

**THE MANUFACTURE OF TUNED PERCUSSION INSTRUMENTS IN  
INDONESIA AND AFRICA- A SELECTIVE STUDY**

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requirements of the London Guildhall University  
for the degree of Doctor of Philosophy

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### **Appendix 3**

**Sound spectra of the combinations of bar, resonator and mirlitons**

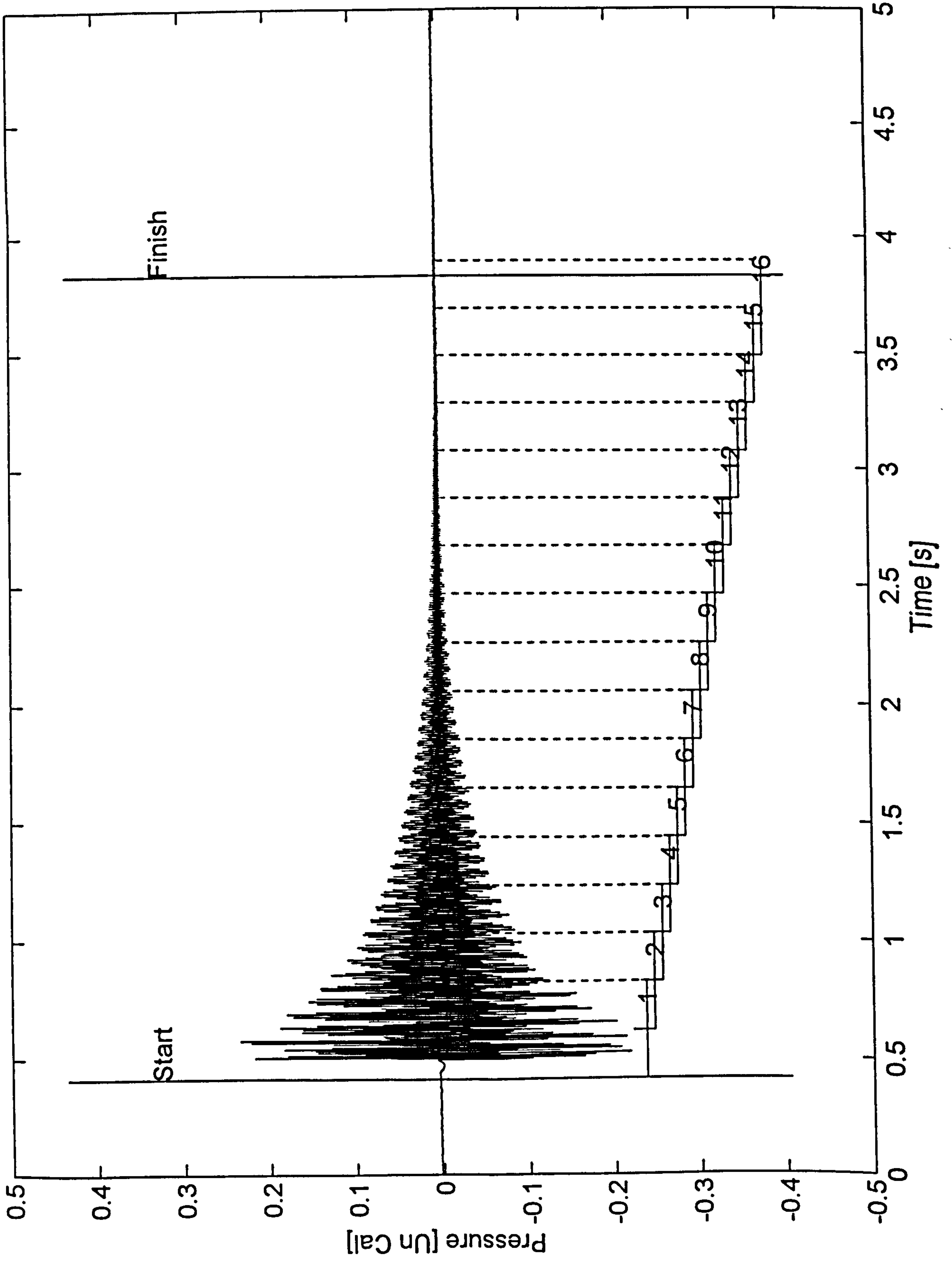
## Contents

Event no.	bar type	pitch (Hz.)	resonator	mirliton	pages
A1	<i>gyil</i>	110	none	none	1 and 2
A2	<i>gyil</i>	110	spherical calabash	none	3 and 4
A3	<i>gyil</i>	110	spherical calabash	3 x 12mm Ø (SES)	5 and 6
A4	<i>gyil</i>	110	spherical calabash	3 x 22mm Ø (SES)	7 and 8
A5	<i>gyil</i>	110	long calabash	none	9 and 10
A6	<i>gyil</i>	220	none	none	11 and 12
A7	<i>gyil</i>	220	spherical calabash	3 x 12mm Ø (SES)	13 and 14
A8	<i>gyil</i>	440	none	none	15 and 16
A9	<i>gyil</i>	440	spherical calabash	3 x 12mm Ø (SES)	17 and 18
A10	<i>manza</i>	220	none	none	19 and 20
A11	<i>manza</i>	220	long calabash	none	21 and 22
A12	<i>manza</i>	220 and 440	long calabashes	none	23 and 24
A13	<i>kalangba</i>	220	long calabash	1 x 12mm Ø (RD)	25 and 26
A14	<i>manza</i>	440	none	none	27 and 28
A15	<i>manza</i>	440	long calabash	none	29 and 30
A16	<i>kalangba</i>	440	long calabash	1 x 12mm Ø (RD)	31 and 32
A17	<i>kalangba</i>	220 and 440	long calabashes	1 x 12mm Ø (RD)	33 and 34
A18	<i>madimba</i>	110	none	none	35 and 36
A19	<i>madimba</i>	110	long calabash	1 x 12mm Ø (SES)	37 and 38

Key: Ø = diameter, SES = spider's egg sacs, RD = rodent diaphragm.

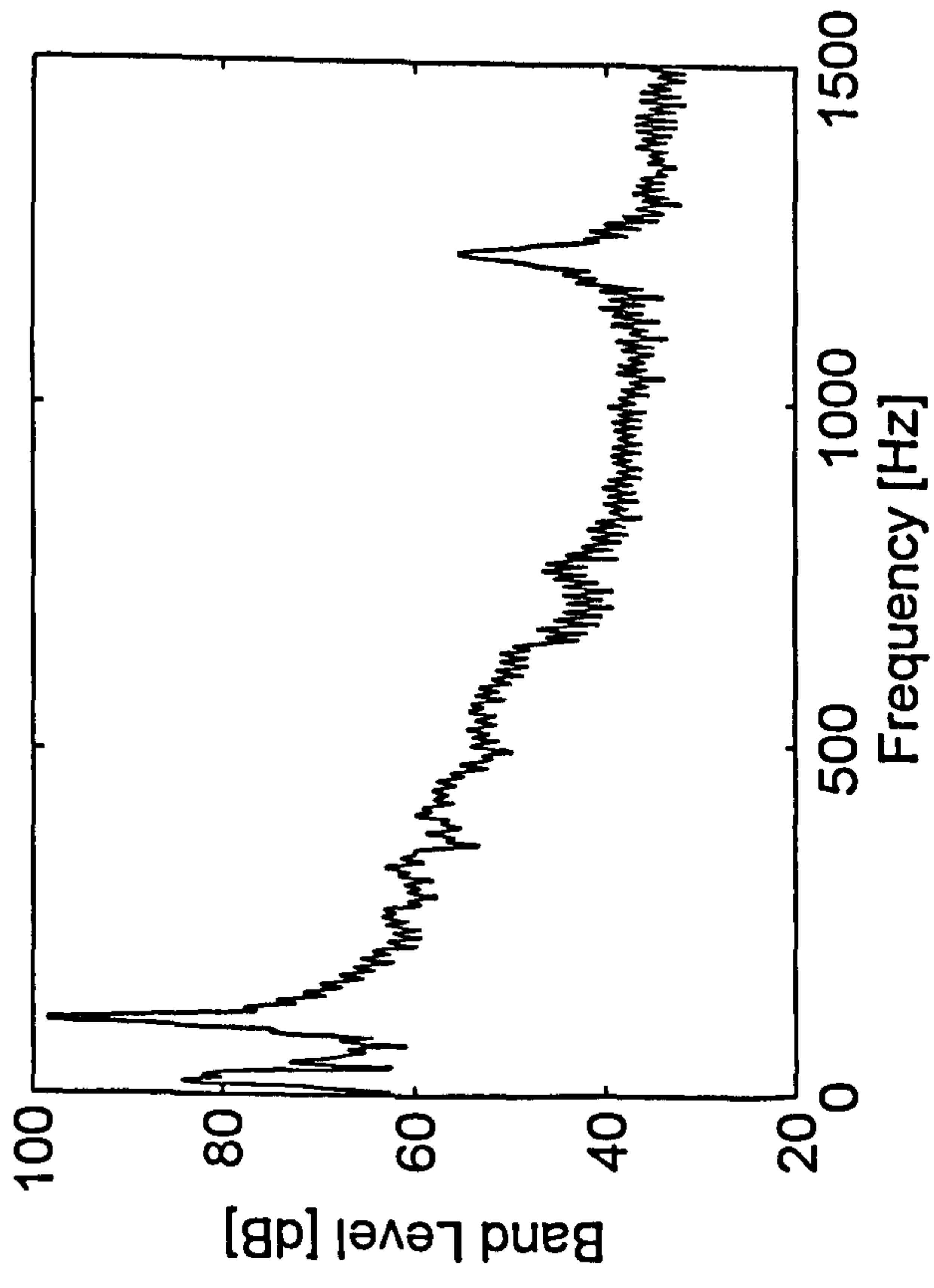
<b>Event no.</b>	<b>bar type</b>	<b>pitch (Hz.)</b>	<b>resonator</b>	<b>mirliton</b>	<b>pages</b>
A20	<i>madimba</i>	220	none	none	39 and 40
A21	<i>madimba</i>	220	long calabash	1 x 12mm Ø (RD)	41 and 42
A22	<i>madimba</i>	440	none	none	43 and 44
A23	<i>madimba</i>	440	long calabash	1 x 12mm Ø (RD)	45 and 46
A24	<i>mbila</i>	110	none	none	47 and 48
A25	<i>mbila</i>	110	long calabash	1 x 12mm Ø (SES)	49 and 50
A26	<i>mbila</i>	220	none	none	51 and 52
A27	<i>mbila</i>	220	long calabash	1 x 12mm Ø (RD)	53 and 54
A28	<i>mbila</i>	440	none	none	55 and 56
A29	<i>mbila</i>	440	long calabash	1 x 12mm Ø (RD)	57 and 58
A30	<i>kundung</i>	220	none	none	59 and 60
A31	<i>kundung</i>	220	ox horn	1 x 12mm Ø (SES)	61 and 62
A32	<i>kundung</i>	440	none	none	63 and 64
A33	<i>kundung</i>	440	ox horn	1 x 12mm Ø (SES)	65 and 66
A35	<i>gyil</i>	220	ox horn	1 x 12mm Ø (SES)	67 and 68
A39	<i>gyil</i>	220	long calabash	1 x 12mm Ø (RD)	69 and 70
A40	<i>gyil</i>	220	long calabash	1 x 12mm Ø (SES)	71 and 72

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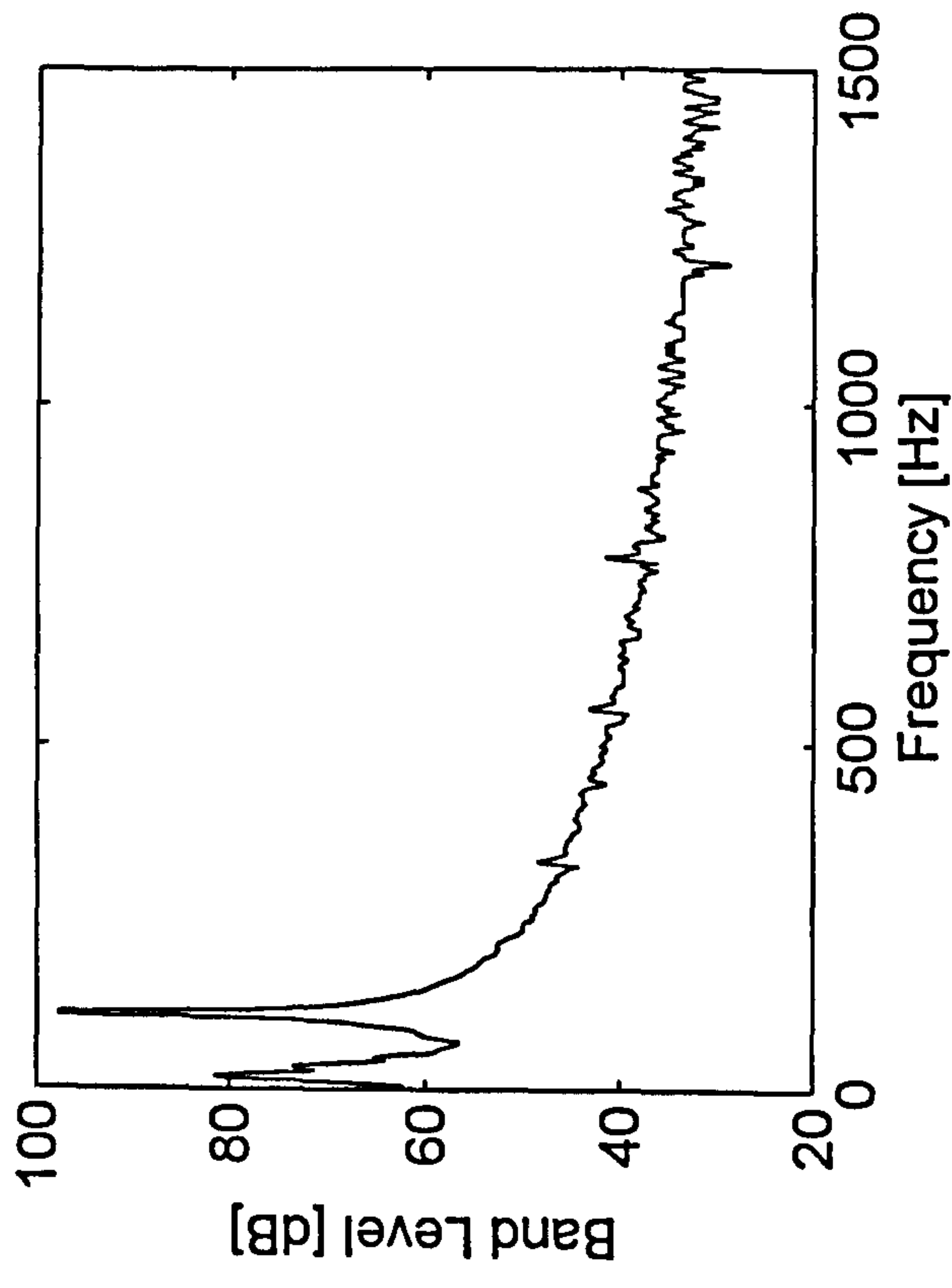


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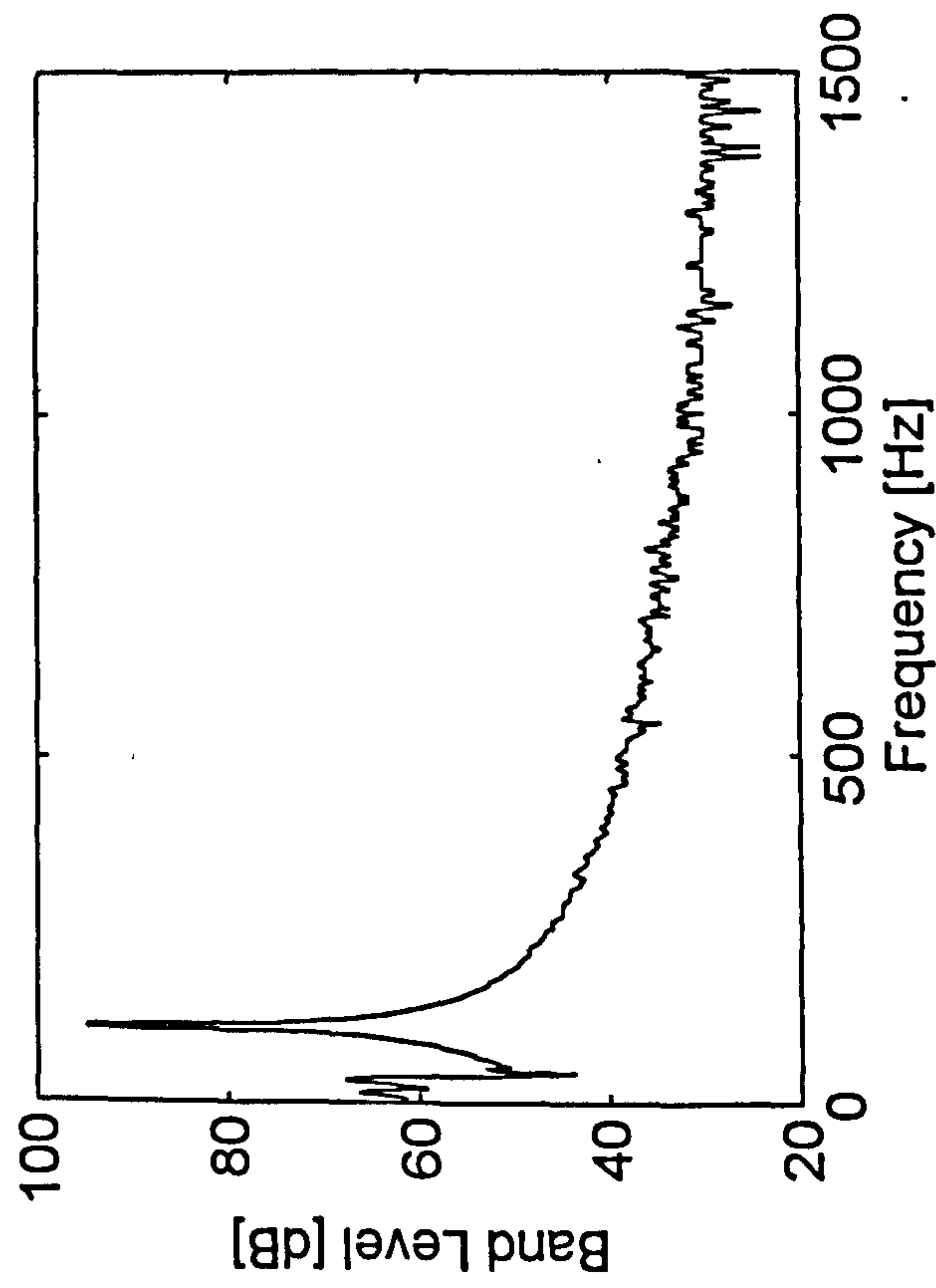
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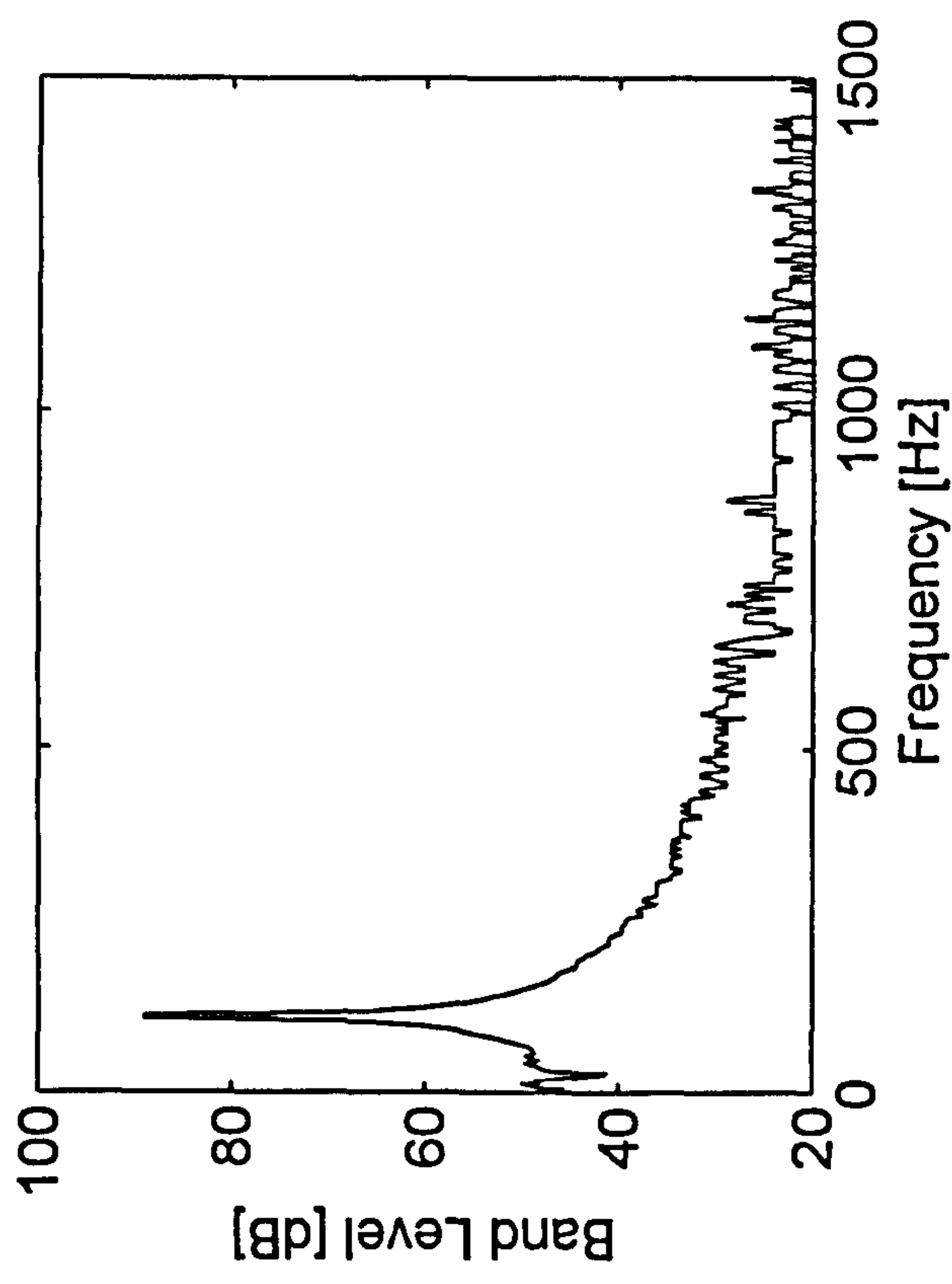
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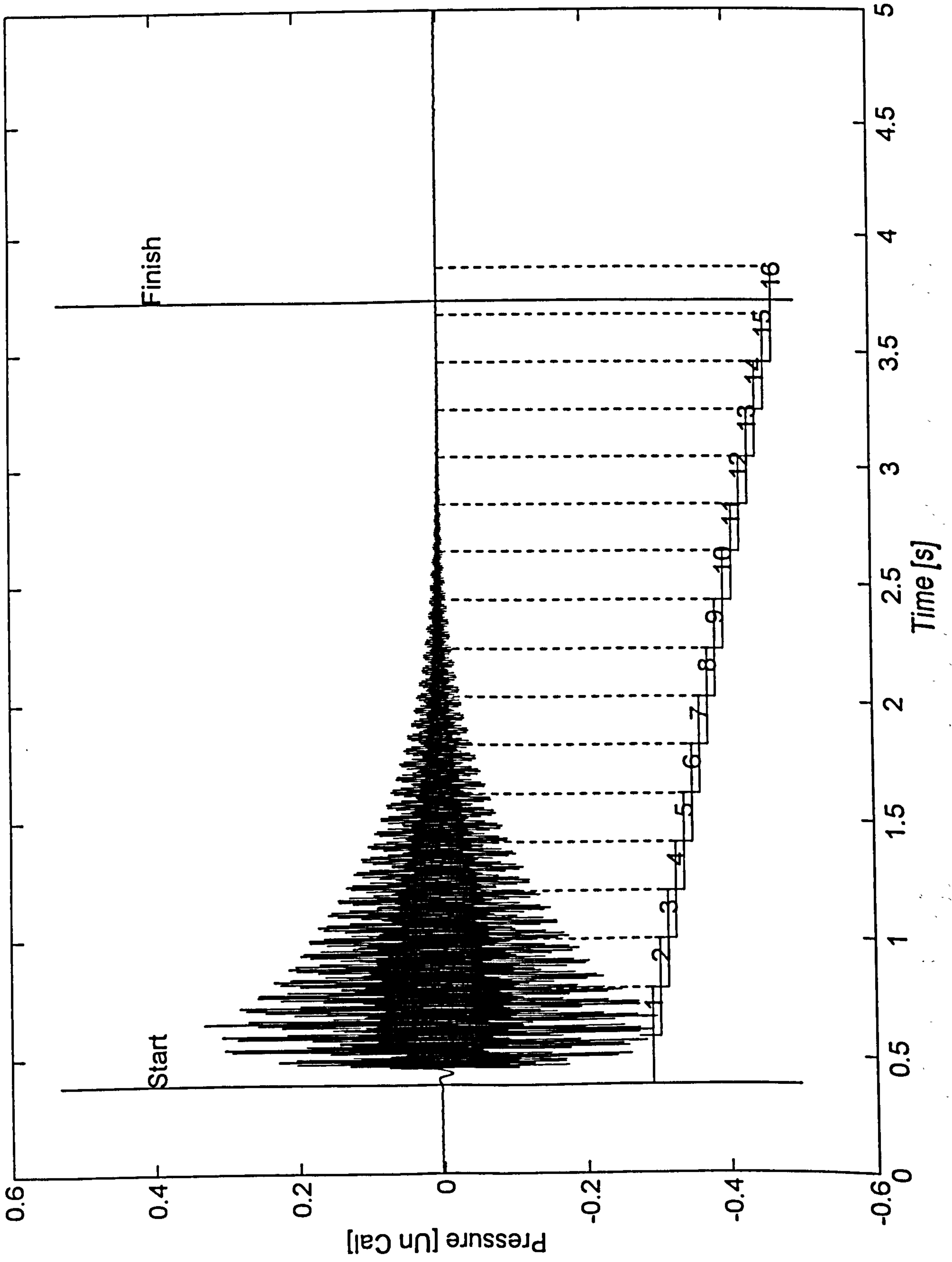
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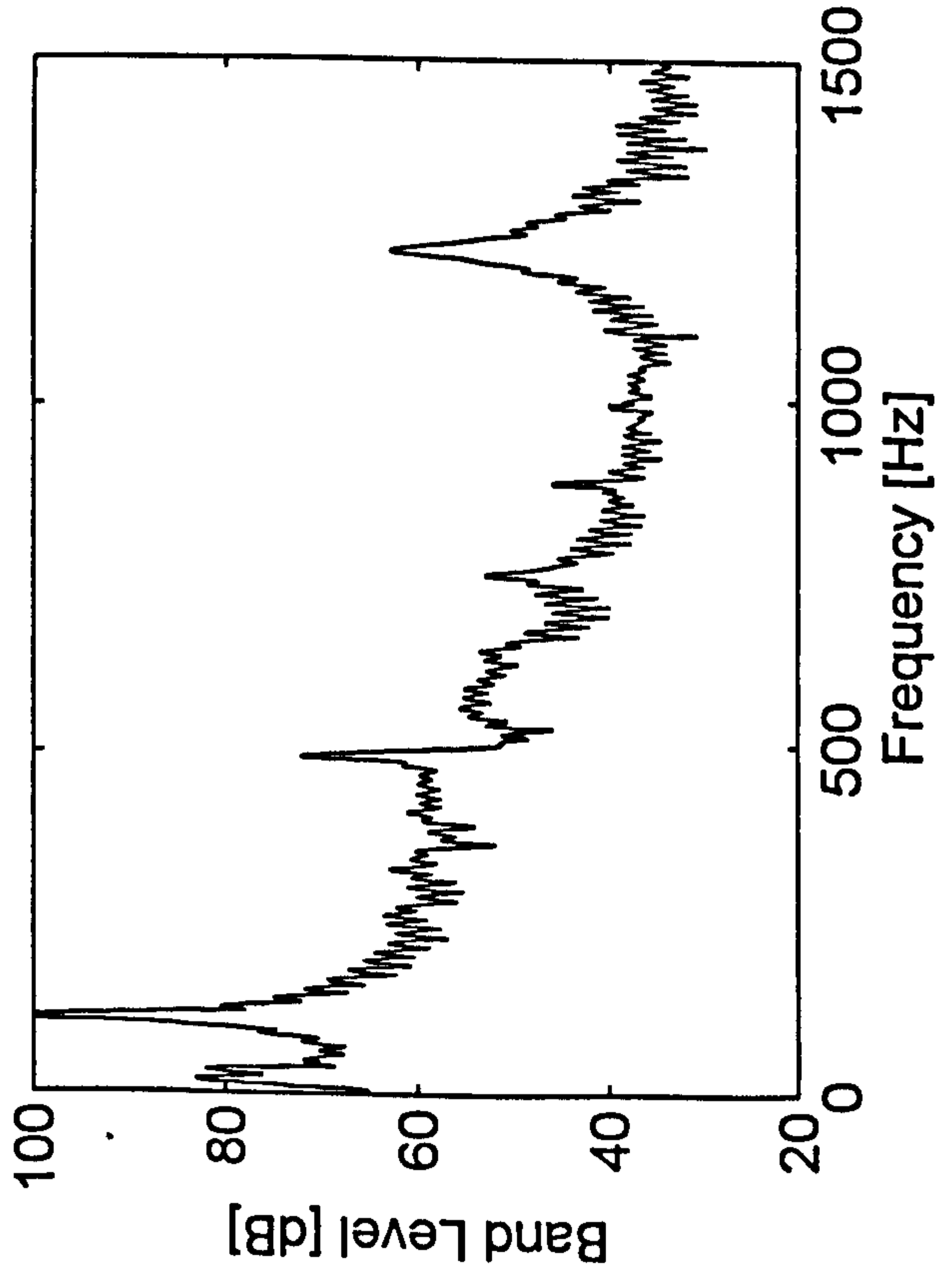
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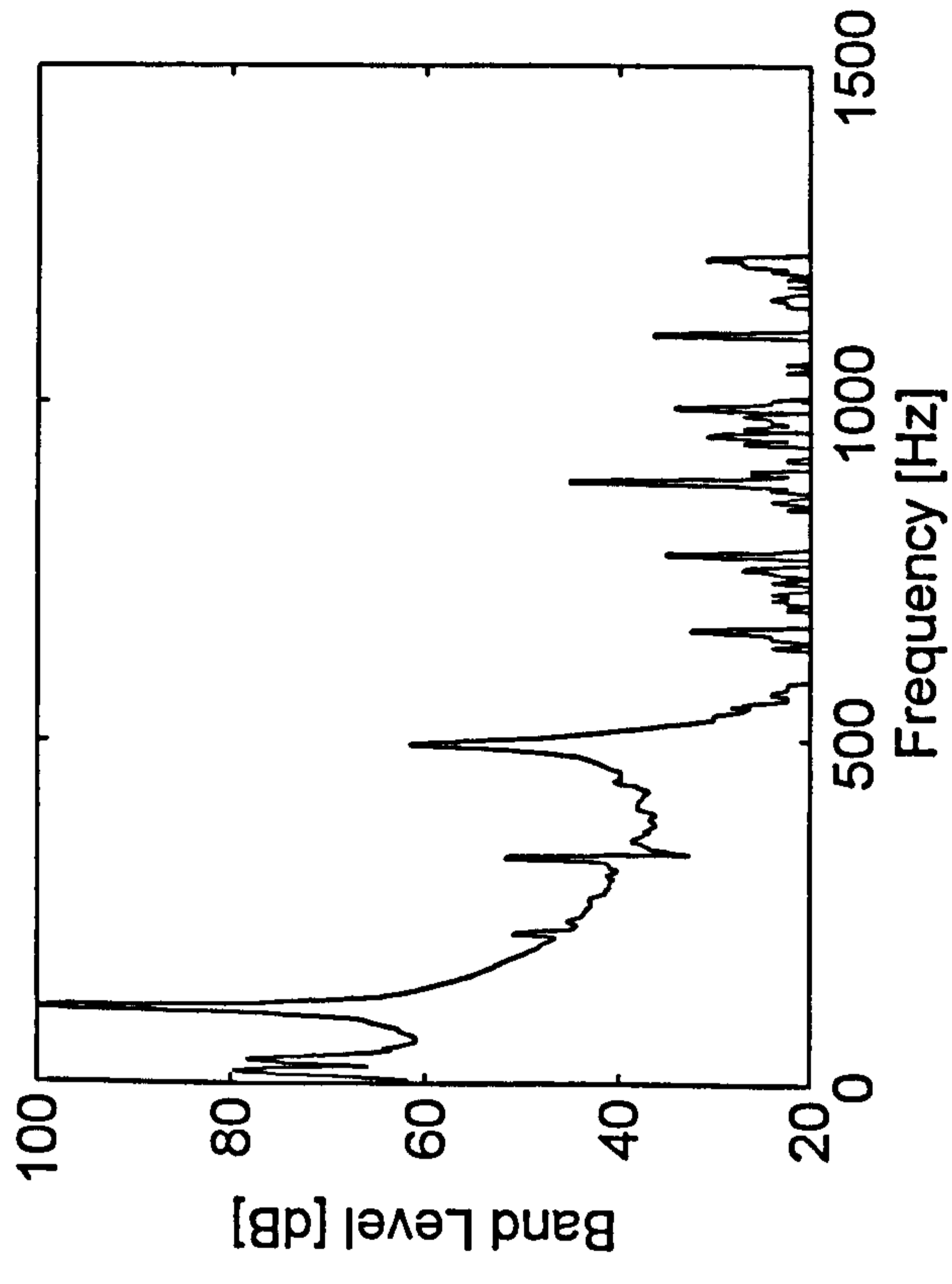
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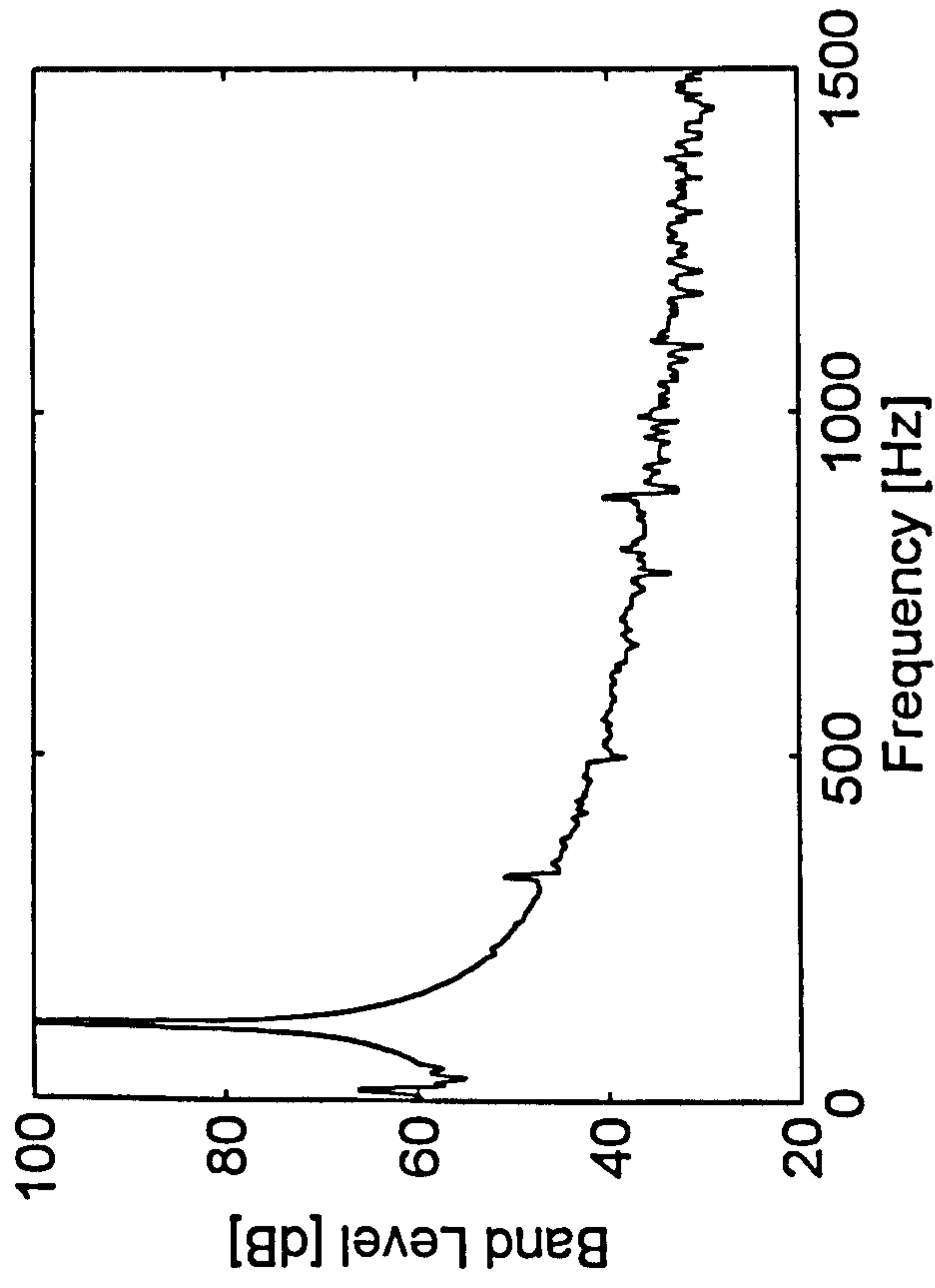
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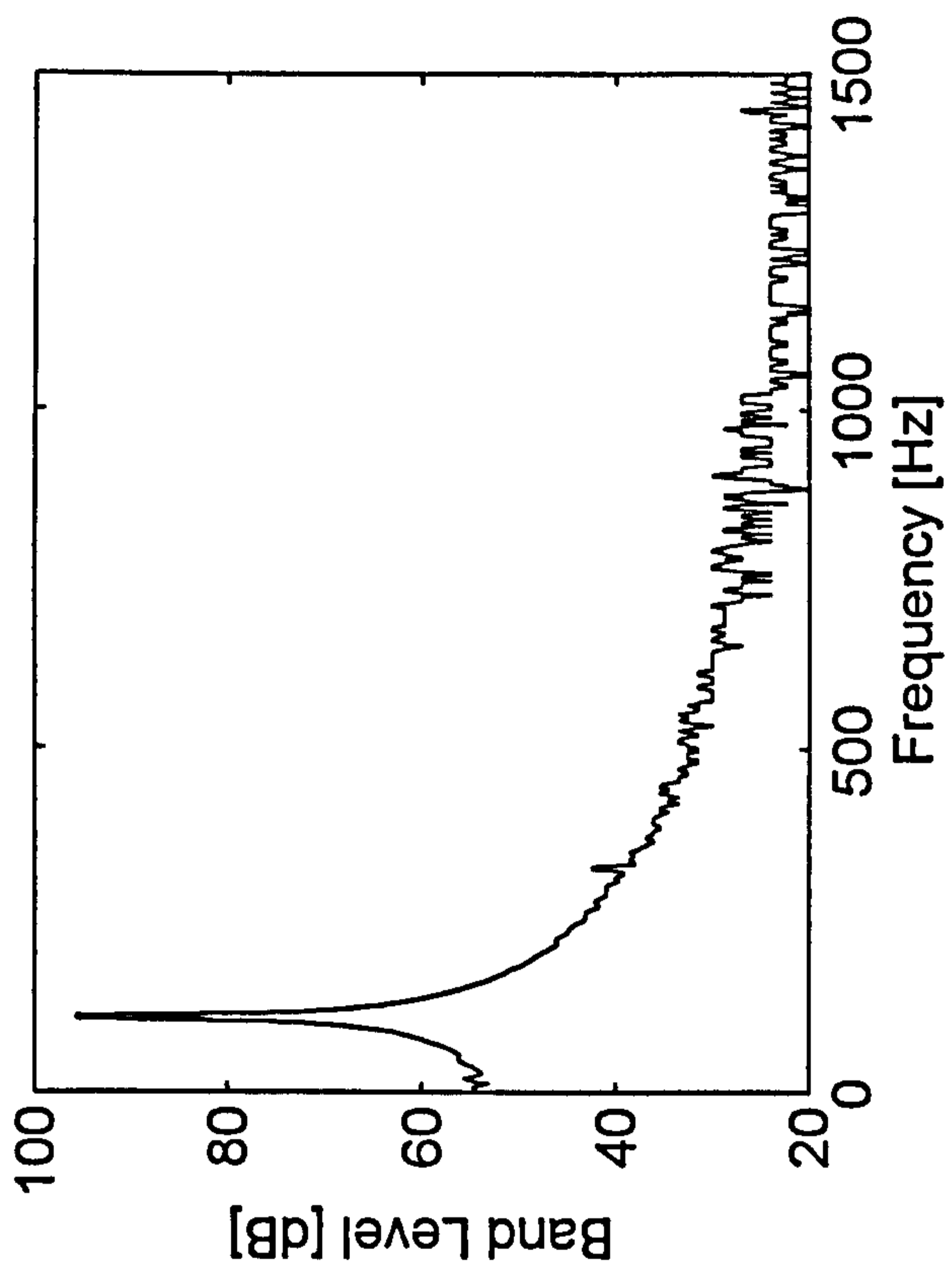
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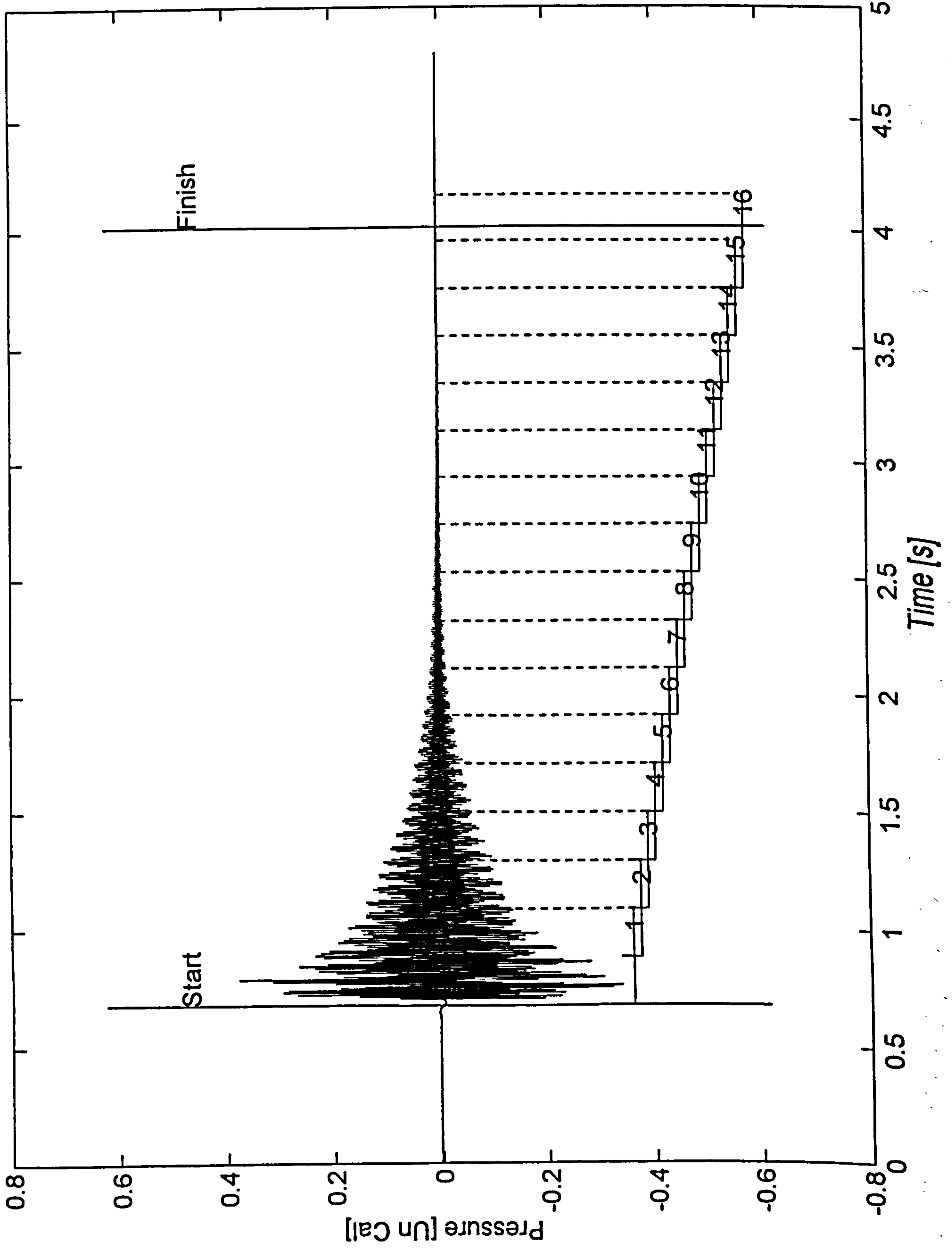


