cryptophis	Australia	Viv.	N	T/S-F	L/A
Demansia	Australia/New Guinea	Ov.	D	T	L(A)
Denisonia	Australia	Viv.	N	T/S-F	L
Drysdalia	Australia	Viv.	D	T	L(A)
Echiopsis	Australia	Viv.	N	T/S-F	L/A/I
Elapognathus	Australia	-	-	-	-
Furina	Australia	Ov.	N	T/S-F	L/I
Glyphodon	Australia/New Guinea	?Ov.	N	T/S-F	-
Hemiaspis	Australia	Viv.	D(N)	T	L/A
Hoplocephalus	Australia	Viv.	N	Arb./T	Gen.
Loveridgelaps	Solomons	-	N	S-F	L/S(?A)
Micropechis	New Guinea	?Ov.	D/N	T	-
Neelaps	Australia	-	-	F	-
Notechis	Australia	Viv.	D	T	A/M
Ogmodon	Fiji	-	-	-	-
Oxyuranus	Australia/New Guinea	Ov.	D	T	M/B
Parapistocalamus	Solomons	-	-	?F	-
Pseudechis	Australia/New Guinea	Viv.	D	T	Gen.
Pseudonaja	Australia/New Guinea	Ov.	-	-	M/R
Rhinoplocephalus	Australia	-	-	-	?A
Salamonelaps	Solomons	-	D	T	L/F
Simoselaps	Australia	Ov.	N	F	L
Suta	Australia	?Viv.	N	T	-
Toxicocalamus	New Guinea	Ov.	N	T	?W
Tropidechis	Australia	Ov.	N	T	Gen.
Unechis	Australia/New Guinea	Viv.	N	S-F	L
Vermicella	Australia	Ov.	N	F	S

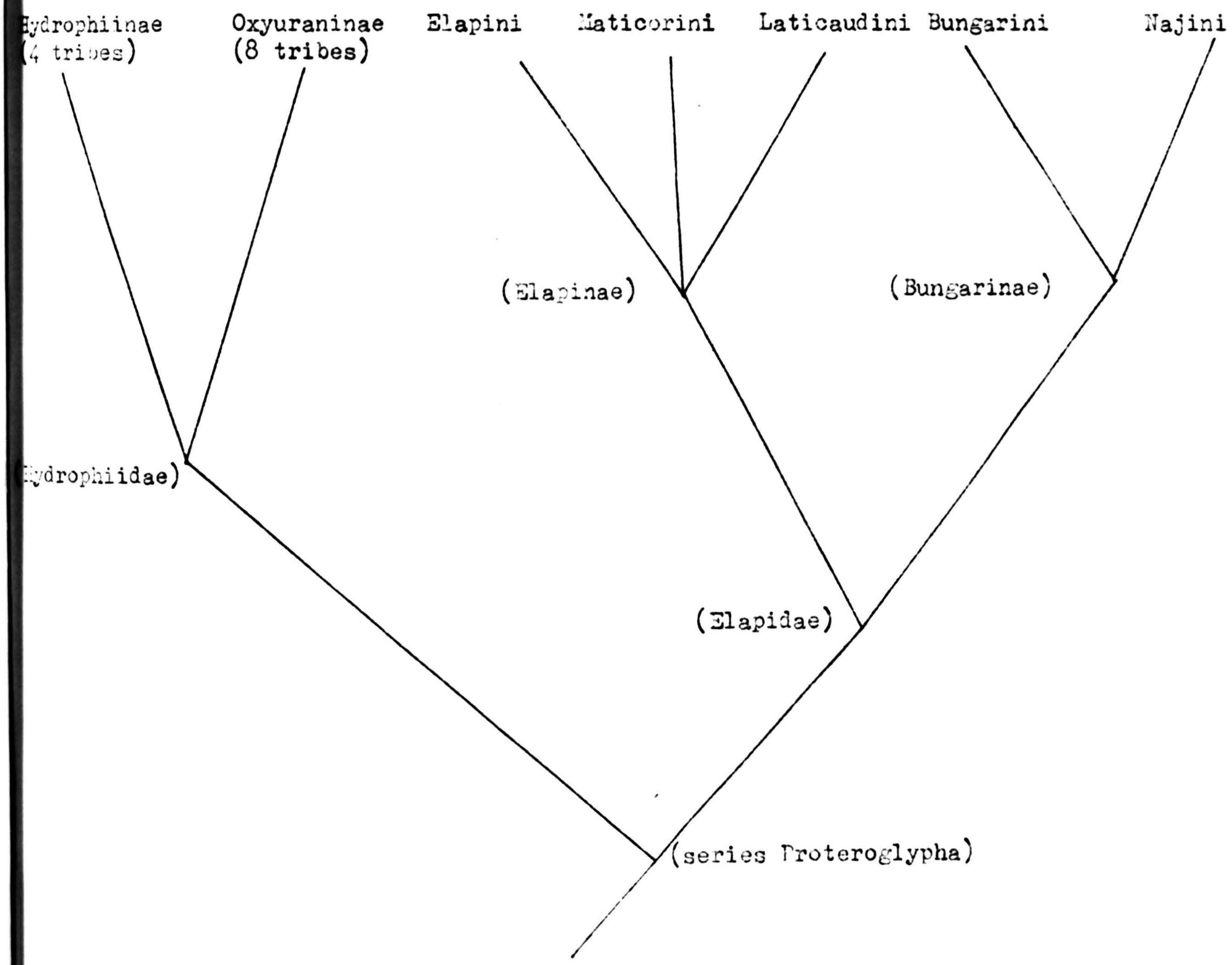
(iii) Relationships between elapines - current theories

Few attempts have been made to assess the intergeneric relationships of elapines. The method used here for presenting current theories about relationships within the group mainly involves translating, into branching diagrams, relevant statements by McDowell (1967, 1968, 1969a, 1970) and the classification "summary" by Smith, Smith & Sawin (1977). The latter work is rather unsatisfactory on at least two counts:-
a) The diagnostic characters of the various proposed groupings are not given, it is therefore not possible to judge how 'robust' some of the groups are . b) The contents of the groupings below tribe level are not specified. In some cases the contents can reasonably be inferred from the 'trivial' name applied to some tribes, for example, their tribe "Maticorini (South Asiatic coral snakes)" might be taken to refer at least to south Asiatic Calliophis and Maticora. However, even in this example we cannot be certain that this represents the entire contents of the tribe. McDowell (e.g. 1969a p.498) for instance suggested that Parapistocalamus is closely related to these Asiatic coral snakes; perhaps Smith et al (1977) intend that this endemic from Bougainville, Solomons, also be included in the Maticorini? Even fewer clues are available for some other tribes and we are left to guess the contents of, for instance, the eight proposed tribes of Australian terrestrial proteroglyphs.

In spite of these draw-backs Smith et al's (1977) classification is of interest since a more detailed branching diagram can be drawn (fig. 14 p. 44) on the basis of their classification than is possible with some others (e.g. Dowling & Duellman 1978) where groupings are not detailed between subfamily and generic levels.

Fig. 14

Implied relationships of proteroglyphous snakes (based on the classification in Smith, Smith & Sawin 1977)



African elapines

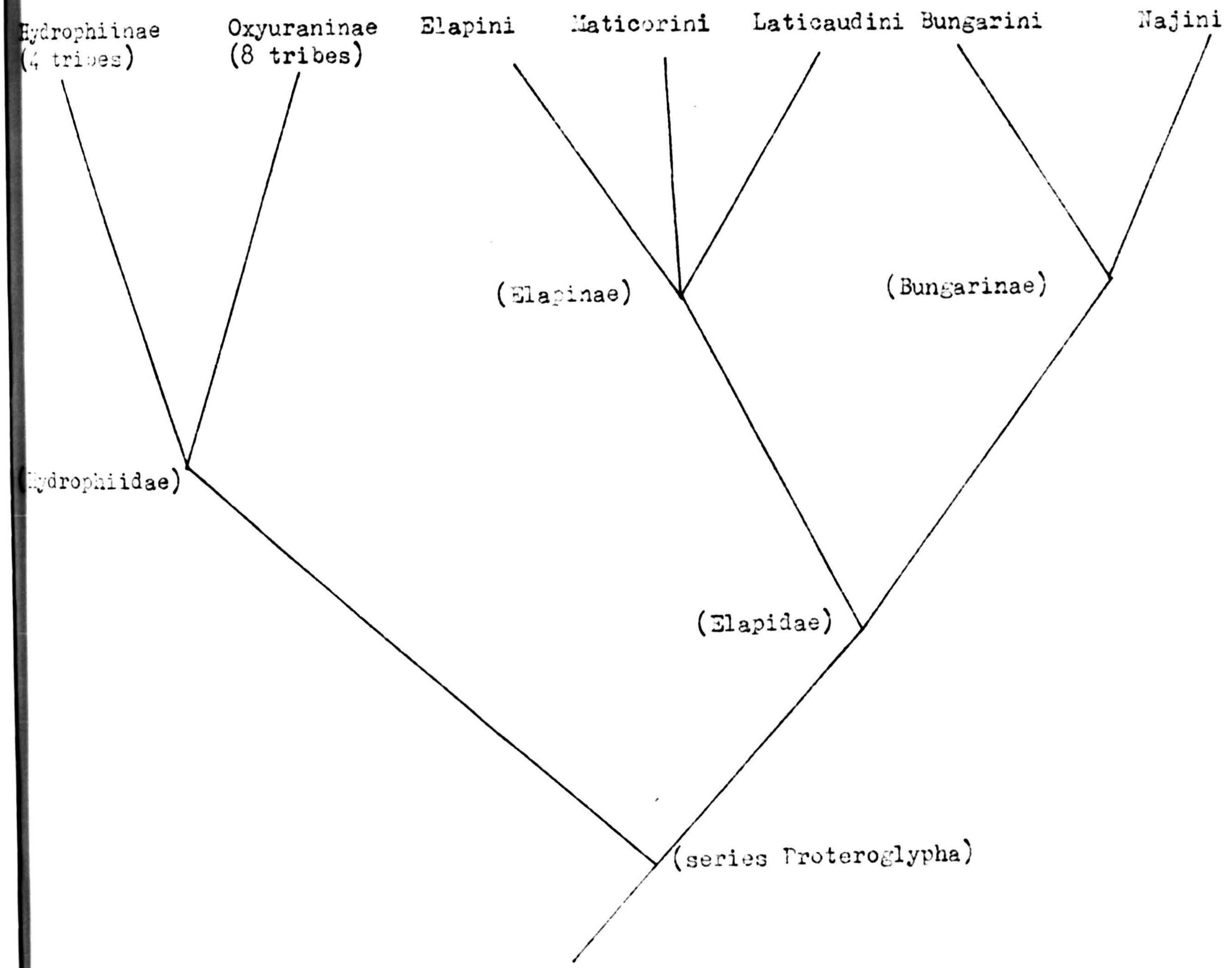
McDowell (1969a p.505) stated "If the most primitive elapids are those retaining the greatest number of generalized colubroid features, then the most primitive elapids would seem to be an African group containing the genera (if they really are distinct from one another) Elapsoidea, Boulengerina and Paranaja".

The grouping of all the African elapines into the tribe Najini "Afroasian cobras" by Smith et al (1977) presumably indicates that these workers consider that the African and Middle Eastern endemic elapines form a natural group together with the widespread genus Naja. Ideas about relationships within the African elapids appear very conjectural. Loveridge (1944 p.232-233) stated "I would suggest that Naja entering Africa from the north east, gave rise to both allegedly arboreal Pseudohaje and the presumably terrestrial Paranaja, the latter retaining many Naja characteristics". Broadley (1971 p.621) considered that Paranaja and Elapsoidea were both derived from the same "forest dwelling ancestral form". Branch (1979 p.201) has recently postulated close relationships between Aspidelaps and Hemachatus and cites, as feature supporting this hypothesis:- a) the maxilla in both bears no teeth other than the poison fangs b) both have keeled scales c) both "sham death" when threatened.

It should be mentioned that the south African semi-fossorial proteroglyph genus Homoroselaps is perhaps not closely related to the other members of this group. Homoroselaps was removed from the Elapidae by McDowell (1968) who considers that the included species are more closely related to the aparallactine colubrids, especially Polemon and Chilorhinophis. However, Kochva & Wollberg (1970 p.222) maintain that special features of its venom gland suggest that "the taxonomic status of Elaps (= Homoroselaps) should not be changed and this genus should remain within the family Elapidae".