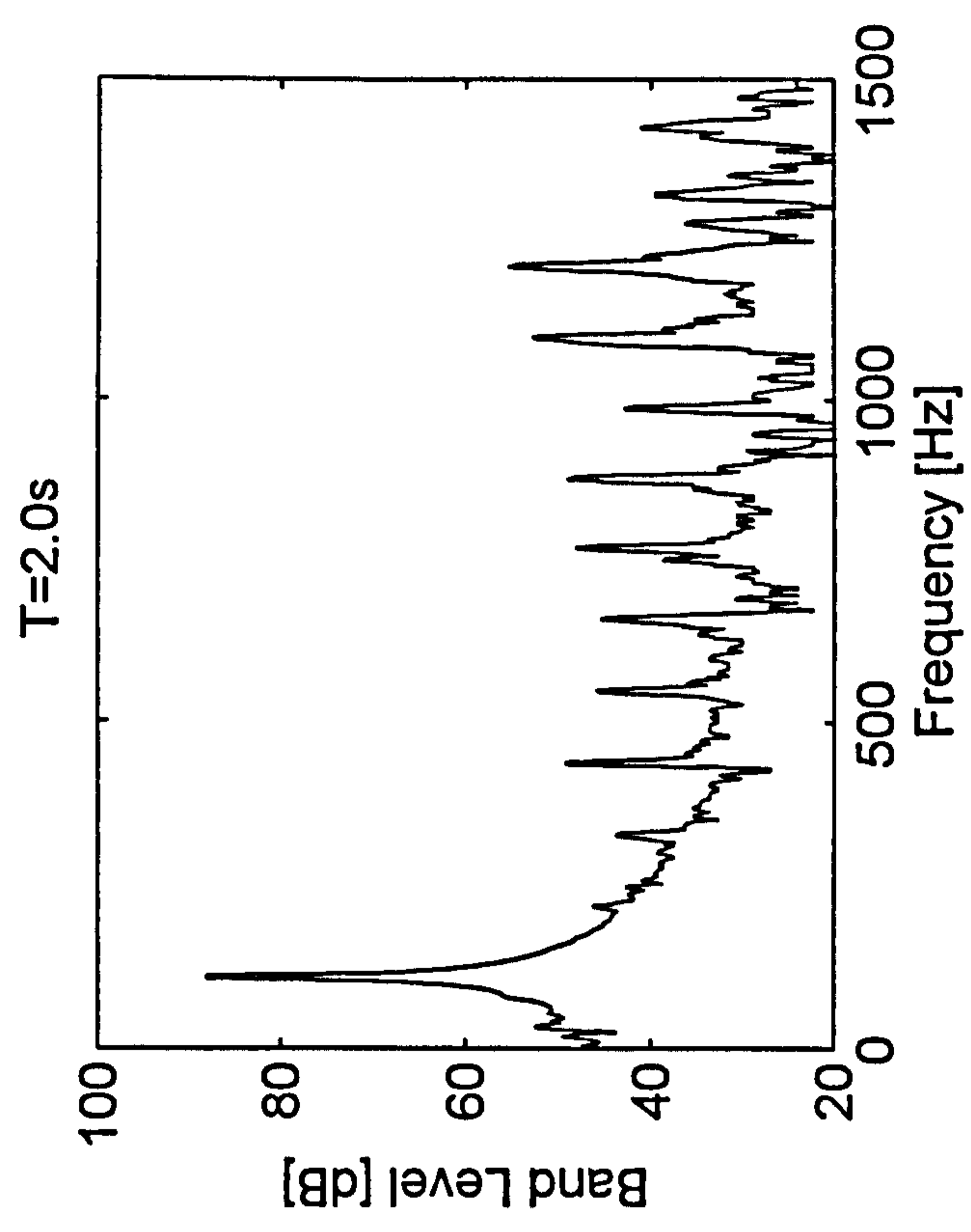
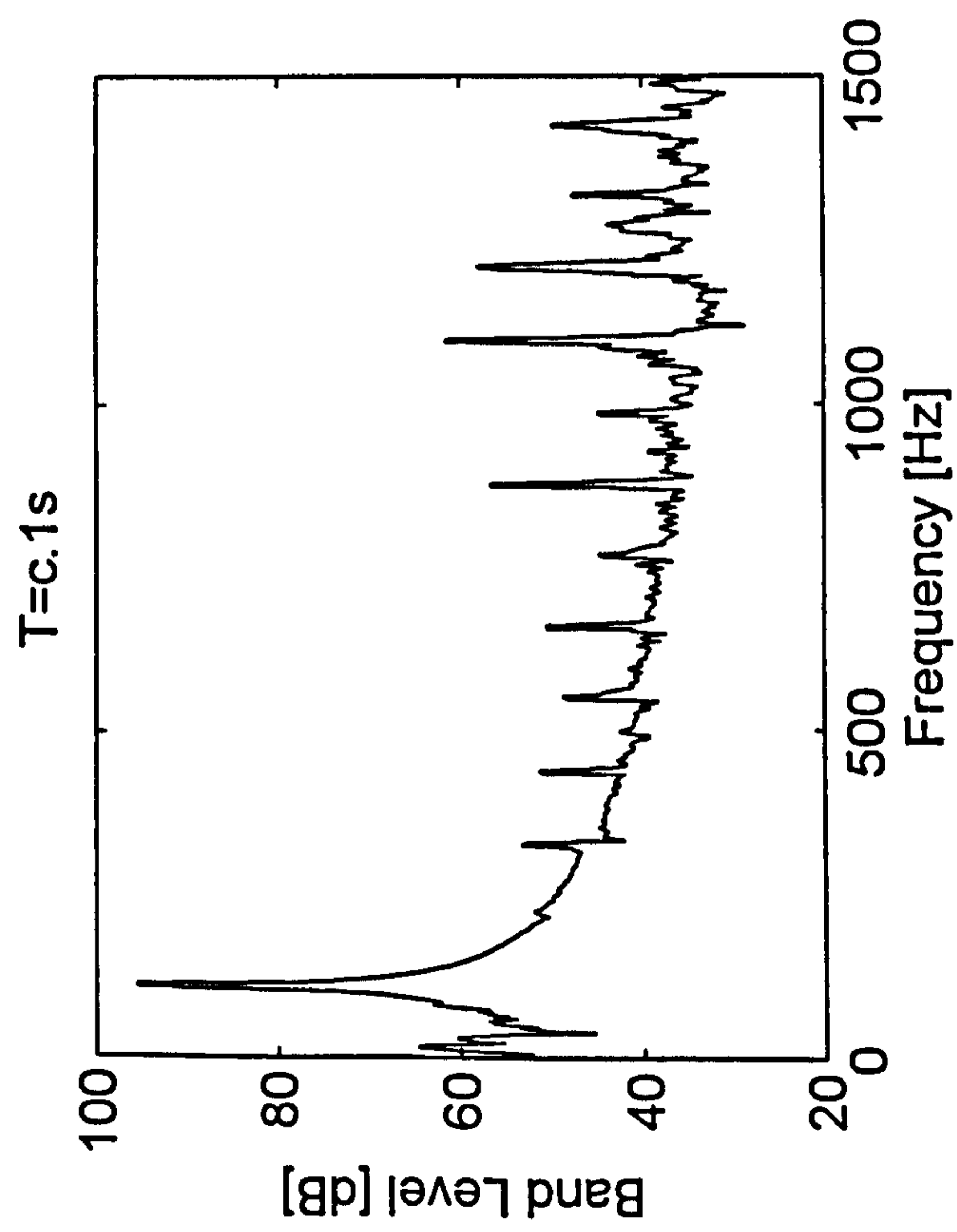
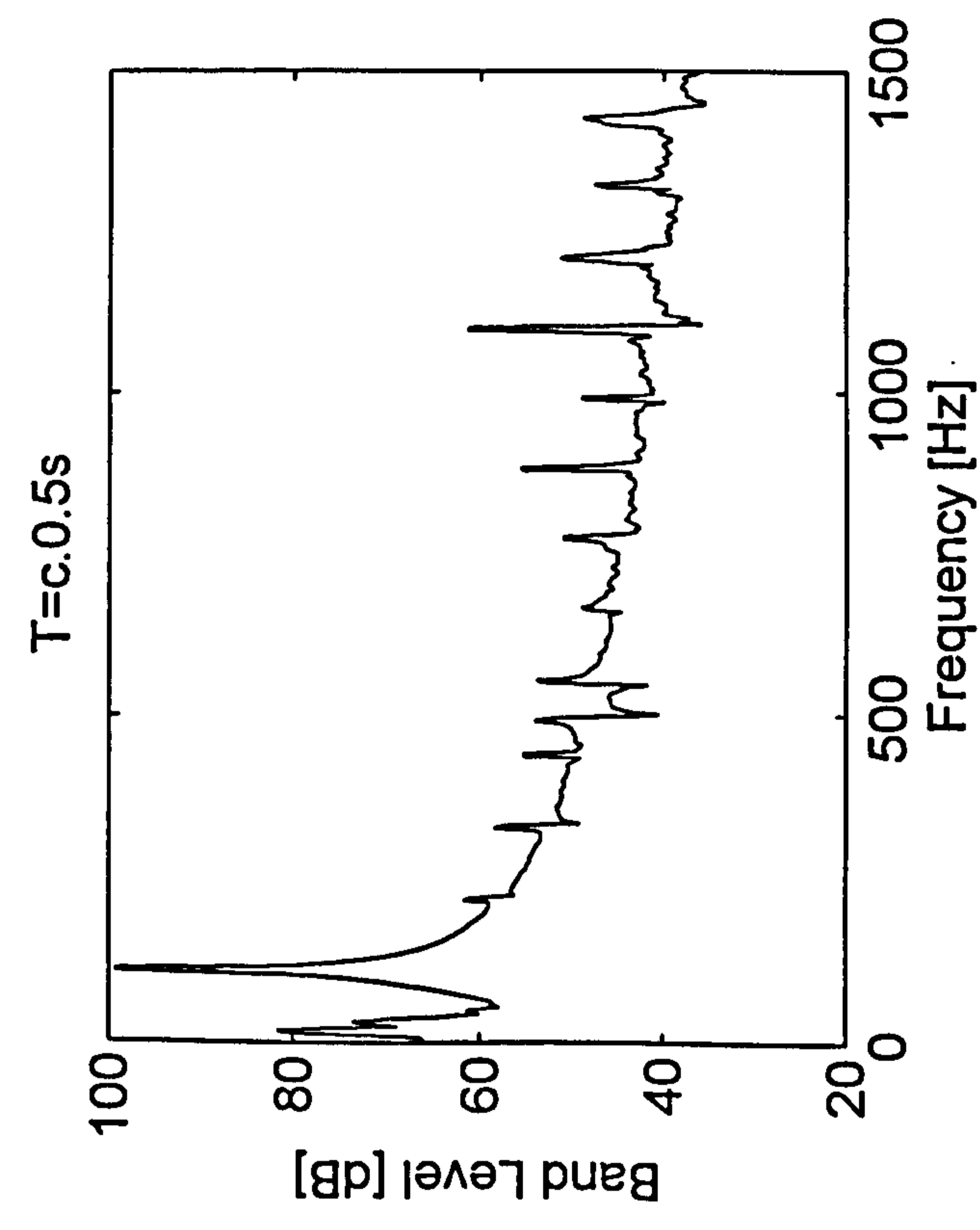
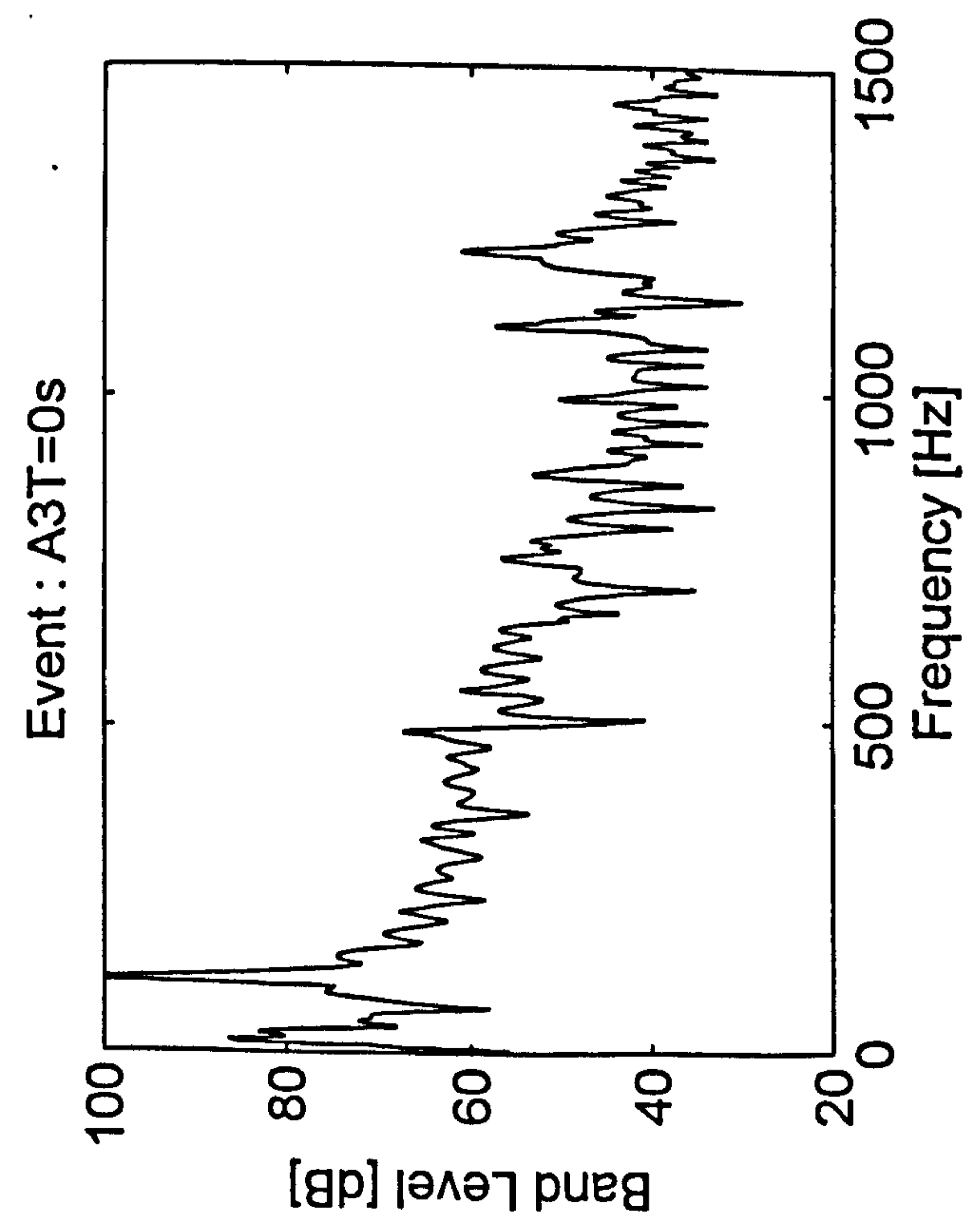
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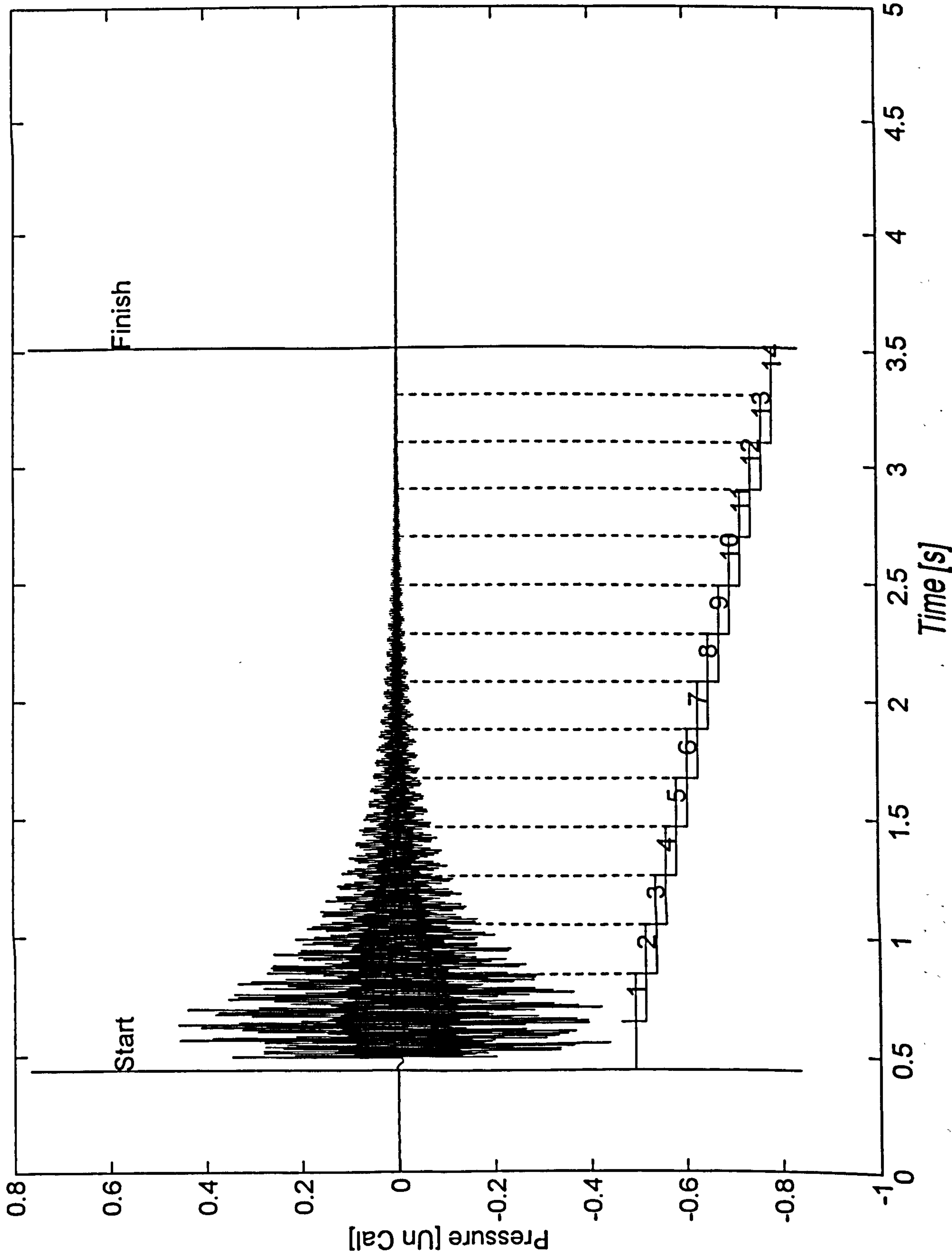


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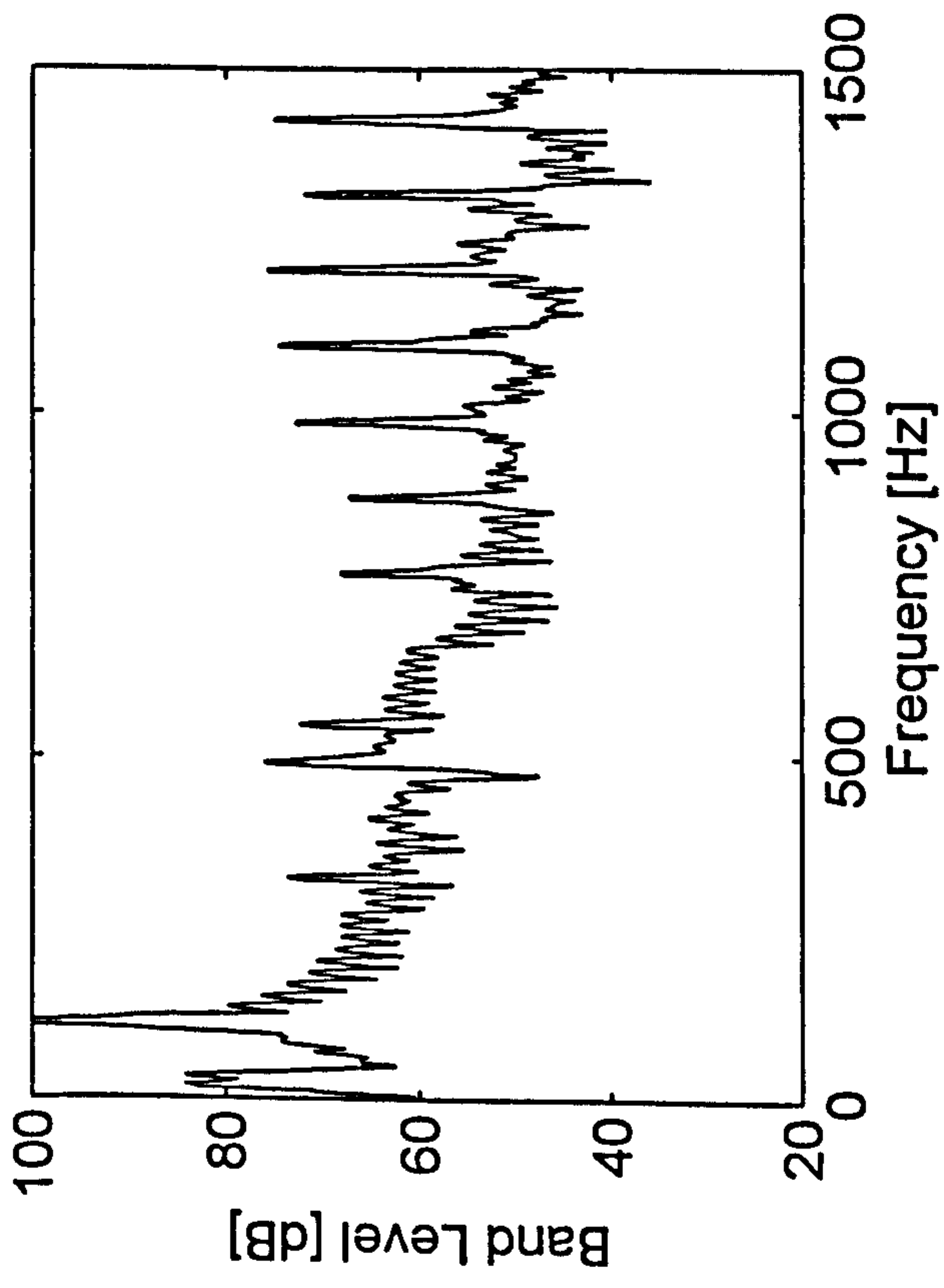




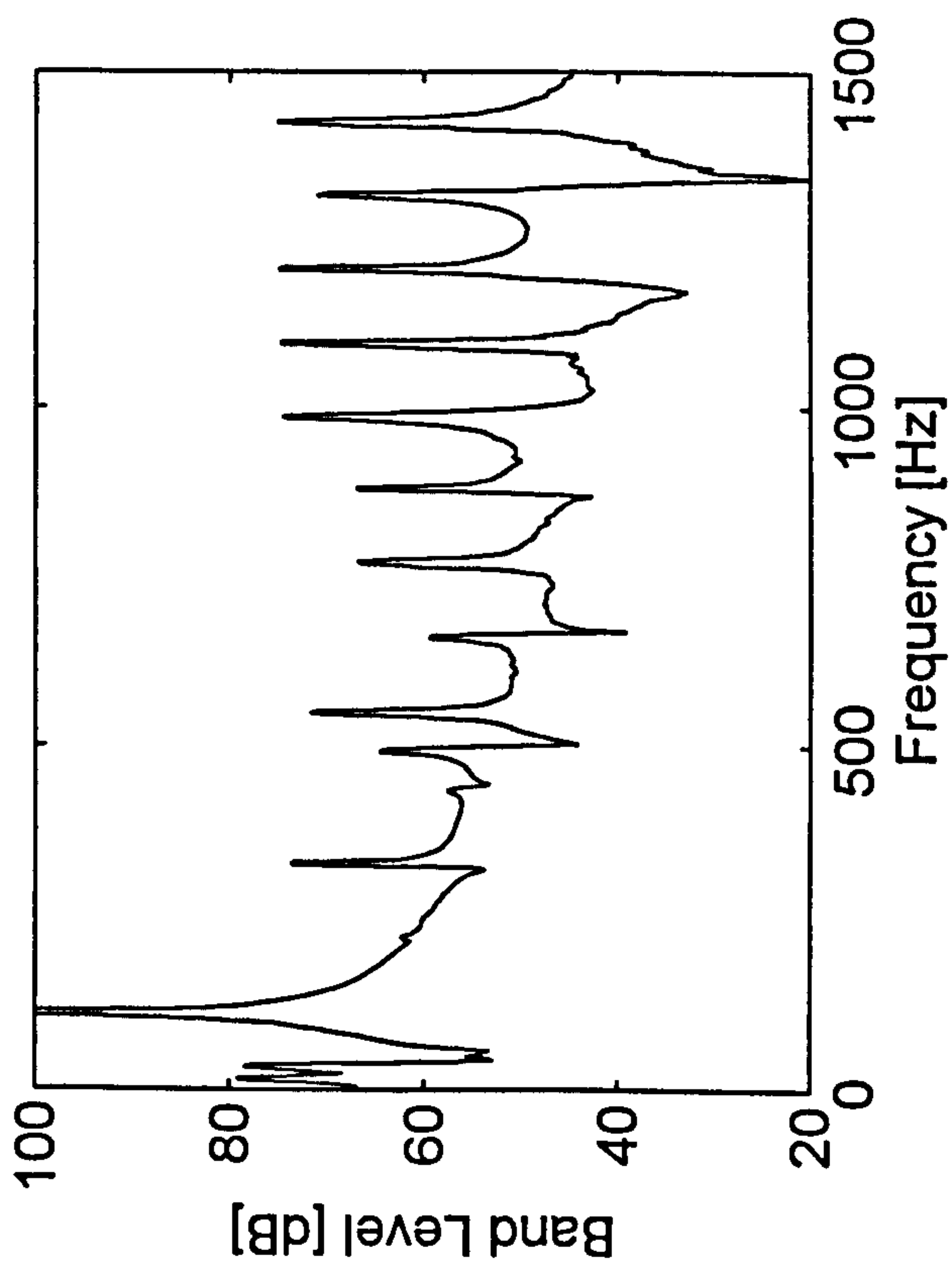
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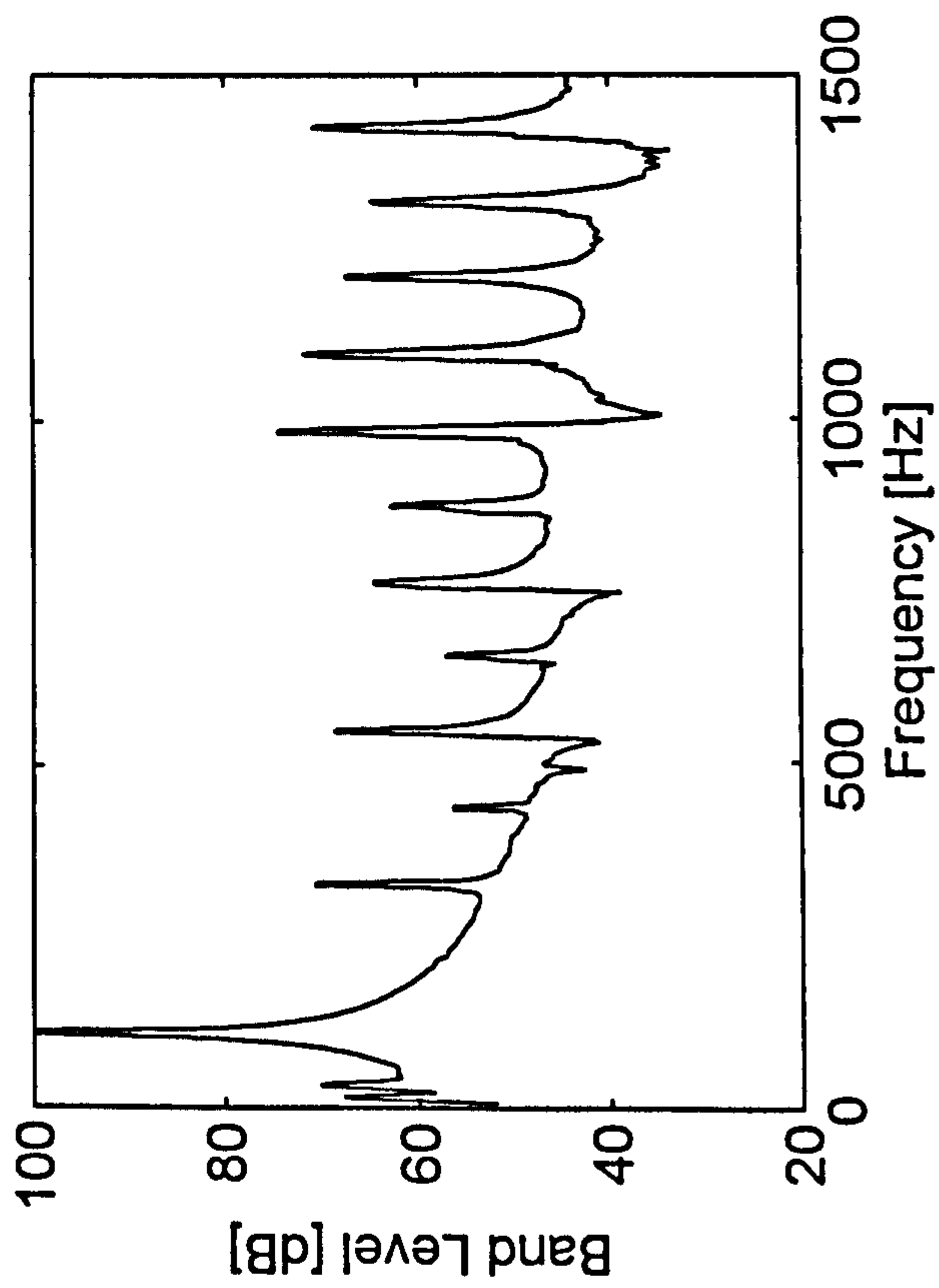
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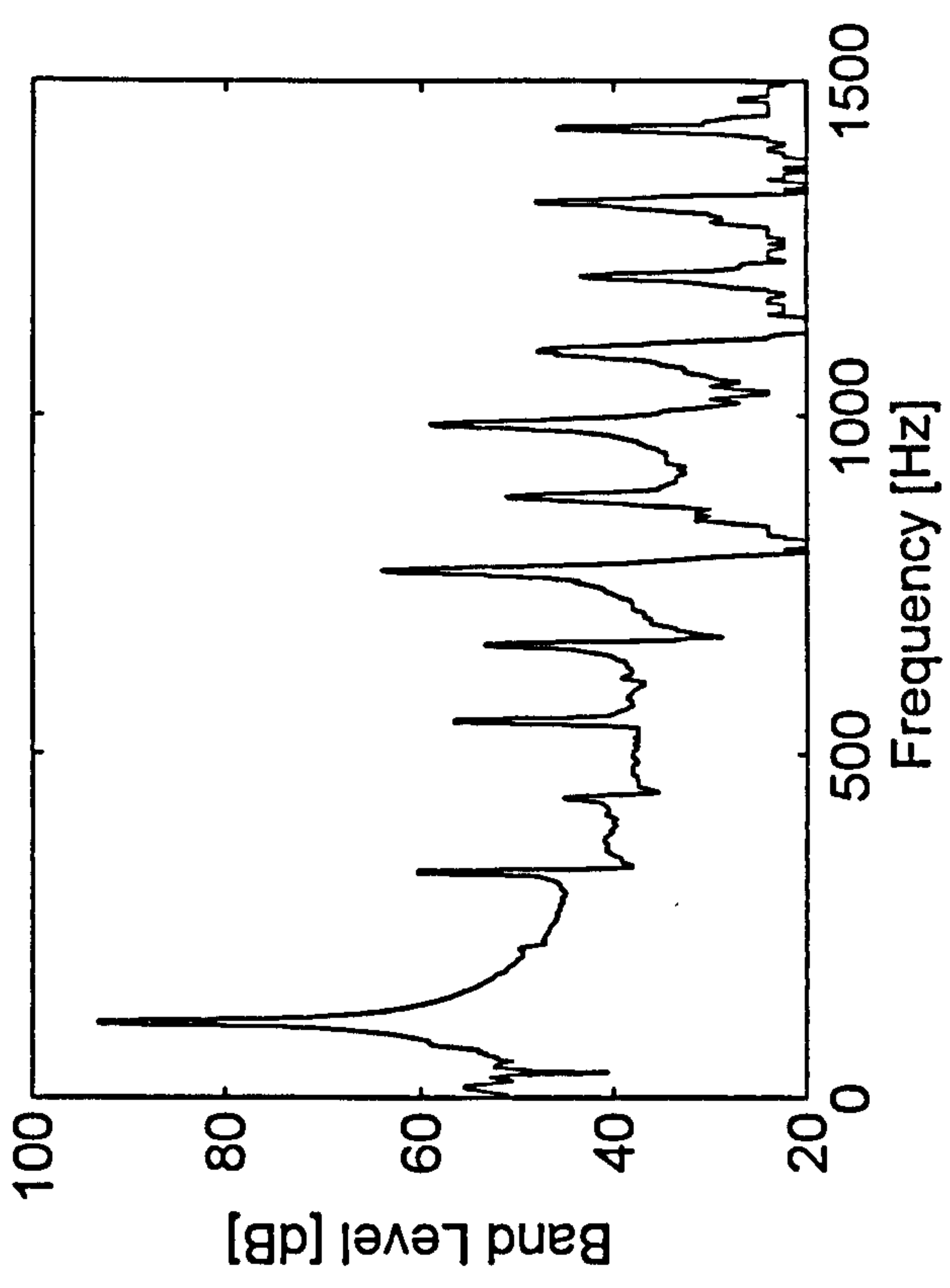
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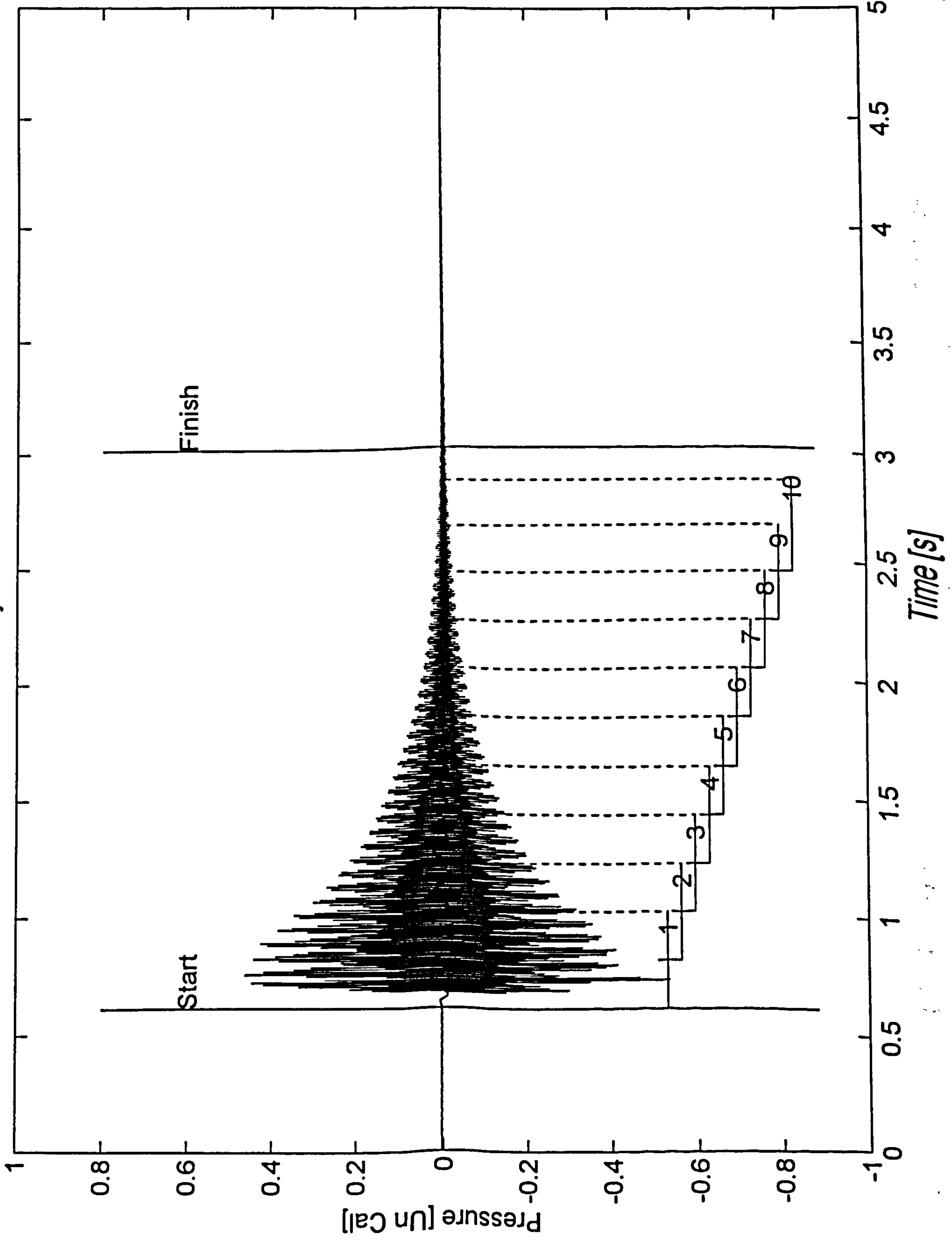
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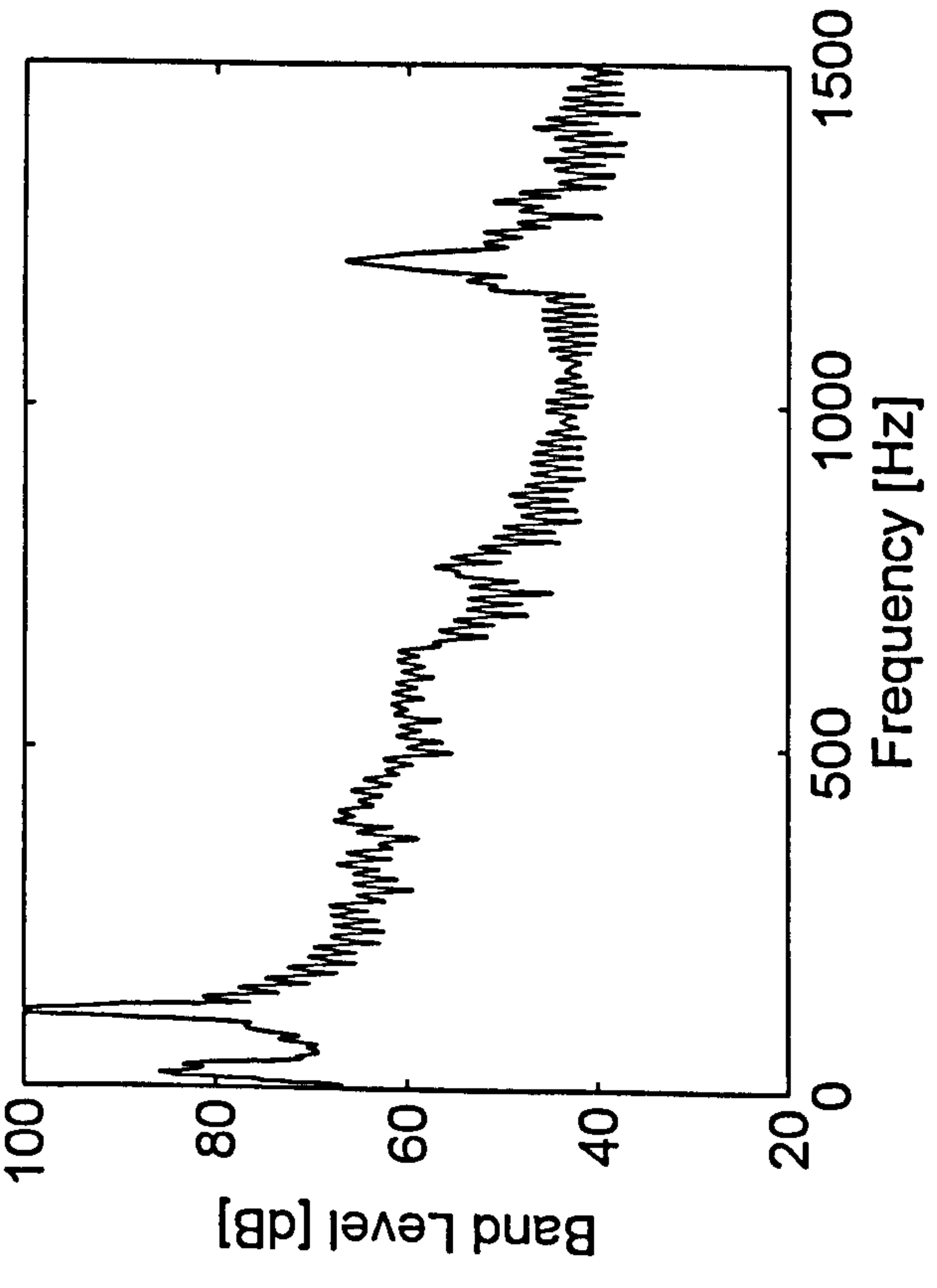
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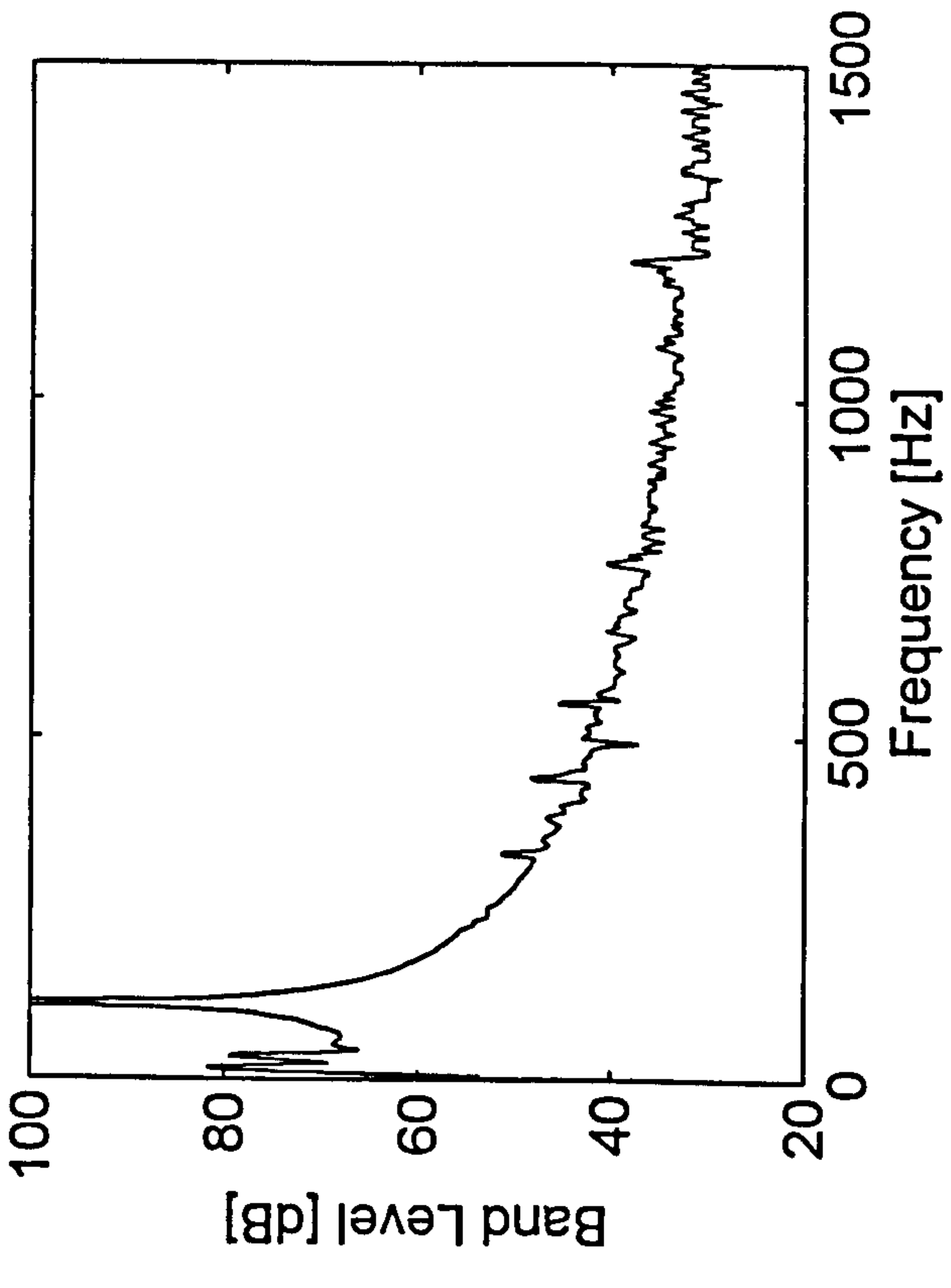
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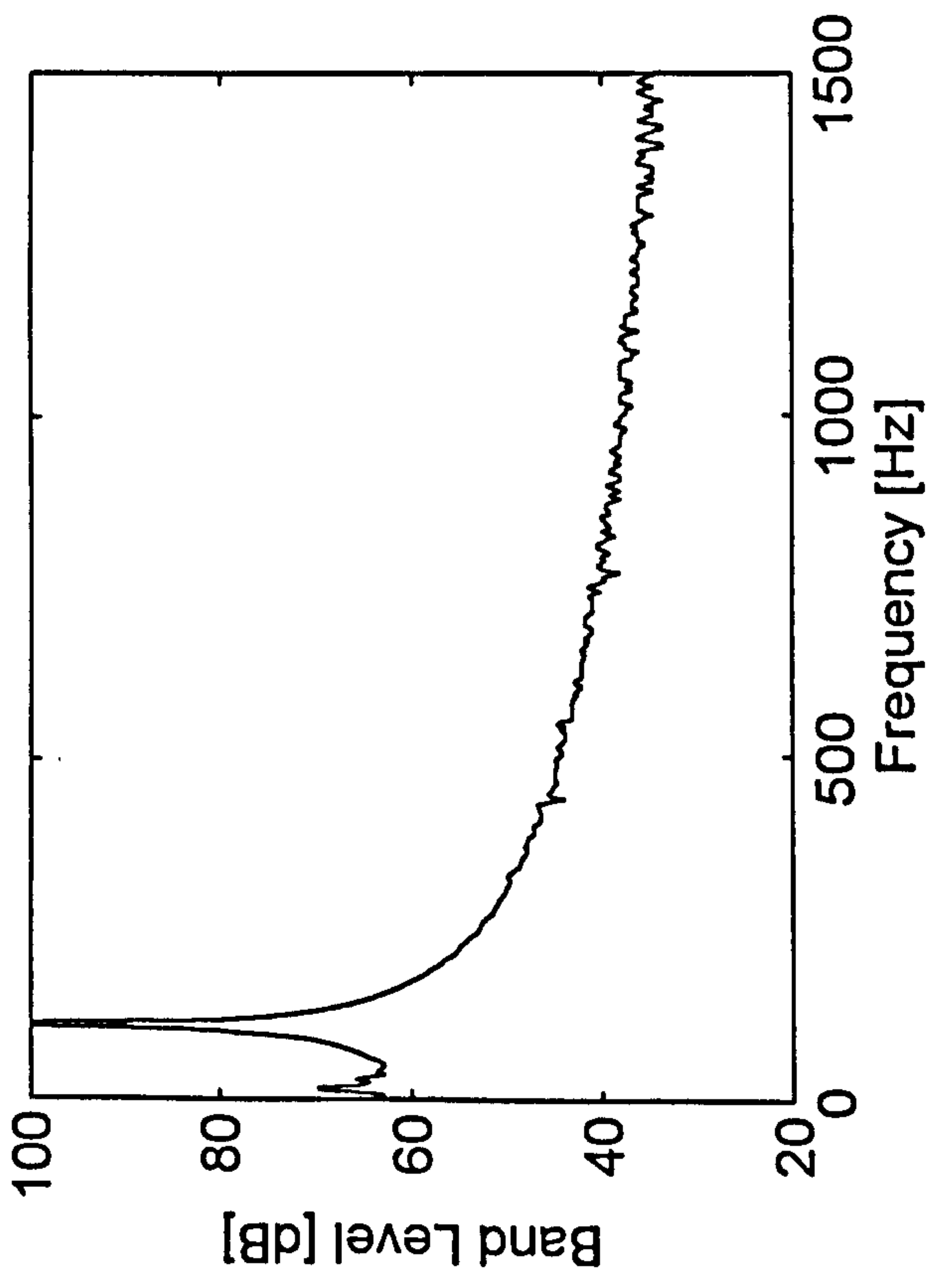
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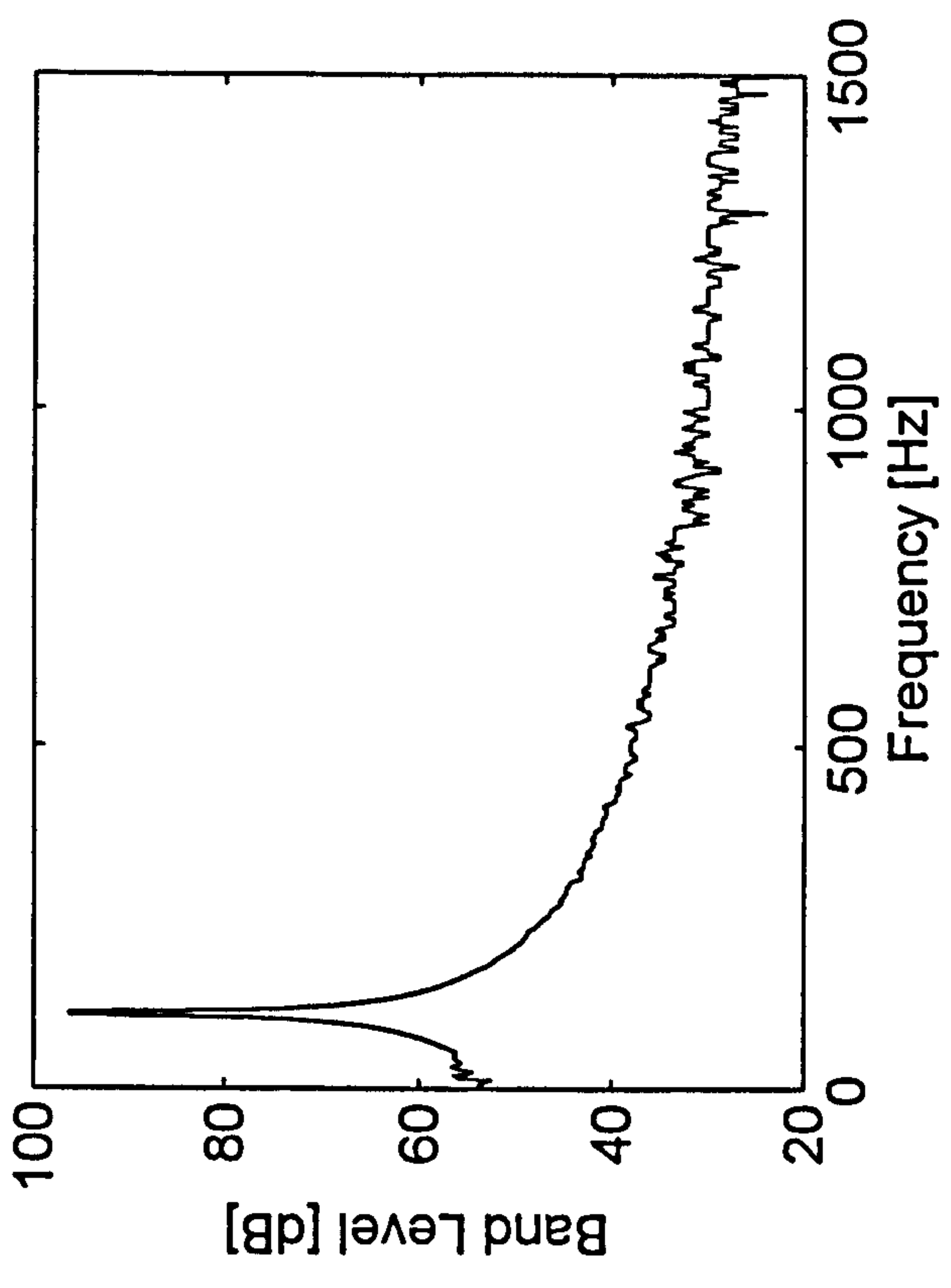
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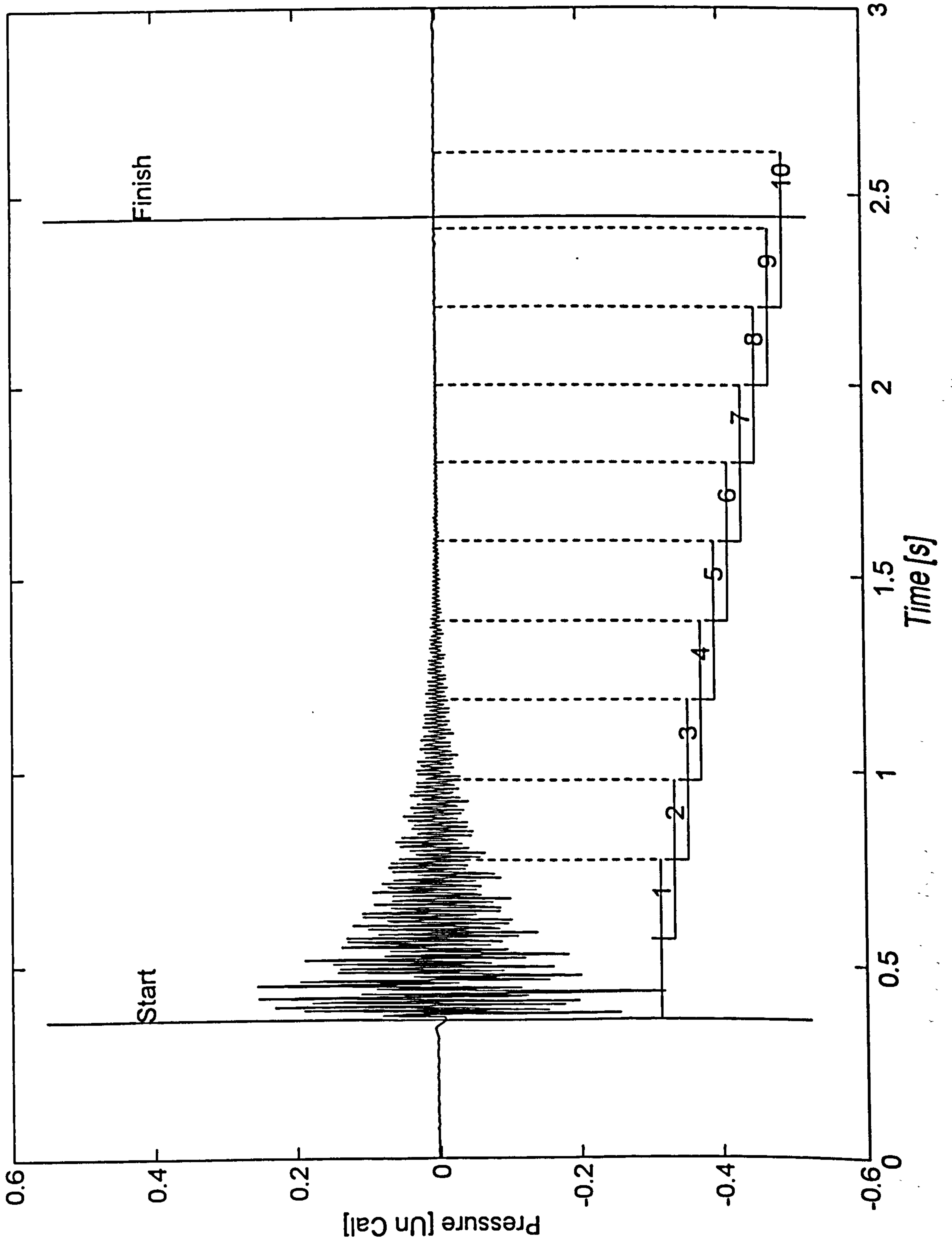
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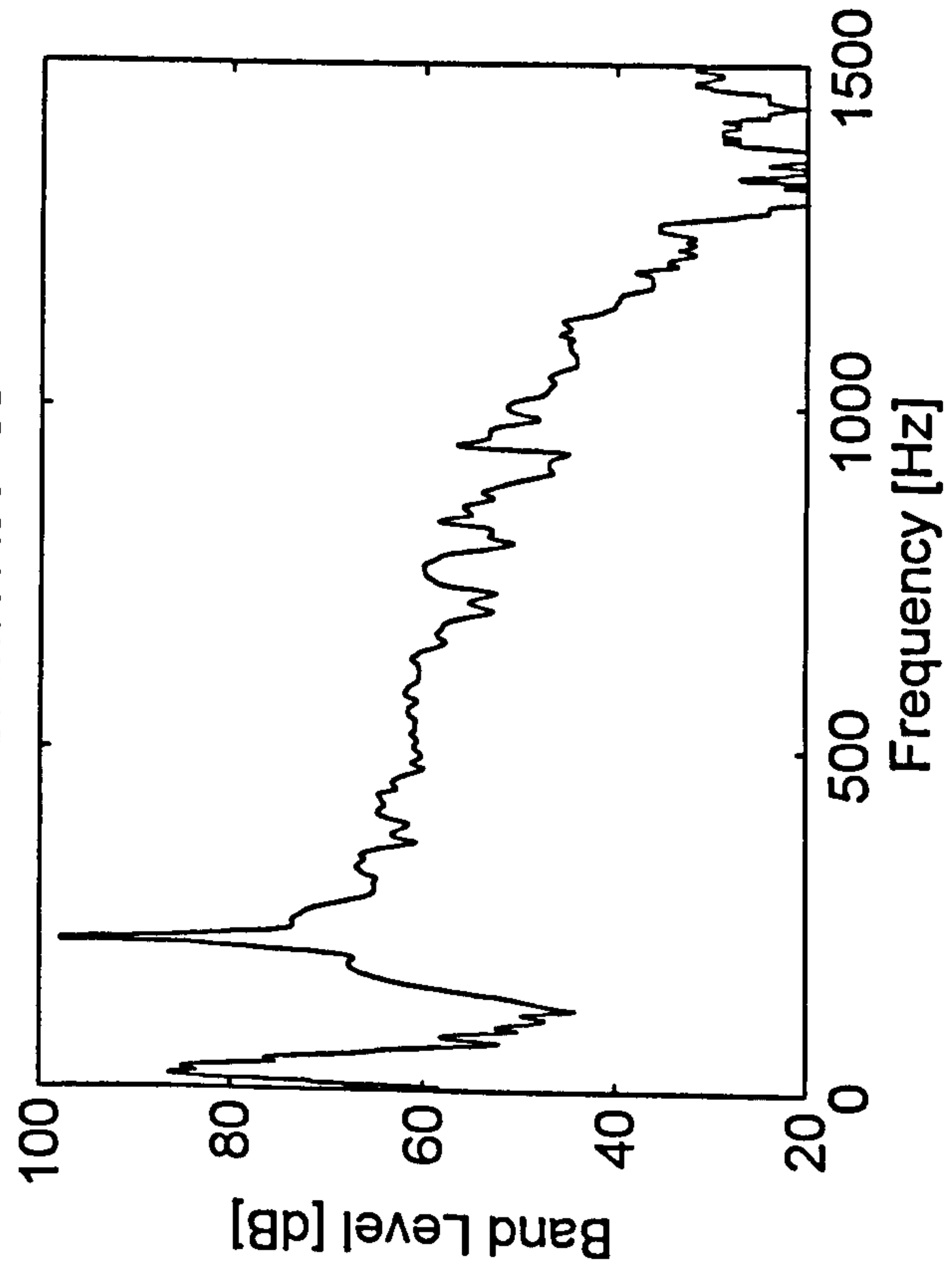
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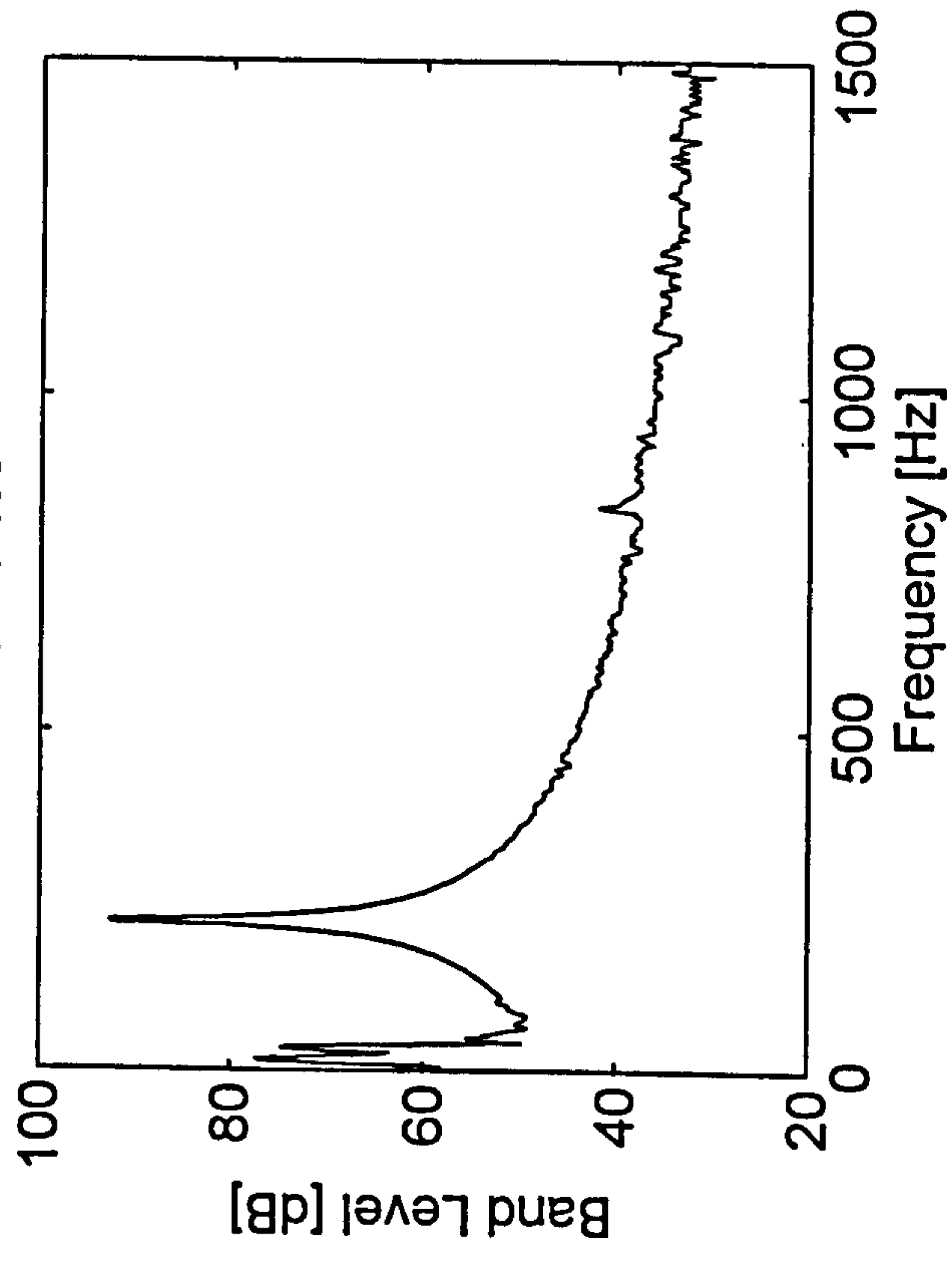
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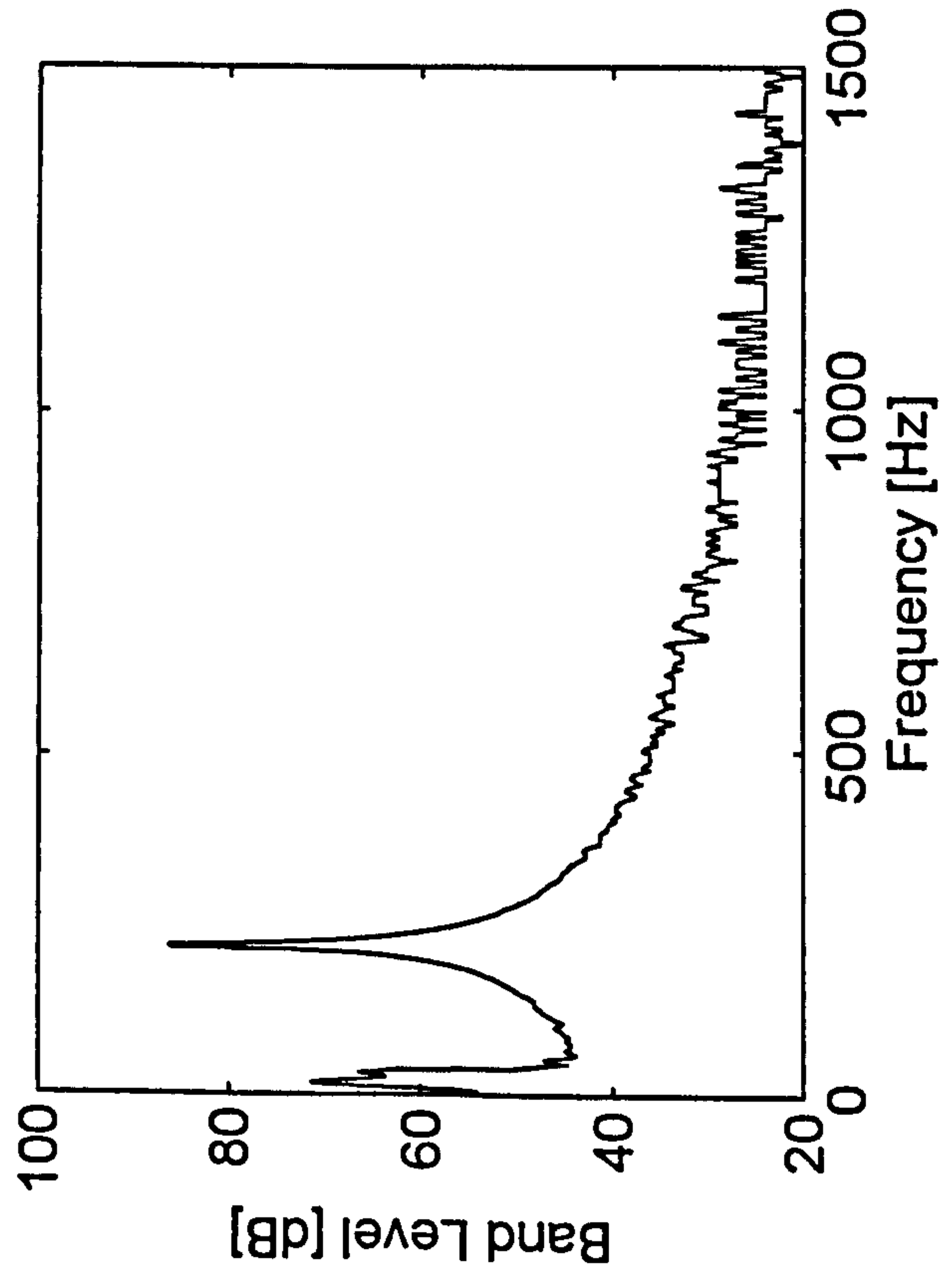
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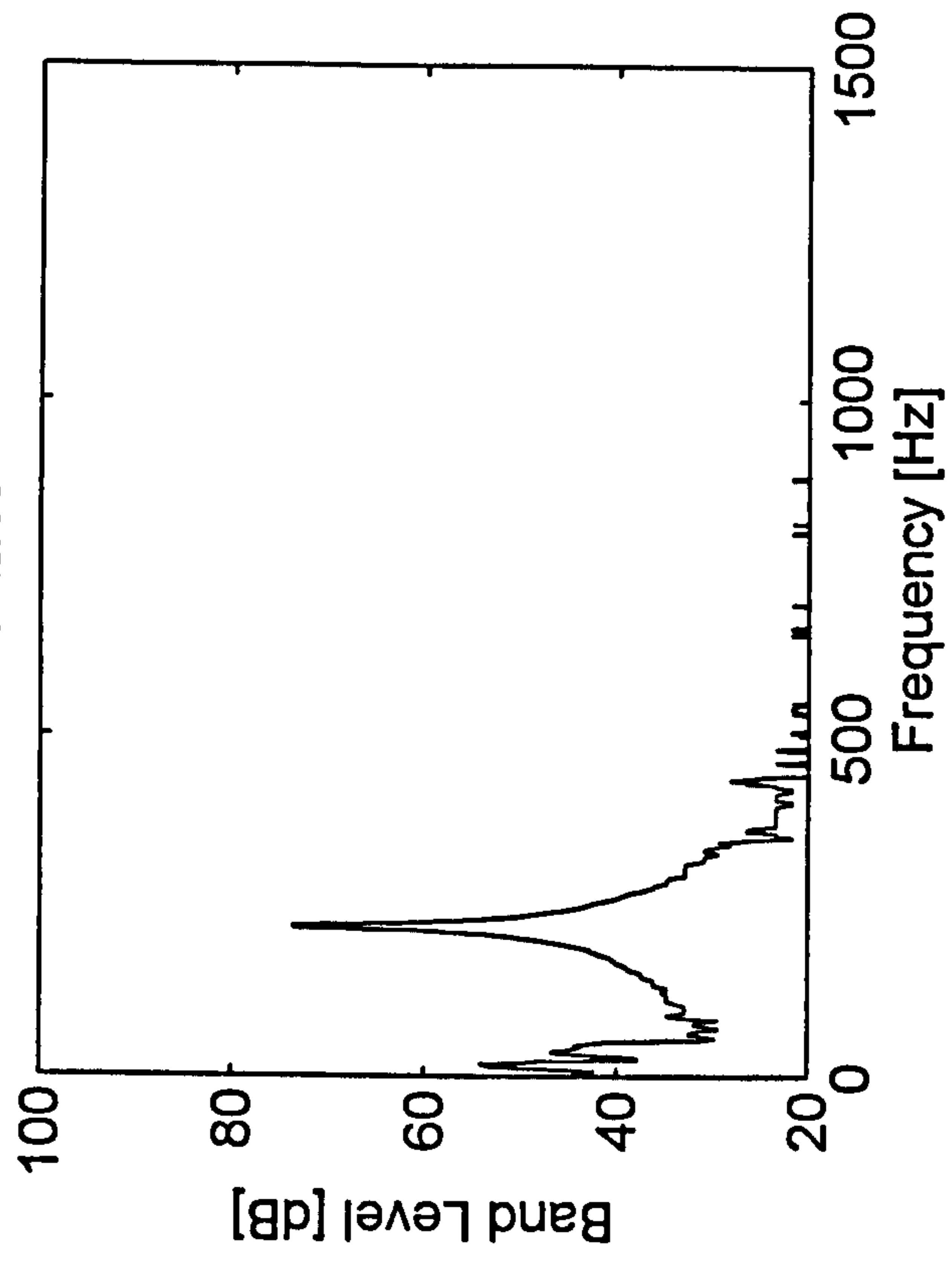
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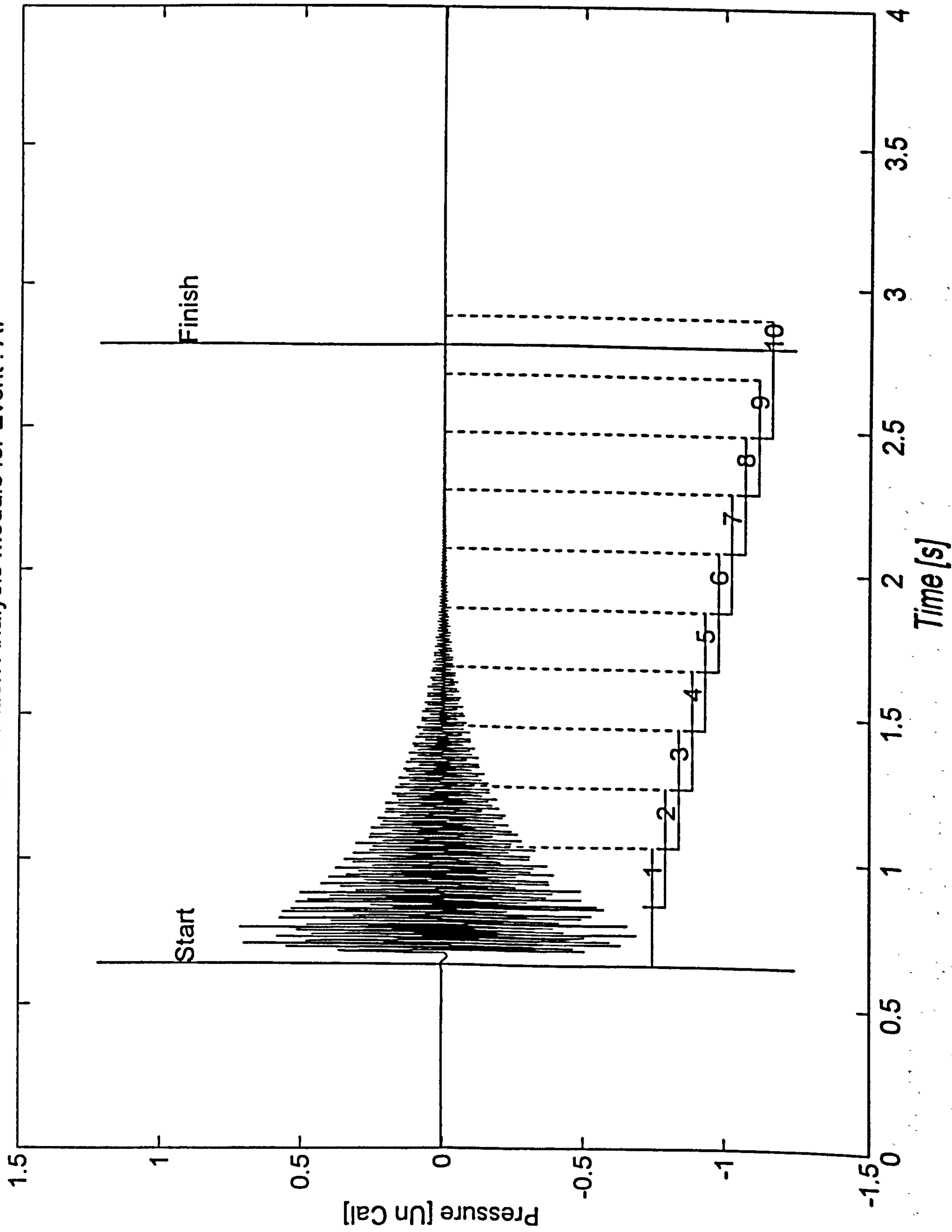