Fig. 14

Implied relationships of proteroglyphous snakes (based on the classification in Smith, Smith & Sawin 1977)



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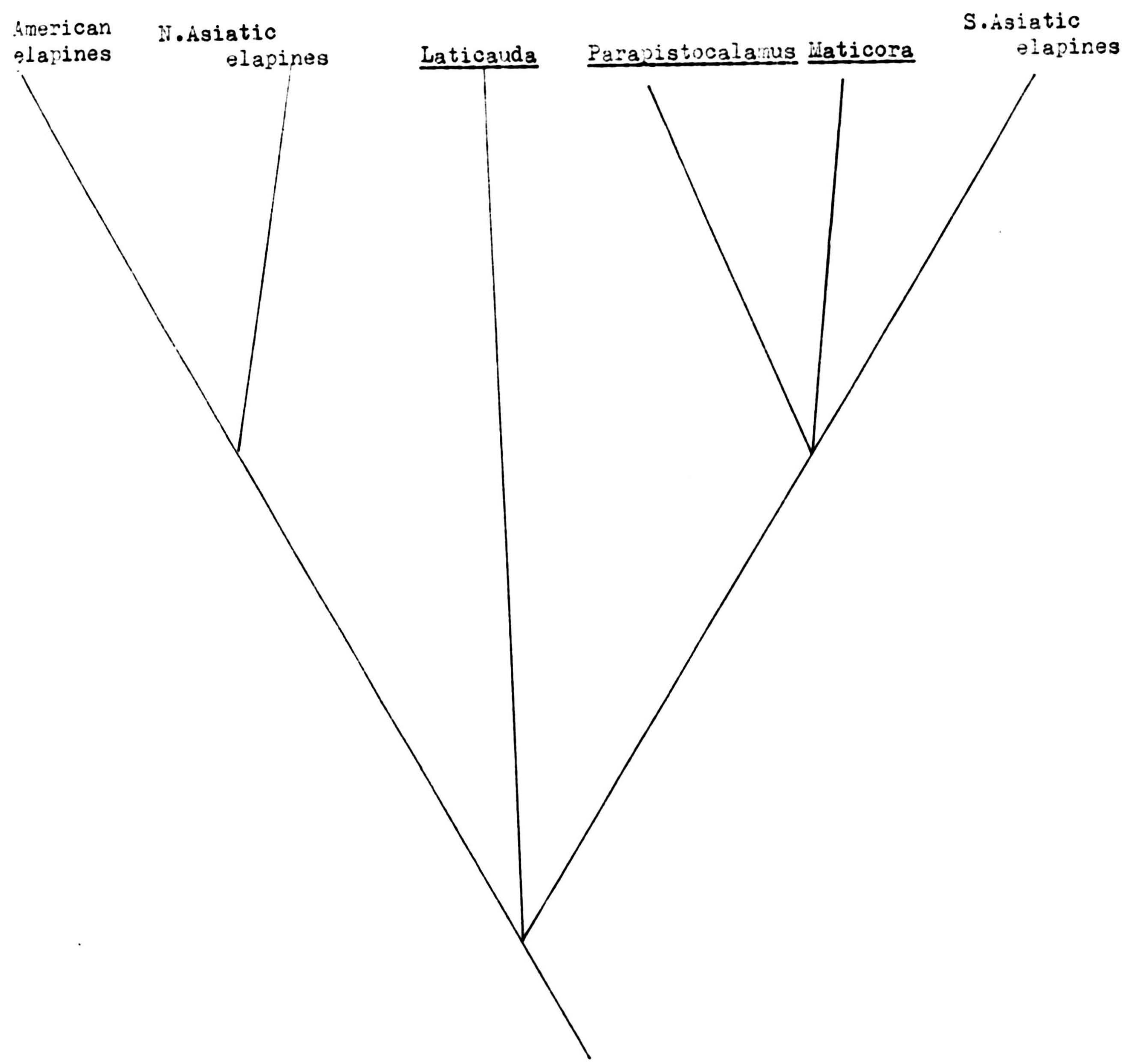
APPENDIX 4

Fractional Atomic Coordinates and Thermal Parameters for $[(Ph_3P)_2N]^+ [Os_5C(CO)_{15}I]^-$ (IV).

developed medial process of the palatine (point 2 above), also differ from other *Bungarus* in lacking special wing-like processes on the postzygapophyses, in having many divided subcaudals and also in having a bare zone on the hemipenis between the calyculate and the spinose zones. The palatine, postzygapophysial and subcaudal features all seem "plesiomorphic" (primitive) on the basis of their widespread out-group occurrence. The hemipenial character might be a special feature (potential synapomorphy), shared by these two *Bungarus* species and the genus *Naja*, although this hypothesis is relatively uncertain.

Fig. 15

Implied relationships within the <u>Laticauda</u>-group (based on classification of Smith, Smith & Sawin 1977)



American elapines

As mentioned previously (p.46); the work of McDowell (1969) suggests that the American elapines are closely related to the "North Asiatic" section of Calliophis. However, a drastically different scheme has recently been proposed.

Savitsky (1979) considers that the New World proteroglyphs evolved from a different stock to the other elapines; he suggests an independent origin of American coral snakes from Xenodontines (New World colubrid snakes). This view seems to have been accepted by some workers e.g. Duellman (1979), Laurent (1979). However, Cadle & Sarich (1981) provide immunological evidence which casts doubt on Savitsky's theory and suggests that the New World proteroglyphs are more closely related to other proteroglyphs than they are to American colubrids. Savitsky's evidence is re-evaluated in the present study (p.192ff).

Australasian elapines

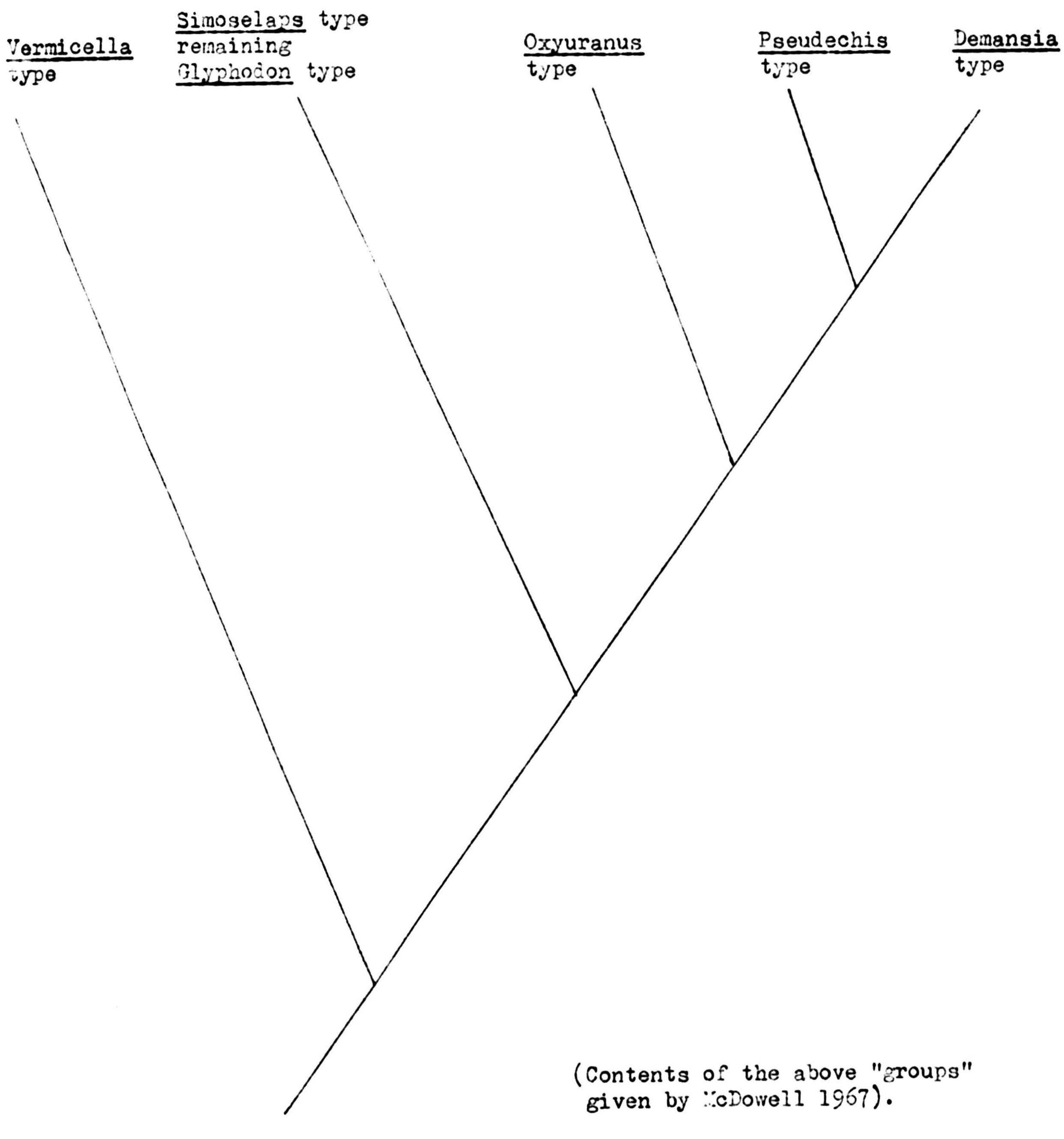
The Australasian elapines, together with the "true" sea snakes (Hydrophiinae) appear to form a largely natural group defined by a combination of peculiarities of the upper jaw apparatus; the "palatine draggers" (McDowell 1969a p.148). However, as mentioned earlier (p. 46) the Bougainville elapine Parapistocalamus is a possible exception in that its affinities may not lie with the other Australasian elapines. According to the classification of Smith et al (1977) the "palatine draggers" form a distinct family (Hydrophiidae) containing two subfamilies:- Oxyuraninae (Australian terrestrial proteroglyphs with the probable exception of Parapistocalamus) and Hydrophiinae ("true" sea snakes). The current theories of the relationships of the "true" sea snakes with the Australasian group of proteroglyphs will be discussed later (p. 58ff).

McDowell (1969a p.150) considers "the Vermicella group" (comprising the Solomon Island endemics Salamonelaps and Loveridgelaps; the Fijian Ogmodon; the Australian Vermicella) to be "essentially intermediate between the Afro-Asiatic Bungarus-Elapsoidea group and the great majority of the Australasian Elapidae". Hypotheses of relationship within the Australasian group are rather sketchy. Smith et al (1977) recognize eight tribes that are all given equal status within the subfamily Oxyuraninae; essentially an octochotomy. McDowell (1967 pp.536-541) however suggests a transformation series of the various states of elapine venom gland compressor muscle [M.adductor mandibulae externus superficialis] origin, a character that is discussed in greater detail on p. 105.

A branching diagram relating the various groups of Australasian proteroglyphs, based on the sequence of "superficialis" muscle origin states is given in fig. 16, p. 51 .

Fig. 16

Implied relationships between the tribes of Australasian terrestrial proteroglyphs



(Contents of the above "groups" given by McDowell 1967).

(iv) The sea snakes (Hydrophiinae and Laticaudinae)

Sea snakes have recently attracted much deserved scientific and popular interest. Numerous authors, e.g. Barme (1968), Dunson (1975a,b), Halstead (1970), Heatwole (1978), Pickwell (1972), U.S.A.Dept. of Navy (1968) have reviewed aspects of the general biology and distribution of these animals and a helpful bibliography of the group has been prepared (Vigle & Heatwole 1978). No attempt will be made here to comprehensively summarize this information but a few salient points are discussed below; some other features are reviewed in the character discussion (pp. 62 ,ff.).

Distribution

The maps on pp. 56-57 show the range distributions of sea snakes. As noted by Minton (1975 p.22), the broad continental shelves of northern Australia and south-east Asia provide what seems to be optimal sea snake habitat. Past fluctuations of sea levels in the area may well have caused splitting of sea snake populations which in turn may have encouraged speciation events (Voris 1977 p.122). As a consequence, the greatest diversity of sea snakes occurs in the area with no less than 28 species recorded from the environs of the Straits of Malacca alone (Voris 1977 p.121). Peripheral to the area, the number of species reduces to nine in the Persian Gulf (Volsoe 1939), four in Japan and three in Tonga (Voris 1977).

The only pelagic sea snake, Pelamis platurus, has an extremely extensive distribution from South Africa through Indo-Malaya, Australasia and Pacific to Central America and Ecuador. However, as emphasized by Hecht et al (1974), most specimens tend to be found in shallower water i.e. within the 100 metre isobath. The optimum temperature for Pelamis, according to Hecht et al (1974), lies between 28-32°C; it ceases effective feeding at 23°C and loses efficient motor control at 16°C; these authors divide Pelamis into "resident" and "waif" populations on these bases. There does however seem to be at least one example of a physiologically more tolerant population of Pelamis; Cogger (1975 p.128) states that there is "little doubt" that a population off the central coast of New South Wales, where sea surface temperatures vary seasonally from 16°C to 22°C, is "both permanent and breeding".

Niche exploitation

Reviews of feeding habits of sea snakes by Glodek & Voris (1982), McCosker (1975) and Voris (1972) together with a consideration, by Heatwole & Seymour (1975), of zonation of some species within the water column have enabled an impression (admittedly incomplete) to be gained of the strategies whereby sea snakes are able to capture and devour relatively fast agile prey (mainly fish) and also avoid competing with sympatric relatives. Sea snakes may be broadly divided into ecotypic groups on the basis of diet, or depth to which they normally dive. Since the main reason for the majority of sea snakes to dive is to feed on bottom-dwelling fish there are overlaps in these categorisations. Heatwole & Seymour's (1975 pp.291-292) divisions are as follows:-

a) Pelagic species. Surface feeding among drift. The only known example of a truly pelagic sea snake is Pelamis platurus.

b) Shallow-water species. Generally restricted to water 20m or less in depth e.g. some Aipysurus and perhaps Laticauda.

c) Intermediate species. Sometimes in water deeper than 20m but do not dive below 50m, e.g. Aipysurus laevis, Emydocephalus annulatus, Acalyptophis peroni.

d) Deep-water species. Dive below 50m, examples probably include a number of Hydrophis.