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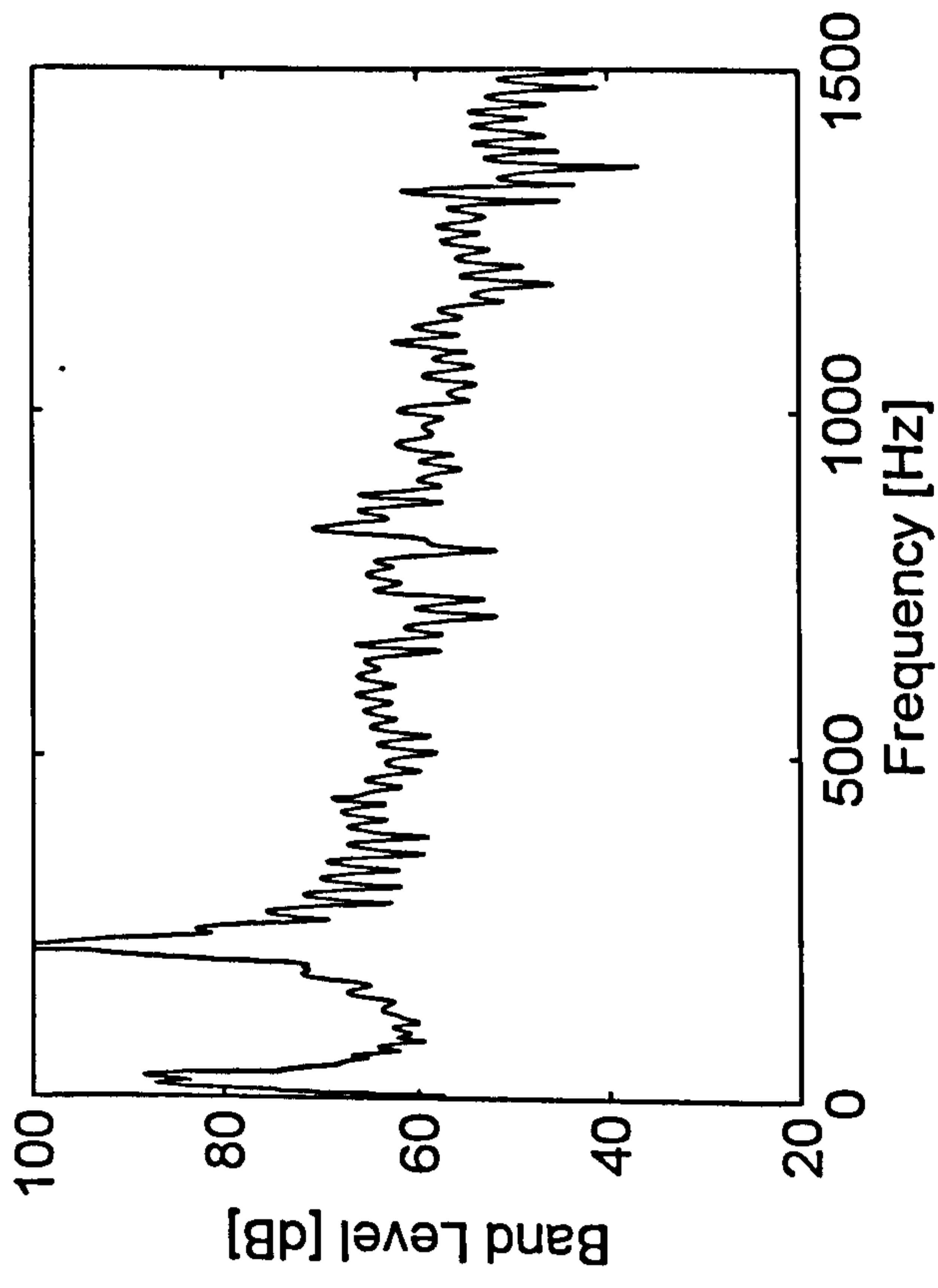




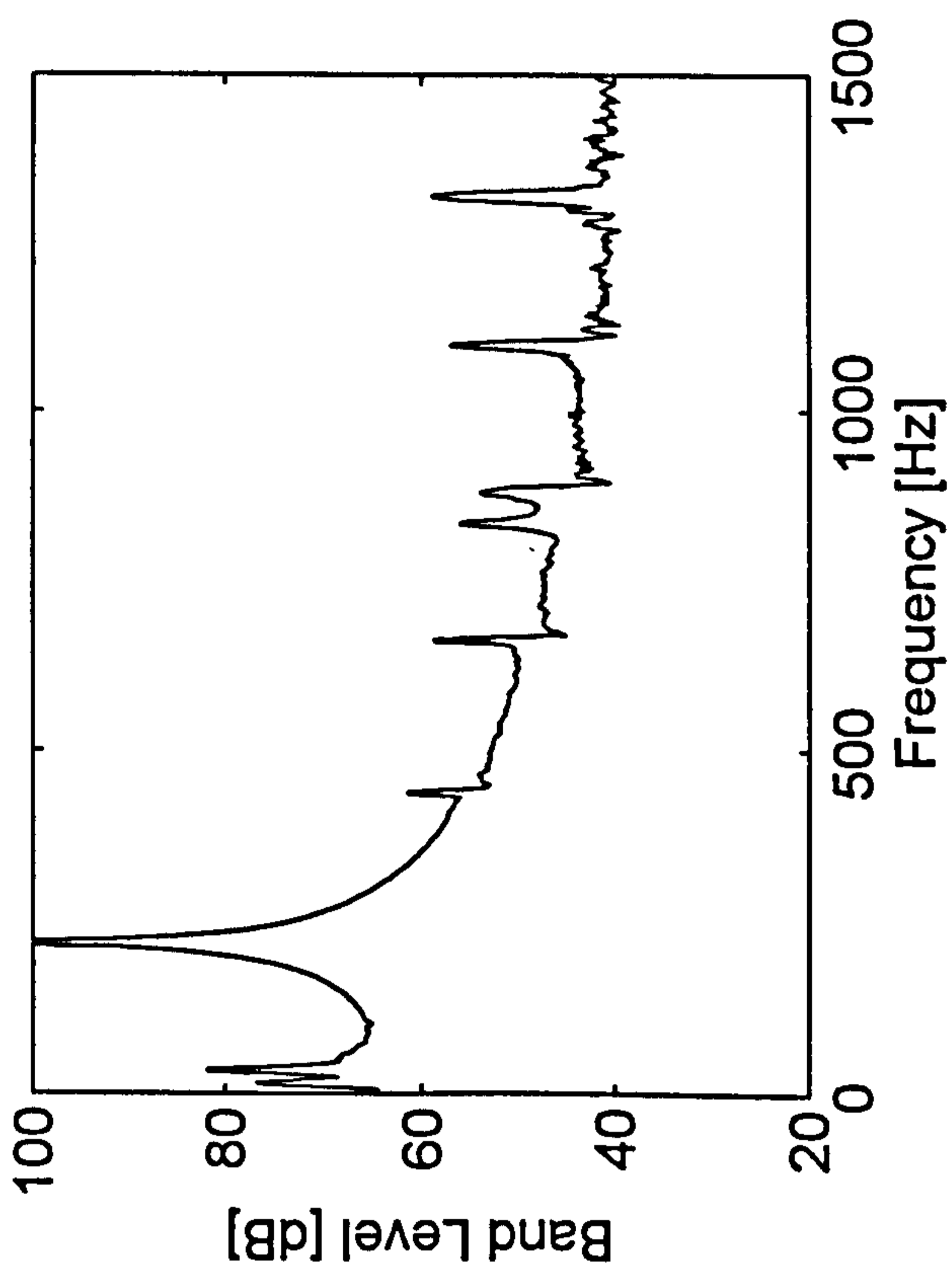
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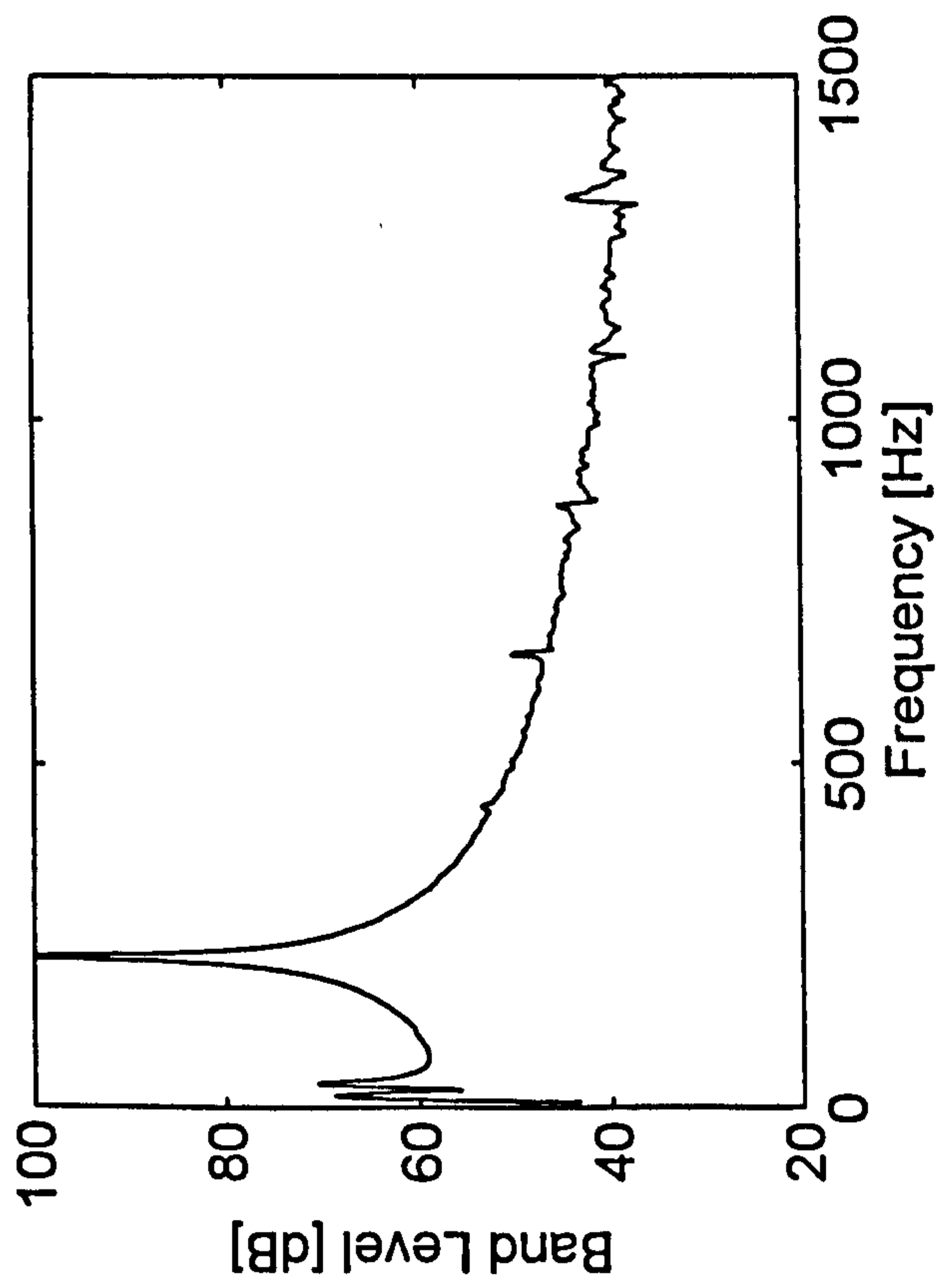
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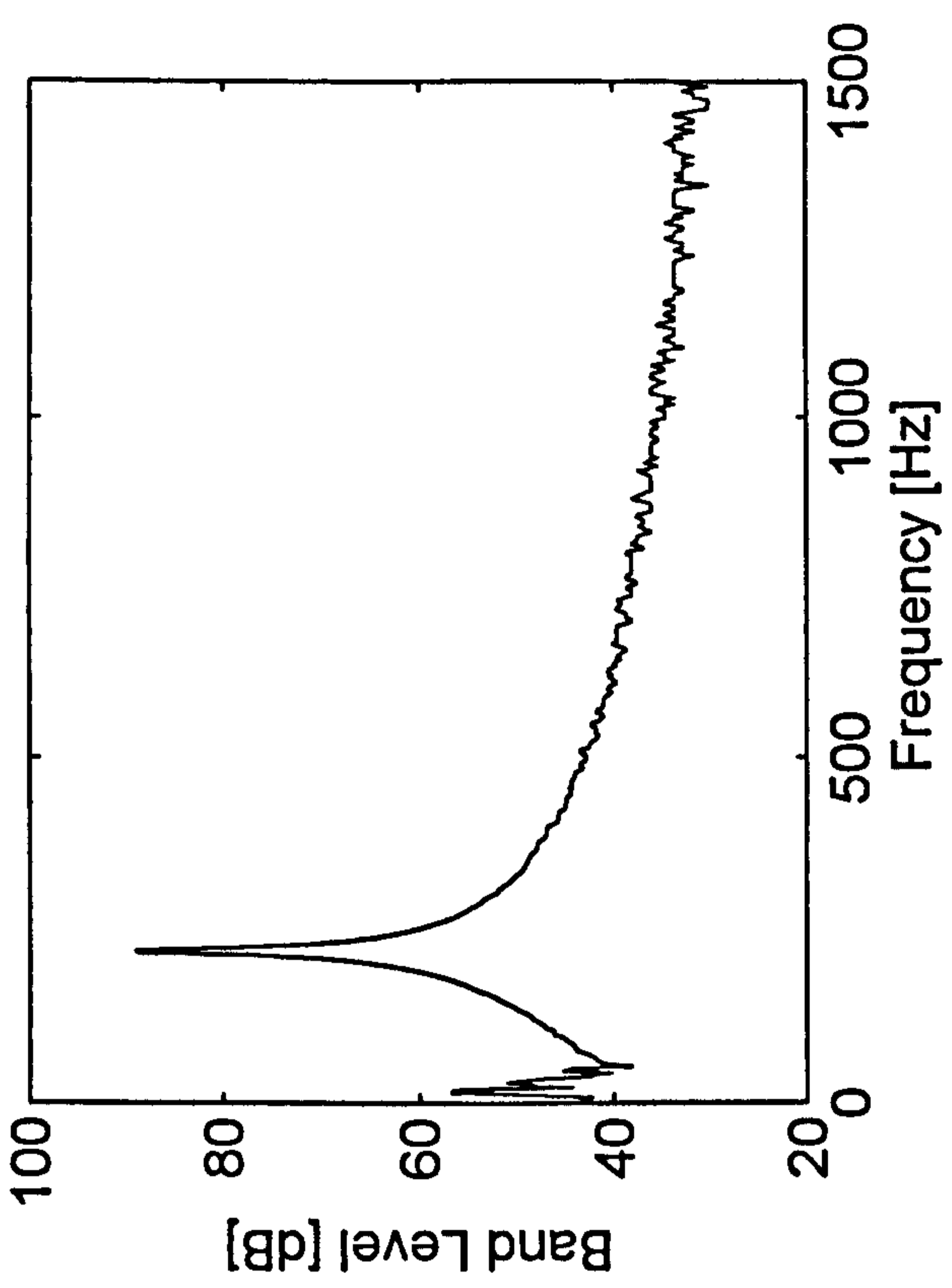
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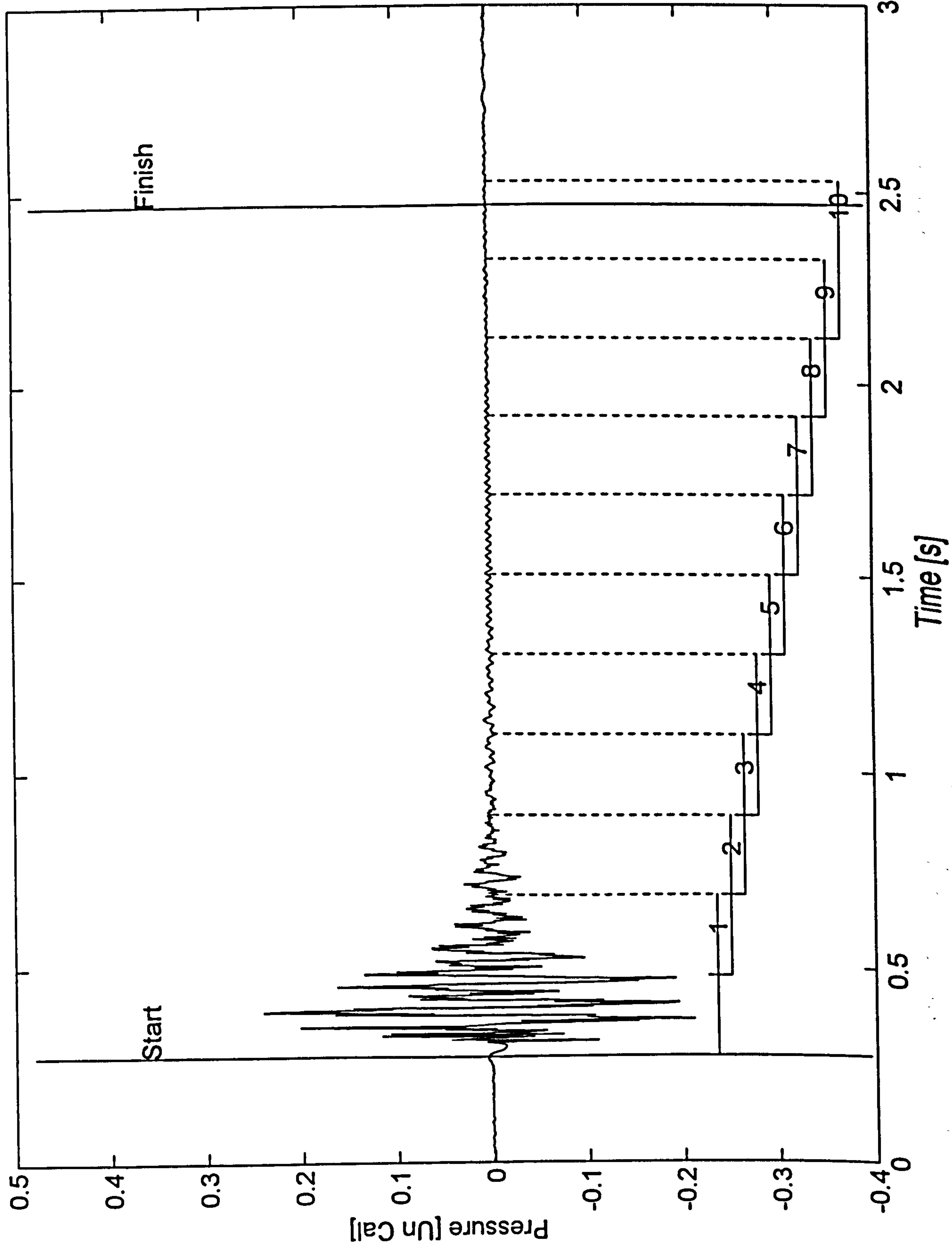
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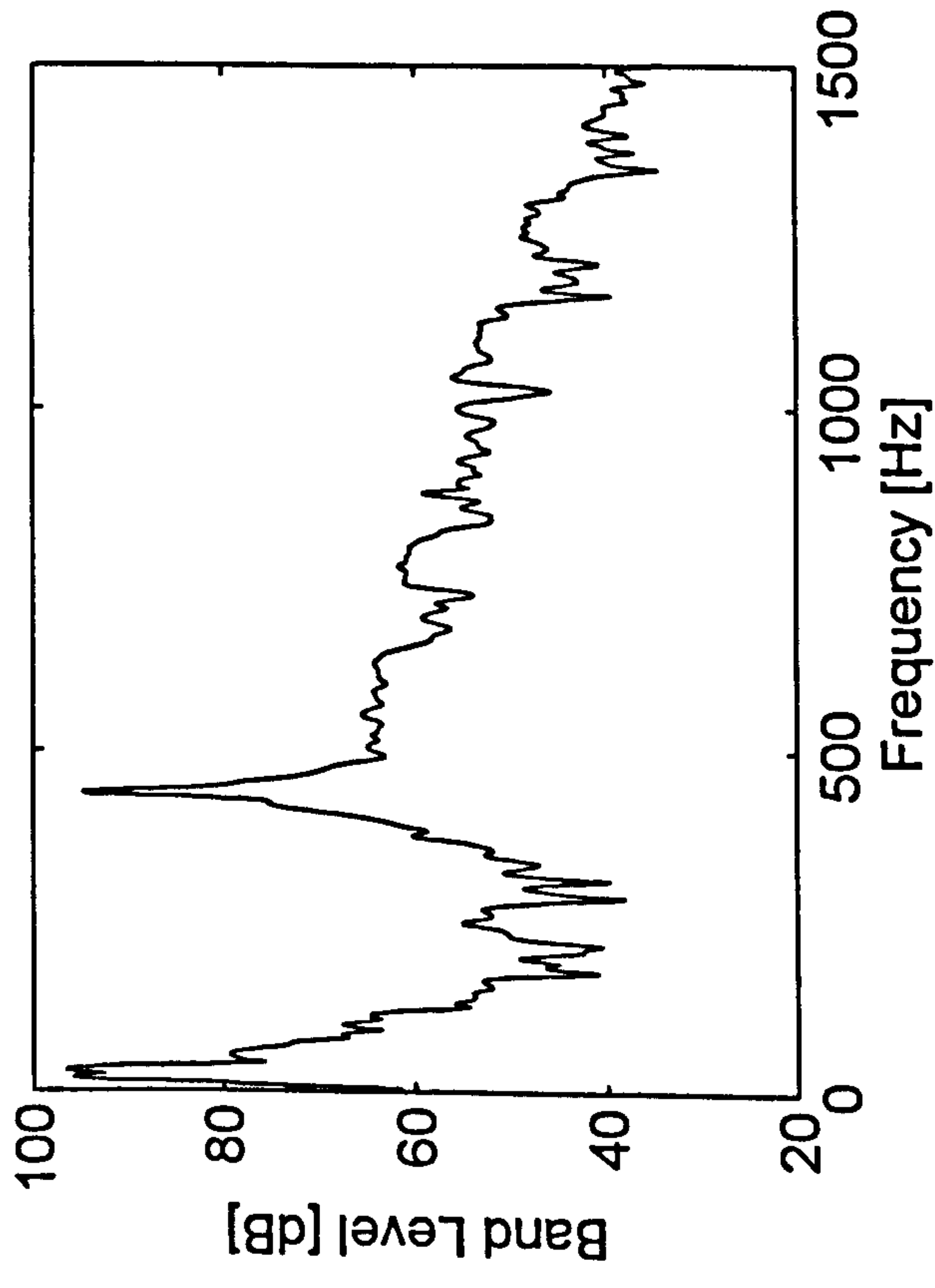
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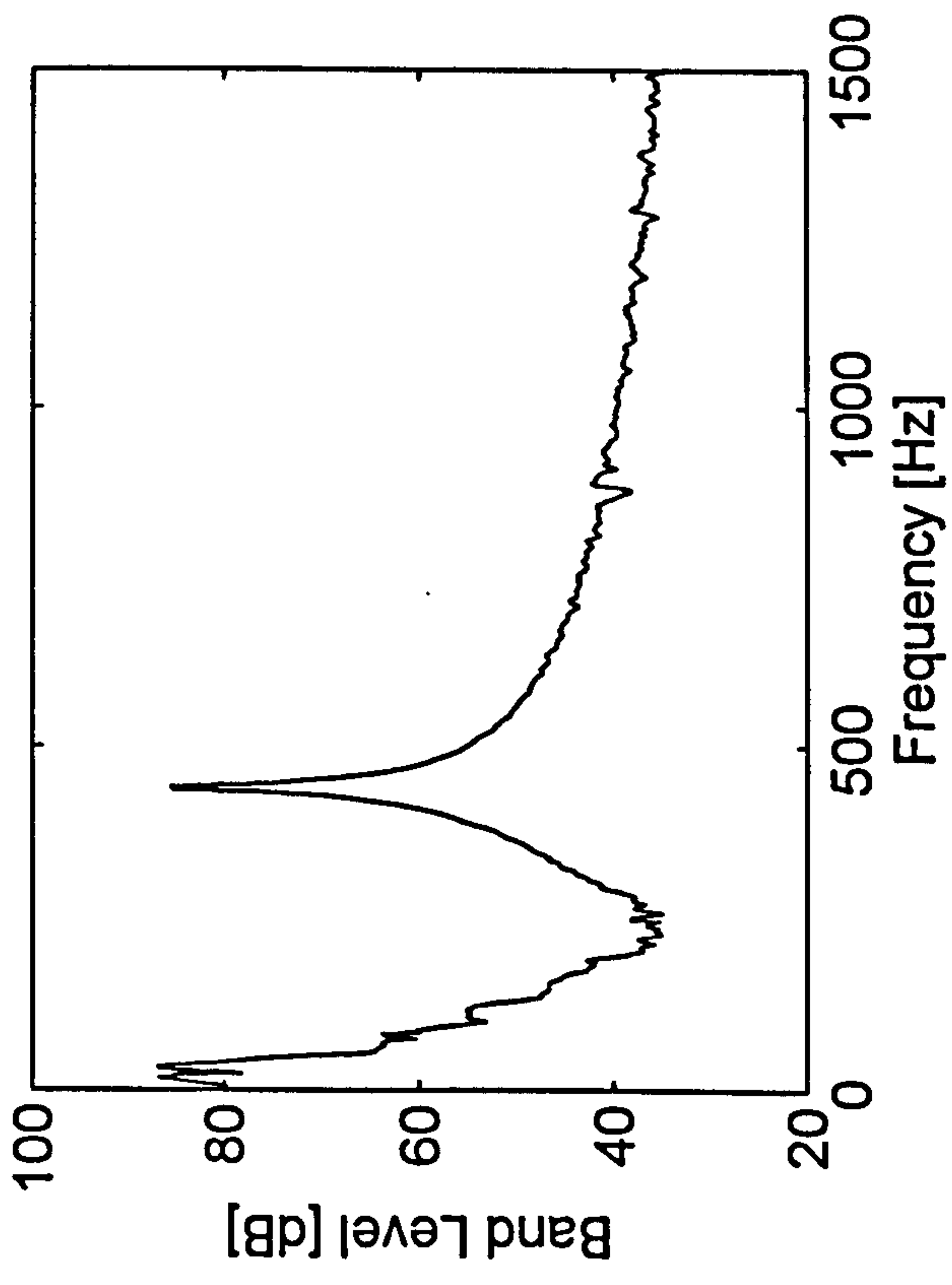
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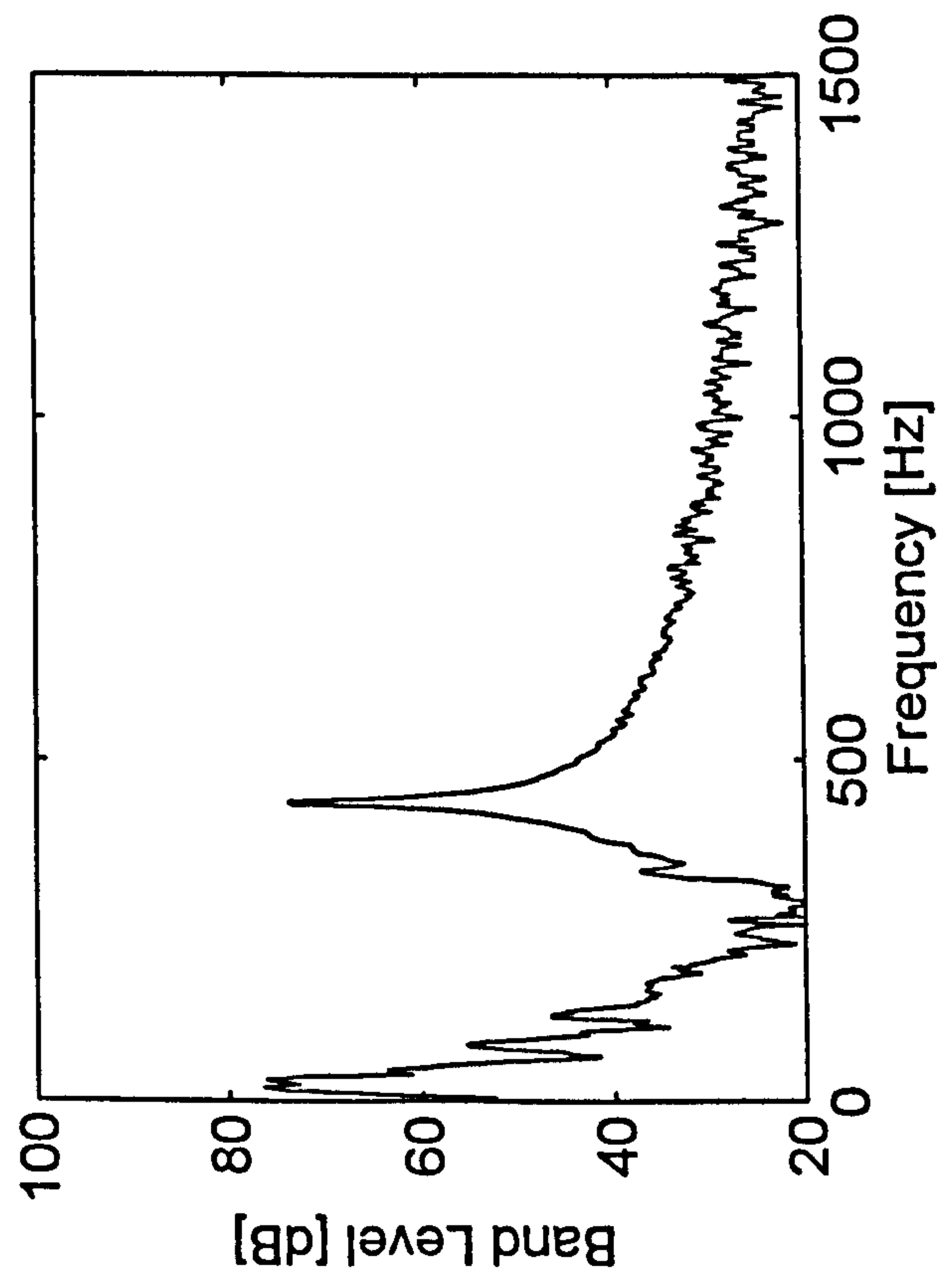
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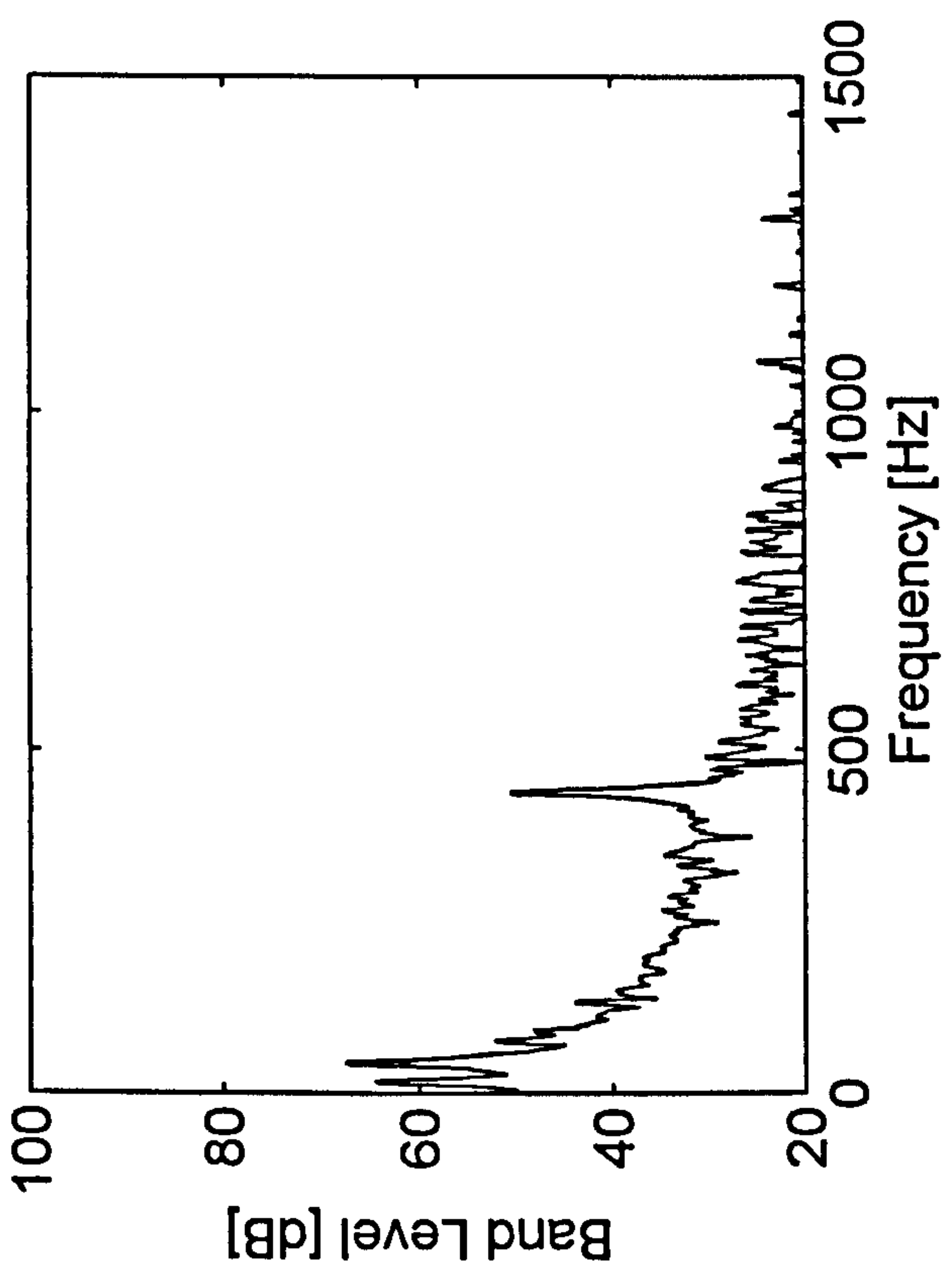
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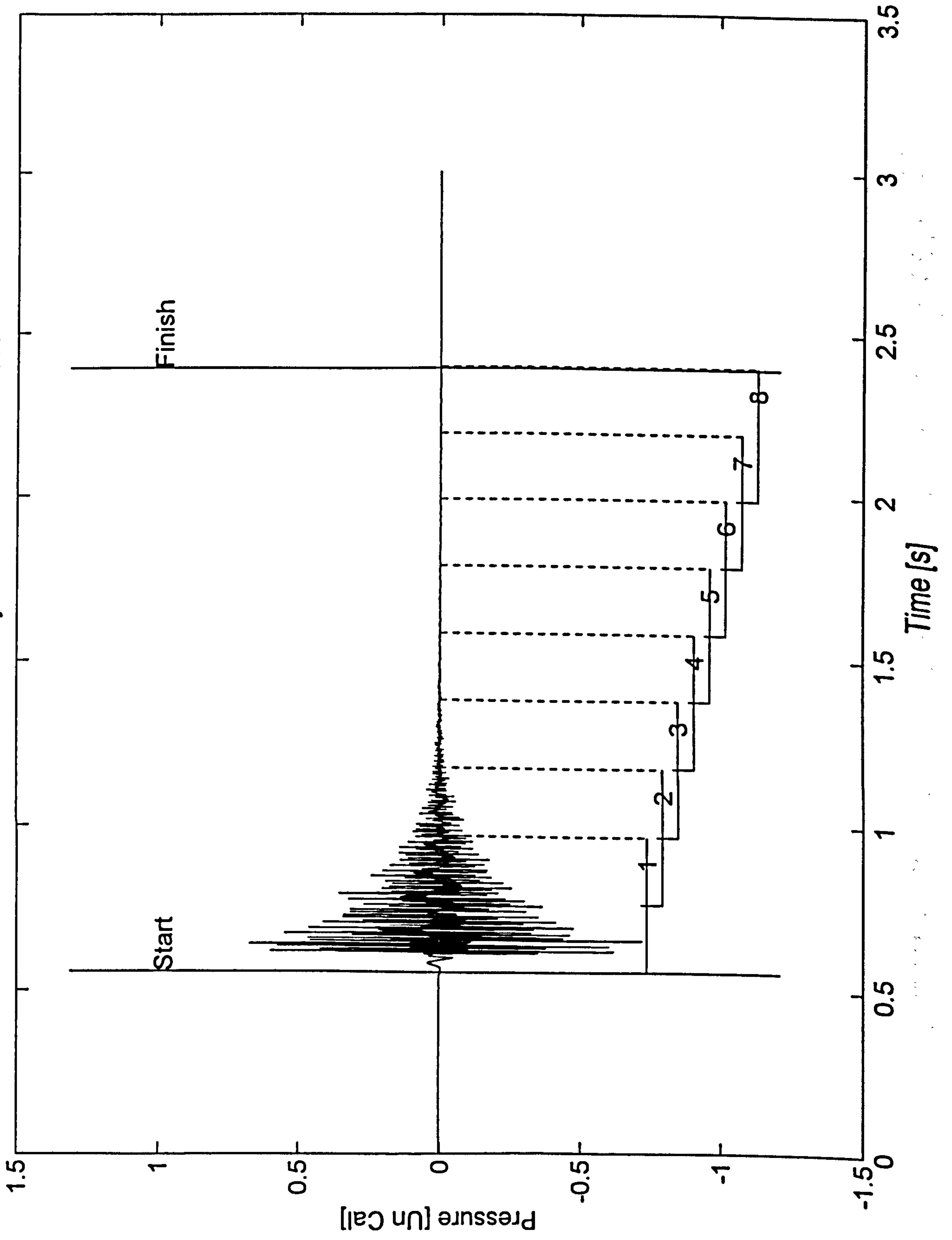
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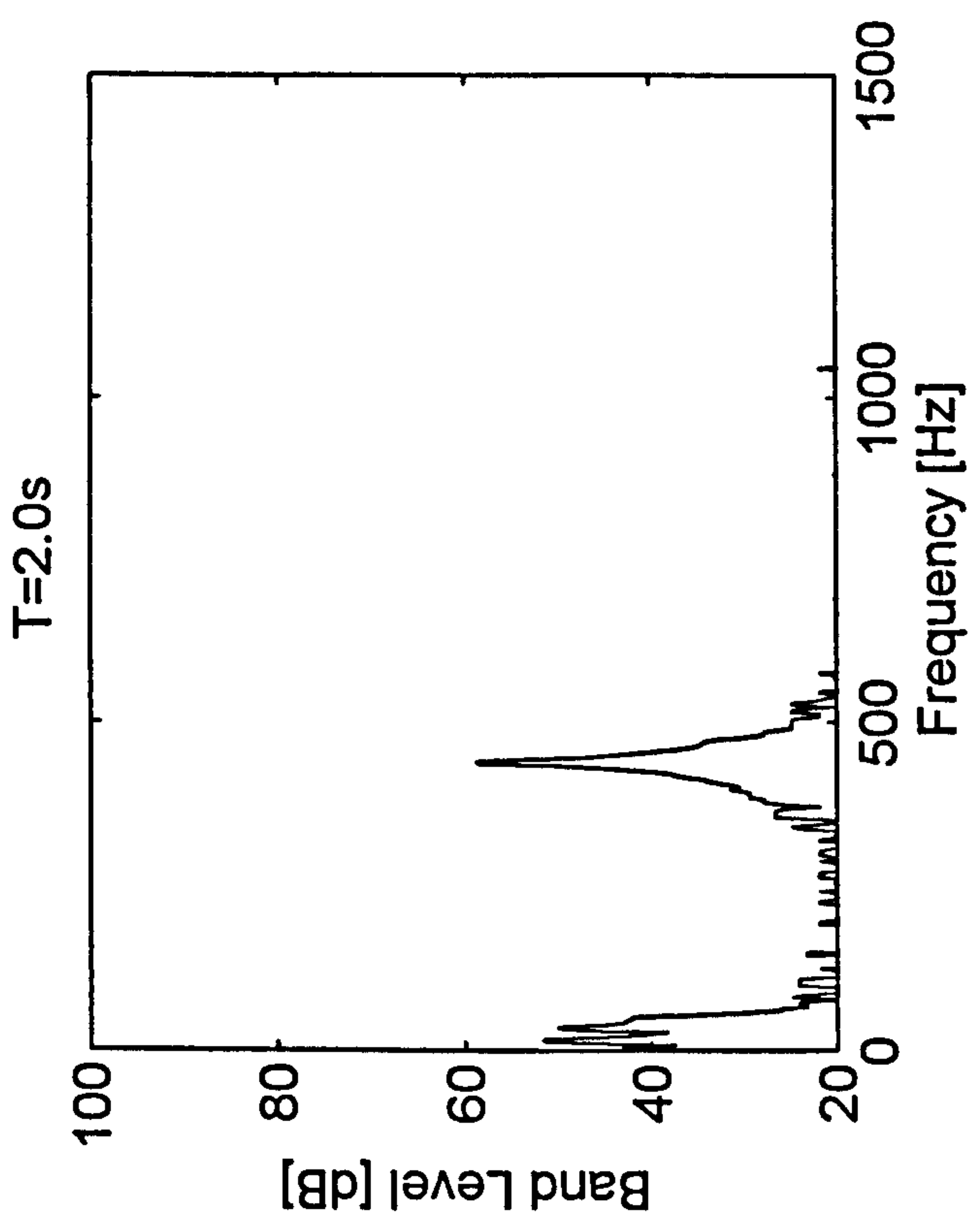
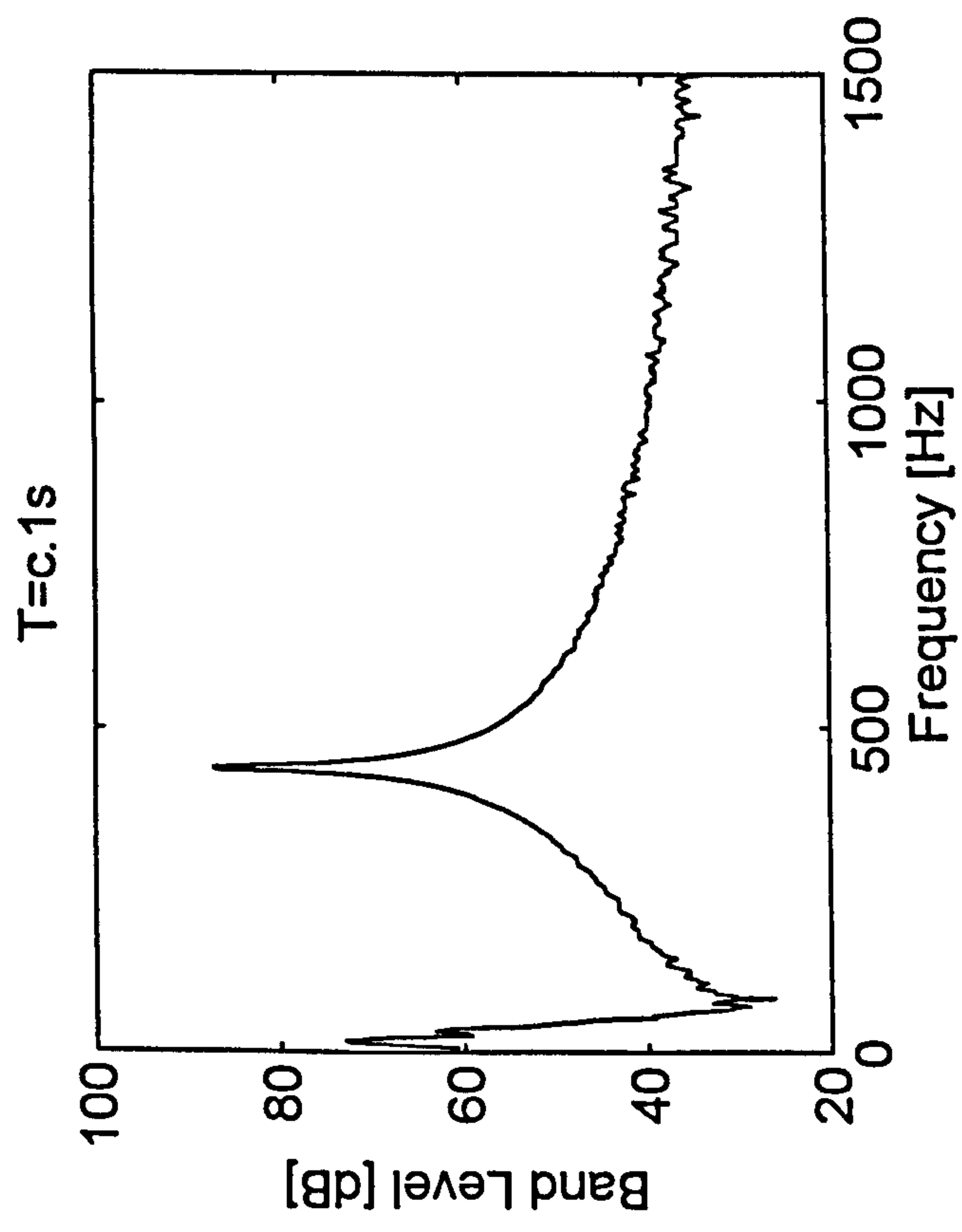
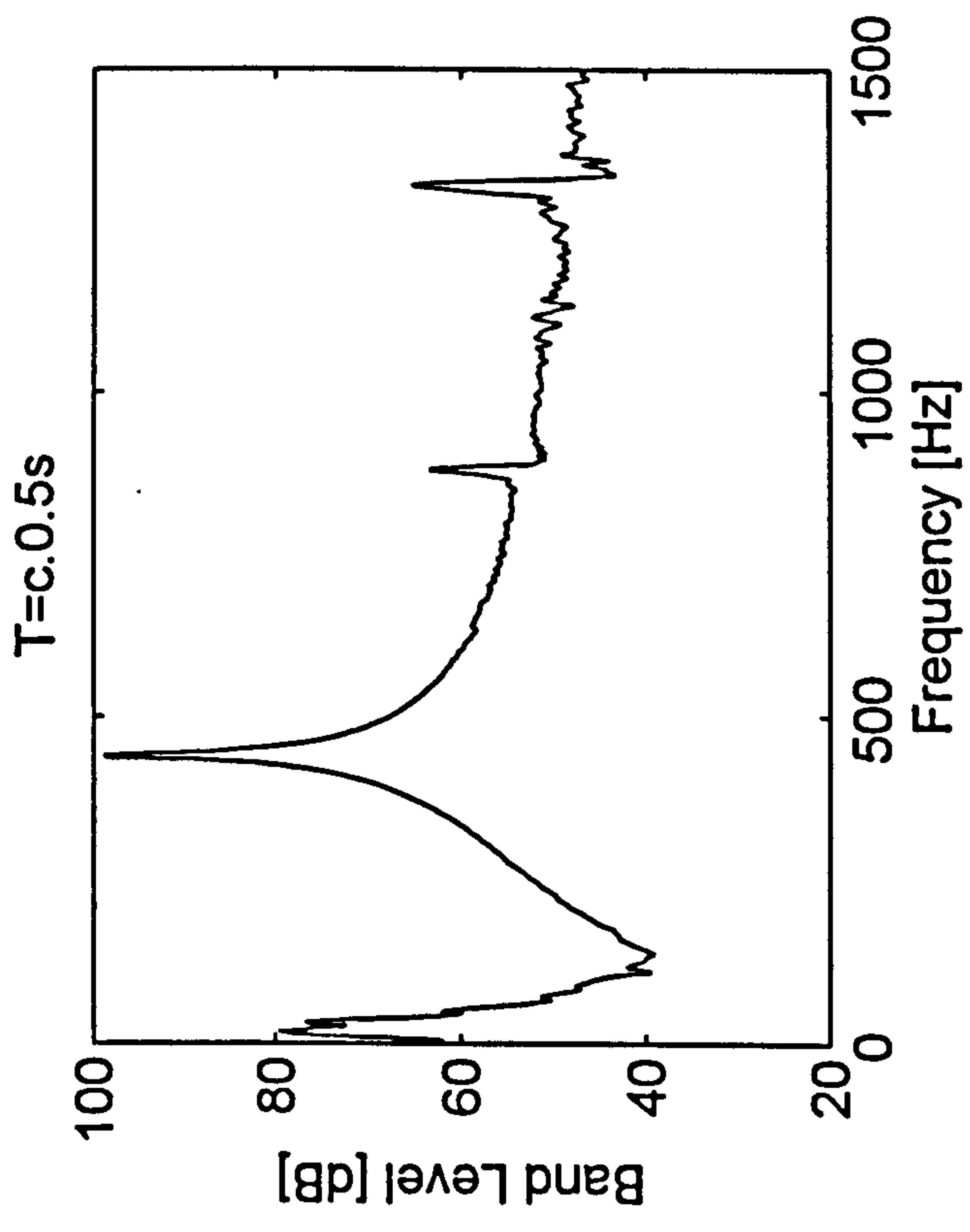
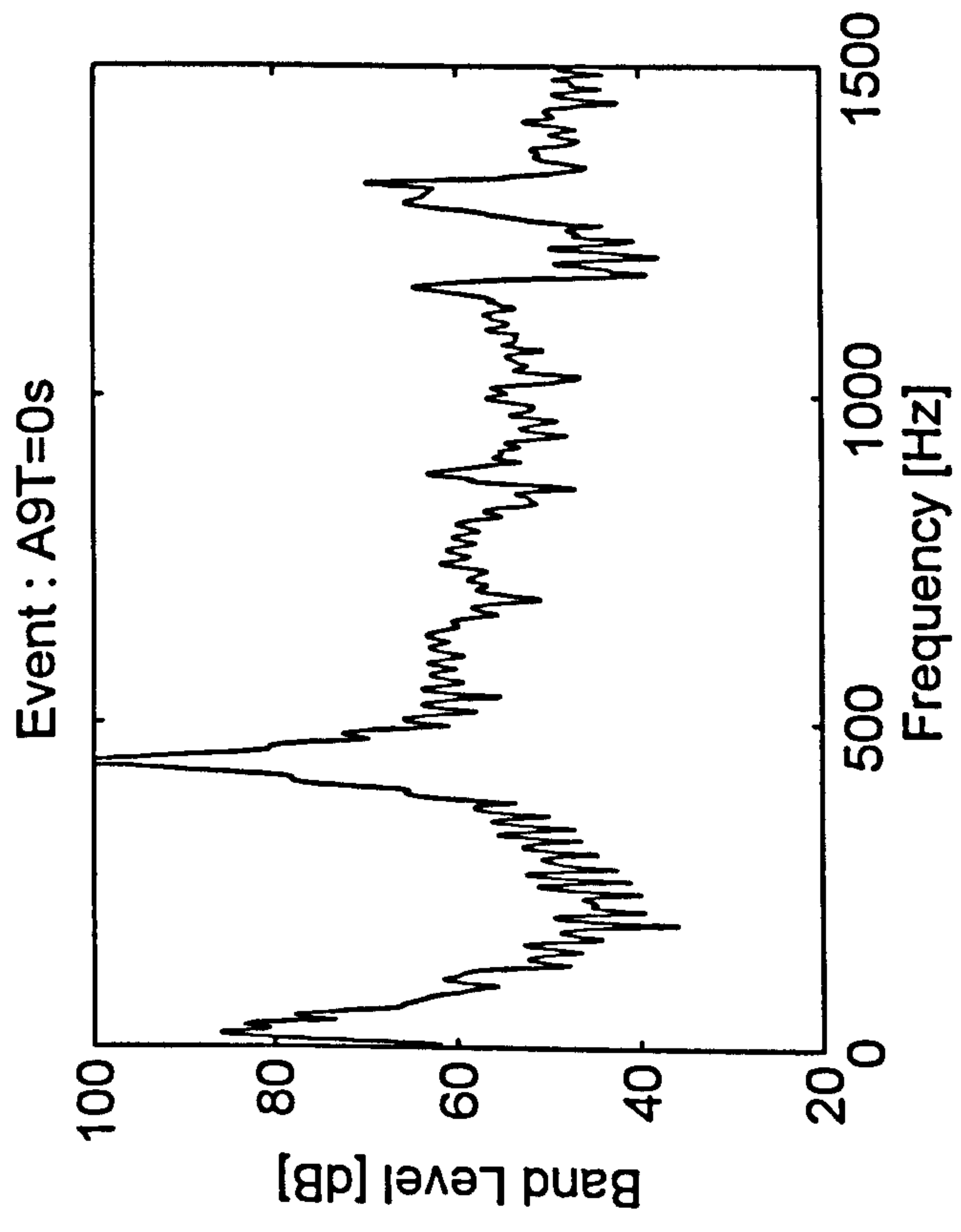