Glodek & Voris (1982) have studied the diets of 16 marine snake species collected in the Straits of Malacca and the South China Sea. Six categories are recognized by these workers:- eel eaters, burrowing goby eaters, goby eaters, egg eaters, catfish eaters and generalists. In contrast, McCosker's (1975) strategic categories tend to place emphasis upon the general activity of the items being predated:-

a) Nocturnal feeding on diurnally active fishes.

b) Diurnal feeding on nocturnal fishes.

c) Surface feeding (pelagic).

d) Specialist fish egg eaters.

e) Feeding on fossorial fishes especially eels and gobies.

f) Versatile feeders.

Glodek & Voris (1982) observe that the prey diversity of most species is low, a single prey species often comprising as much as 50% of the diet. Eel eaters include Hydrophis brookii, H.fasciatus, H.melanosoma, H. ("Microcephalophis") gracilis and Laticauda. Four families of anguilliforms are consumed, most eels are captured on the bottom especially in cracks and crevices. Small-headedness in some Hydrophis species would seem to be an adaptation to feeding on eels secreted in crannies.

Hydrophis caerulescens and possibly Acalyptophis peroni specialize in eating burrowing gobies (mainly Trypauchenidae) whereas other types of goby constitute minor proportions of the diets of Hydrophis brookii, Lapemis hardwickii and possibly Acalyptophis peroni. Three sea snake species feed on demersal fish eggs:- Aipysurus eydouxi and Emydocephalus (two species).

The only sea snake known to feed extensively on catfishes (ariids and plotosids) is Enhydrina schistosa. A generalist feeder is Lapemis hardwickii. Glodek & Voris (1982) record 21 fish families as well as invertebrates such as cuttlefish and squid in the diet of this species.

Reproduction

As previously mentioned (p. 35), laticaudines have amphibious life-styles; they are oviparous and return to shore to lay their eggs in crevices or in caves (e.g. Smedley 1931; Herre & Rabor 1949).

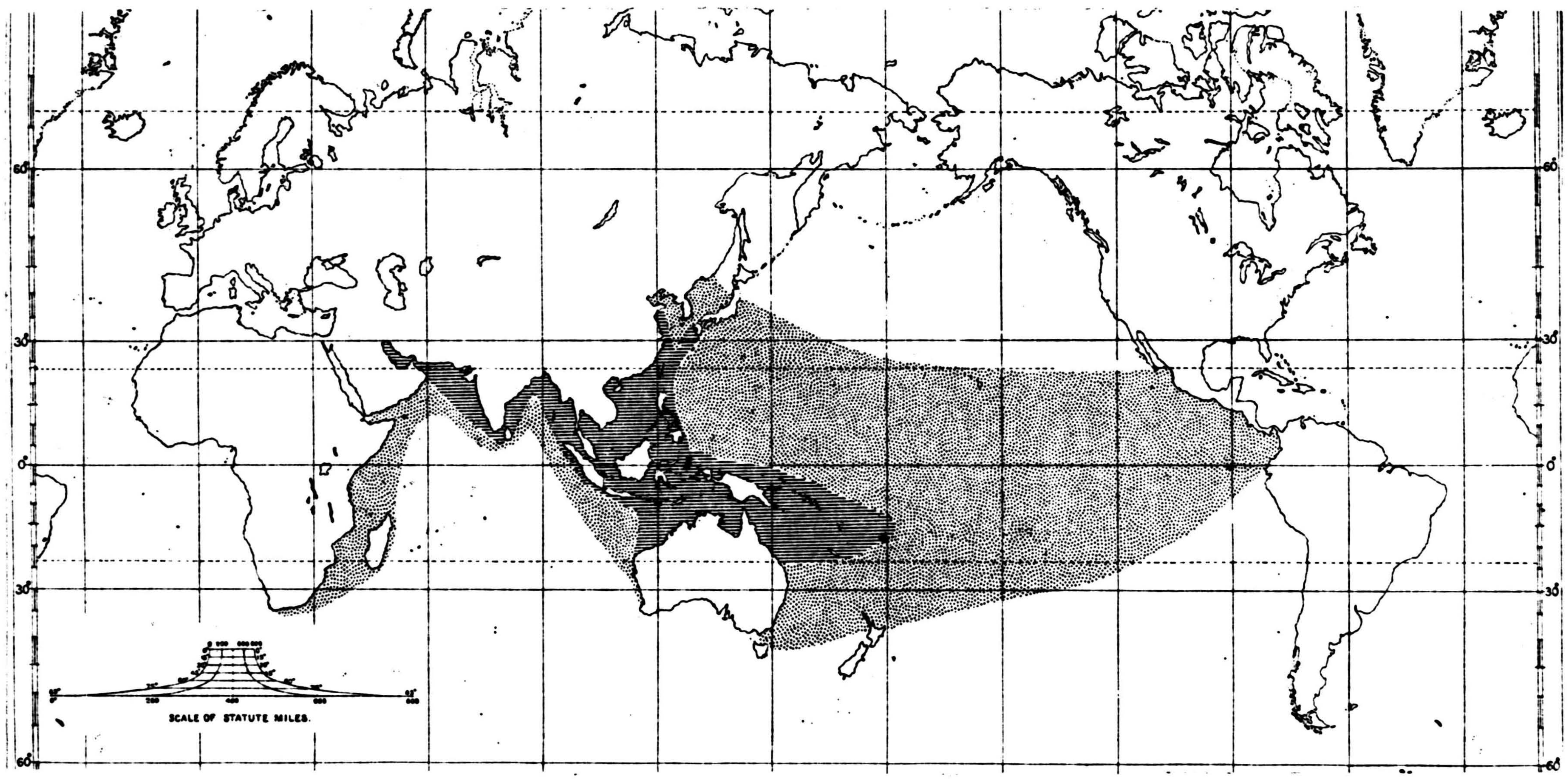
Viviparity in hydrophiine sea snakes may be seen as an adaptation which liberates them from the need to return to land; however, it is also possible that hydrophiines arose from a terrestrial stock that was already viviparous.

The average clutch size in hydrophiines is from 2.9 to 17.8 (Lemen & Voris 1981). Relatively little work on assessing relative reproductive efforts in the group has been done. Lemen & Voris (1981) however note that Hydrophis fasciatus is a small species with small clutches of young and has the highest relative effort per embryo of any marine snake(11%). Lapemis hardwickii and Thalassophis viperina also have high reproductive effort per embryo, they are large snakes which give birth to three or four large young. Enhydrina schistosa, a large species with many medium-sized young, has least effort per embryo (2%). Most other sea snake species studied by Lemen & Voris have "modest sized clutches and small female weights" and are therefore considered intermediate between the two extremes.

Salt regulation

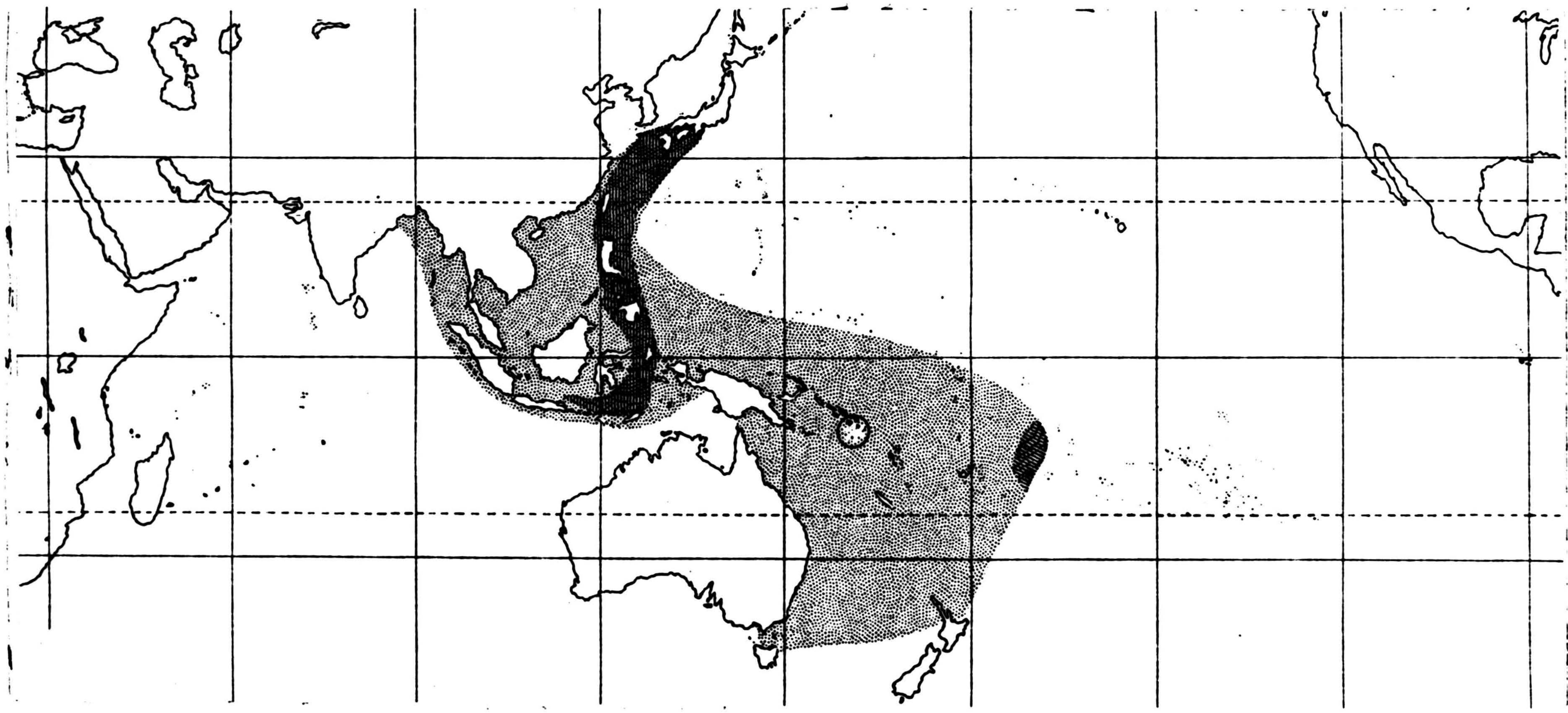
Salt regulation in sea snakes has been reviewed by Bentley (1976), Dunson (1975b, 1976) and Heatwole (1978). Salt glands occur in various positions in marine reptiles, e.g. turtles secrete salty tears via a lachrymal gland in the orbit, marine iguanas have nasal salt glands. In marine snakes salt glands are situated under the tongue (in laticaudines, hydrophiines and Acrochordus) or perhaps in the labial area (in homalopsines, Dunson 1979). In those forms with sublingual salt glands, hypertonic solutions are secreted into the tongue sheath and expulsion of the salty fluid effected by tongue extrusion.

Fig.17 Geographic Distribution of the hydrophiine sea snakes



Horizontal line shading = Distribution of Hydrophiinae (including *Pelamis*)
Stippled shading = Extended distribution of *Pelamis platurus*

Fig 18 Geographic distribution of laticaudine sea snakes



Stippled shading	=	Joint distributions of Laticauda colubrina & L.laticaudata (there are also reports of L.colubrina from Central America see page 212)
Vertical line shading	=	Distribution of L.semifasciata
Oblique line shading	=	Distribution of L.schistorhynchus
White asterisk	=	Distribution of L.crockeri (confined to Rennell Id.)

(v) Current concepts of relationships of sea snakes - Classification

Voris (1977 pp.118-119) notes that "grade levels" occur in the sea snakes and a complex of characters have been directly involved in the shift from a terrestrial to an aquatic life-style. The character set he particularly cites was thoroughly examined by him in a previous paper (Voris 1975) i.e. the general tendency towards proliferation of ventral scutes with consequent loss of correspondence between vertebrae and ventrals. Ventral scales incline towards size reduction or to bear sharp median keels.