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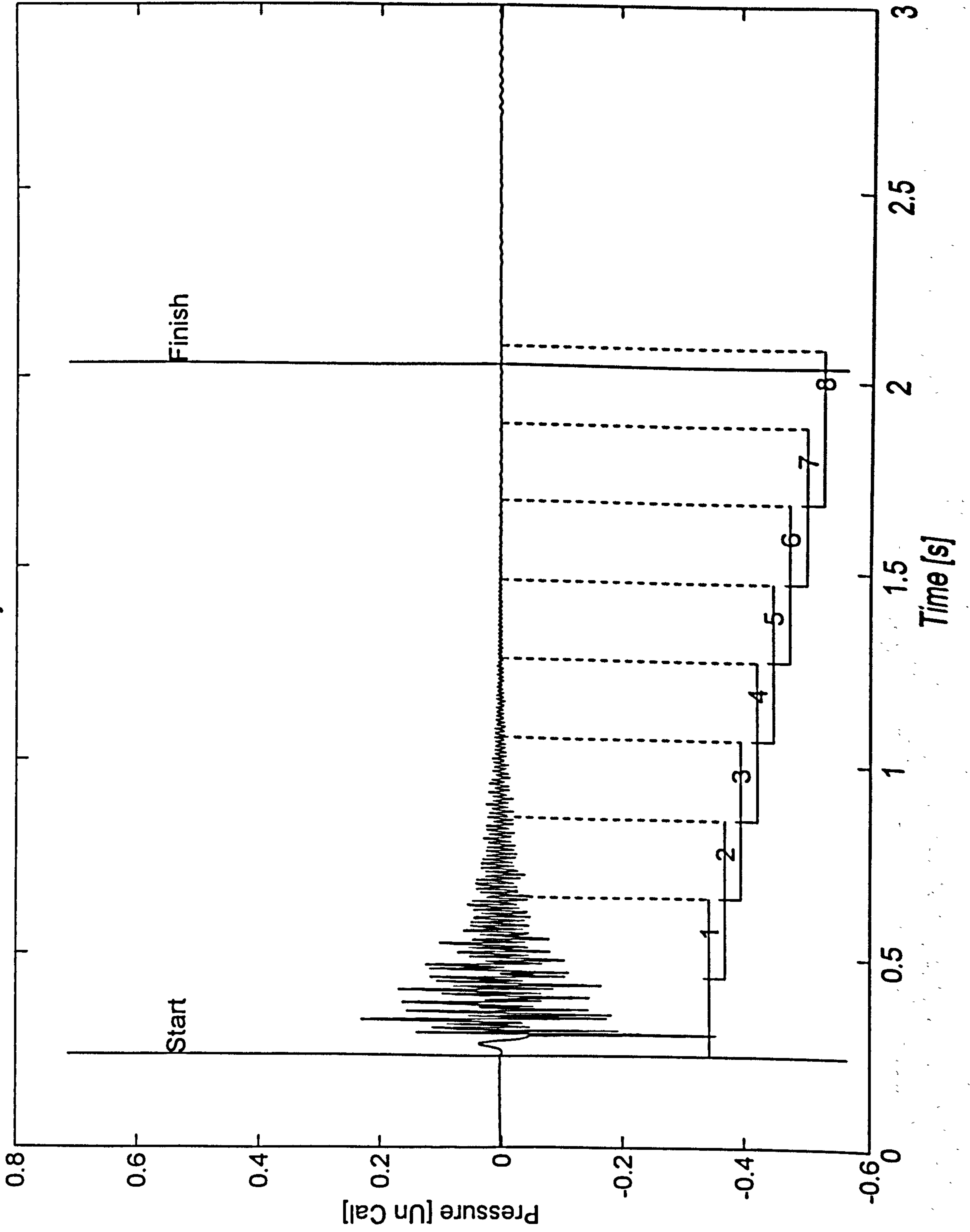


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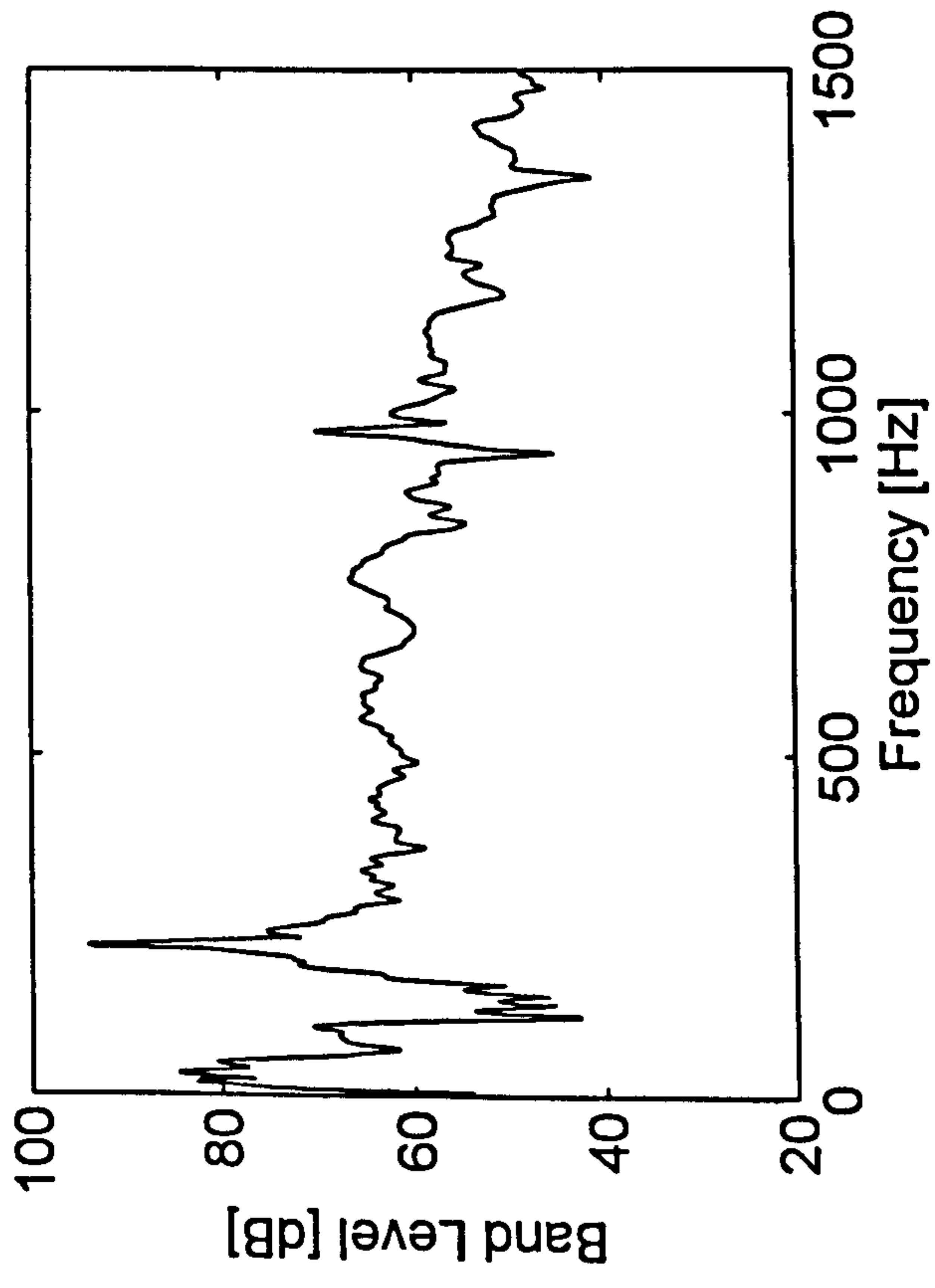




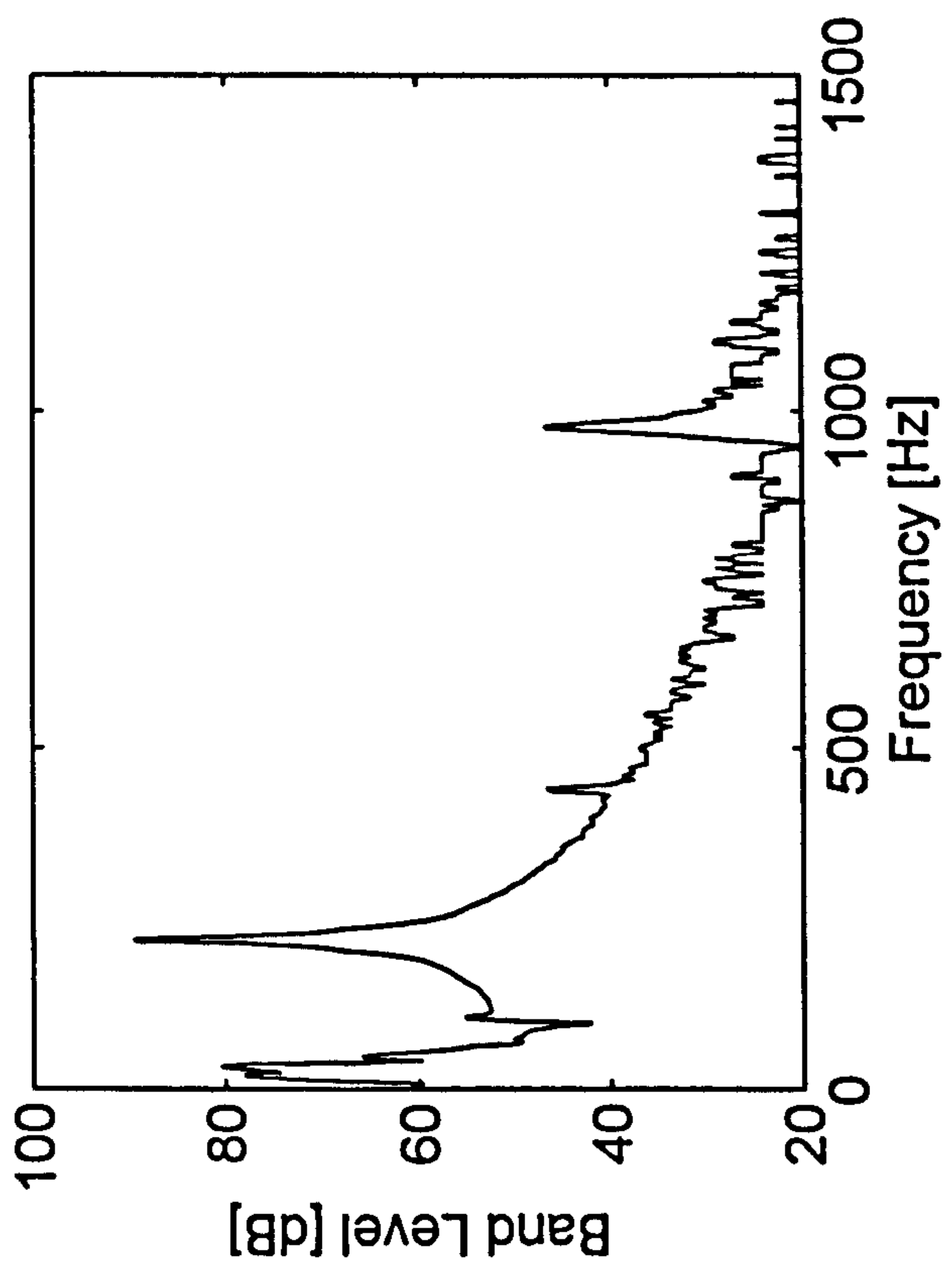
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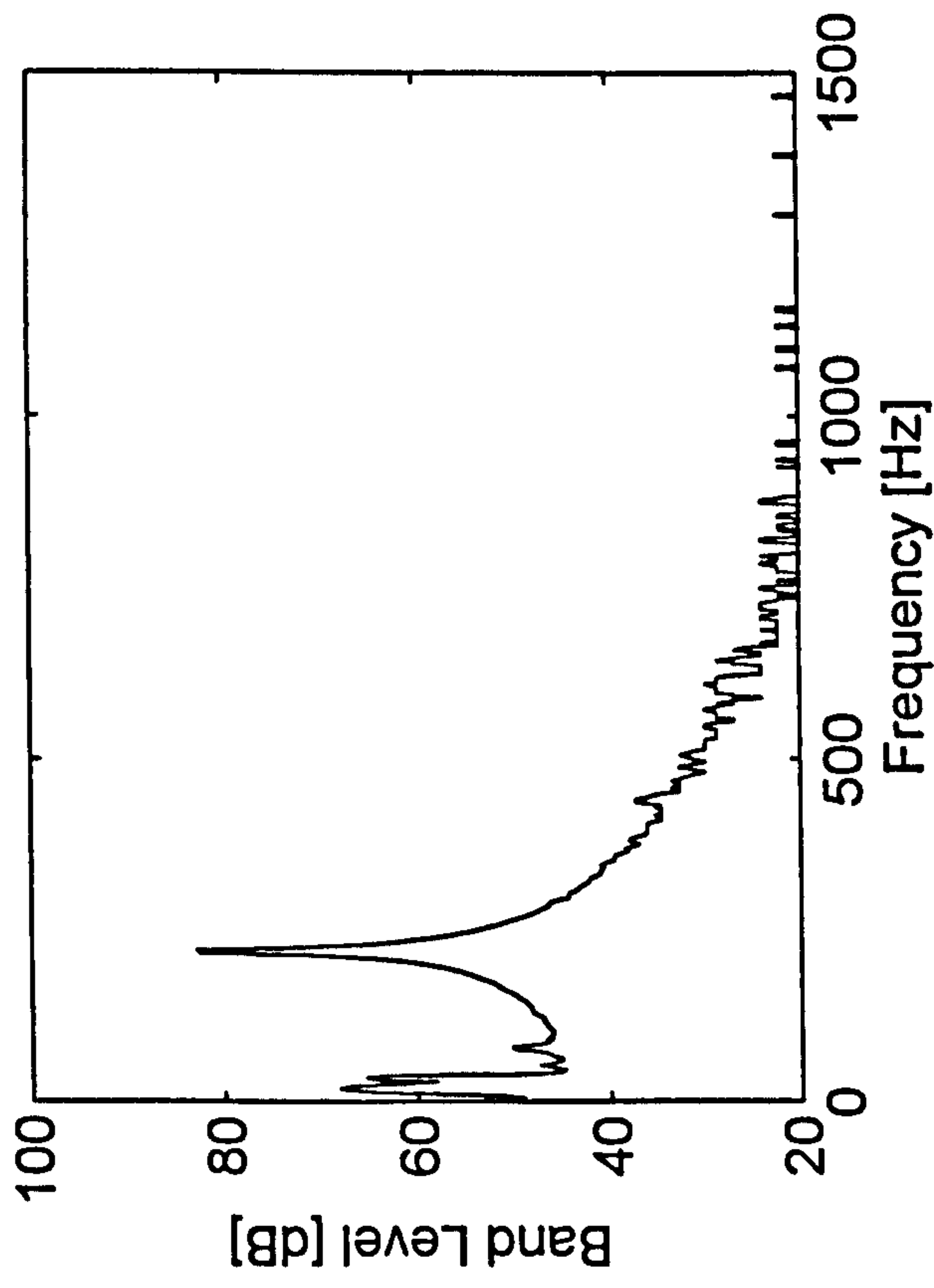
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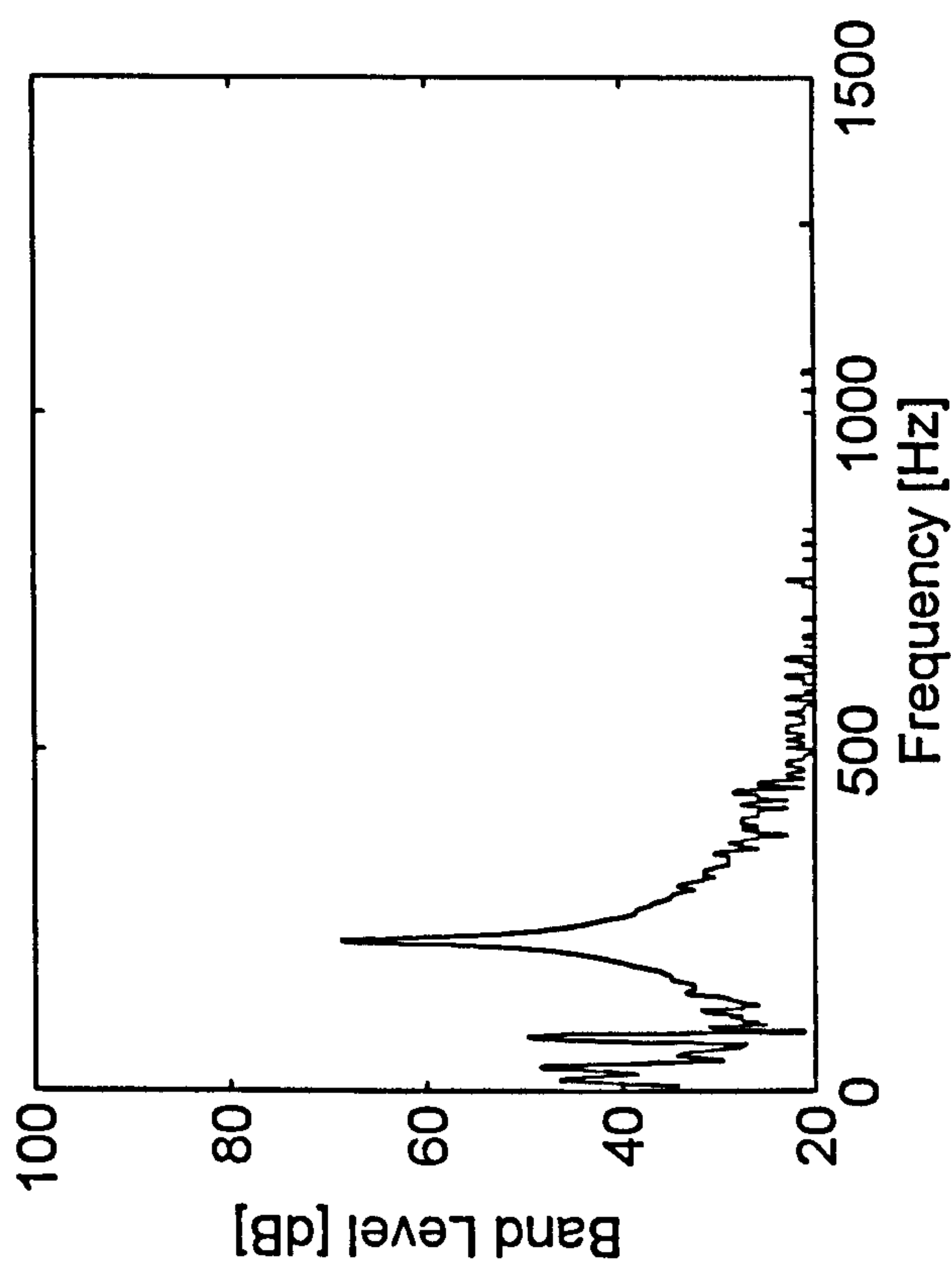
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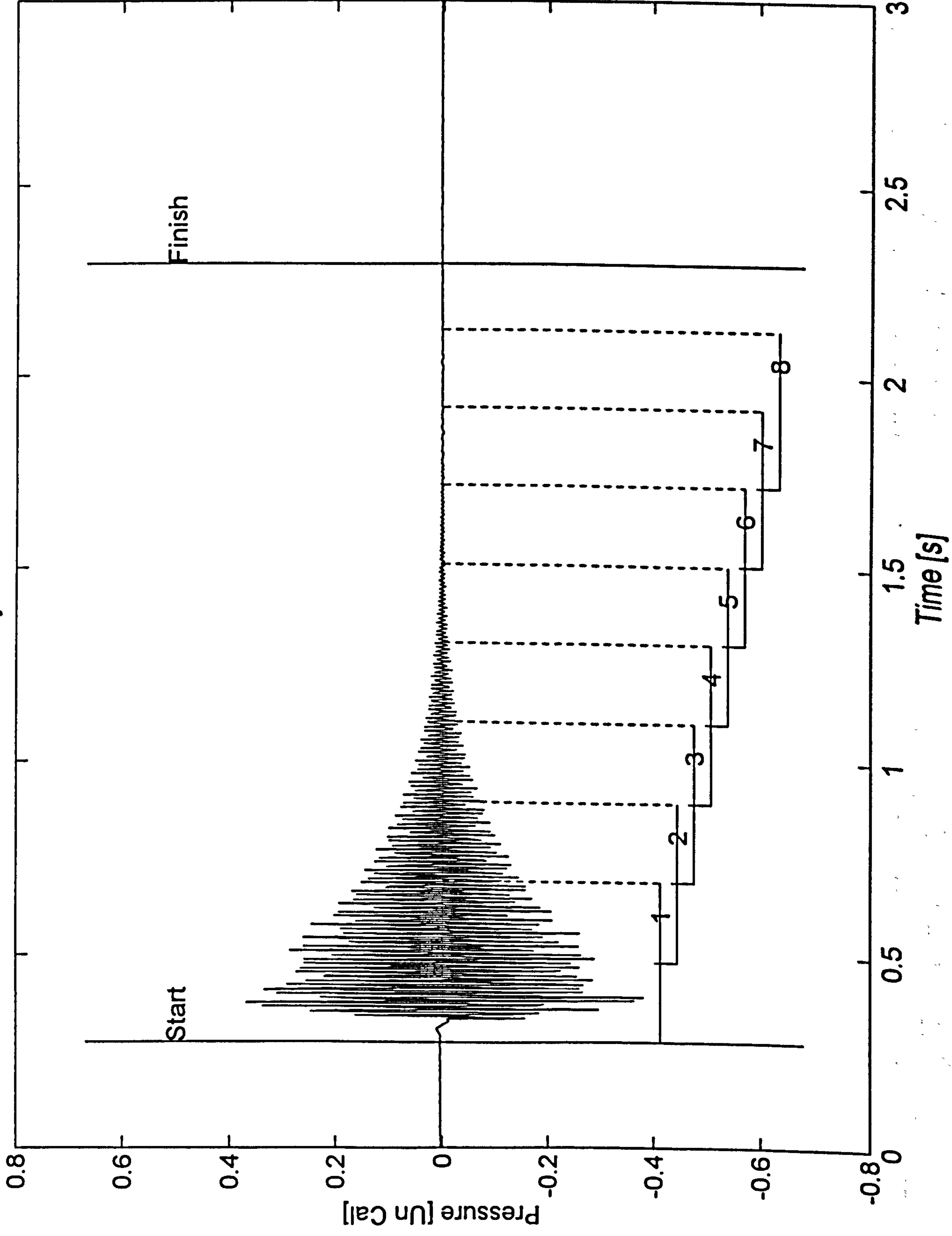


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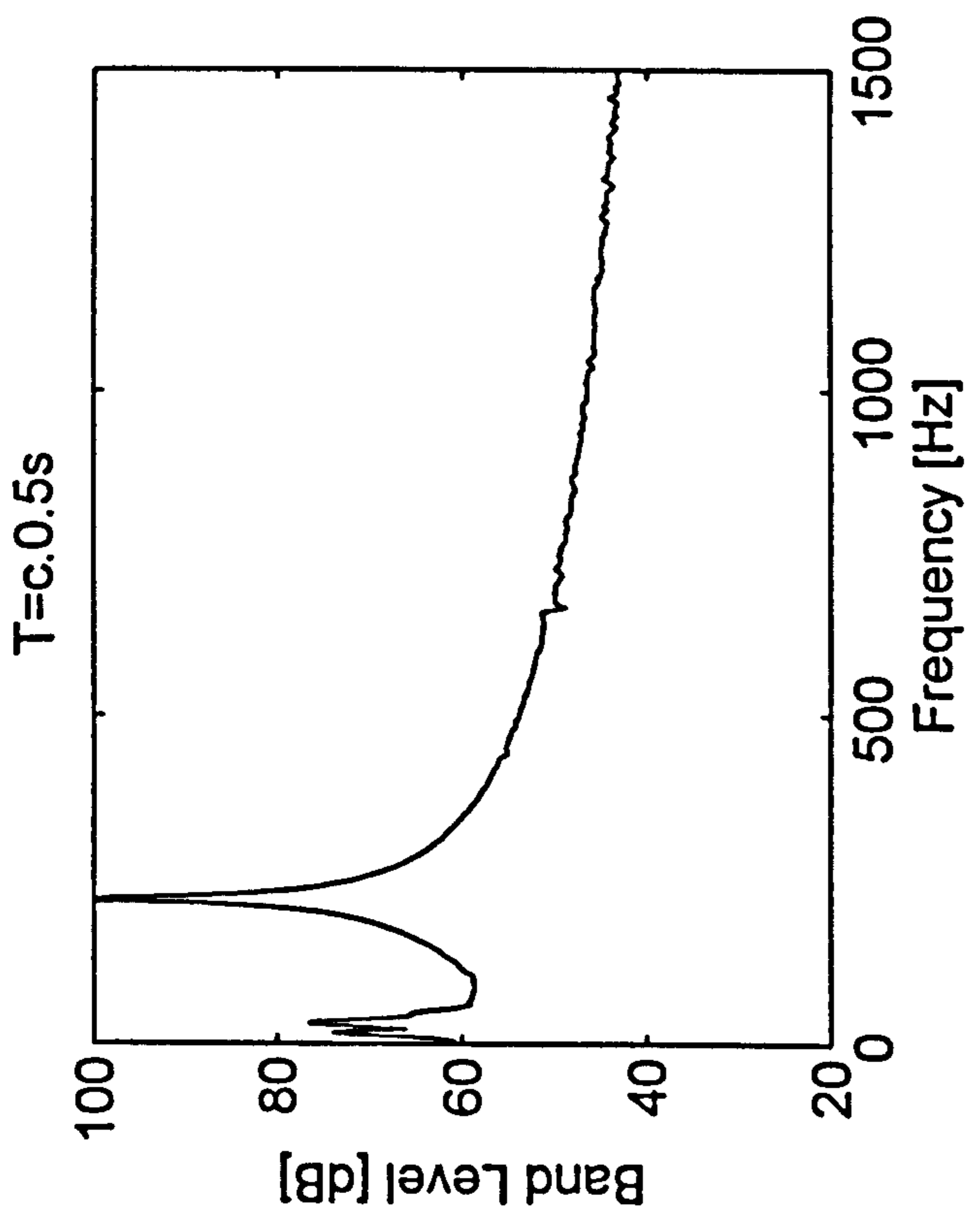
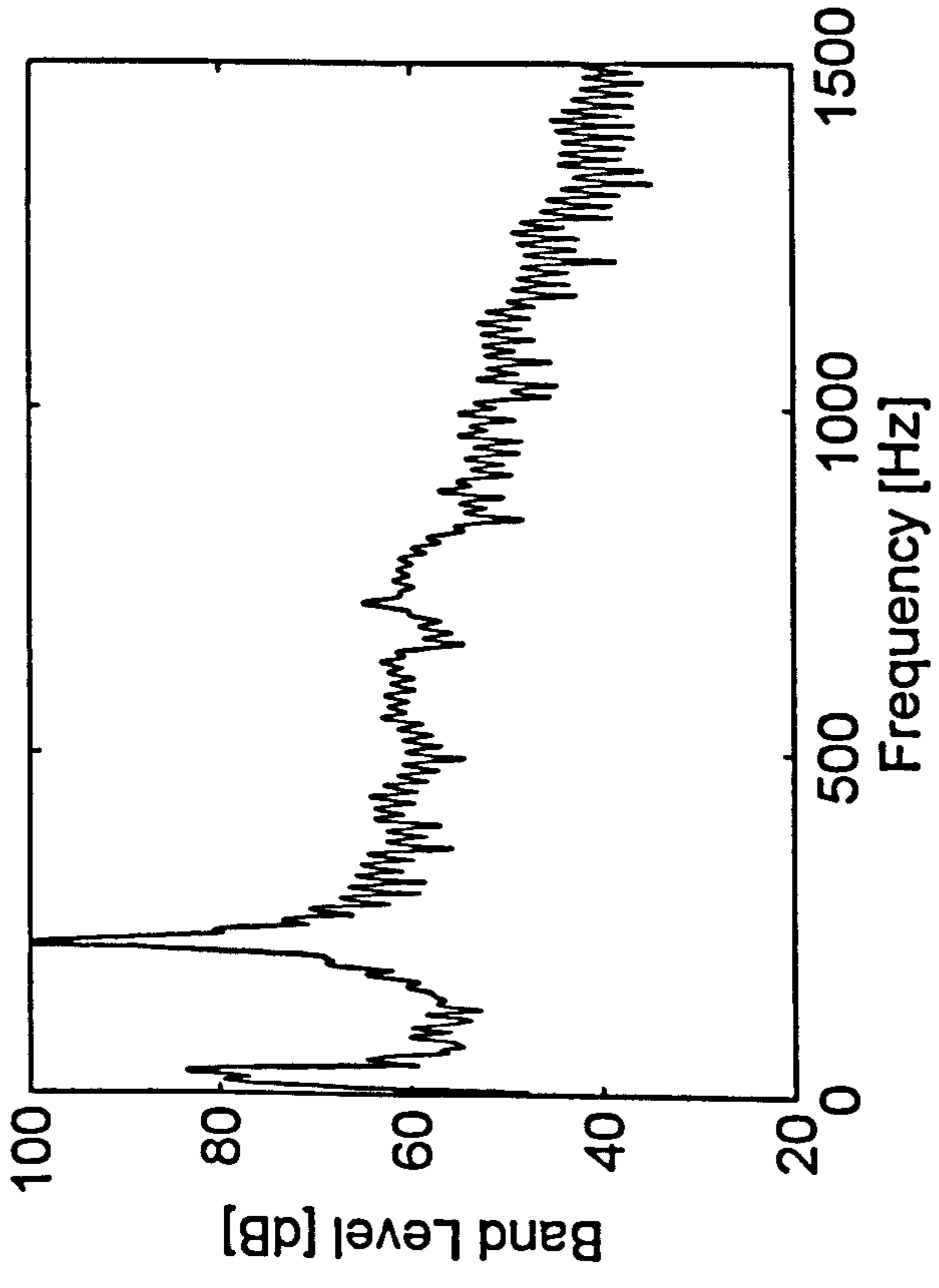