The grades within sea snakes can be expressed within the context of Burger & Natsuno's (1974) classification as modified by Underwood (1979):-

Laticaudinae

genus *Laticauda*

Hydrophiinae

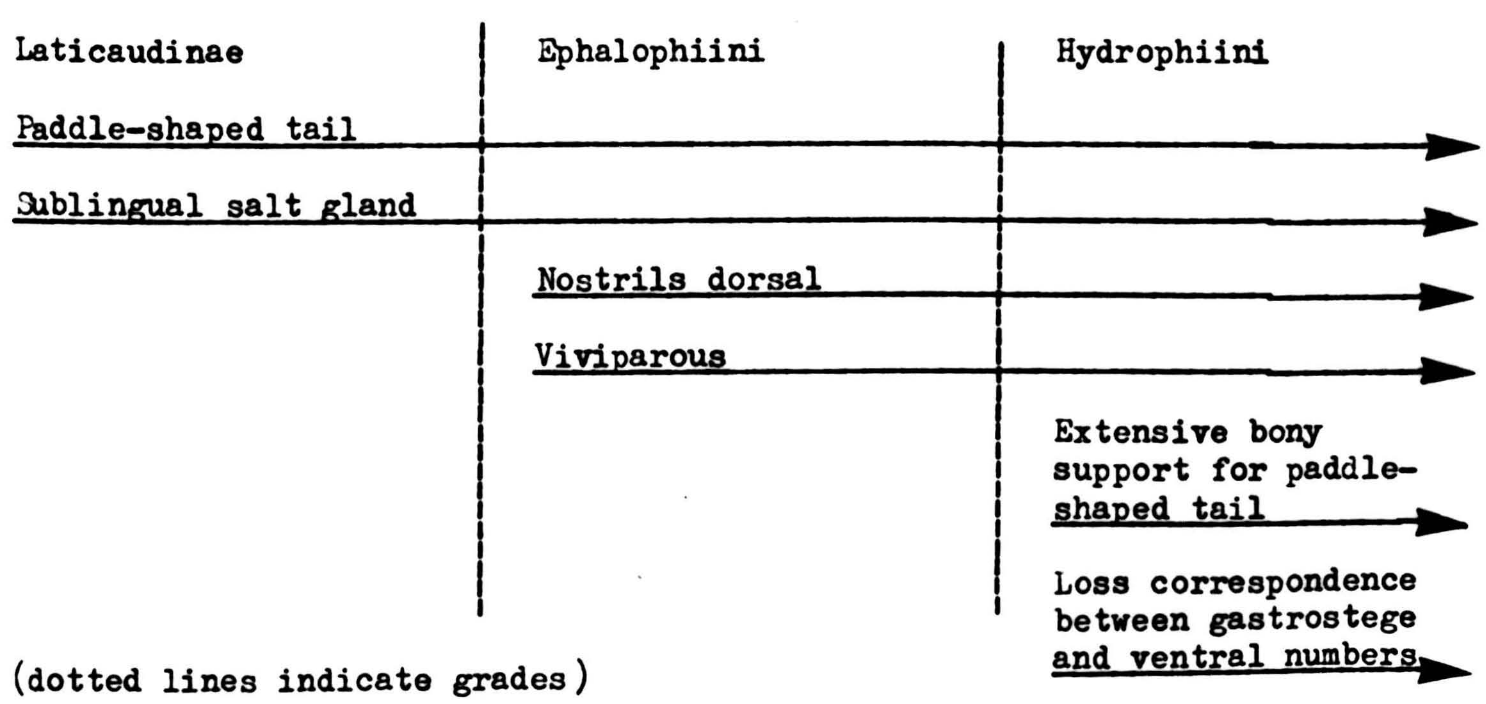
tribe Ephalophiini

genera *Aipysurus*, *Emydocephalus*, *Ephalophis*, *Hydrelaps*, *Parahydrophis*

tribe Hydrophiini

remaining sea snakes

Figure 19 shows the possible marine-adaptive characters of the grades :-



(dotted lines indicate grades)

As mentioned on p. 1ff., various theories have been proposed for the phylogenetic relationships of sea snakes, and, naturally, these theories have influenced the classification of the group, e.g. the classification above places _Laticauda_ in a separate subfamily, the authors follow McDowell (1967, 1969, 1972, 1974) in regarding _Laticauda_ and the "true" sea snakes as independently derived marine proteroglyphs. Smith, Smith & Sawin (1977) also agree with McDowell and propose the following classification:-

Family Hydrophiidae
- subfamily Hydrophiinae
  - tribe Ephalophini
  - tribe Hydrelapini
  - tribe Aipysurini
  - tribe Hydrophiini

Family Elapidae
- subfamily Elapinae
  - tribe Laticaudini

Voris (1977) places all the marine proteroglyphs together in the same family (Hydrophiidae). As mentioned on p. 1 , Voris is equivocal about the affinities of _Laticauda_ but his classification implies close relationship between _Laticauda_ and other sea snakes. Voris does not propose formal groupings between family and generic levels within the sea snakes but groupings based on his phylogenetic theories are suggested by Gans (1978 p.26):-

Family Hydrophiidae

Group I	_Laticauda_
Group II	_Aipysurus_ & _Emydocephalus_
Group IIIA	_Hydrelaps_, _Ephalophis_ (including _Parahydrophis_)
Group IIIB	All other sea snake genera

The generic classification of sea snakes is also somewhat unstable mainly due to differences of opinion about the contents of the genus _Hydrophis_ and related genera. A table showing three different schemes is given on p. 61 . McDowell (1972) radically overhauled the "_Hydrophis_ group" and amalgamated several of the monotypic genera recognized in Smith's (1926) monograph. Burger & Natsuno (1974) accept many of McDowell's changes but introduce a few modifications. Voris (1977 p.123) takes a rather reactionary line on the nomenclature of the group advocating Smith's (1926) system because "the work has served as the standard reference for many years and is by far the best known in the field".

TABLE 5

The generic classification of sea snakes

Smith (1926,1931*[1])	McDowell (1969b*[2],1972)	Burger & Natsuno (1974)
Acalyptophis	Acalyptophis	Acalyptophis
Aipysurus	Aipysurus	Aipysurus
Astrotia	Disteira	Hydrophis (subgenus Disteira)
Emydocephalus	Emydocephalus	Emydocephalus
Enhydrina	Disteira	Hydrophis (subgenus Disteira)
Ephalophis*[1]	Ephalophis	Ephalophis
Hydrelaps	Hydrelaps	Hydrelaps
Hydrophis	Hydrophis mertoni = Ephalophis*[2] remainder divided into three subgenera:- Hydrophis, Leioselasma Aturia	Hydrophis mertoni = Parahydrophis four subgenera recognized:- Hydrophis Leioselasma Aturia Disteira
Kerilia	Kerilia	Kerilia
Kolpophis	Lapemis	Kolpophis
Lapemis	Lapemis	Lapemis
Laticauda	Laticauda	Laticauda
Microcephalophis	Hydrophis (subgenus Hydrophis)	Hydrophis (subgenus Hydrophis)
Pelamis	Pelamis	Pelamis
Thalassophina	Lapemis	Lapemis
Thalassophis	Thalassophis	Thalassophis

2. CHARACTERS

(1) Dorsal head scale fragmentation (Fig.41)

The most widespread pattern of dorsal head scalation in the Caenophidia comprises nine head shields; pairs of internasals, prefrontals; supraoculars, parietals and a single frontal (Marx & Rabb 1972 p.13). Departures from this general condition sometimes occur *via* either fragmentation or loss of elements leading to a greater or lesser number of shields respectively. The vast majority of elapids show the normal caenophidian condition although a number of sea snakes show a variable tendency both to general fragmentation of head scales and loss of internasal scales. The latter phenomenon is discussed on p.66 ; the former is discussed below.

Smith (1926 pp.3,7,10) recorded that three species of *Laticauda* (*L.colubrina*, *L.semifasciata*, *L.schistorhynchus*), instead of having normally paired prefrontal scales, have the two scales medially separated by a single "azygous" shield. However Smith (1926 p.7) also reported that *L.colubrina* is variable in this regard; ten specimens examined by him lacked the scale. Of 79 specimens of *L.colubrina* examined in the present study seven lack an azygous prefrontal.

Two states are recognized for character 1.1

State 0:- Paired prefrontal scales contact on the mid-line

State 1:- Azygous prefrontal scale separates paired prefrontal scales

Polarity of states of character 1.1

State 0 represents a widespread condition and is regarded as relatively primitive:-

0 ⟶ 1

The precise pattern of azygous shield presence appears unique to the species of *Laticauda* mentioned above although an "azygous prefrontal" may occasionally arise in hydrophiine sea snakes (e.g. some *Aipysurus*) as an apparent consequence of more irregular fragmentation of head shields. An additional character (1.2) is recognized to distinguish these cases:-

State 0:- Normal caenophidian head scalation (aside from presence in some of azygous prefrontal)

State 1:- Tendency to irregular fragmentation of head shields

Polarity of states of character 1.2

State 0 is the normal caenophidian condition (by definition) and is therefore regarded as primitive:-

0 ⟶ 1

Therefore Laticauda species with azygous prefrontals have state 1 for character 1.1 but state 0 of character 1.2. Aipysurus fuscus which irregularly has "azygous prefrontals" as a possible result of random head scale fragmentation is scored as "variable" for character 1.1 and state 1 for character 1.2.

(2) Horizontal division of the rostral scale (Fig.40)

The rostral in snakes is generally a subtriangular or squarish median scute situated at the tip of the snout where it forms the anterior part of the upper lip. The normal condition is for the scale to be intact however it is fragmented in some taxa (Marx & Rabb 1972 p.19ff.). Smith (1926 pp.3,10) noted that Laticauda semifasciata and L.schistorhynchus are distinguished from other species of Laticauda by having the rostral horizontally divided into a small upper and large lower portion.

Two states of character 2 are recognized

State 0:- Rostral normal (intact)

State 1:- Rostral horizontally divided

Polarity of states of character 2

State 0 is widespread (rather few snakes show any division of the rostral state) and is therefore taken to be primitive

0 ⟶ 1

Laticauda semifasciata and L.schistorhynchus appear unique among the Elapidae in having a clearly defined horizontal division of the rostral. However Groombridge (1980 pp.55-56) recorded a very similar condition in some viperids (Atheris and Adenorhinos).

(3) Nostril position (Fig.44)

Nostrils are situated on the lateral surface of the snout in the majority of snakes. However in some aquatic species they are positioned dorsally on the snout; an obvious adaptive aid to air intake at the water-surface.

Two states of character 3 are recognized

State 0:- Nostrils laterally placed

State 1:- Nostrils dorsally placed

Polarity of states of character 3

State 0 is clearly the more primitive state

0 ——→ 1

Evidently state 1 has developed independently in a number of aquatically adapted snakes. In the Elapidae state 1 is characteristic of the hydrophiine sea snakes which also have some striking modifications of the nasal complex of bones concomitant with dorsal shift of the nostrils (discussed by McDowell 1972 p.195). Laticauda retain a primitive nostril condition.

(4) Internasal scales (Fig.41)

Marx & Rabb (1972 p.13) recognize a derived state ("state IV" of their "character 1") differing from the standard caenophidian nine enlarged head shields in having fewer shields. However in "state IV" of "character 1" there are numerous diverse conditions including forms with single internasal, no internasals, single prefrontal, absence of prefrontals or absence of supraoculars.

The character discussed here relates to the presence or absence of internasal scales. Two states are recognized for character 4

State 0:- Internasals present

State 1:- Internasals absent

Polarity of states of character 4

State 0 represents the general caenophidian condition and is consequently regarded as primitive

$$0 \longrightarrow 1$$

In the elapines state 1 has only been recorded in Toxicocalamus (Ultrocalamus)preussi and T.(U.)buergersi from New Guinea. In the sea snakes state 1 tends to be correlated with the dorsal shift of the nostrils (character 3 p.65). There is some difference of opinion about the homology of "internasal scales" found in some hydrophiines with dorsally positioned nostrils. For example McDowell (1972 p.202) believes that loss of internasal scutes was an "early specialization of the Hydrophiinae and that the 'internasals' found in some members of the Hydrophis group are the results of secondary fragmentation of the nasal". However Voris (1977 pp.138-140), in his data matrix, recorded that true internasals occur in Thalassophis anomalous and Kolpophis annandalei but believed that they have arisen secondarily in Acalyptophis peroni and Enhydrina schistosa via fragmentation of head plates.

There appears no doubt about the homology of internasals in *Laticauda* - they are primitively present and, as noted on p. 65 , the nostrils are in the normal lateral position.

(5) Number of anterior temporal shields

Temporal shields are situated on the lateral surface of the head immediately posterior to the postocular scales. Marx & Rabb (1972 p.45) recognize three conditions relating to the anterior temporals (their "character 9")

"State I - one to three anterior temporals

State II - more than three anterior temporals

State III - anterior temporals absent; parietal in contact with supralabials"

Their proposed (p.49) "direction of change" of these states is

II ←— I —→ III

Elapine taxa recorded with "state III" include:- "Elaps"(=Homoroselaps) lacteus, "Leptomicrurus"(=Micrurus)collaris, Ogmodon vitianus, Parapistocalamus hedigeri, Toxicocalamus preussi and T.buergersi.

However in the specimen of Parapistocalamus examined in the present study and in specimens reported by Williams & Parker (1964) there **is** a single anterior temporal.

The only other elapid that Marx & Rabb record with the other derived condition ("state III" - many anterior temporals) is the hydrophiine Kolpophis annandalii.

In the present study the following states are recorded for character 5

State 0:- One or two anterior temporals

State 1:- No anterior temporals

State 2:- Three or more anterior temporals

Polarity of states of character 5

Marx & Rabb (1972 p.51) indicated the relative abundance of the various states of anterior temporals. State 1 (no anterior temporals) has been recorded in approximately 8.5% of the Colubridae and 1.5% of the Elapidae, and state 2 in varying condition in 4% of the Colubridae, 3% of the Elapinae and 30% of the Hydrophiinae and in unvarying condition in 2.7% of the Colubridae and 6.4% of the Hydrophiinae. States 1 and 2 therefore seem likely (on grounds of relative abundance) to be the more derived conditions

$$1 \longleftarrow 0 \longrightarrow 2$$

State 1 is strongly correlated with fossorial habits in both Colubridae and Elapidae. In the Elapidae state 2 only has substantial occurrence in the hydrophiine sea snakes.

Laticauda has state 0; L.laticaudata, L.crockeri and L.colubrina have one anterior temporal whereas L.semifasciata and L.schistorhynchus have two.

(6) Lower labial number (Fig.42)

Lower labials are the scales located on the lower border of the mouth of snakes. The anterior lower labials comprise a line of rectangular scales terminating in a pentagonal shield which is, in turn, followed by two rows of scales (the upper series on the oral margin are termed "posterior labials" by Underwood 1982 p.249). Rarely lower labials may be excluded from the oral border by "marginal scales" (see p. 71). Three states of character 6 are recognized for present purposes:-

State 0:- 7 lower labials (4 anterior and 3 posterior)

State 1:- 6 lower labials (4 anterior and 2 posterior)

State 2:- 8/9 lower labials (4 anterior and 4/5 posterior)

Polarity of states of character 6

Lower labial numbers, by themselves, are unlikely to give robust cladistic information because most states are of widespread distribution; additions and subtractions seem likely to have occurred many times in different lineages. However for some purposes, such as considering the intragroup relationships of taxa that seem closely related on the basis of other characters (e.g. the natricine snake genus Styporhynchus; Underwood 1982 pp.248-249) infralabials may contribute to a resolution of relationships. Within the sample chosen for comparative analysis (p. 218) state 0 appears to be the commonest condition and therefore, on this comparatively weak criterion, is tentatively regarded as primitive:-

1 ⟵ 0 ⟶ 2

Most Laticauda species have state 0, the exception is L.colubrina with state 2. In the restricted sample, referred to above, state 2 was also recorded in Aipysurus fuscus, state 1 occurs in some Calliophis, Maticora and Parapistocalamus.

(7) Marginal lower lip scales (Fig.42)

Smith (1926) noted the peculiar presence, in some sea snakes, of elongate scales at the oral margin. These marginal scales were found to occur after the first two or three lower labials and exclude the remaining lower labials from the border of the mouth; they were recorded by Smith in *Laticauda*, *Kolpophis annandalei* and fourteen species of *Hydrophis*.

A survey of the Elapinae, to determine the distribution of lower lip scales in the subfamily, revealed their presence only in some African, Middle Eastern and Asiatic cobras (*Naja haje*, *Naja nivea*, *Naja mossambica* (variable), *Naja naja* and *Walterinnesia aegyptia*). The number of marginal scales is small in these elapines (only one "cuneate" scale in *Naja haje* and *Naja naja*); they usually occur after the fourth lower labial in this group.

Three states are recognized for character 7

State 0:- Marginal lower lip scales absent

State 1:- Marginal lower lip scales present; forming one rank

State 2:- Marginal lower lip scales present; forming two ranks

Polarity of states of character 7

"Marginals" are of rather limited distribution, their presence (states 1 and 2) is therefore regarded as derived. State 2 is more elaborate than state 1 and has only been found in three species of *Laticauda* (*L.laticaudata*, *L.crockeri* and *L.colubrina*). State 1 occurs in *L.semifasciata*, *L. schistorhynchus* and the hydrophiine and elapine sea snakes discussed above.

$$0 \longrightarrow 1 \longrightarrow 2$$

O(41)	1261(3)	7710(4)	3243(5)	c
C(42)	3011(5)	6955(6)	1931(8)	c
O(42)	3479(5)	7570(5)	1852(8)	c
C(43)	1663(6)	6138(8)	639(8)	c
O(43)	1340(5)	6338(7)	-220(6)	c
N	-2369(3)	-309(4)	2617(5)	c
P(1)	-3225(1)	84(1)	2721(1)	c
P(2)	-1569(1)	-551(1)	2224(1)	c
C(111)	-3413(2)	1554(3)	2423(3)	48(1)
C(112)	-3002(2)	2033(3)	1685(3)	69(2)
C(113)	-3124(2)	3178(3)	1472(3)	86(2)
C(114)	-3657(2)	3845(3)	1998(3)	87(2)
C(115)	-4068(2)	3367(3)	2737(3)	74(2)
C(116)	-3946(2)	2222(3)	2949(3)	65(2)
C(121)	-3414(2)	-29(3)	4100(3)	46(1)
C(122)	-2979(2)	652(3)	4939(3)	67(2)
C(123)	-3120(2)	630(3)	6022(3)	81(2)
C(124)	-3696(2)	-74	6268(3)	86(2)
C(125)	-4131(2)	-755(3)	5430(3)	80(2)
C(126)	-3990(2)	-733(3)	4346(3)	62(2)
C(131)	-3918(2)	-795(2)	1833(3)	45(1)
C(132)	-4661(2)	-364(2)	1479(3)	58(2)
C(133)	-5220(2)	-1075(2)	856(3)	70(2)
C(134)	-5035(2)	-2217(2)	586(3)	69(2)
C(135)	-4292(2)	-2648(2)	940(3)	72(2)
C(136)	-3734(2)	-1937(2)	1563(3)	60(2)
C(211)	-1554(2)	-219(3)	824(3)	46(1)
C(212)	-1013(2)	527(3)	552(3)	66(2)
C(213)	-1017(2)	753(3)	-544(3)	82(2)
C(214)	-1563(2)	232(3)	-1366(3)	79(2)
C(215)	-2104(2)	-514(3)	-1094(3)	83(2)
C(216)	-2100(2)	-740(3)	2(3)	71(2)
C(221)	-1310(3)	-2044(4)	2298(4)	54(1)
C(222)	-788(3)	-2576(4)	1654(4)	76(2)
C(223)	-582(3)	-3723(4)	1756(4)	95(3)
C(224)	-899(3)	-4339(4)	2502(4)	101(3)
C(225)	-1421(3)	-3807(4)	3147(4)	98(3)
C(226)	-1627(3)	-2659(4)	3044(4)	72(2)
C(231)	-828(2)	286(3)	3079(3)	47(1)

cont ...

(9) Nasal vestibule (Fig.43)

An apparent unique feature of the genus Laticauda is the possession of a folded, sometimes papillate nasal vestibule. This feature has been discussed by Katheriner (1900), Parsons (1970 p.122), McDowell (1972 p.195) and Voris (1977 p.137).

McDowell (1972 p.195) suggests that when the nostril is contracted the rugose lining may serve to occlude the vestibule and thus exclude water in-flow during diving. Quite a different type of nasal valve is found in hydrophiines. In this group, nostril closure is effected by a pad of tissue situated on the anterior border of the nostril (see Parker & Grandison 1977 p.87). The nasal vestibule of hydrophiines has a normal smooth lining.

Voris (1977 p.137) characterises the valve in Laticauda as "posterior and squeeze type" while the valve in hydrophiines is described as "anterior and trap-door like".

Two states are recognized for character 9:-

State 0:- Nasal vestibule with smooth lining

State 1:- Nasal vestibule with rugae or papillae

Polarity of states of character 9

State 1 appears unique to Laticauda, consequently it is regarded as derived:-

0 ⟶ 1

It is interesting that laticaudines and hydrophiines appear to have evolved very different types of nasal valve; this may lend some support to the theory that these two sea snake groups represent independent marine-adapted lineages.

(10) Tail shape (Figs 46 & 48)

Perhaps the most striking external characteristic of sea snakes (Laticaudinae and Hydrophiinae) is their laterally-compressed paddle-shaped tail. Other elapids (even including such freshwater forms as the African *Boulengerina*) have a normally rounded tail.

McDowell (1972 p.196) maintained that the hydrophiines differ from Laticaudines in having the cutaneous folds of the tail supported by strongly developed dorsal and ventral processes of the tail skeleton (neural spines and parapophyses). *Laticauda* have relatively unmodified vertebrae. However, tail radiographs prepared in the present study reveal that not only *Laticauda* but also some "primitive" hydrophiines such as *Aipysurus* and *Ephalophis* lack the extensive bony support for the "paddle" that occurs in "advanced" hydrophiines

Two states of character 10 are recognized

State 0:- Tail rounded

State 1:- Tail laterally compressed, paddle-shaped

Polarity of states of character 10

State 0 is by far the most widespread condition, the polarity is therefore taken to be

$$0 \longrightarrow 1$$

Visceral anatomy (characters 11 - 20)

Thompson (1913 & 1914) appears to have been the first to suggest recording organ positions in snakes in terms of the gastrostege (ventral scale) level at which the various structures occur. Thompson recommended transforming records into percentages of the total ventral count to facilitate anatomical comparisons between taxa. Bragdon (1953) confirmed that, within reasonable limits, the visceral organs of snakes have a constant relationship to the ventral suites.

Unfortunately, published data on organ positions in snakes (measured as percentages of the ventral count) are still very incomplete. Thompson (1913 & 1914) gave an account of the positions of some organs in 21 taxa. Thorpe (1973) used organ positions in studying population variation in the grass snake Natrix natrix. Rasmussen (1979) presented data on the visceral anatomy of 6 genera of boigine snakes.

Bergman (numerous references 1949-1965) published a series of papers on organ positions in a variety of snakes. However, his methods differed from those mentioned above in that he did not use ventral suites as a measuring device, instead organ positions and sizes were recorded directly (in mm.) Nevertheless percentages derived from Bergman's data seem comparable with percentages derived from the work of other authors; the percentage differences seem no greater than the usual degree of intra-specific variation which occurs in these characters. Thompson (1913 p.416), for example, gives the heart posterior tip position of a specimen of Xenopeltis unicolor as being at 29.4% of the ventral count while Bergman (1955d p.218) gives 27.7% and 27.9% of the body length in two individuals.

Percentage values for four visceral anatomy characters (11, 12, 17, and 19) are given in Appendix 1.

(11) Heart position

The heart position is calculated as the position of the posterior tip of the ventricle expressed as a percentage of the total number of ventral scales.

Boulenger (1913 p.77) stated that in snakes "the heart in most cases is situated between the anterior seventh and the anterior fourth of the body; it may be much farther back, beyond the anterior third in Doliophis (=Maticora), Platurus (=Laticauda) and some Viperidae and Amblycephalidae, in the middle in Chersydrus (=Acrochordus)". Beddard (1904a) demonstrated that the heart of Laticauda colubrina is situated relatively further posteriorly than the heart of Pelamis platurus. However, more recent research has shown that both Laticauda colubrina and Pelamis platurus are atypical in this feature in comparison with their closest relatives. In the present study L.colubrina was found to have its heart positioned at 34.17-38.22% of the ventral count; the position in other Laticauda species is from 22.66% to 28.32%. Pelamis platurus has a much more anterior position of the heart in comparison with other members of the "Hydrophis" group of sea snakes (McDowell 1972 p.238).

Three states are recognized for character 11:-

State 0:- Relatively anterior heart position (19-28% of the ventral count).

State 1:- Intermediate heart position (29-32% of the ventral count).

State 2:- Relatively posterior heart position (33% or greater).

Polarity of states of character 11

State 0 appears to be the most widespread condition and is regarded as primitive; states 1 and 2 appear to lie in sequentially more derived positions:-

$$0 \longrightarrow 1 \longrightarrow 2$$

In the Elapidae the relatively most derived state (2) has been recorded in *Laticauda colubrina*, the majority of the hydrophiine sea snakes and the Asiatic elapine *Maticora*. In the latter genus the heart seems to be posteriorly displaced to accommodate the greatly enlarged venom glands which occur in this genus (see p. 101). It is conceivable that the posterior shift of the heart in *Laticauda colubrina* and hydrophiine sea snakes may in part be due to the extensive development of the "tracheal lung" (see p. 85) which occurs in these taxa and may "crowd" the heart to a more caudal position. In the caenophidian out-group state 2 has been recorded in *Acrochordus*, some homalopsines and *Crotalus* (see Appendix 1).

(12) Distance between heart and liver

Narrowing or closure of the gap between the heart and the liver in snakes is, it seems, frequently correlated with the development of a "tracheal lung" (see p. 85).

In the present study heart-liver distance is measured in terms of percentage ventral scale units; the figures quoted in the state definitions (below) are the differences between the posterior tip of the heart and the anterior tip of the liver expressed as percentages of the total ventral count.