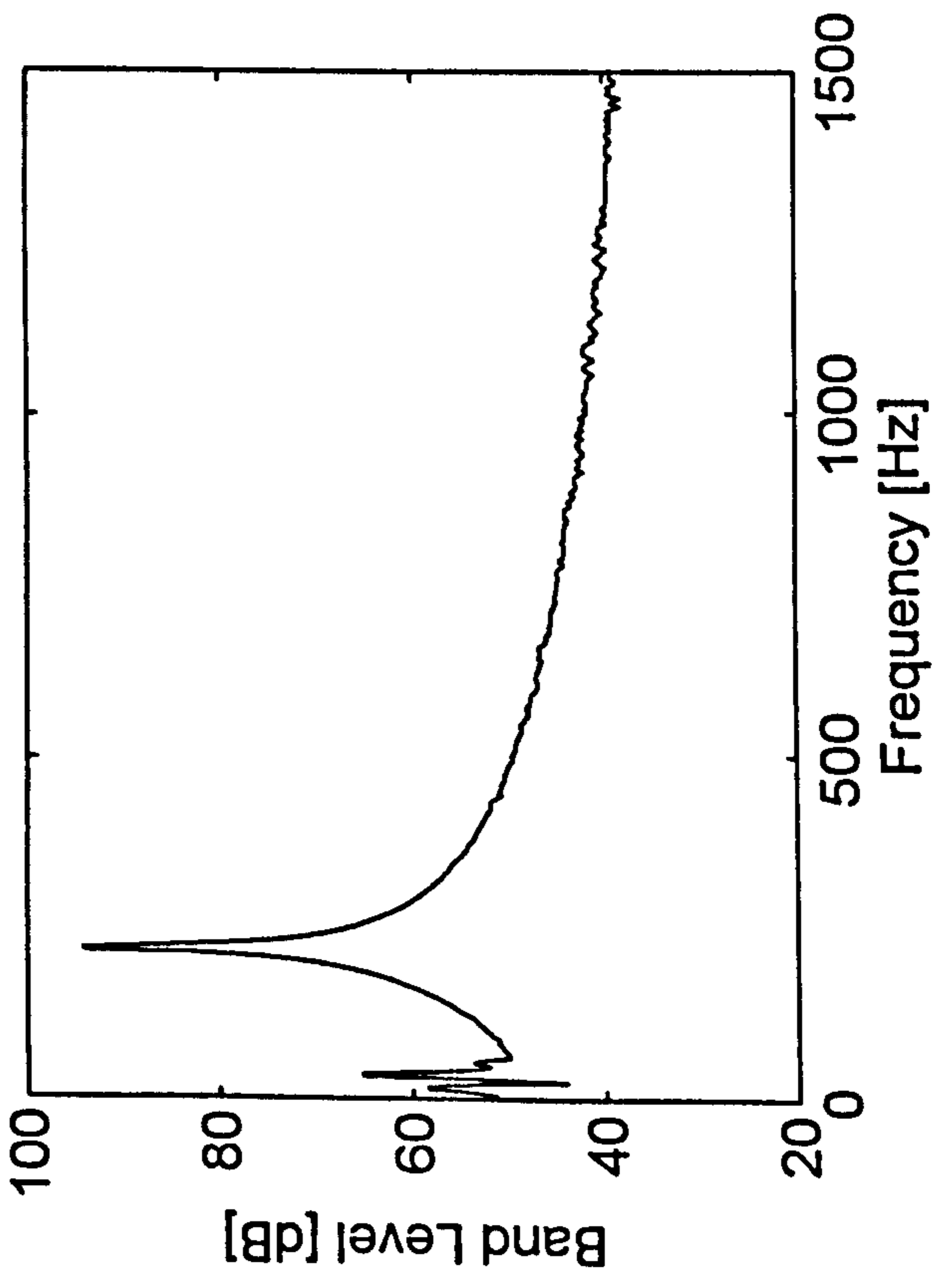
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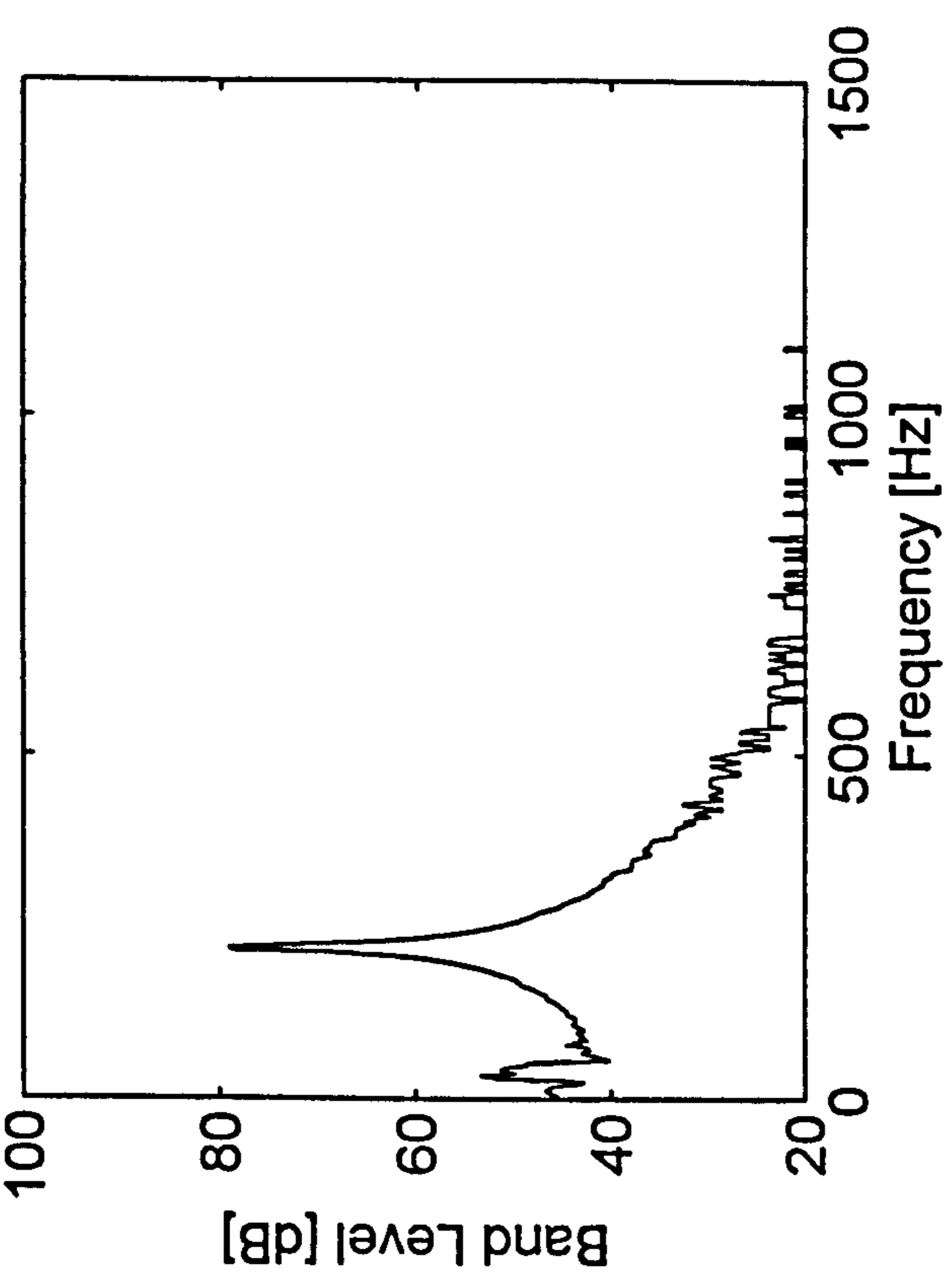
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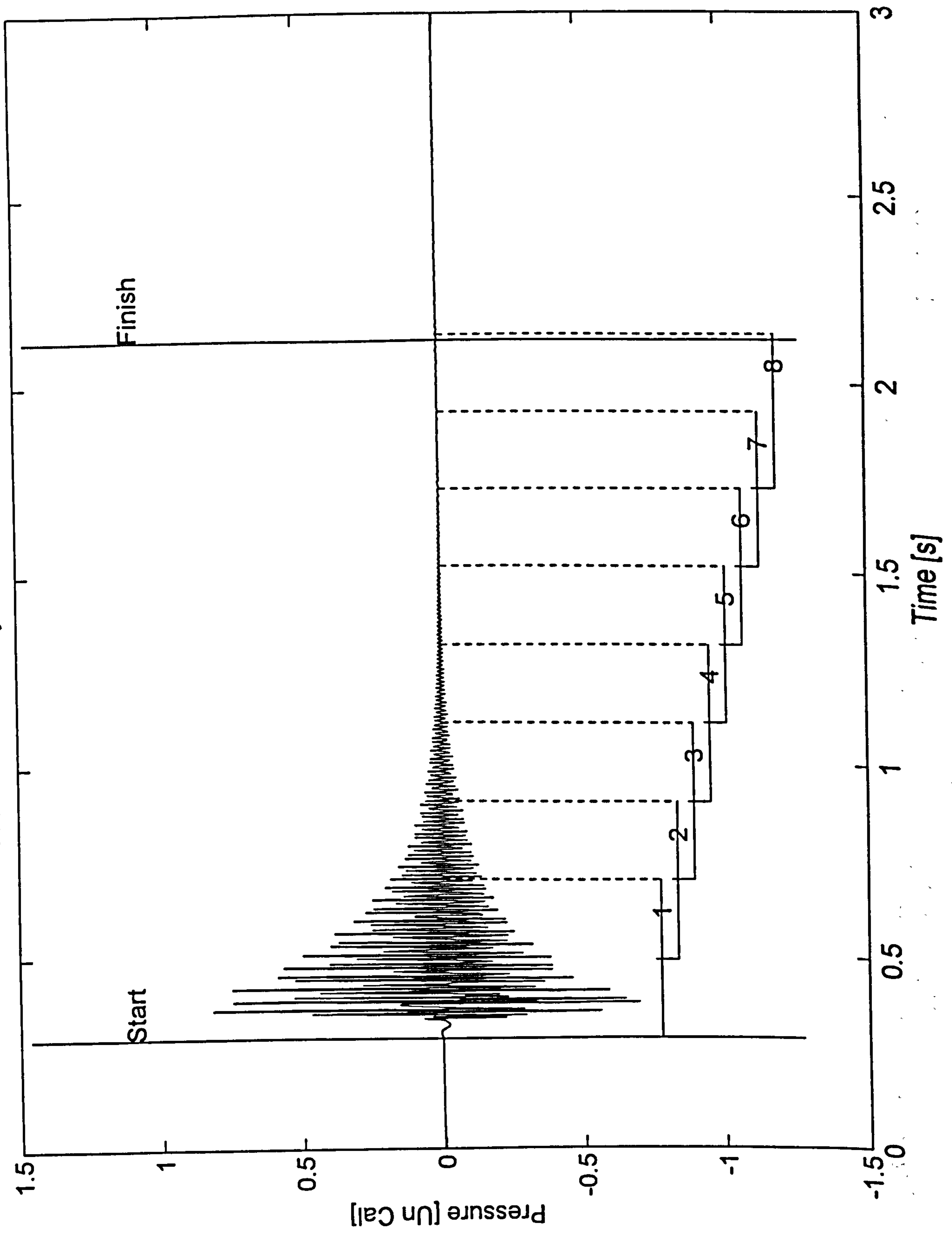
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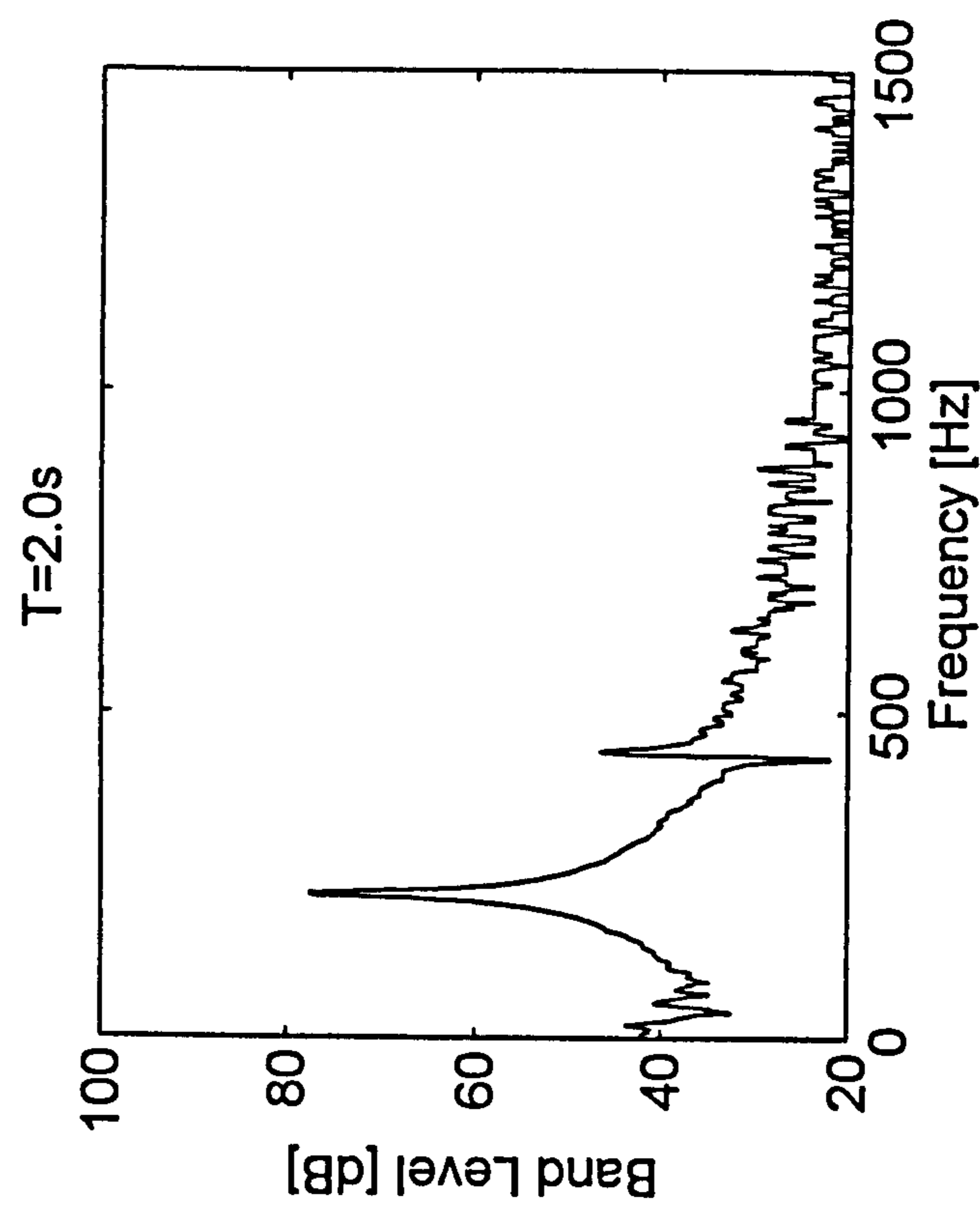
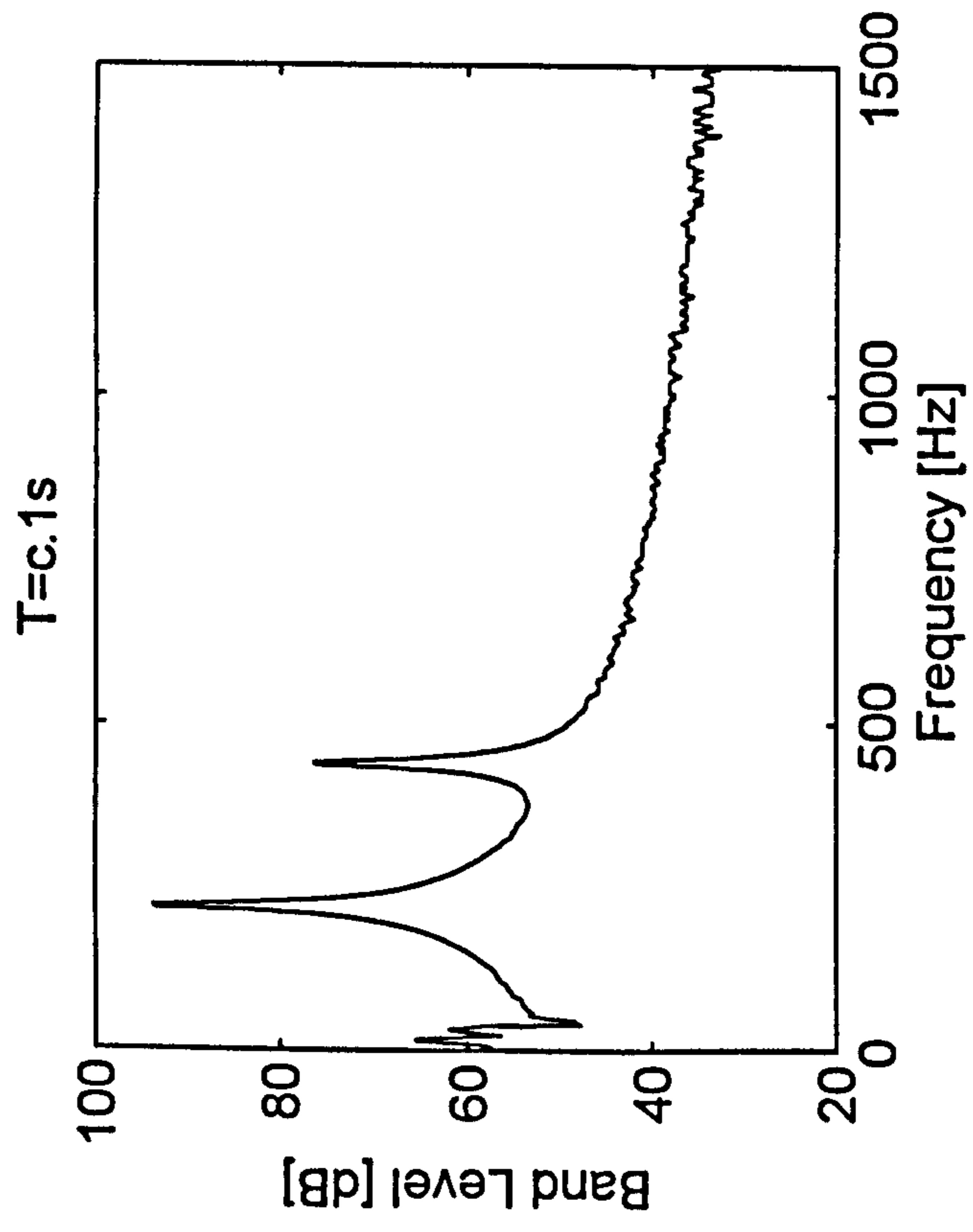
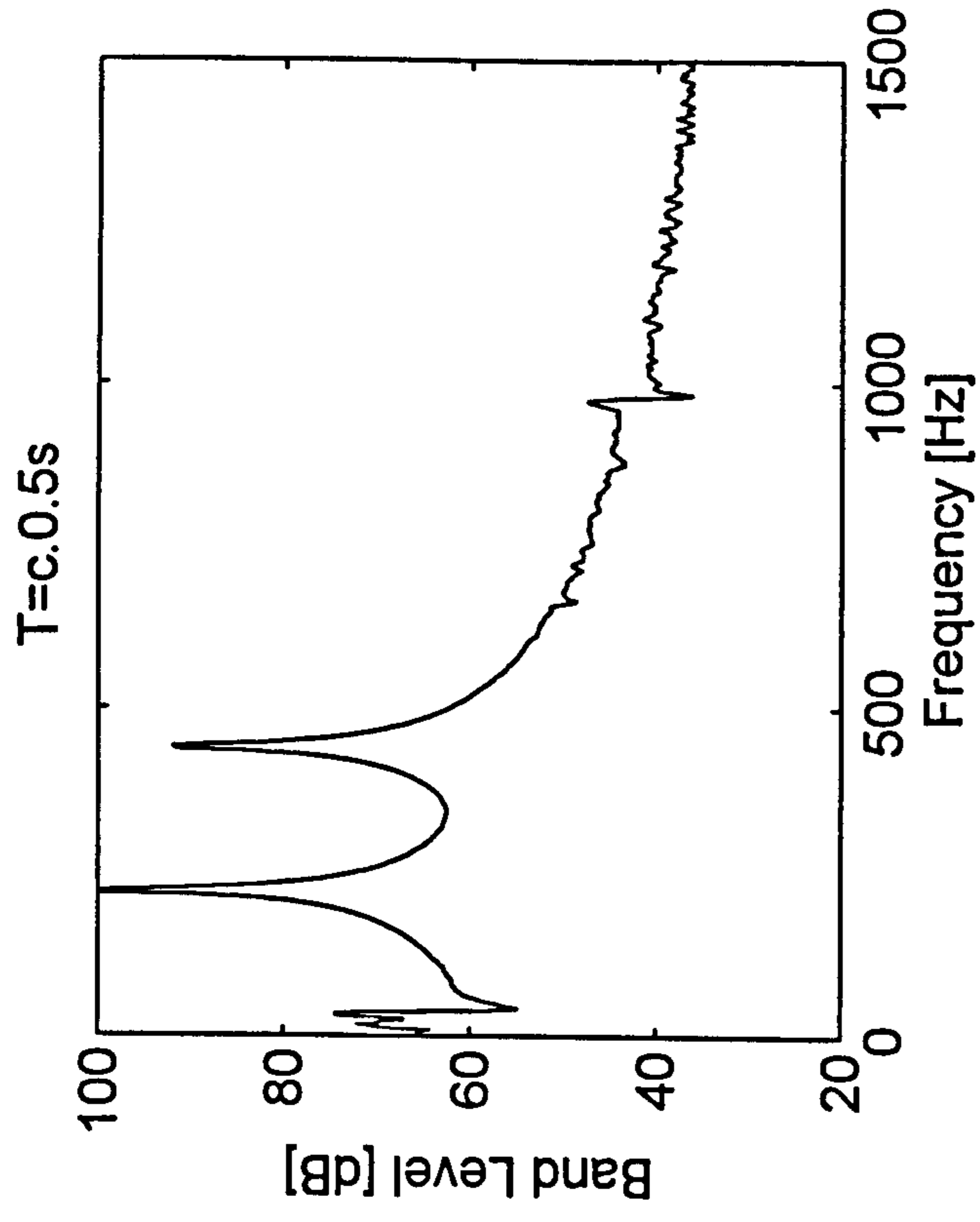
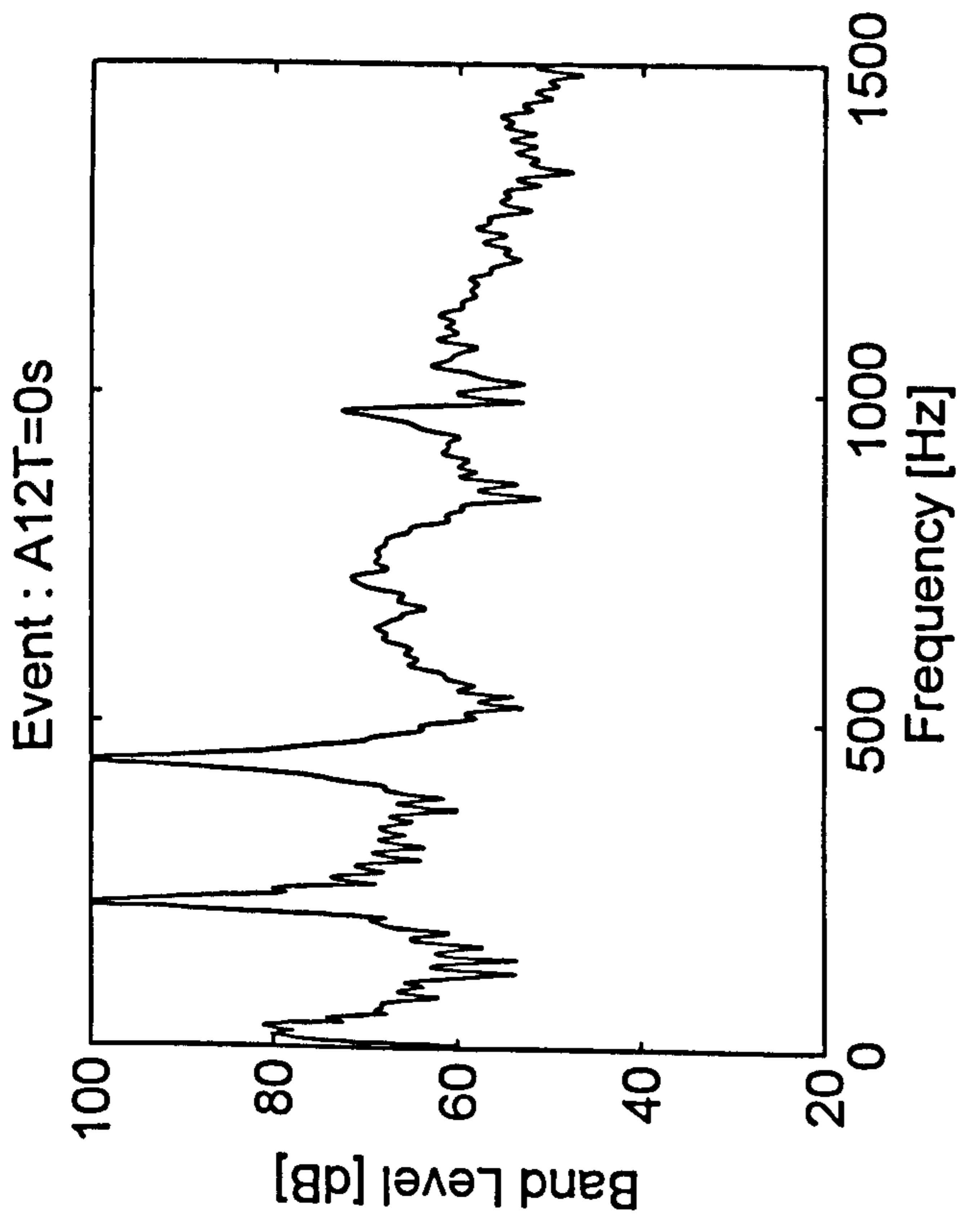


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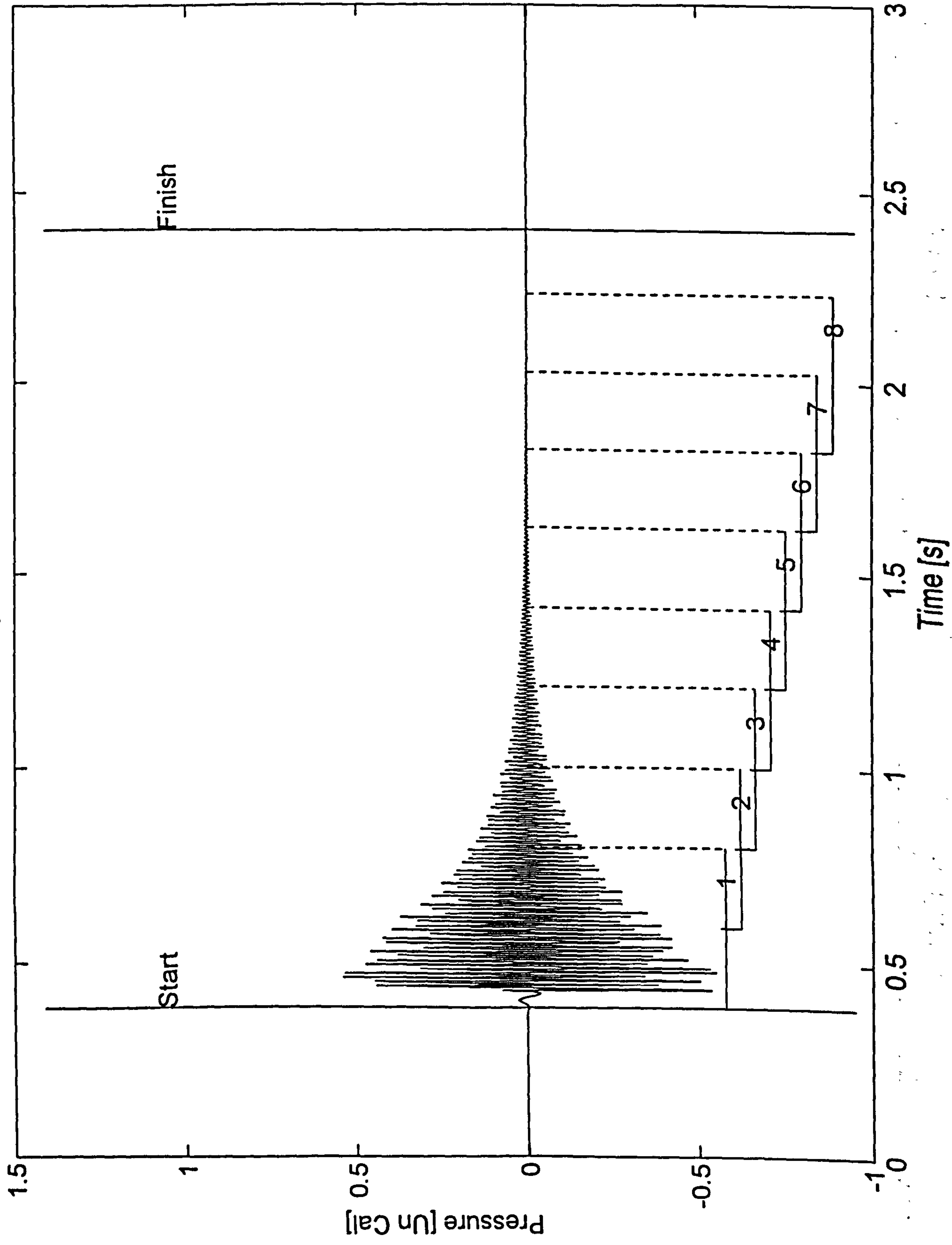


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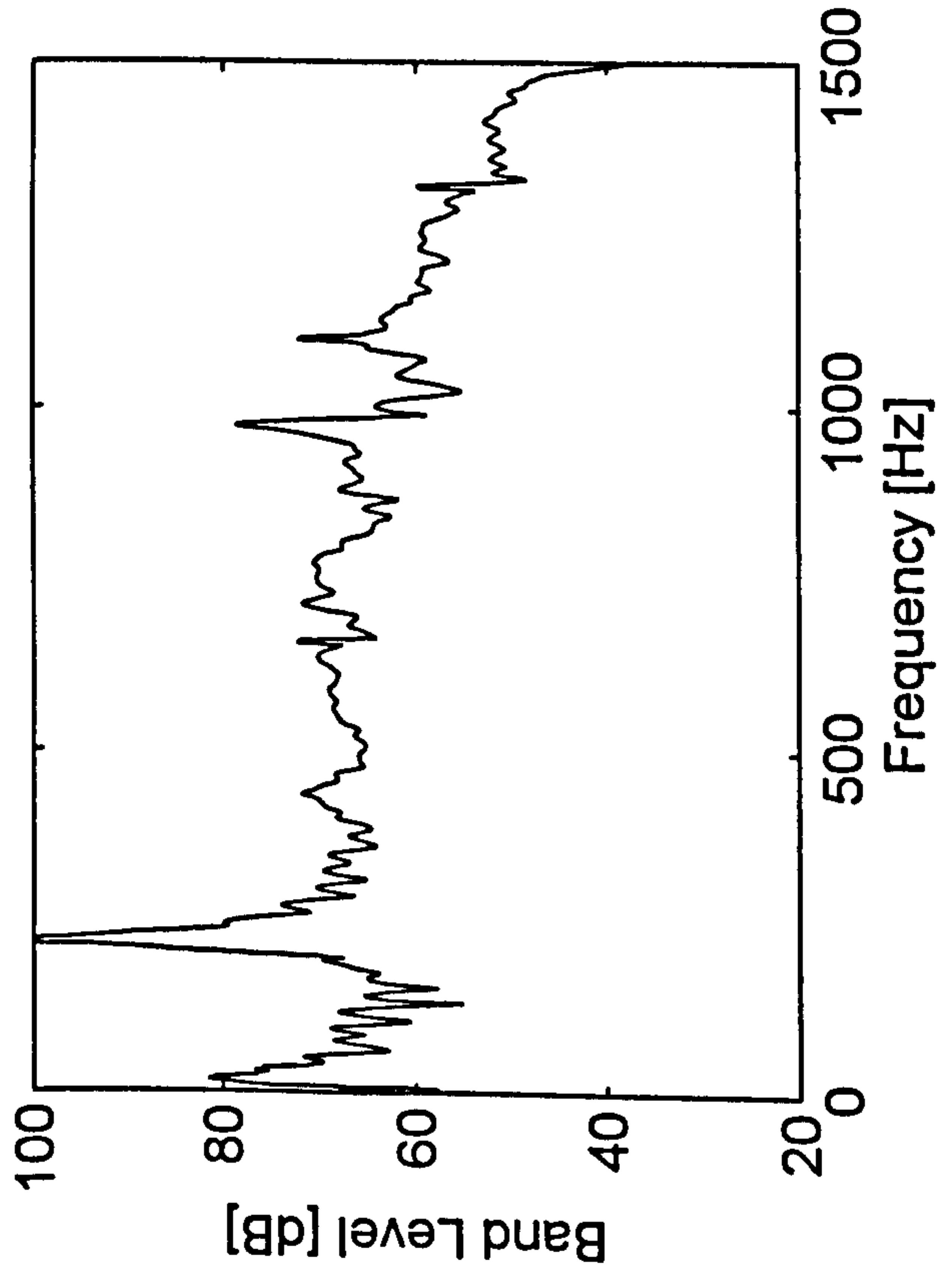