Three states of character 12 are recognized:-

State 0:- Wide heart-liver distance (>6%)

State 1:- Intermediate heart-liver distance (4-5%)

State 2:- Very narrow to overlapping heart-liver distance (<4%)

Polarity of the states of character 12

States 0 and 1 are the most widespread conditions and are collectively regarded as more primitive than state 2. State 1 appears intermediate between states 0 and 2 and is arbitrarily considered intermediate in the transformation series, although it seems at least as widespread as state 0:-

$$0 \longrightarrow 1 \longrightarrow 2$$

Among the elapids, tracheal lungs are best developed in sea snakes (p. 85) and, as might be expected, the heart-liver distance in this group tends also to be narrowed although the correlation is not absolute. In the genus Laticauda, for example, the narrowest heart-liver distance (0.42-3.61%) is found in L.colubrina, a species with a well-developed tracheal lung; while forms without a tracheal lung (L.laticaudata and L.crockeri) have a rather greater heart-liver gap (4.41-7.11%). However, a wide gap between heart and liver is also found in L.semifasciata and L.schistorhynchus, forms with a tracheal lung. McDowell (1972 p.197-198) stated that, among Hydrophiine sea snakes, "the heart and the liver are separated by more than the length of the heart and usually by more than the length of the head".in Hydrelaps, *Aipysurus*, *Ephalophis* and *Emydocephalus* but, in the remaining hydrophiines, "the heart is separated from the liver by less than half the length of the heart, heart and liver often overlapping".

The wider distribution of the states of character 12 is indicated in Appendix 1 .

Aipysurus, *Ephalophis* and *Emydocephalus* but, in the remaining hydrophiines, "the heart is separated from the liver by less than half the length of the heart, heart and liver often overlapping".

The wider distribution of the states of character 12 is indicated in Appendix 1 .

(13) Level of junction of left and right systemic arches

In most snakes right and left systemic arches join to form the dorsal aorta at some distance posterior to the heart. In contrast, right and left systemic arches unite at about the level of the tip of the ventricle in lizards (Underwood 1967 p.33) and in the Typhlopidae and Leptotyphlopidae the systemics join anterior to the tip of the ventricle (Brongersma 1958 p.126).

Underwood 1967 p.33) notes that "in general the arches are short in the lower snakes, with the Acrochordidae a notable exception, and are longer in the higher snakes with scattered exceptions such as *Pseudoxyrhopus* and *Dasypeltis*".

In the present study the level of junction of left and right systemics is calculated as:-

$$\frac{\text{level of junction of systemics} - \text{posterior tip of heart} \times 100}{\text{total ventral count}}$$

Two states of character 13 are recognized:-

State 0:- heart-systemic arch junction gap less than 2% of ventral count

State 1:- heart-systemic arch junction gap greater than 2% of ventral count

Polarity of states of character 13

The division of character 13 into two states is rather arbitrary but probably reflects the boundary between what might be considered a "long" systemic arch (state 1) as opposed to a "short" systemic arch (state 0). As mentioned above, short systemic arches occur in lizards and lower snakes; they are therefore regarded as primitive:-

$$0 \longrightarrow 1$$

In the present study the relatively derived state was detected in the following elapids (from "selected sample" p. 218):- *Laticauda crockeri*, *L.semifasciata*, *L.schistorhynchus*, *Parapistocalamus*, *Maticora*, *Ephalophis* and *Aipysurus*.

Lung morphology (characters 14-16)

The lungs of higher snakes (Caenophidia) appear to have undergone extensive modifications in comparison with the lungs of most other tetrapods.

Derived states in snakes represent departures from the following "Primitive snake conditions" (Groombridge 1980 p.112).

a) Primitively in snakes the left lung remains quite large; it may be up to 85% the length of the right lung. However, many snakes show marked reduction of the left lung (it is often vestigial or totally lost).

b) The pulmonary artery trunk primitively bifurcates into left and right pulmonary arteries but, in snakes which have only the right lung well developed, only the right pulmonary artery has any significant presence (Brongersma 1949).

c) A forward pocket of the lung primitively occurs due to subterminal entrance of the trachea (or bronchus, if present) into the lung.

d) The "tracheal lung" is absent as a primitive condition. This feature will be discussed in more detail later (p.85).

e) Primitively the boundary between trachea and lung is clearly defined and level with the heart ventricle, however, in some taxa (e.g. Causus; Groombridge 1980 p.114) the tracheal cartilages extend far posteriorly down the right lung.

The basis for considering some of the above conditions primitive is that these features resemble the states found in typical lizards and other reptiles. A weaker criterion is that the "primitive lung conditions" in snakes also frequently appear to correlate with the primitive states of other characters. Many Henophidia, for instance, retain a primitive lung morphology as well as other primitive features (e.g. coronoid in the lower jaw, pelvis with hind limb vestiges, some have premaxillary teeth). Three lung characters have been used in the present study. Two (characters 14 and 15) concern features briefly mentioned above, i.e. loss of all vestige of a left lung and development of a tracheal lung. The third pulmonary character (16) involves the "air sac", a non-vascular posterior extension of the lung, which is of flimsy construction in most snakes but which is apparently muscularized and lengthened in sea snakes.

(14) Vestigial left lung

Snakes and some snake-like lizards show variable reduction of the left lung (Butler 1895). The only other tetrapods to show analogous lung reduction are the Gymnophiona (worm-like amphibians) and amphisbaenians (worm "lizards"). However, in amphisbaenians it is the right lung rather than the left that is reduced. In many caenophidians the left lung remains as a vestige (only 1-2% the length of the right; Underwood 1967 p.35) but sometimes there is not even an indication of the structure.

Two states of character 14 are recognized:-

State 0:- Vestigial left lung present

State 1:- No trace of a left lung

Polarity of states of character 14

Loss of all vestige of the right lung, a structure that is widespread throughout the Tetrapoda, is clearly derived.

0 ⟶ 1

There is however much evidence to suggest that the transition from state 0 to state 1 must have occurred separately in many lineages. Kardong (1972 p.371), for example, records that within the pit viper genera *Agkistrodon*, *Bothrops* and *Crotalus* some species possess a vestigial left lung but others do not. Even within a single species e.g. an African colubrine *Boaedon fuliginosus* (Thorpe & McCarthy 1978 p.502) and *Laticauda colubrina* (present study); some individuals have a tiny left lung but other specimens lack it.

Brongersma (1957a p.302) recorded the absence of a left lung in six elapine species and additional instances were noted in the present study; the following elapines therefore appear to lack left lung vestiges:- The African *Boulengerina annulata*, *Aspidelaps lubricus*; the Asiatic *Bungarus ceylonicus*, *Calliophis bibroni*, *C.maculiceps*, *C.japonicus*, *C.nigrescens*, *Maticora bivirgata*; the Australasian *Aspidomorphus schlegelii*, *Demansia psammophis*, *Loveridgelaps elapoides*, *Ogmodon vitianus* and all American proteroglyphs examined except for *Micrurus ancoralis* and *M.decoratus*.

Sea snakes generally lack all vestige of a left lung although there are exceptions. In the genus *Laticauda* *L.laticaudata* and *L.crockeri* have well-marked vestigial left lungs, *L.colubrina* has the structure variably absent and in *L.semifasciata* and *L.schistorhynchus* no trace of a left lung is evident. The hydrophiine sea snakes, except for *Ephalophis greyi* and possibly *Parahydrophis mertoni*, lack left lung vestiges (McDowell 1974 p.127).

(15) Tracheal lung

The wall of the trachea is supported by rings of cartilage. In snakes the rings are generally incomplete dorsally; the open edges being bridged by connective tissue membrane (Kardong 1972). The membranous structure is frequently expanded and sometimes is extensively vascularized being served by one or two anteriorly-running branches of the right pulmonary artery; in such circumstances a "tracheal lung" is said to be present.

The tracheal lung generally blends with the "true" lung into a continuous structure and its presence is frequently associated with the narrowing or complete closure of the gap between heart and liver (character 12 p. 78).

Two states of character 15 are recognized in the present study:-

State 0:- Tracheal lung absent

State 1:- Tracheal lung present

Polarity of states of character 15

State 1 is a unique snake condition and must be regarded as derived for the group

0 ⟶ 1

Tracheal lungs however seem to have developed independently in many different lineages. Kardong (1972 p.370-371) has conveniently tabulated earlier records of the distribution of tracheal lungs in Boidae, Colubridae and Viperidae and also added some of his own records. Groombridge (1980 p.119) observed that whilst tracheal lung presence is sometimes cited in diagnoses of Viperidae it seems to be primitively absent in Azemiops, Cerastes and probably Bitis.

Most sea snakes have rather a well-developed tracheal lung. However in genus Laticauda, L.laticaudata and L.crockeri lack it but it is present in L.colubrina, L.semifasciata and L.schistorhynchus (McDowell 1969 p.501 and personal observation). Hydrelaps is exceptional among the hydrophiines in only having a poorly-marked tracheal lung (McDowell 1972 p.205).

Tracheal lungs are absent in the vast majority of elapines; Cope (1894 p.222) recorded their absence in all the elapines that he examined. In the present study a few elapines were however found to have rather weakly indicated tracheal vascularization:- some *Bungarus*, some *Calliophis*, *Micrurus fulvius* and *Unechis gouldii*. McDowell (1972 p.207) records a tracheal lung in an Australian elapine *Rhinoplocephalus*.

The hamadryad (*Ophiophagus*) is noteworthy in the present context for although it lacks a true tracheal lung (like most other elapines) it does have peculiar non-vascular air sacs in the roof of the trachea (Beddard 1903). Brongersma (1957a p.303) notes that these tracheal perforations are unique within the Elapidae but are also found in six genera of colubrids.

(16) Air sac

In most snakes the lung occupies between 50-75% of the visceral cavity length (Brattstrom 1959 p.103). The anterior portion is thick-walled and higher vascular but the posterior half to two-thirds is generally thin-walled, poorly vascularized and is referred to as either an "air sac" or "saccular lung".

Sea snakes differ from other snakes in having a more muscular saccular lung that often extends as far as the cloaca (Beddard 1904a). Three states of character 16 are recognized:-

State 0:- Air sac flimsy (not extending as far as the cloaca)

State 1:- Air sac muscular (not reaching cloaca)

State 2:- Air sac muscular (extending to, or at least within 5% of the ventral count from, the cloaca).

Polarity of states of character 16

State 0 is regarded as primitive, corresponding to the condition found in "most other snakes" (McDowell 1969b p.337; Heatwole & Seymour 1975 p.296); state 1 appears to be intermediate in form between states 0 and 2

$$0 \longrightarrow 1 \longrightarrow 2$$

All elapines examined in the present study resemble most other snakes in having state 0. The sea snakes have states 1 and 2. The extent of the air sac in Laticauda was estimated by recording the level which the air sac reaches and expressing this as a percentage of the total ventral count. In L.laticaudata, L.crockeri and L.colubrina the range was found to be from 78% to 95% (seven specimens) but in L.semifasciata and L. schistorhynchus it was from 58% to 63 % (three specimens). Most "true" sea snakes have more extensive air sacs (state 2) however in a specimen of Ephalophis examined in the present study the air sac only reached the 83% level. The roles classically assigned to the air sac in sea snakes are those of hydrostatic organ and air reservoir (McDonald 1959 pp.197-198).

Very recent work (Heatwole 1981) shows that, perhaps surprisingly, this structure, at least in <u>Laticauda colubrina</u>, plays only a minimal role in buoyancy control. Its primary function seems to be for air storage; ligation of the saccular lung increases ventilation frequency whereas re-opening it restores the diving time to its original level.

(17) Liver size

The size of the liver is here estimated by noting the span of ventrals between the anterior and posterior tips of the organ and expressing this as a percentage of the total number of ventrals. Three rather arbitrarily defined states of character 17 are recognized:-

State 0:- Small liver (<23%)

State 1:- Medium liver (23-39%)

State 2:- Large liver (>40%)

Polarity of states of character 17

State 1 was originally assumed to be primitive on the relatively weak criterion of its comparative commoness in the Elapinae. State 1 also occurs in *Laticauda* but most hydrophiines (except *Thalassophis anomalus*) that have been examined for this character appear to have rather small livers (state 0) and were assumed to be derived in this regard. Large livers (state 2) seemed most parsimoniously to have been separately derived from state 1

$$0 \longleftarrow 1 \longrightarrow 2$$

However, subsequent reference to published records of conditions in the caenophidian outgroup (Appendix 1) shows that state 0 might be the most widespread state. Therefore the most parsimonious transformation sequence may be:-

$$0 \longrightarrow 1 \longrightarrow 2$$

This character is not regarded as being of primary cladistic significance largely because of doubts regarding polarity and arbitrary nature of the definition of the states.

(18) Vena cava : position on liver

In snakes the liver is commonly divided longitudinally into two lobes by the posterior vena cava (post caval vein). As noted by Beddard (1909 p.929) there is frequently inequality between the lobes of the liver. Often the left lobe extends further anteriorly than the right whereas the right lobe tends to extend further posteriorly than the left. There is some variation however e.g. Beddard (1903 pp.319-320) notes that in Ophiophagus the condition is as described previously but in "Naia tripudians" (=Naja naja) the left is longer commencing before the right lobe and ending posterior to it.