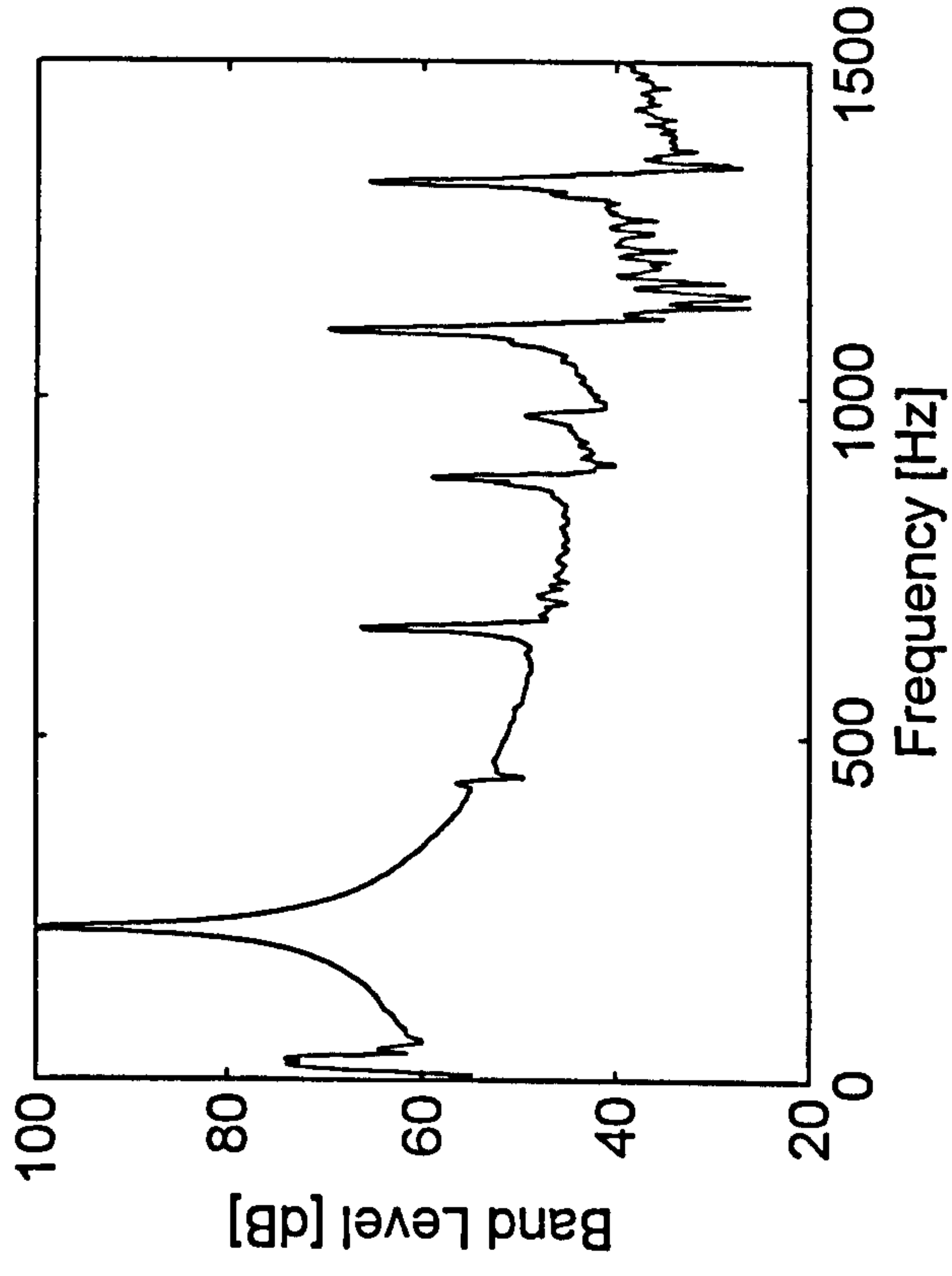
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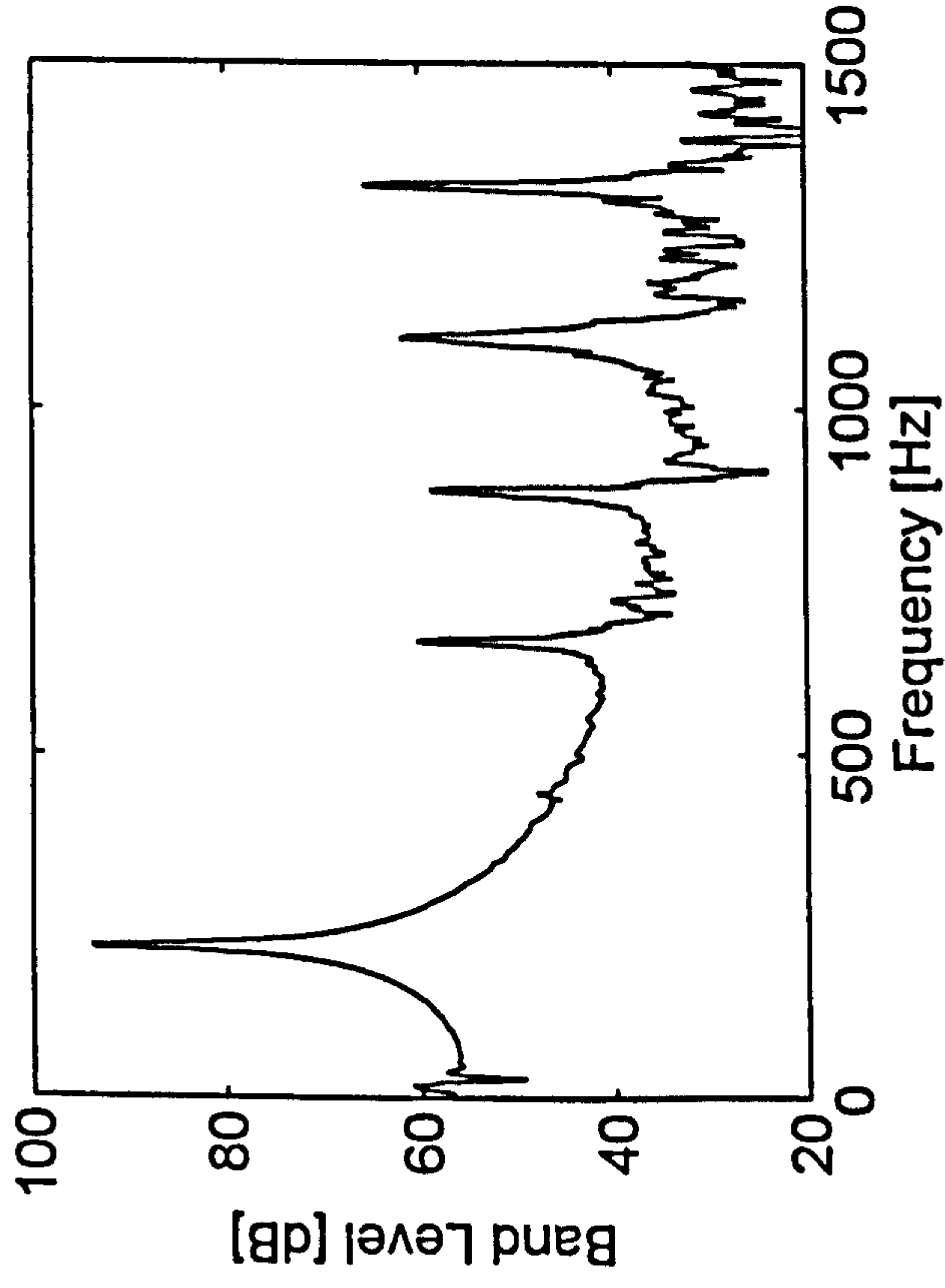
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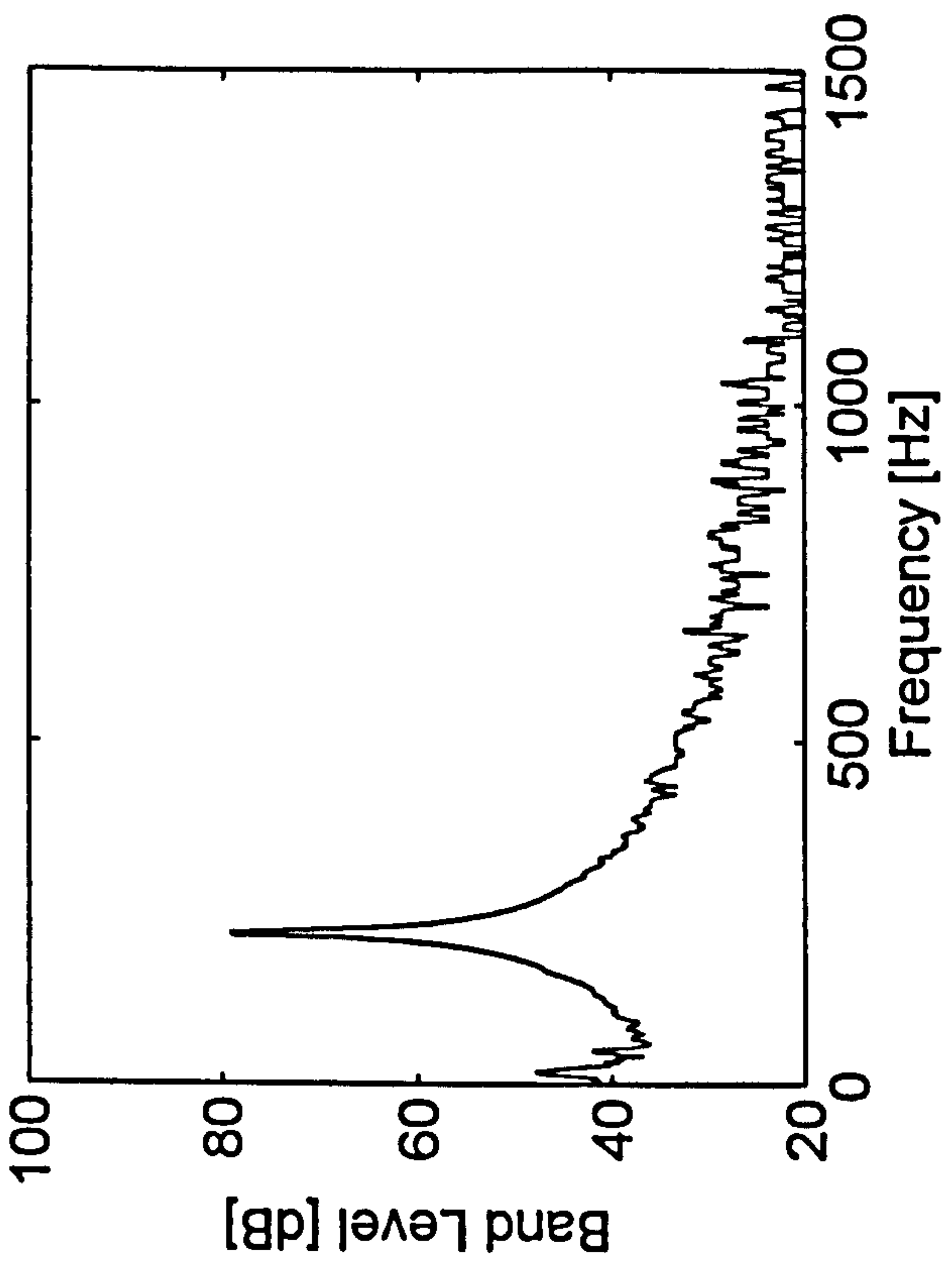
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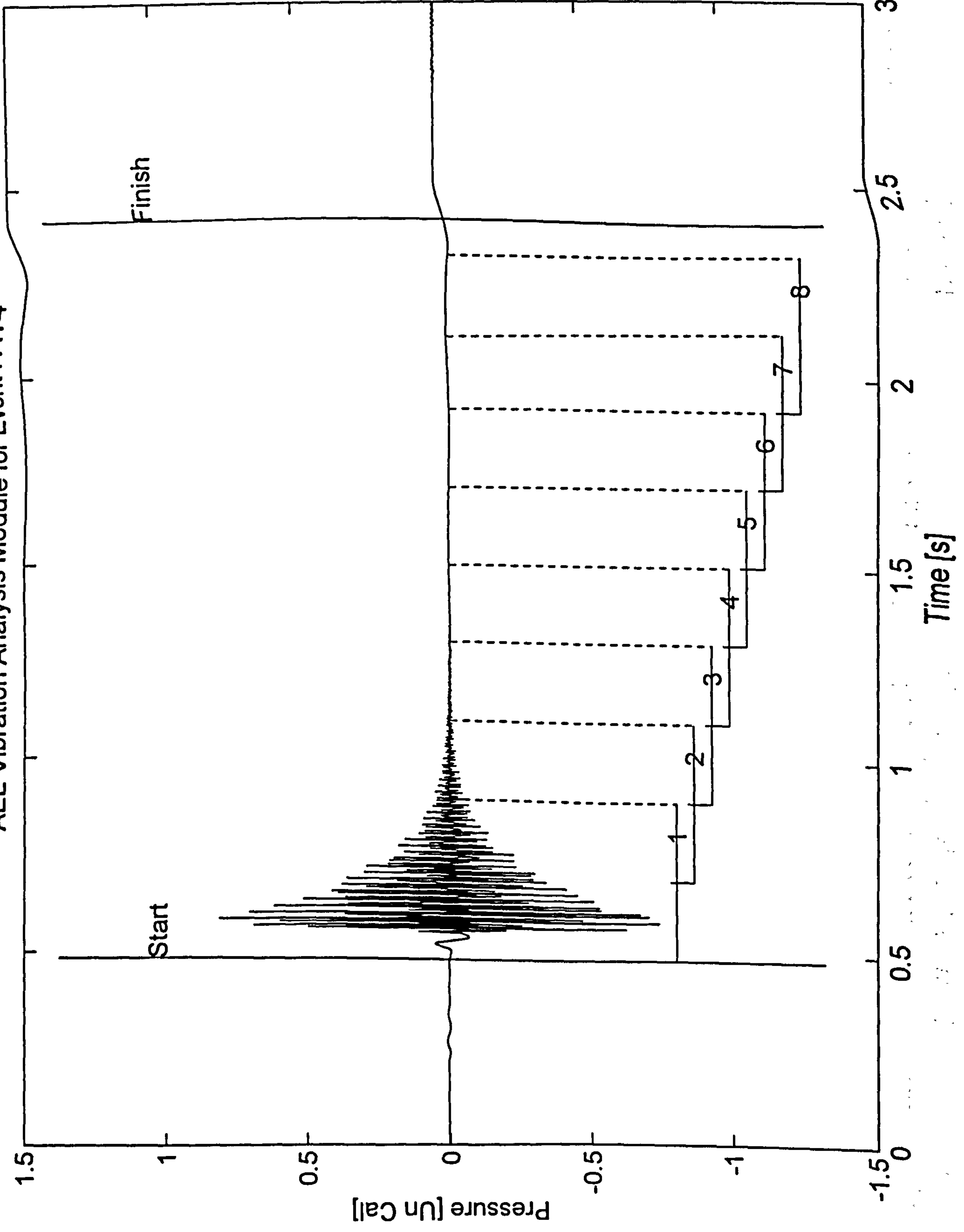
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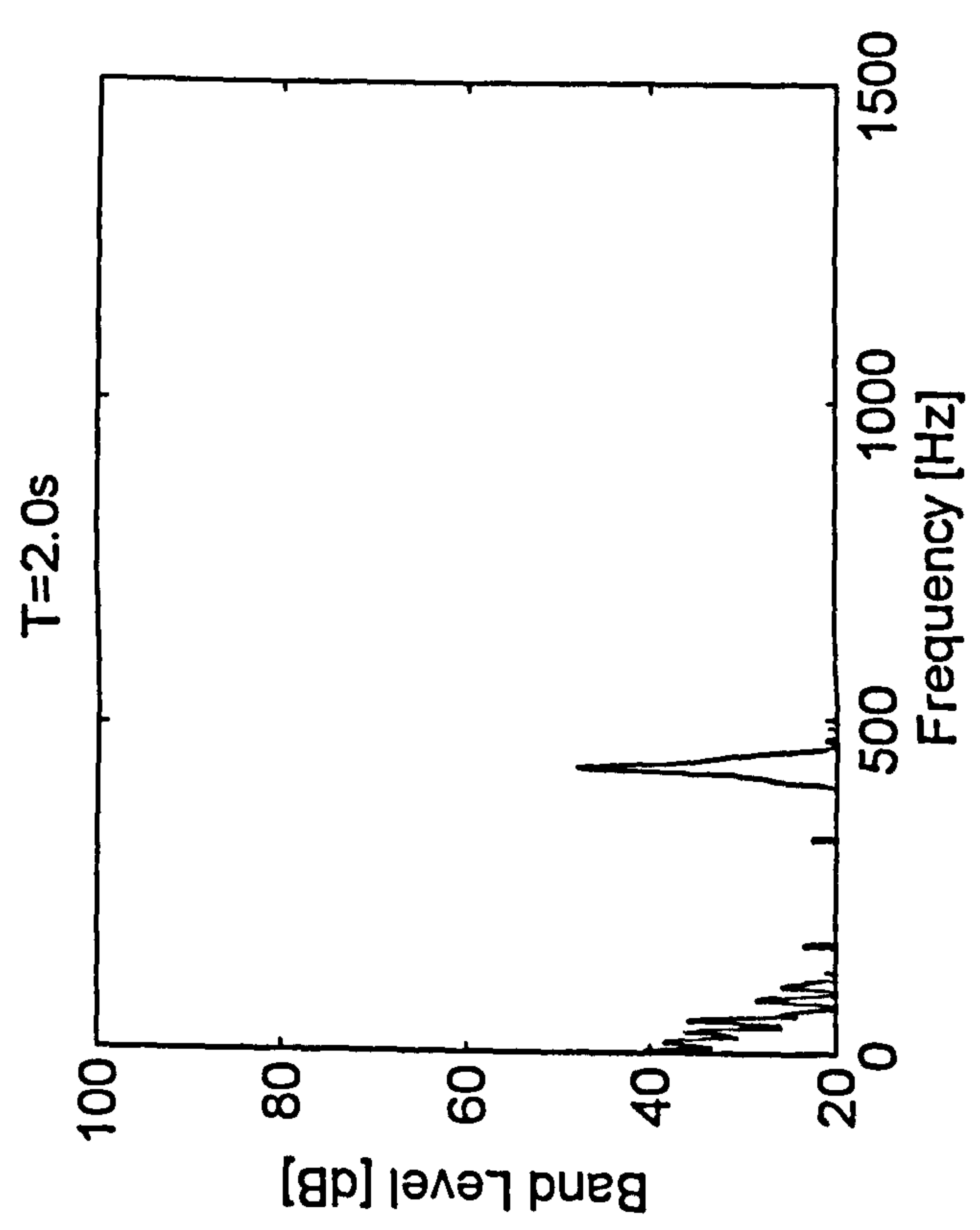
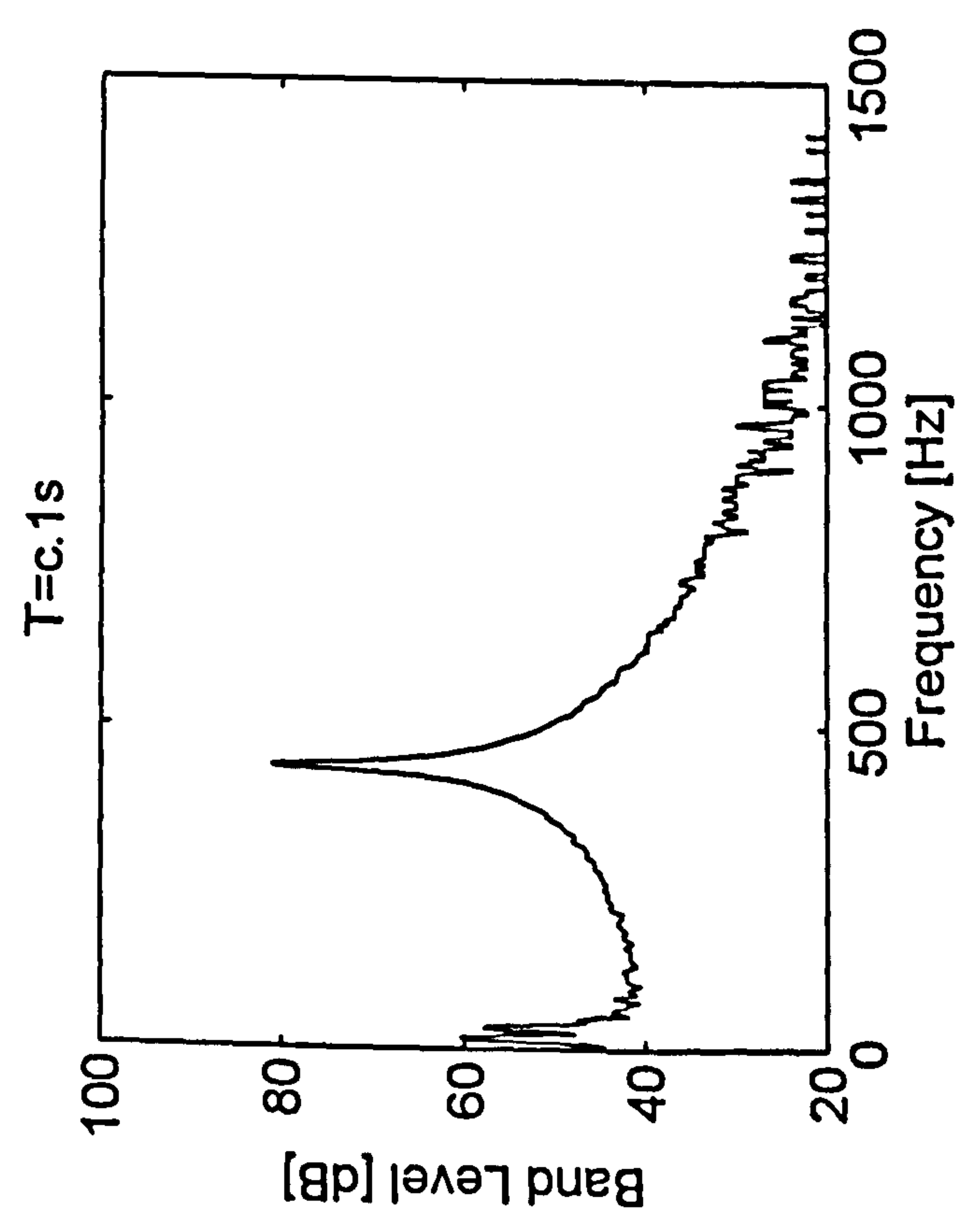
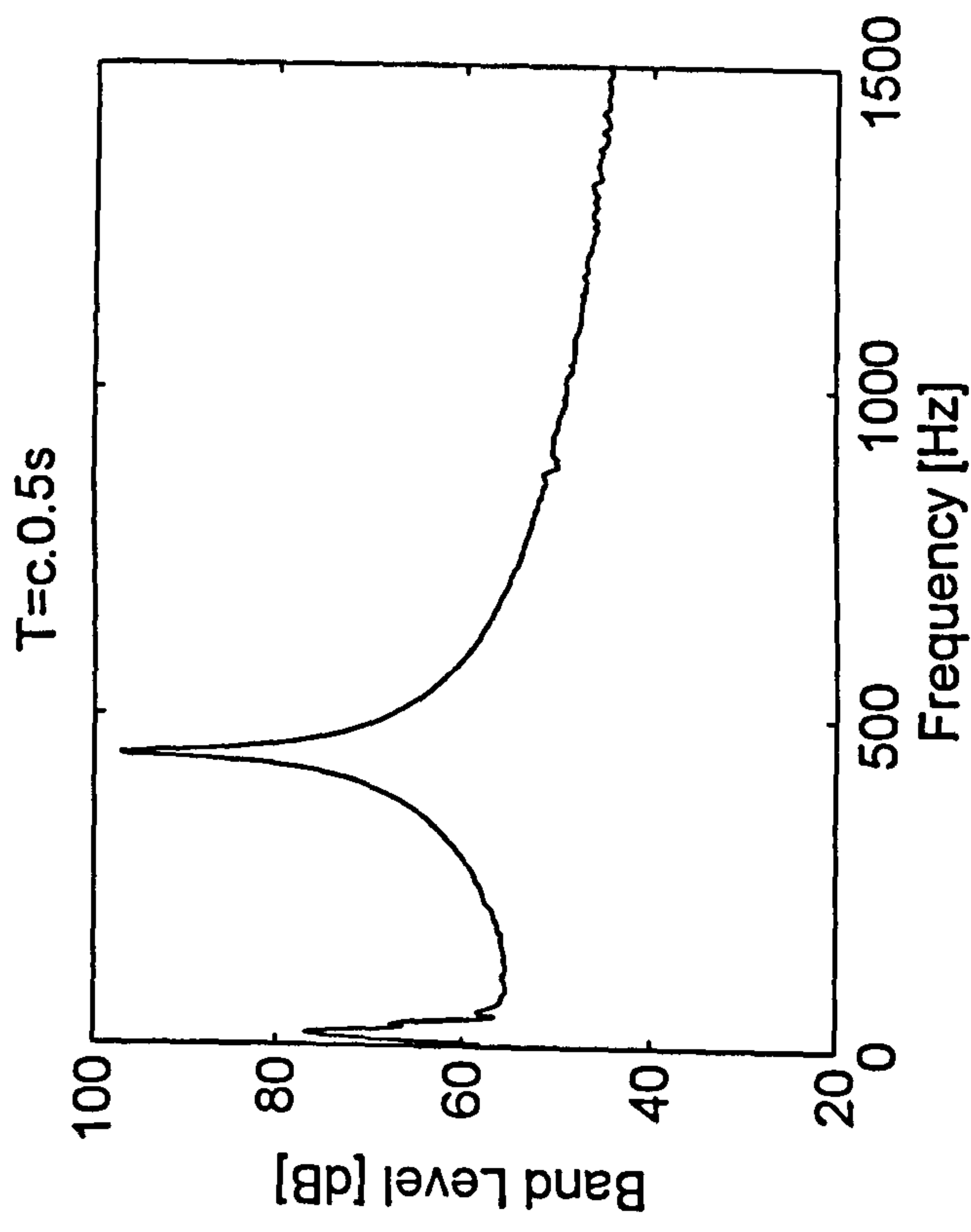
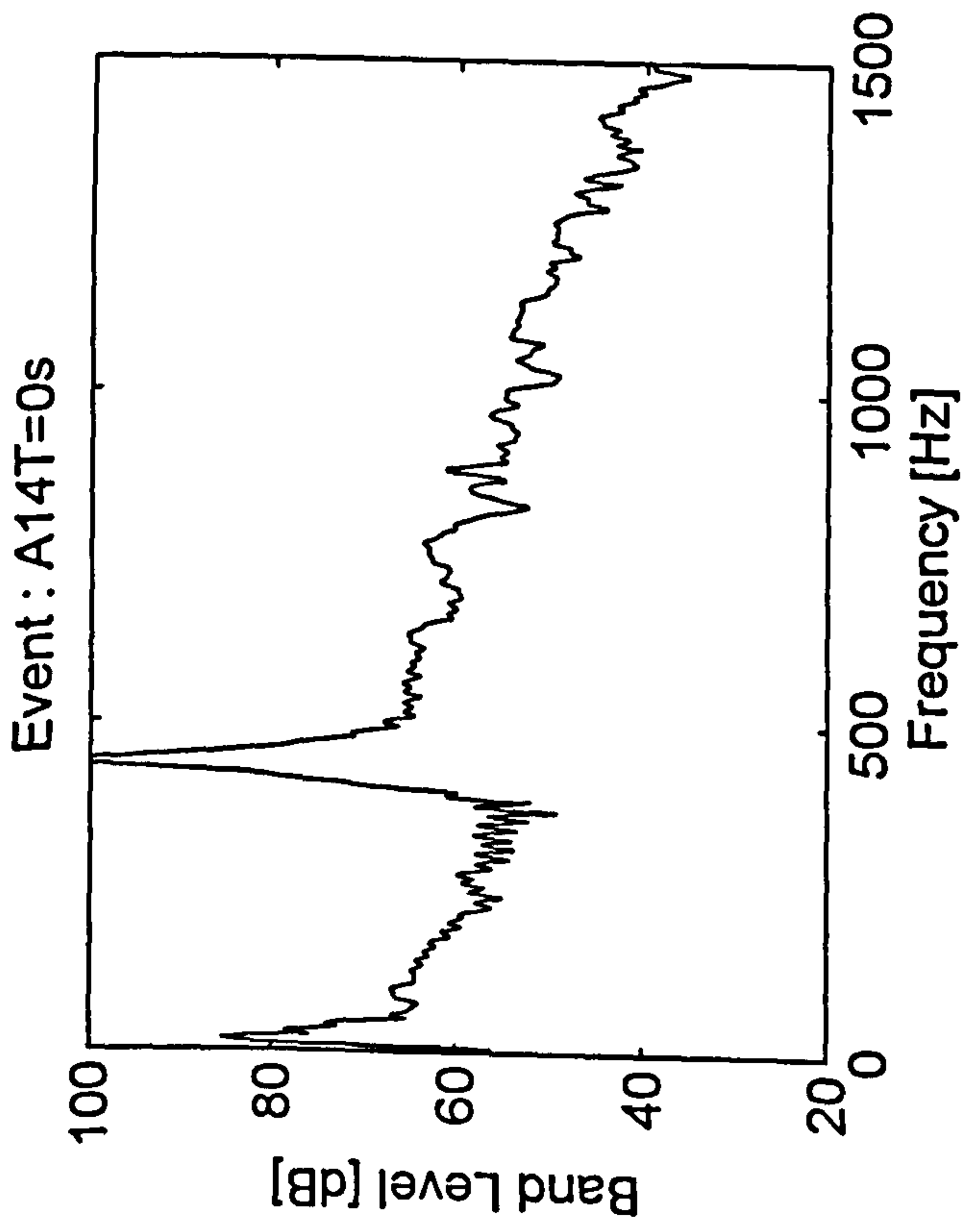


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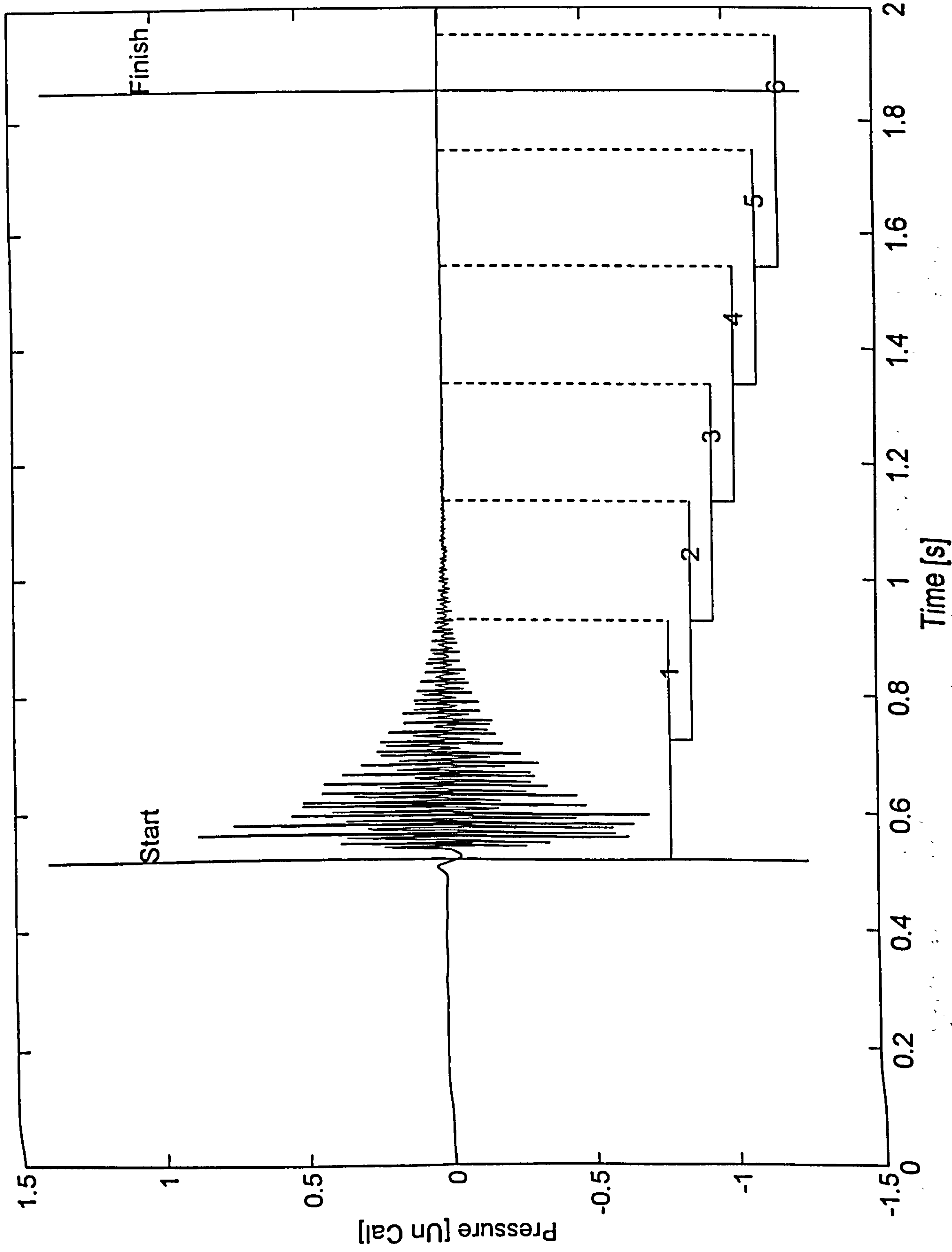
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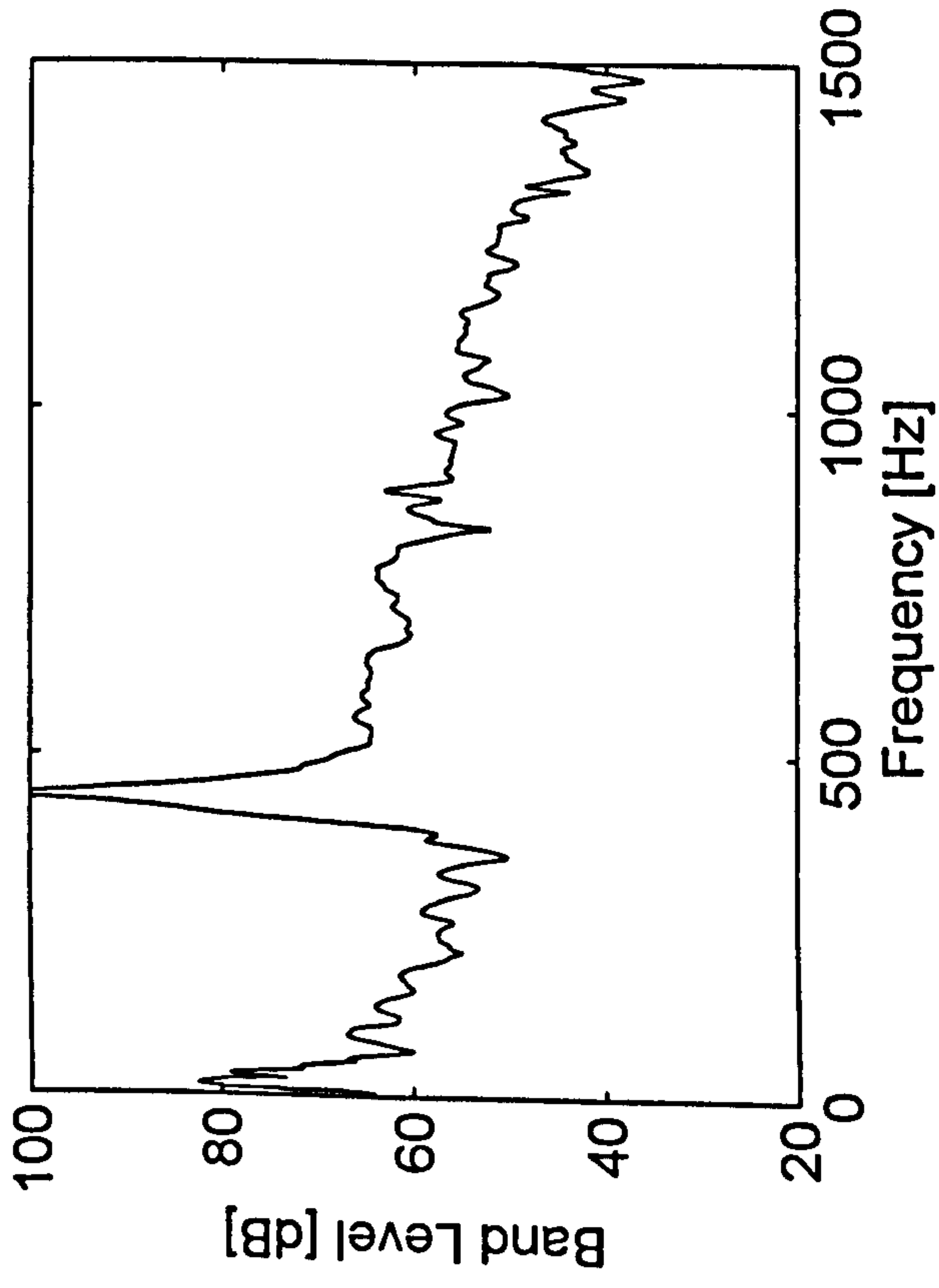




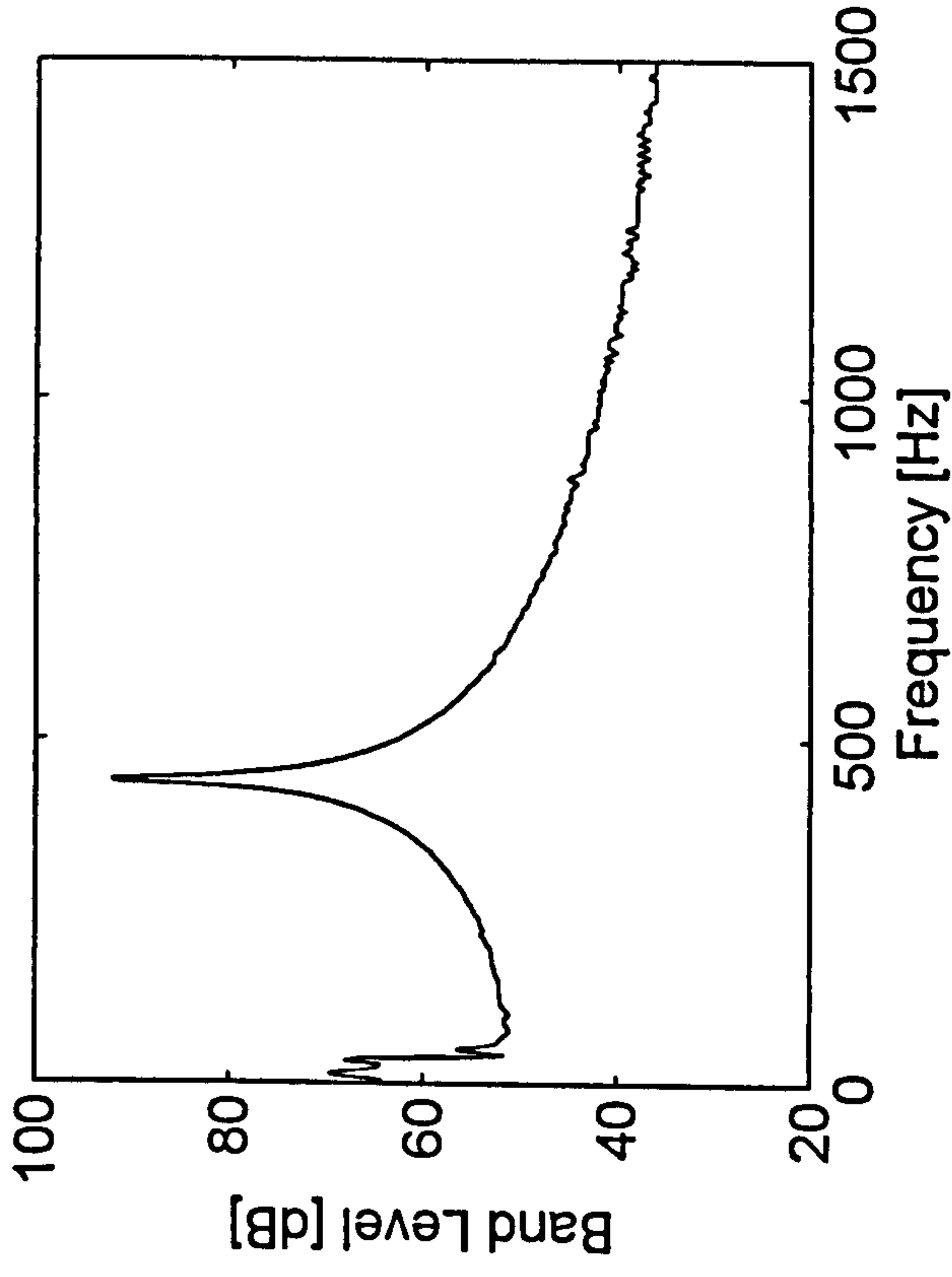
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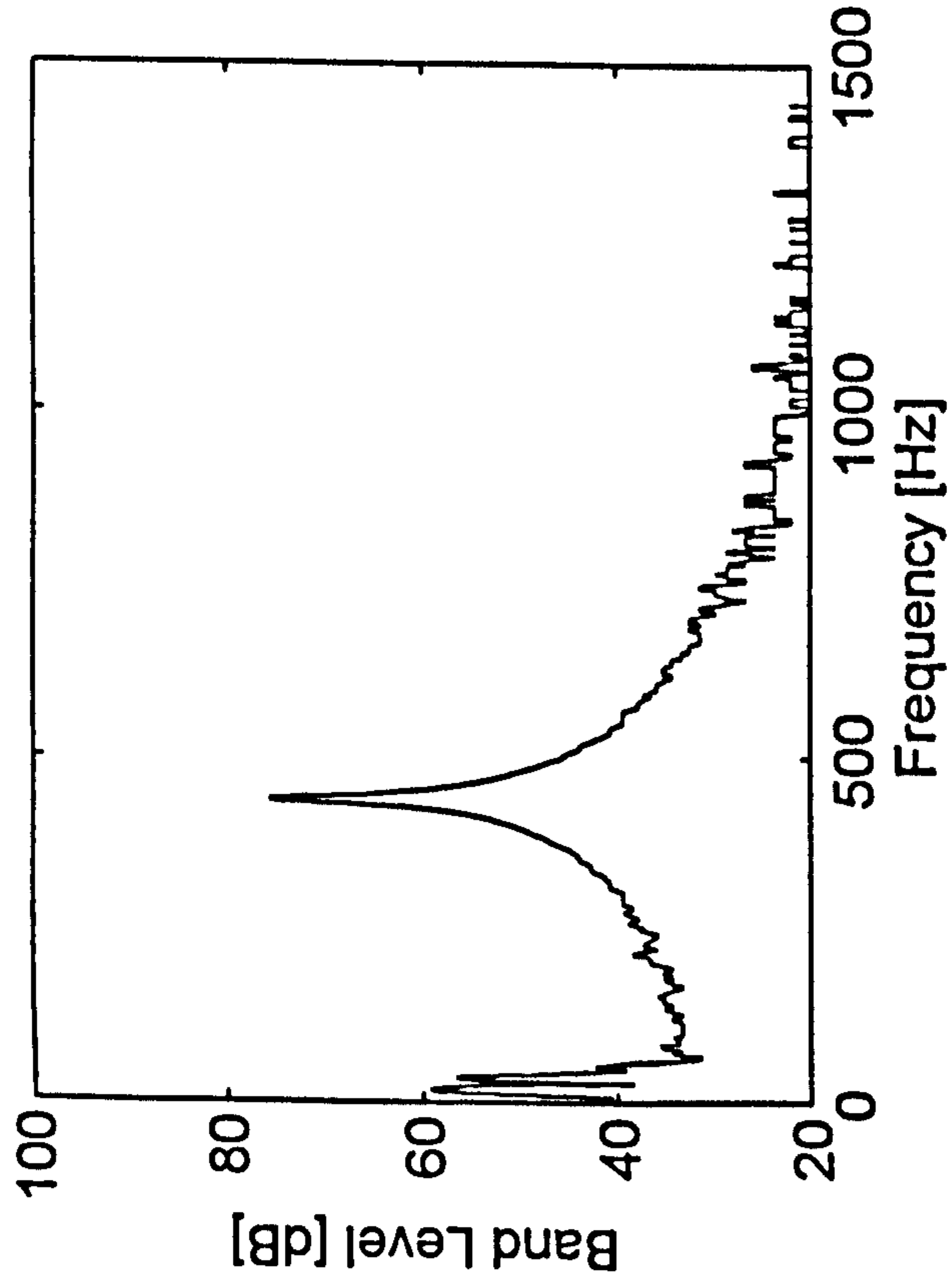
Event : A15T=0s