In the present study a most unusual condition was noted in Laticauda laticaudata & L.crockeri. In these species the posterior vena cava passes along the right lateral surface of the liver and therefore the liver is not bilobed; I am unaware that this condition has been recorded in any other caenophidians.

Two states are recognized for character 18

State 0:- Vena cava occupies a central position on the ventral surface of the liver, at least for a short distance.

State 1:- Vena cava runs laterally along the liver

Polarity of states of character 18

State 0 appears to be the common condition in the Henophidia and Caenophidia e.g. Boa (Beddard 1909 p.926), Corallus (Beddard 1906 p.517), Natrix (O'Donoghue 1912, Lécuru-Renous & Platel 1970), Leptodeira and Hypsiglena (anterior part of livers illustrated by Underwood 1967 p.37), Vipera (Lecuru-Renous & Platel 1970). In view of its widespread and common occurrence in snakes state 0 is regarded as primitive:-

$$0 \longrightarrow 1$$

State 1 has only been recorded in two species of Laticauda (as mentioned above) although in one specimen of a third species (L.colubrina B.M.

1933.3.43) was found to approach the condition. In this specimen the left lobe of the liver is 62.5 ventrals in length whereas the right is only 7 ventrals long, a conceivable stage perhaps before complete loss of the right lobe.

Interestingly, Brongersma (1951) reports a condition similar to state 1 described above in the henophidian genera Tropidophis and Trachyboa.

(19) Kidneys: furthest posterior extent

The kidneys of snakes are relatively long and staggered in arrangement, the right is more anteriorly placed than the left. The furthest extent is estimated by noting the number of ventral scales to the posteriormost tip of the left kidney and calculating this as a percentage of the total ventral count.

Two states are recognized for character 19

State 0:- Furthest posterior extent of kidney > 90% of ventral count level

State 1:- Furthest posterior extent of kidney < 90% of ventral count level

Polarity of states of character 19

The majority of snakes so far recorded for this character have state 0 (see Appendix 1); this state is therefore tentatively regarded as primitive

0 ⟶ 1

Laticauda species have the posteriormost extremity of the kidney anterior to the 90% ventral count level (state 1 of character 19). This character has not been extensively studied in the out-group; the supposedly derived state 1 however has a fairly scattered distribution:- *Acrochordus* (Acrochordidae), *Cyclocorus lineatus* (Colubrinae), *Lapemis hardwickii* (Hydrophiinae).

(20) Renal arteries

There is considerable variation in the arterial supply to the kidneys in snakes. Underwood (1967 p.34) notes that single renal arteries occur in Typhlopidae, Leptotyphlopidae, Anilius, Melanophidium and most of the Boidae. Generally higher counts occur in the Caenophidia although some Henophidia also have higher numbers e.g. Cylindrophis 4 left/5 right, Eryx 2/2, Xenopeltis 1/2 and a few caenophidians have exceptionally low numbers e.g. Lycognathophis 1/1, Leptodeira, Siphlophis, Tripanurgos usually 1/2 occasionally 2/2. Caenophidians with higher counts include Ophiophagus 4/7, Naja 6/2, Homalopsis 6/2, Ptyas 8/8, Causus 8/12.

De Silva (1953 p.55) reported variation in Sri Lankan Naja naja; one specimen with 3/2 and another with 1/1.

Two states of character 20 are recognized:-

State 0:- Renal arteries 1/1

State 1:- Renal arteries 1/2 (or greater in number)

Polarity of states of character 20

Beddard (1904b p.370) stated "I am of the opinion that the single renal on either side - the absence, in fact, of reduplication so common in the Ophidia - is a decidedly primitive character". Underwood (1967 p.34) also noted that "as a general rule primitive snakes have a low number of renal arteries higher snakes have a greater number". The polarity of the states may therefore be:-

0 ⟶ 1

Among the elapids examined in the present study most had state 1 although Laticauda, Micrurus lemniscatus, Ephalophis greyi and Bungarus flaviceps were found to have state 0.

In view of the rather diffuse distributions of the above states, evident asymmetry and variation in some taxa (noted above) it seems likely that this character may not be a source of particularly robust cladistic information although, as Underwood (1967 p.34) notes, "this character may be useful in making comparisons of species and genera".

Hemipenis (Characters 21-24)

In lizards and snakes external genitalia generally comprise hollow paired eversible hemipenes (these structures are solid and protrusible in the scolecophidian Rhamphotyphlops; Parker & Grandison 1977 p.62).

The hemipenis varies in such features as gross shape, ornamentation and course of the sulcus spermaticus. Dowling & Savage (1960) have reviewed the major aspects of the morphology of the organ in snakes.

Hemipenial characters have frequently been used in taxonomic studies. There are, however, difficulties in applying these characters in phyletic (cladistic) analysis; polarities are difficult to establish and divergent groups of snakes may have hemipenes of similar appearance, equally, closely related species may have markedly different hemipenial morphology. Groombridge (1980 p. 98) found hemipenial characters to be "most useful at the genus or species-group level".

Hemipenes are best examined in the everted condition so as to be able to assess, with greater confidence, overall shape and apical detail of the organs. In the present study, everted hemipenes of all relevant taxa have not been available and frequently recourse has had to be made to studying the organs in their retracted state. Dr. W.Branch (Port Elizabeth Museum, South Africa) kindly made his collection of everted hemipenes from the following African and Asiatic elapine taxa available for study:- Aspidelaps lubricus, Aspidelaps scutatus, Dendroaspis angusticeps, D. polylepis, Elapsoidea semiannule, E.sundevalli, Hemachatus haemachatus, Homoroselaps lacteus, Naja haje, N.mossambica, N.nigricollis, N.nivea; Bungarus fasciatus, B.multicinctus, Naja naja, N.n.atra, Ophiophagus hannah.

Everted hemipenes of Laticauda colubrina and Laticauda semifasciata were received from Dr.H.K.Voris (Chicago) and Dr.Auffenberg (Florida).

(21)&(22) Hemipenis ornamentation

McDowell (1967 p.533) characterized a "generally typical" colubroid hemipenis as having a distal zone of calyces and a proximal or middle region of enlarged spines. Calyces are a net-like system of ridges which often bear small spines on the raised areas. Dowling & Savage (1960 p.25) note that "relatively few forms" only have a single kind of hemipenial ornamentation; most appear to show some differentiation.

Three Laticauda species have the typical colubroid pattern of spines and calyces (L.laticaudata, L.crockeri and L.colubrina) whereas L.semifasciata and L.schistorhynchus have a single (undifferentiated) ornament of spinulate calyces. Other elapids which have undifferentiated organs include many Australasian, American and a few Asiatic elapines and the vast majority of hydrophiine sea snakes; the single ornament in these groups comprises spines.

For present purposes the following characters and states are recognized

Character 21

State 0:- Calyces present (distal)

State 1:- Calyces present (distal and proximal)

State 2:- Calyces absent

Character 22

State 0:- Spines proximal

State 1:- Spines proximal and distal

State 2:- Spines absent

The present sample (p.220) all have state 1 of character 22 in the sense that the borders of the distal calyces (when present) bear spines. The major variants in hemipenial ornamentation in the sample therefore may be described totally in terms of the states of character 21.

The polarity of the states of character 21

Distal calyces seem to be generally characteristic of colubroid hemipenes; state 0 is therefore regarded as primitive. States 1 and 2 seem to represent alternative derived conditions

1 ⟵ 0 ⟶ 2

As mentioned previously state 1 occurs in Laticauda semifasciata and L.schistorhynchus. The commonest derived condition in the Elapidae is state 2 (absence of calyces), occurring in three groups:-

(a) Australasian elapines:- Elapognathus minor and Parapistocalamus hedigeri seem exceptional among the Australasian geographic group of elapines in having hemipenial calyces; the remainder have virtually entirely spinose organs although vestiges of calyces are evident in some (McDowell 1967 & 1969a).

(b) Hydrophiine sea snakes generally have totally spinose organs; the only "true" sea snake to show clear distinction between the homologues of spinose and calyculate zones is Hydrelaps (McDowell 1972 p.206). Hydrophiines (with the exception of Aipysurus, Emydocephalus and Hydrelaps) share the peculiarity of having a finger-like fold, the free edge of which is directed proximally, situated near the base of the hemipenis.

(c) The American elapines have totally spinose hemipenes as do some species of Asiatic Calliophis (C.macclellandii, C.melanurus, C. nigrescens, C.japonicus). Other species of Calliophis show a remarkable variety of hemipenial ornamentation including the standard colubroid pattern of proximal spines and distal calyces (in C.calligaster, C.gracilis), pinnately flounced (in C.bibroni), naked with longitudinal folds (C.maculiceps).

(23) Sulcus spermaticus

The sulcus spermaticus is a narrow channel which carries sperm to the tip of the hemipenis. In elapids with markedly forked organs (see character 24 p. 99) the sulcus always divides and runs distally onto the lobes; this contrasts with the condition in the Colubrinae where the sulcus is undivided even on bifurcate organs (see, for example, Underwood 1979 p.21). In elapids with simple or feebly bilobate organs the sulcus is also generally divided although frequently only at the tip of the organ. In very few elapids (some *Calliophis* and individuals of *Laticauda crockeri*) the sulcus is simple.

McDowell (1961 p.504) suggested the terms "centripetal" and "centrifugal" to describe the orientation of forked sulci. Centripetal sulci run centrally up the hemipenis and if the organ is bifurcate the branches lie on the inner faces of the lobes. Centrifugal sulci diverge to lie on the outer faces of the hemipenial lobes. McDowell (1968 p.576) considers that (like the Natricinae) the Elapidae have centripetal sulci. However Underwood (1979 pp.20-21) believes that the sulci in Elapidae are best described as centrifugal. This disagreement about sulcus type in the Elapidae seems to reflect, at least in part, a certain inadequacy in terminology for there is a condition intermediate between the extremes of centripetal and centrifugal which had not been recognized as a distinct type until recently. Myers and Campbell (1981 p.16) coin the term "centrolineal" for the intermediate condition in which the branches of the sulcus diverge moderately and lie on the same side of the hemipenis as the forking point of the sulcus. To be sure of the sulcus orientation it is best to examine everted organs. As mentioned on p.94, relatively few everted hemipenes have been examined in the present study, nevertheless it seems that the sulci of most elapids are either centripetal or centrolineal. Among the centripetal type two forms exist:- ortho-centripetal and revolute-centripetal. In the ortho-centripetal type the sulci terminate on the inner faces of the lobes (e.g. Hemachatus, Ophiophagus) whereas in the revolute-centripetal type the sulci follow a centripetal course but diverge distally and twist to the outer faces of the lobes on the asulcate side of the organ (e.g. Naja haje, Naja nivea). Centrolineal types include Elapsoidea, Bungarus (present study), Enhydrina schistosa (illustrated by Underwood 1979 p.21 fig.4II). It would certainly be worthwhile investigating this feature in further everted hemipenes but already it is rather obvious that the sulci conditions in the Elapidae are rather more diverse than has been generally recognized.

The study of mainly retracted organs has forced a rather coarse level of discrimination on the states of character 23:-

State 0:- Sulcus significantly bifurcate

State 1:- Sulcus bifurcate near the tip

State 2:- Sulcus simple

Polarity of states of character 23

Underwood (1967 pp.45-46) noted that scolecophidians Typhlops and Leptotyphlops and the henophidians Uropeltidae and Cylindrophis have simple sulci whereas nearly all other Henophidia have bifurcate sulci. Underwood suggests also that, at least in the Dipsadidae, a simple sulcus may have been derived from a bifurcate one "by curtailment of the arms of the Y". If this is also true of the Elapidae; the transformation series of the states of character 23 may be:-

$$0 \longrightarrow 1 \longrightarrow 2$$

Most Laticauda species have state 1 except for L.colubrina which have state 0 and some individuals of L.crockeri which have state 2.

(24) Bifurcation of the hemipenis

The hemipenis may be simple ("single") or it may show various degrees of bilobation. As with most hemipenial features, shape is best ascertained by studying everted organs; the difference between single and slightly bilobed hemipenes is often too subtle to perceive in retracted organs. However, distinctly bifurcate hemipenes can be recognized, with little difficulty, in the retracted state.

Two states are recognized for character 24

State 0:- Hemipenis distinctly bifurcate

State 1:- Hemipenis slightly bilobed or single

Polarity of states of character 24

Bifurcate and single organs show rather diffuse patterns of distribution in the Elapidae and polarities seem difficult to establish. Among Caenophidia in general the most usual hypothesis is for bifurcate hemipenes to be judged primitive relative to single hemipenes, e.g. Myers (1974) in his study of some New World colubrines speculates that the "unicapitate" hemipenis of *Rhadinaea* and *Coniophanes* was derived from a deeply bilobed "bicapitate" or "semicapitate" organ. Myers & Campbell (1981 p.10) further estimate *Rhadiophanes* to be primitive to *Rhadinaea* and *Coniophanes* on the basis of the deep bilobation of its hemipenis. Underwood (1979 p.20) also states that bifurcate organs may have become simple through loss of lobes:-

$$0 \longrightarrow 1$$

In *Laticauda* the hemipenis is generally simple except for *L.colubrina* which has a slightly bilobed organ. The hydrophiine sea snakes mainly have simple or feebly bilobate hemipenes except for *Hydrophis elegans* *H.stricticollis* and *Enhydrina schistosa* which have clearly bifurcate organs (McDowell 1972). The Australasian elapines have a variety of hemipenial forms varying from simple to decidedly bifurcate although in most cases the hemipenis is only feebly bilobate (McDowell 1967, 1969a, 1970). The American elapines all have strongly forked hemipenes according to McDowell (1969a p.299) but Savitsky (1979 p.220) notes that at least Micrurus frontalis and M.lemniscatus possess only slightly bilobed hemipenes. The Asiatic elapines, in particular the genus Calliophis, show a variety of forms from simple to markedly forked. McDowell (1969a pp.499-500) stated that in the "North Asiatic" section of Calliophis (C.macclellandii, C.japonicus, C.kelloggi) the hemipenis is strongly forked but in the "South Asiatic" section of the genus and Maticora the organ is unforked. Bungarus have slightly bilobed organs, Naja tends to have rather stronger bifurcation and Ophiophagus has an extraordinarily deeply forked organ. The African elapines examined in the present study generally had markedly bifurcate organs (exceptions include Dendroaspis, Elapsoidea and Homoroselaps which are less so).

(25) Venom gland shape (Fig.64)

The venom gland of most elapids is normally rather ovoid in shape and confined to the temporal region of the head. Two departures from this general condition have, however, been recorded:-

a) A few elapids (the Asiatic Maticora; Toxicocalamus buergersi from New Guinea) resemble "mole vipers" (Atractaspis) and some true vipers (Causus) in having very elongate venom glands. However in the elapid examples the venom glands are even longer; often they extend posteriorly nearly to the heart. In the elapids also the elongate venom glands lie within the body cavity deep to the ribs; the glands of Causus and Atractaspis lie external to the ribs (Groombridge 1980 p.126; Haas 1973; Kochva 1962; McDowell 1969a).

b) Some elapids have a distinct down-turning of the posterior corner of the venom gland. This feature has been cited as a distinguishing character of the "Laticauda group" of elapids (McDowell 1967, 1969a) but in fact it is neither universal within the "group" nor totally confined to it. Taxa within the "Laticauda group" that have a down-turned venom gland are:-Laticauda, Parapistocalamus from Solomons and most of the New World elapines. Calliophis and a few of the New World elapines such as Micruroides euryxanthus and Micrurus fulvius have normal venom glands (Savitsky 1979 and present study). Outside the "group" down-turned venom glands have been found in one species of Asiatic Bungarus (B.fasciatus, Rosenberg 1967 and present study), Toxicocalamus preussi and T.stanleyanus from New Guinea (McDowell 1969a), the African Naja nivea and Hemachatus haemachatus (present study).

Three states are recognized for character 25:-

State 0:- "Normal" shaped venom gland

State 1:- Venom gland extends posteriorly into the body cavity

State 2:- Venom gland with down-turned posterior corner

Polarity of states of character 25

State 0 is a much commoner condition than either 1 or 2 and is therefore regarded as primitive. State 1 appears to have derived from state 0 by elongation and state 2 by down-turning.

1 ←—— 0 ——→ 2

The cranial musculature (characters 26 - 40)

The jaw musculature of reptiles has been conveniently reviewed by Haas (1973), it is largely his terminology that is followed here. The problem of homology between lizard and snake head muscles has recently been re-considered by Rieppel (1980). Although Rieppel also follows Haas' terminology; he notes (p.429), "this nomenclature does not imply homologies" between muscles bearing the same name in lizards and snakes.

The elapid sample personally examined for myological characters is given in App.2. Information about the distribution of states in the Caenophidian 'out-group' is mainly derived from the following references:-

Albright & Nelson (1959); Cowan & Hick (1951); Cundall (1974); Dullemeijer (1956,1958); Haas (1973); Kardong (1980); Kochva (1962); Langebartel (1968); Radovanovic (1935); Rasmussen (1979); Varkey (1973).

"Superficialis" muscle characters (characters 26 - 28)

In snakes, the M. adductor mandibulae externus superficialis (MAMES) generally originates from the area of the postorbital bone and the anterior part of the parietal (e.g. Haas 1973 p.441; Cundall 1974 p.103). The usual function of this muscle is to act as one of the adductors of the mandible. However, in most proteroglyphs it is modified to act as the 'compressor' muscle of the venom gland (e.g. see Rosenberg 1967).

Haas (e.g.1973) believed that two basic types of jaw musculature occur in snakes (with the exception of the Scolecophidia):- the "levator anguli oris" type and the "three externi" type. As Rieppel (1980 p.448) notes, "three portions of the external adductor are characteristic of all snakes except typhlopids"; the distinguishing feature of the "levator anguli oris" type is that an anterior slip of the "superficialis" muscle inserts into the "rictal plate" at the posterior corner of the mouth. Elapids are said to lack a levator anguli oris (e.g. Underwood 1967 p.28; Liem et al 1971 p.105-6; Haas 1973 p441) but homologies of this muscle in various groups are in doubt and in the present study it has been noted that some elapids do have a muscle slip inserting on the rictal plate but, as judged from its relatively deep position, this may represent an anterior portion of the "medialis" rather than an anterior portion of the "superficialis" (see p. 112).

Innervation of the superficialis musculature is via a group of nerves issuing from the anterior face of the Ramus mandibularis (V3) of the trigeminal nerve (Kochva 1962 p.269).

(26) "Superficialis" muscle origin (Fig.64)

McDowell (1967 p.536ff.) described four types of origin of the "superficialis" muscle in elapids:-

a) "Glyphodon type". Narrow origin from post orbital and adjacent parietal bone; "probably the most primitive type".

b) "Oxyuranus type". Parietal origin is very broad reaching the transverse nuchal crest of the supraoccipital; "superficialis" however does not attach onto the quadrate bone.

c) "Pseudechis type". Very broad origin, follows a more ventral course than in the Oxyuranus type and the rear part arises from the quadrate.

d) "Demansia type". Origin from two discrete areas:- an anterior portion arising from the post orbital and adjacent parietal; an isolated posterior portion arising from the quadrate.

Four states of character 26 are thus recognized in the present study, (following McDowell's scheme):-

State 0:- Narrow origin of superficialis muscle

State 1:- Broad origin (but not from quadrate)

State 2:- Broad origin (and attaching onto quadrate)

State 3:- Quadrate head of superficialis isolated from the other portion

Most "superficialis" origin types encountered in proteroglyphs can be confidently assigned to one of the above states. There are however two exceptions:- (i) Those elapids with part-origin of the superficialis from an aponeurosis. The approach to these cases is to describe the breadth of fibrous origin by producing an imaginary line from the posteriormost muscle fibres dorsally onto the cranium. The extent of aponeurotic origin of the muscle is described as a separate feature (character 28 p. 109). (ii) The origin of the superficialis in Maticora where no direct cranial attachment of the muscle occurs. There is some disagreement about the extent of origin of the superficialis in this genus. Haas (1973 pp.454-455) described it as originating "dorsally as thin bundles from the posterior margin of the enlarged Harderian gland and from the fascia covering the M.adductor mandibulae externus medialis". Whereas Savitsky (1979 pp.172-176) considers that the superficialis of Maticora is entirely incorporated into a "tendinous strap" which is very strongly bound to the Harderian gland. In the present study it has been decided to record the condition in Maticora as "not applicable"; reflecting the uncertainty of the relationship of the state in this genus to the states in other proteroglyphs.

Polarity of the states of character 26

State 0 is regarded as primitive on the basis of its widespread out-group and in-group occurrence; McDowell (1967) also takes this to be the primitive condition. States 1, 2 and 3 appear sequentially derived from state 0 (in agreement with the relationship of states proposed by McDowell (1967):-

$$0 \longrightarrow 1 \longrightarrow 2 \longrightarrow 3$$

Two of the above states occur in Laticauda. state 2 is found in L.laticauda, L.crockeri and L.colubrina; State 3 in L.semifasciata and L.schistorhynchus. Among the other Elapidae state 2 occurs in the "Pseudechis group" of Australasian elapines (Austrelaps, Micropechis, Pseudechis, Suta, Unechis) a South American elapine (Micrurus surinamensis) and a hydrophiine sea snake (Astrotia stokesii). State 3 is found additionally in the "Demansia group" of Australasian elapines (Aspidomorphus, Demansia, Hemiaspris, Rhinoplocephalus) and some hydrophiine sea snakes (Ephalophis, Parahydrophis, McDowell 1972 and personal observation and Hydrophis ornatus personal observation).

(27) "Superficialis" muscle, interruption by venom gland

In most elapids the superficialis musculature comprises two main portions, the M.add.mand.ext.superficialis (pars dorsalis) and M.add. mand.ext.superficialis (pars ventralis). These parts generally have independant insertions onto the venom gland; the pars dorsalis inserts on the dorsal, posterior and dorsomedial surfaces of the sheath whereas the pars ventralis inserts on the medial surface. Two main types of deviation from this general elapid pattern of "superficialis" interruption are known:-

a) One type has only been recorded in one Australian elapine:- Acanthophis antarcticus (Haas 1930, Radovanovic 1935), and some hydrophiine sea snakes:- Lapemis hardwickii (Lakjer 1926; Haas 1973; Halstead, Engen & Tu 1978) and Pelamis platurus (Radvanovic 1935; Haas 1930, 1973). In this type, a superficial layer of the "superficialis" muscle inserts on the dorsal surface of the venom gland but a deeper layer forms an uninterrupted loop, mesial to the venom gland, arising mainly from the postorbital bone and inserting onto the compound bone of the lower jaw.

b) In the second type, no (or very few) fibres of the "superficialis" insert on the venom gland; indeed all or most of the fibres of this muscle pass in an uninterrupted loop around the rear of the venom gland and insert onto the mandible. This type is found in Homoroselaps and was one reason why McDowell (1968) considered this genus not to be a member of the Elapidae (see p. 189). However, (according to Savitsky 1979 and personal observation) this state is also present in some species of the Asiatic elapine genus Calliophis (C.gracilis, C.maculiceps, C.melanurus and C.nigrescens). Other species of Calliophis (C.calligaster, C.japonicus and C.macclellandii) have the superficialis muscle divided into dorsal and ventral portions; the usual "derived" elapid condition.

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors * ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2   Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2   Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors * ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII). E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\text{Å}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2   Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 — Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

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cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

<u>Table 2</u> Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

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Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2   Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors * ($\text{Å}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

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cont...

Table 2 Anisotropic Temperature Factors* ($\text{Å}^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* (Å^2 x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\mathring{A}^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2 \times 10^3$) for (XIII).
E.s.d's are given in parentheses.

- 5 -

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($\AA^2 \times 10^3$) for (XIII).

E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...

Table 2 Anisotropic Temperature Factors* ($Å^2$ x 10^3) for (XIII).
E.s.d's are given in parentheses.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ru(1A)	43.4(3)	42.6(3)	51.3(4)	-8.9(3)	-2.0(3)	-4.2(3)
Ru(2A)	41.6(3)	29.4(3)	44.1(3)	1.6(2)	6.0(3)	4.8(2)
Ru(3)	54.3(3)	33.8(3)	40.0(3)	0.4(2)	9.2(2)	-0.6(2)
Ru(4)	62.7(4)	46.6(3)	44.7(3)	1.3(3)	18.4(3)	6.9(3)
Ru(5A)	50.6(4)	30.6(3)	52.8(4)	-1.1(3)	12.3(3)	7.7(3)
Ru(6A)	34.1(3)	41.6(3)	52.5(4)	2.1(3)	5.3(3)	-3.3(2)
Ru(1B)	36(3)	43(3)	55(3)	1(3)	7(2)	3(2)
Ru(2B)	50(3)	29(2)	39(3)	0(2)	10(2)	-1(2)
Ru(5B)	47(3)	26(2)	41(3)	-2(2)	5(3)	-5(2)
Ru(6B)	34(3)	42(3)	49(3)	-2(3)	6(2)	4(2)
C(11)	77(6)	45(5)	58(5)	-13(4)	-14(5)	-1(4)
O(11)	147(7)	76(4)	79(5)	-27(4)	-8(5)	15(4)
C(12)	56(5)	79(6)	71(6)	-10(5)	-5(5)	-28(5)
O(12)	96(5)	153(7)	106(6)	-16(5)	25(5)	-65(5)
C(13)	47(4)	61(5)	65(5)	-16(4)	-3(4)	8(4)
O(13)	74(4)	114(6)	106(5)	1(5)	-25(4)	17(4)
C(21)	60(5)	39(4)	54(5)	-6(4)	3(4)	3(4)
O(21)	103(5)	59(4)	86(4)	-21(3)	1(4)	7(3)
C(22)	41(4)	41(4)	44(4)	6(3)	4(3)	5(3)
O(22)	56(3)	61(3)	95(4)	17(3)	18(3)	13(3)

cont...