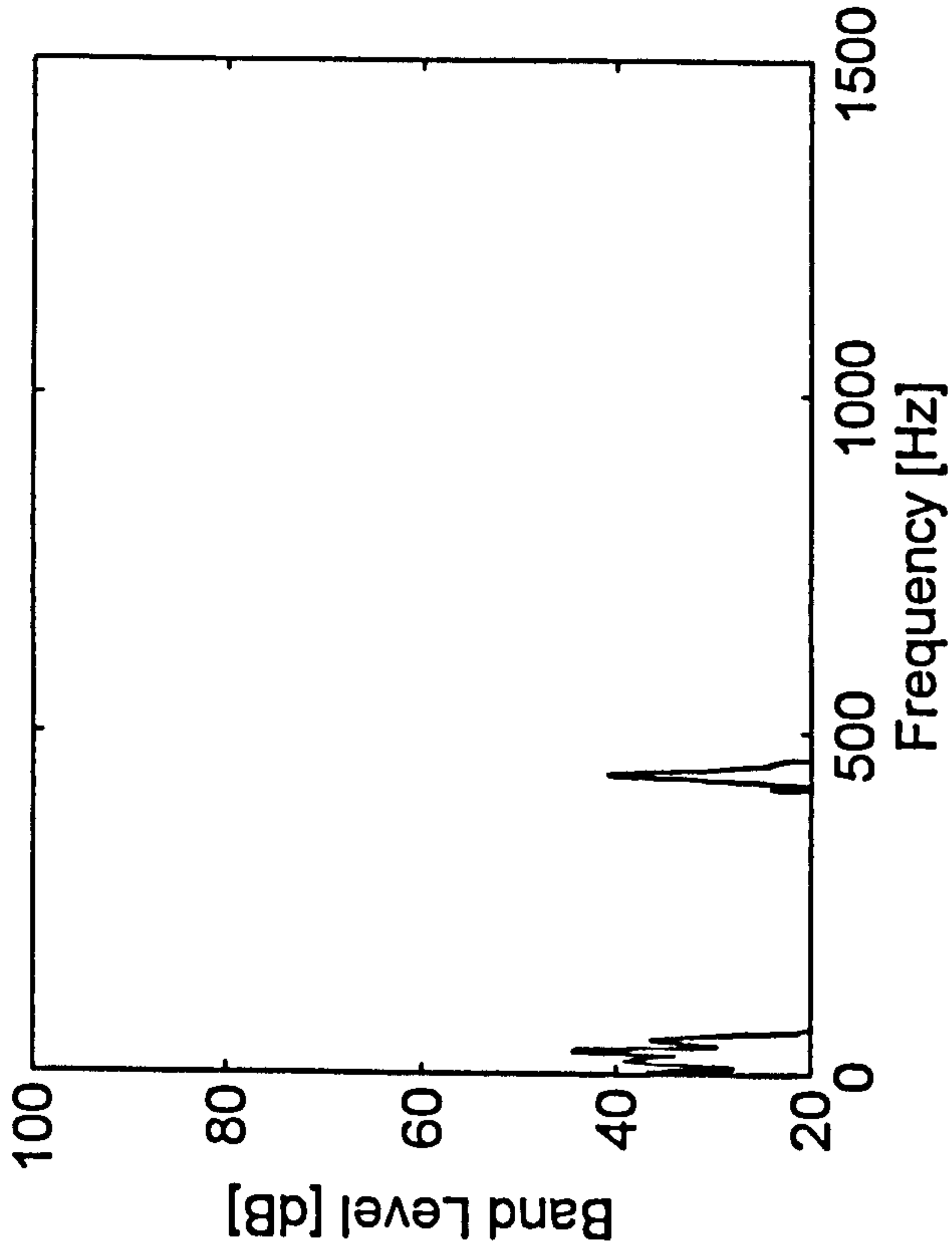
T=c.0.5s



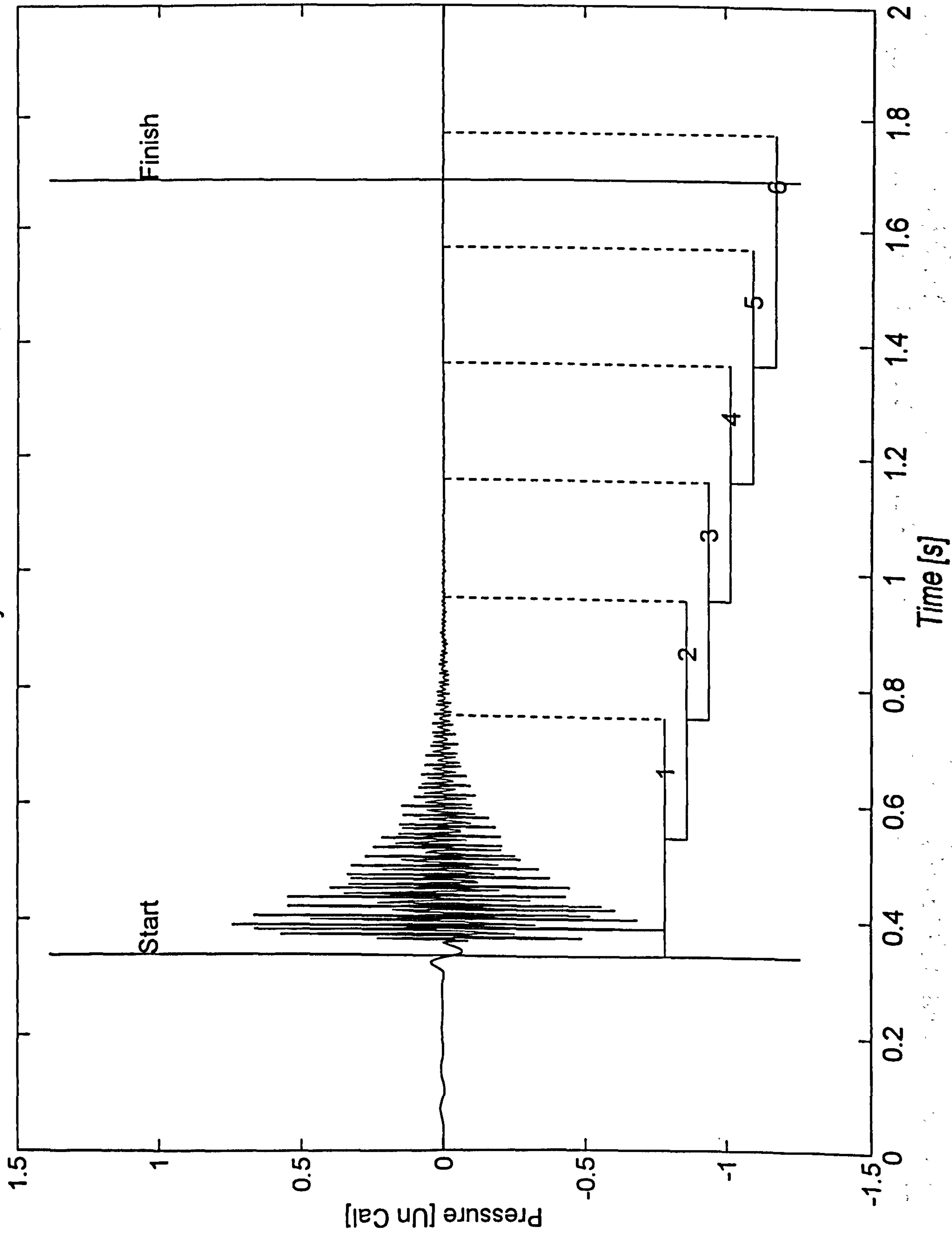
T=c.1s

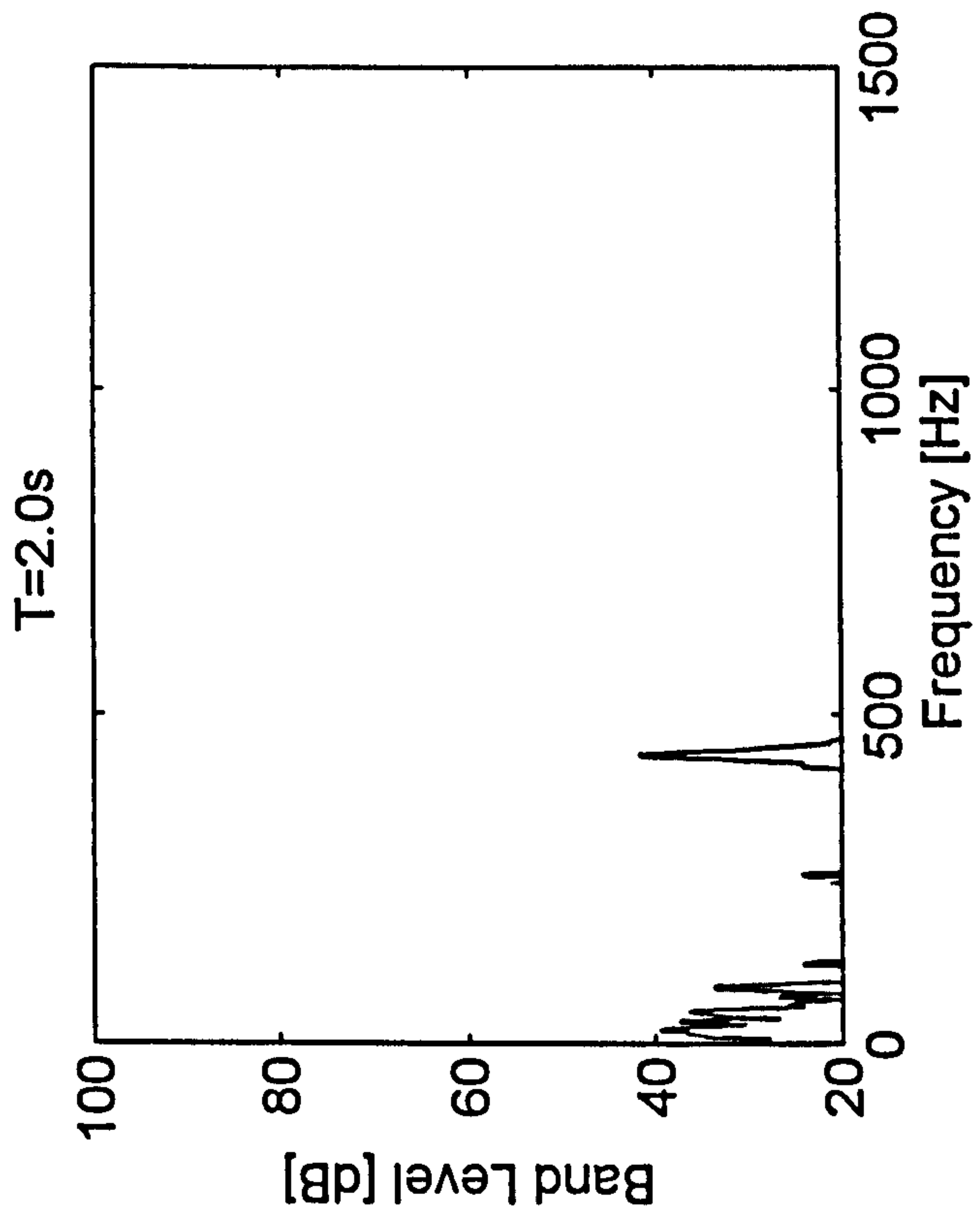
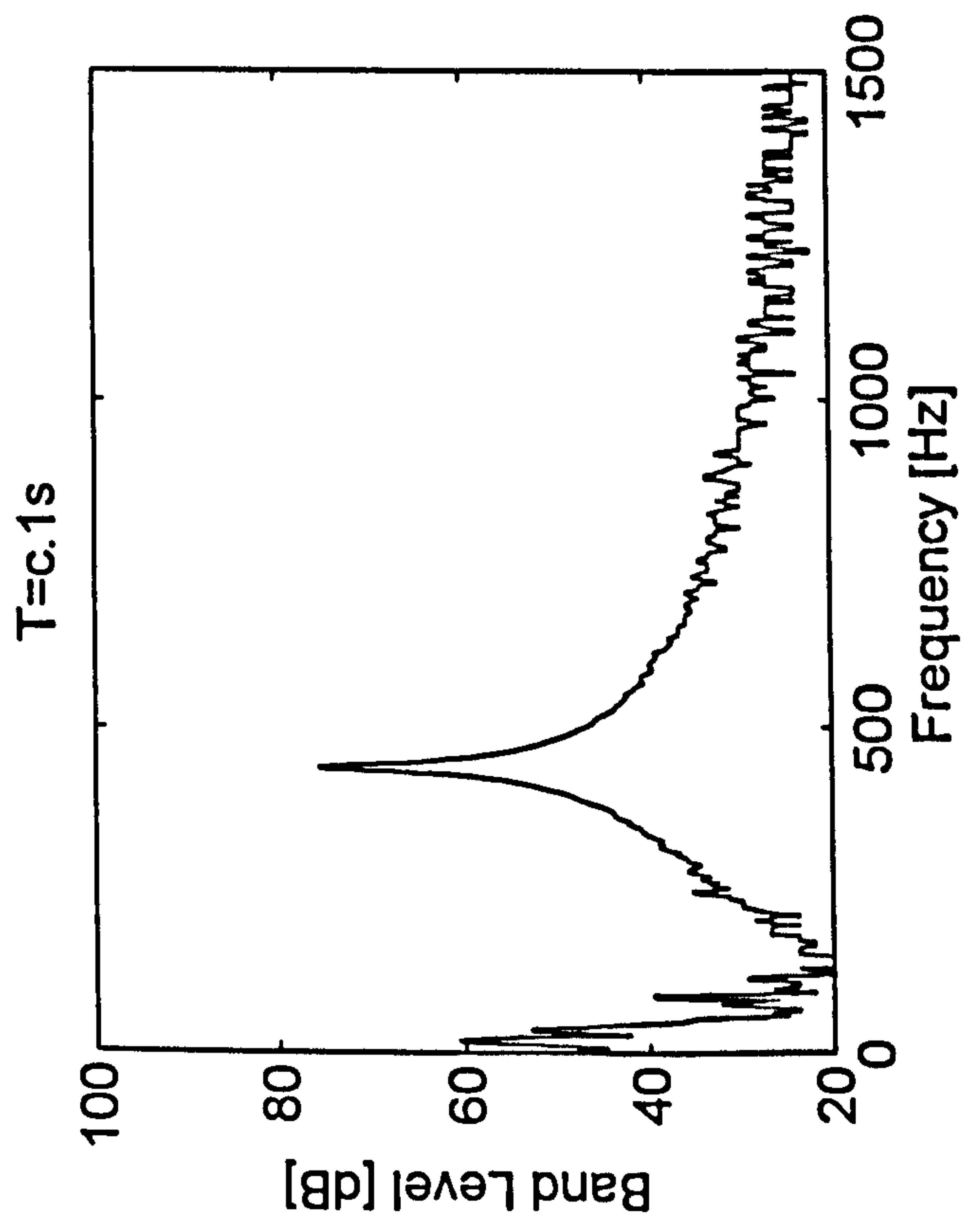
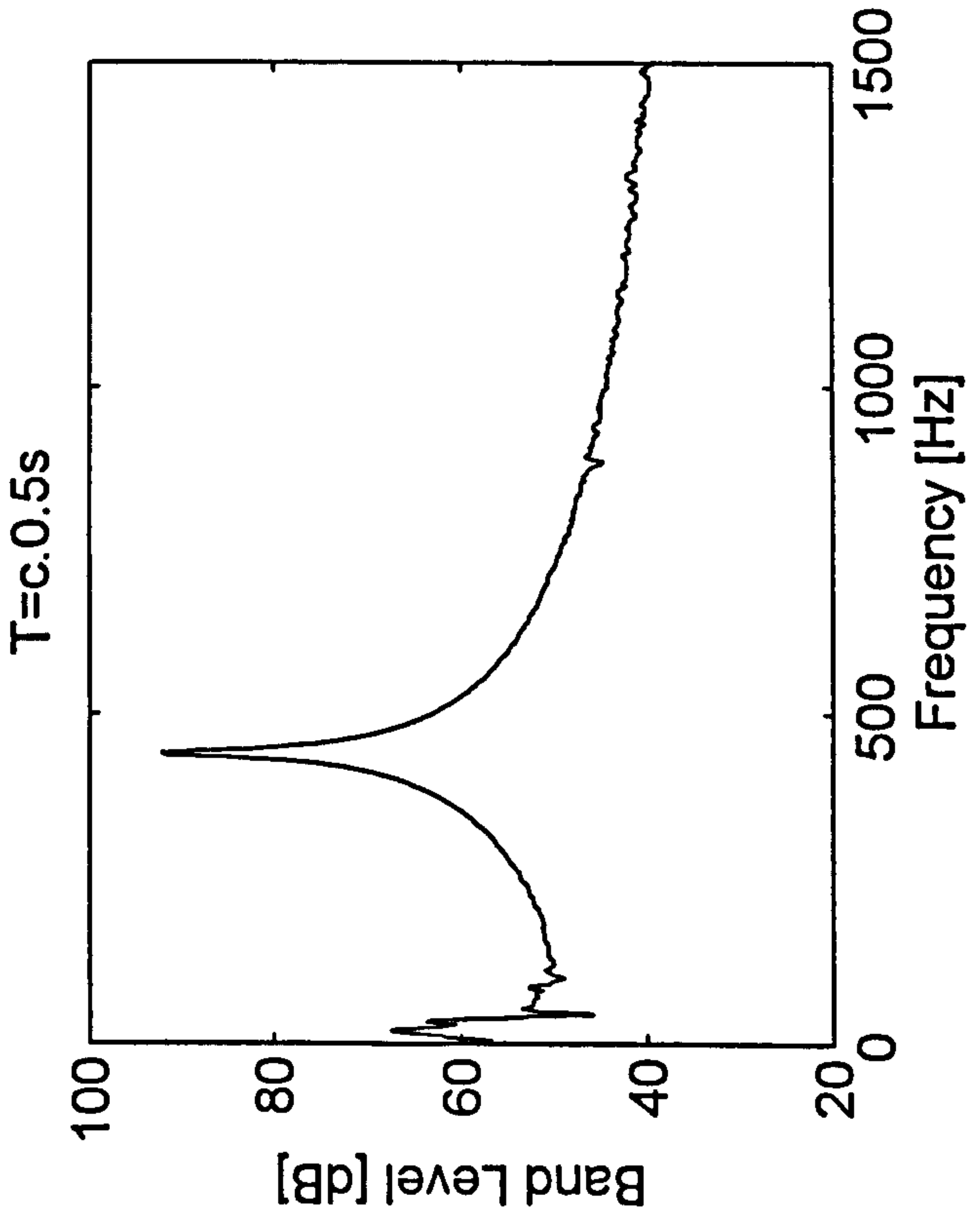
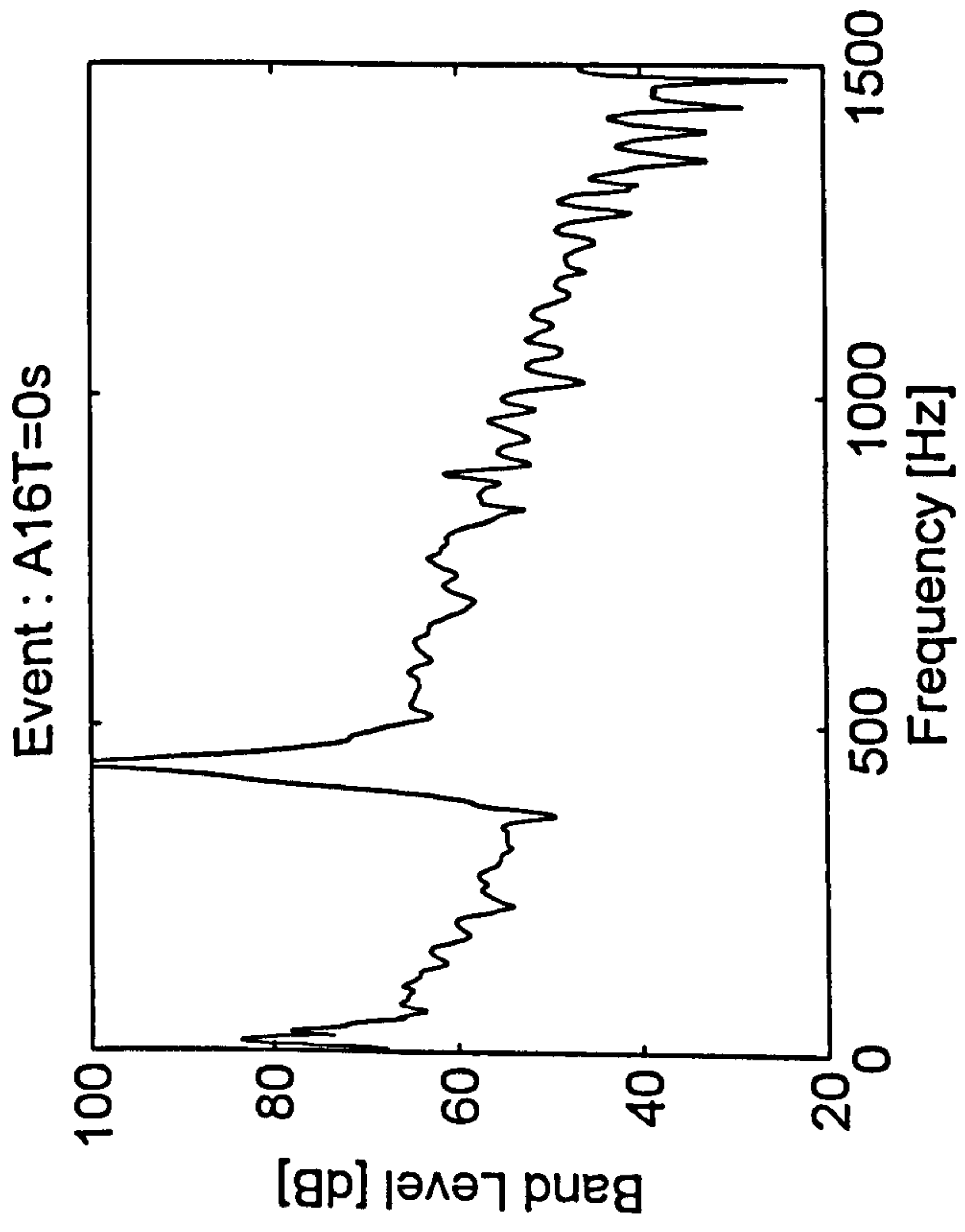


T=2.0s

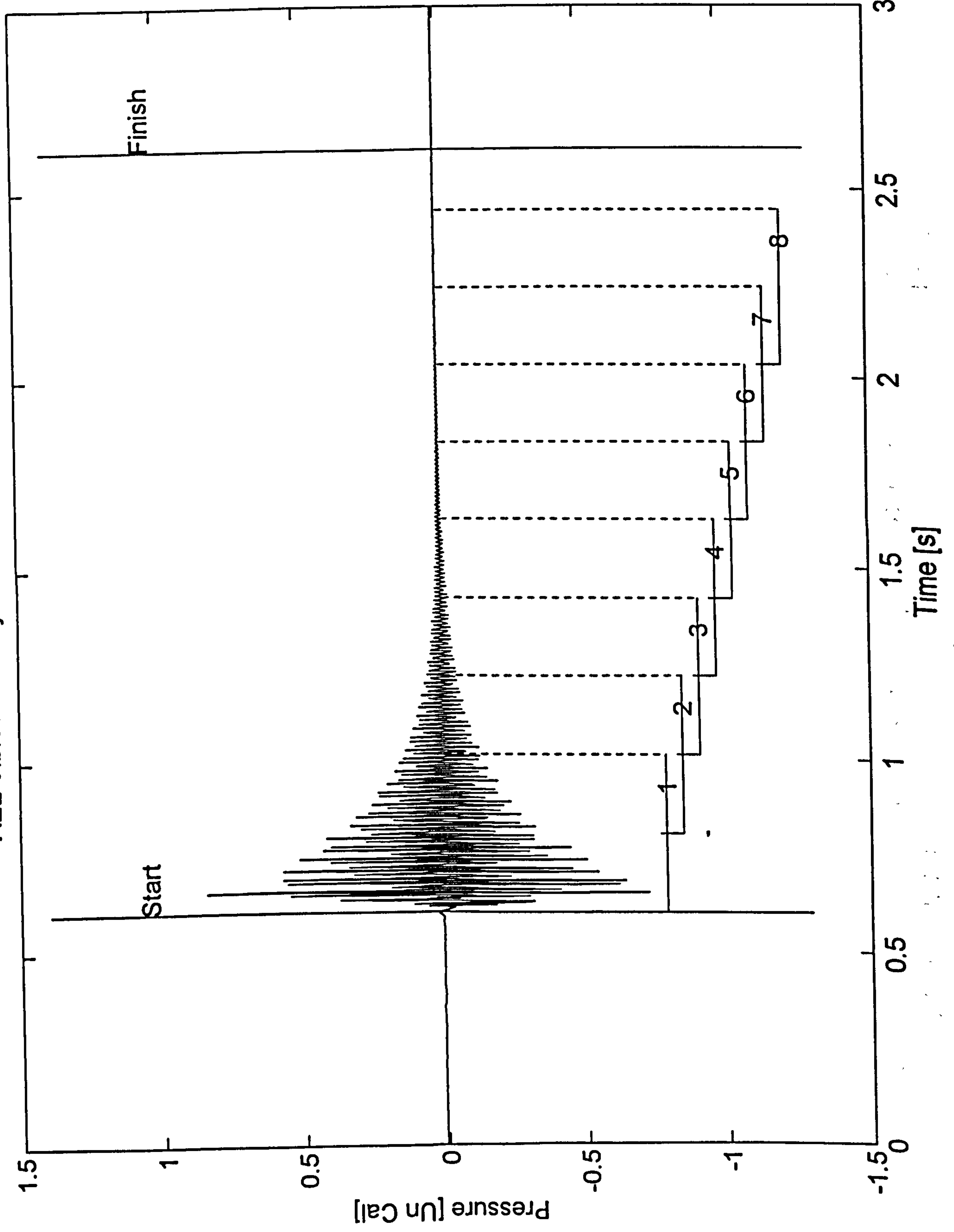


AEL Vibration Analysis Module for Event : A16

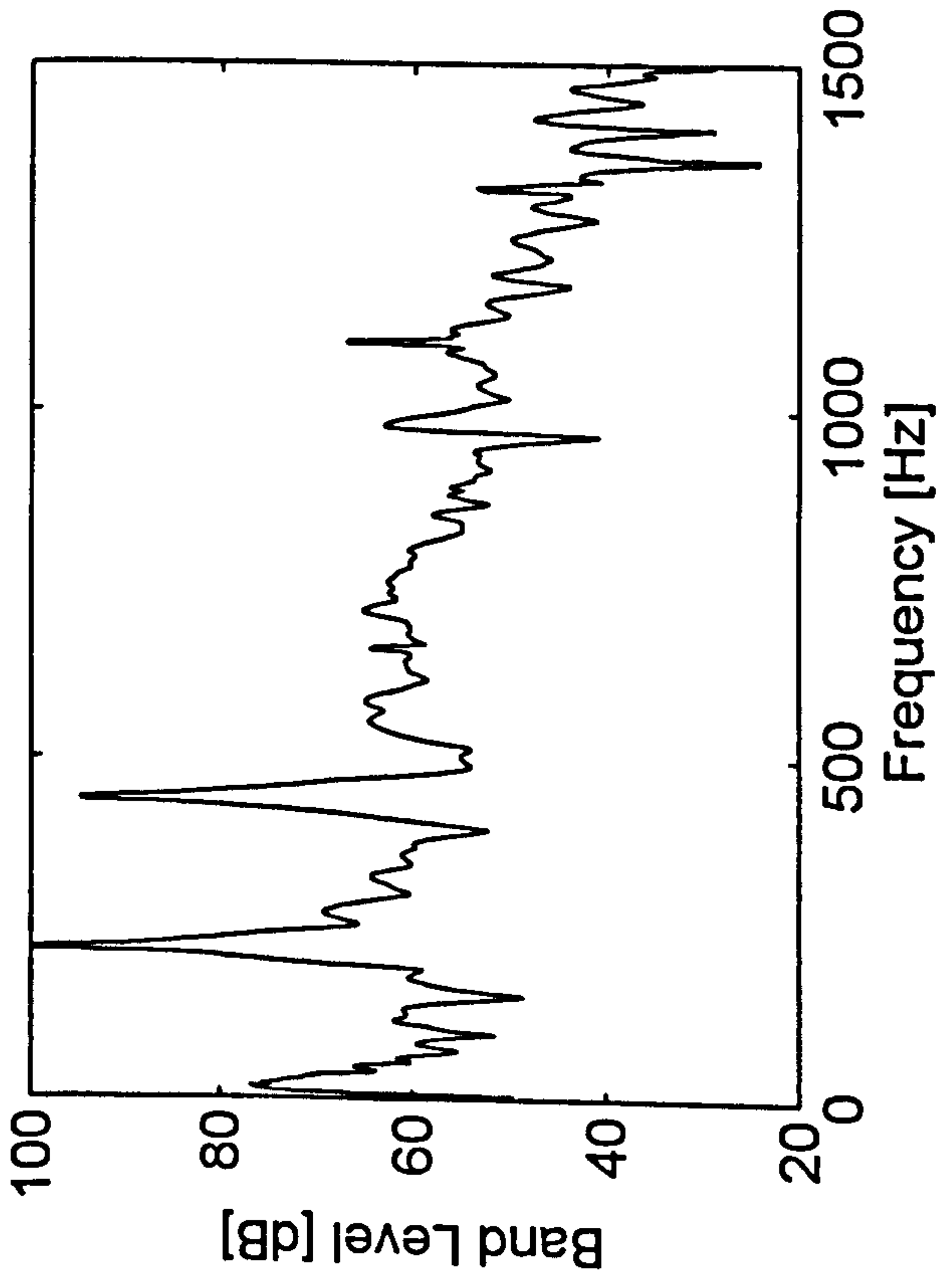




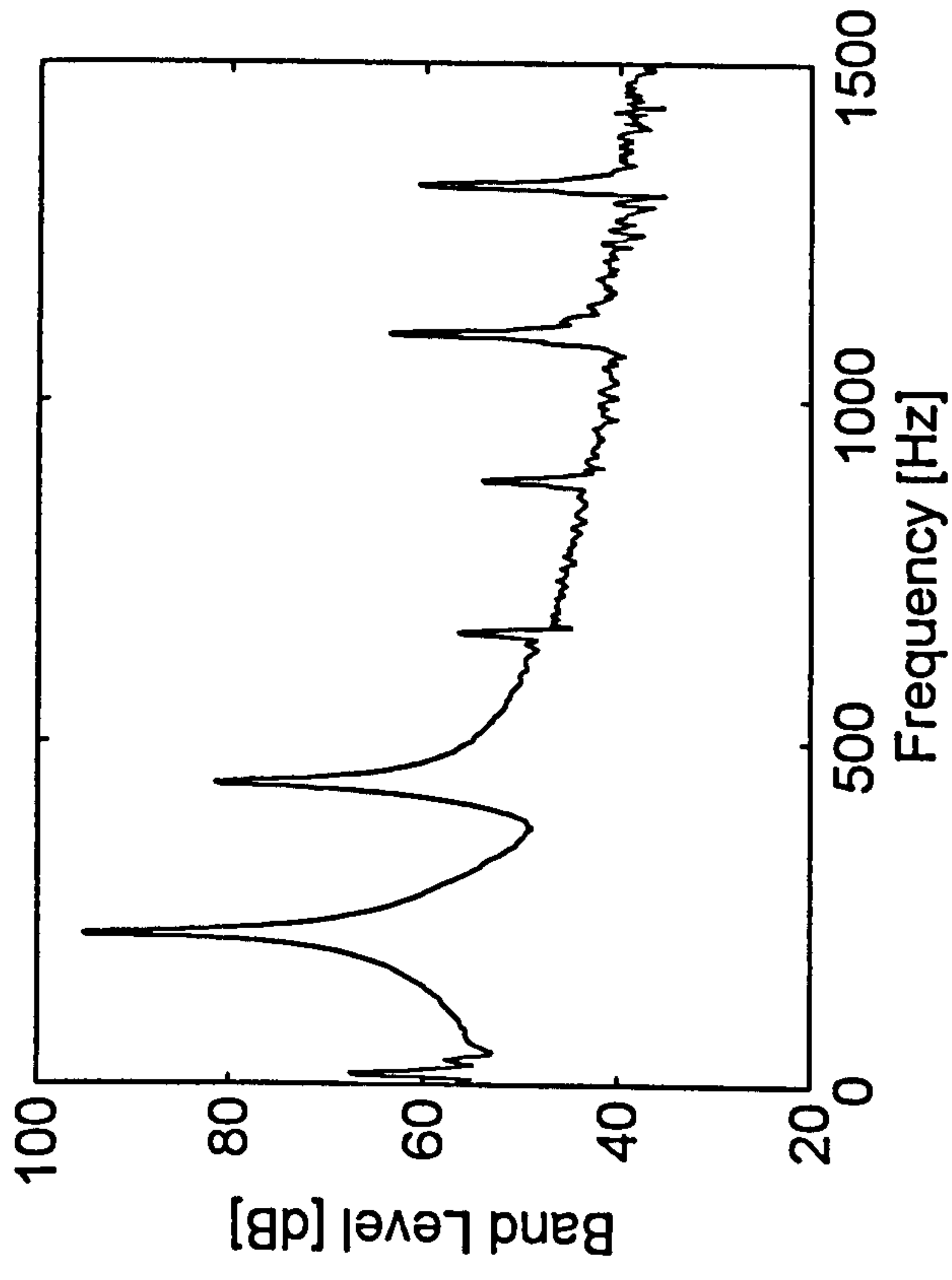
AEL Vibration Analysis Module for Event : A17



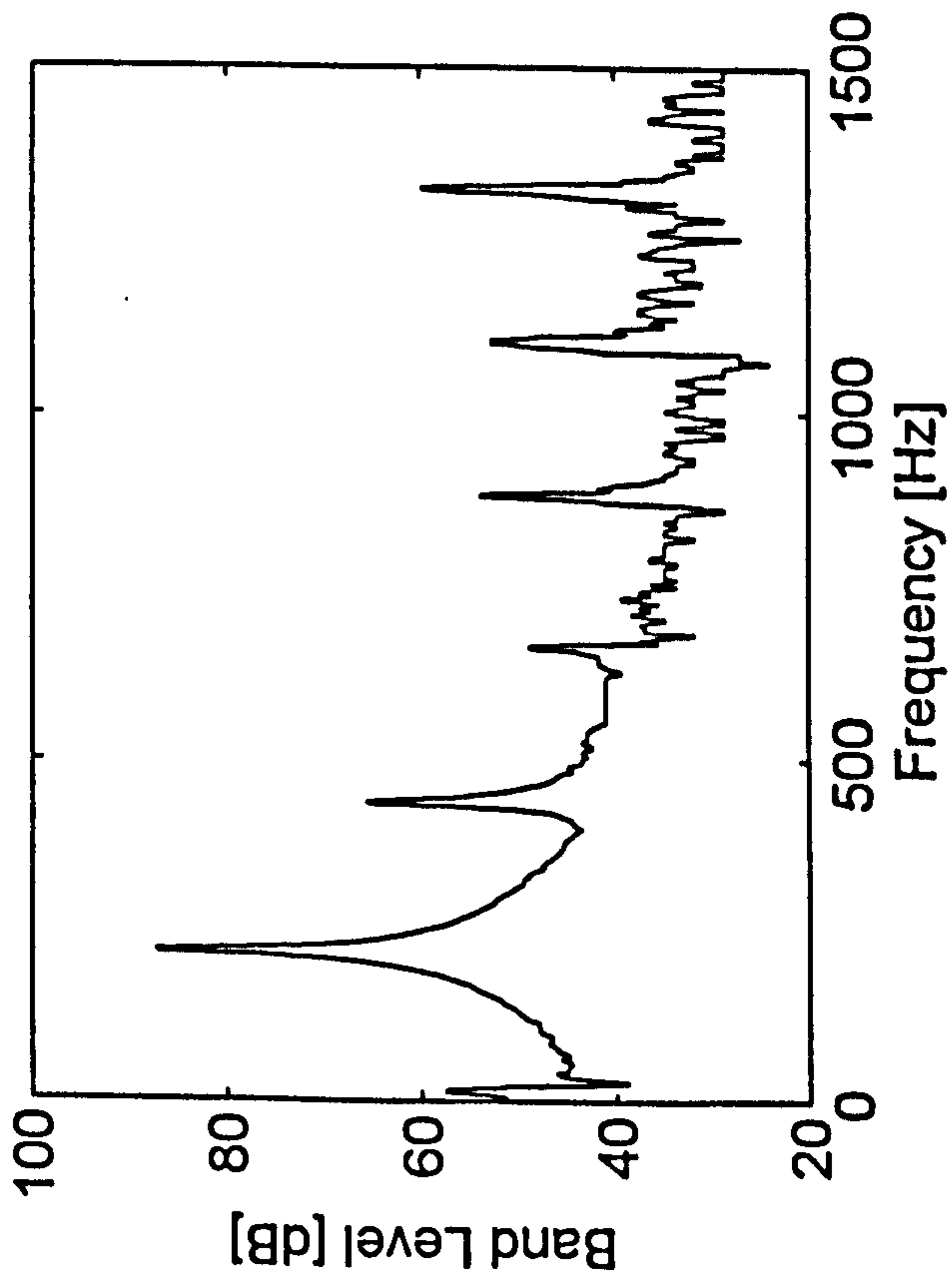
Event : A17T=0s



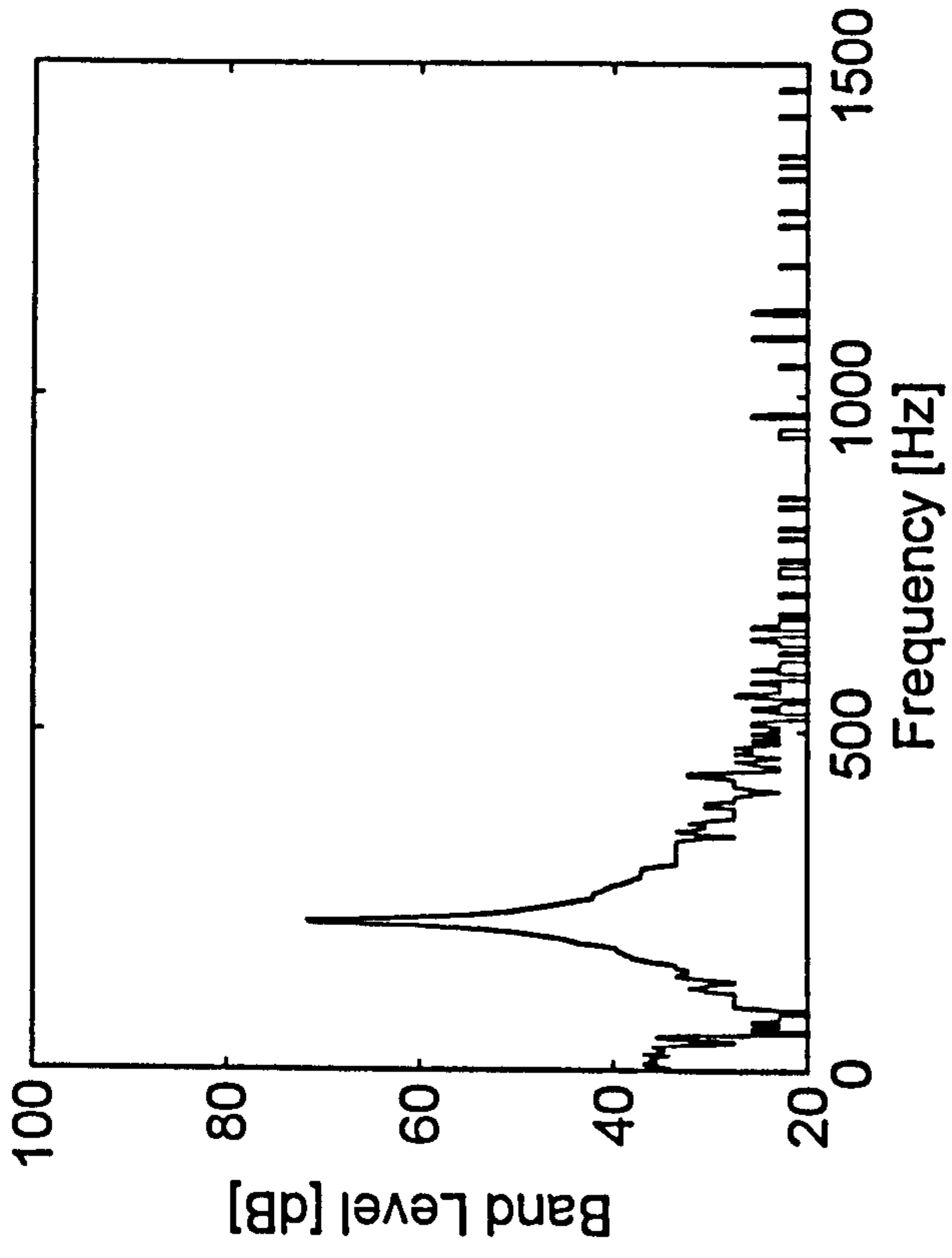
T=c.0.5s



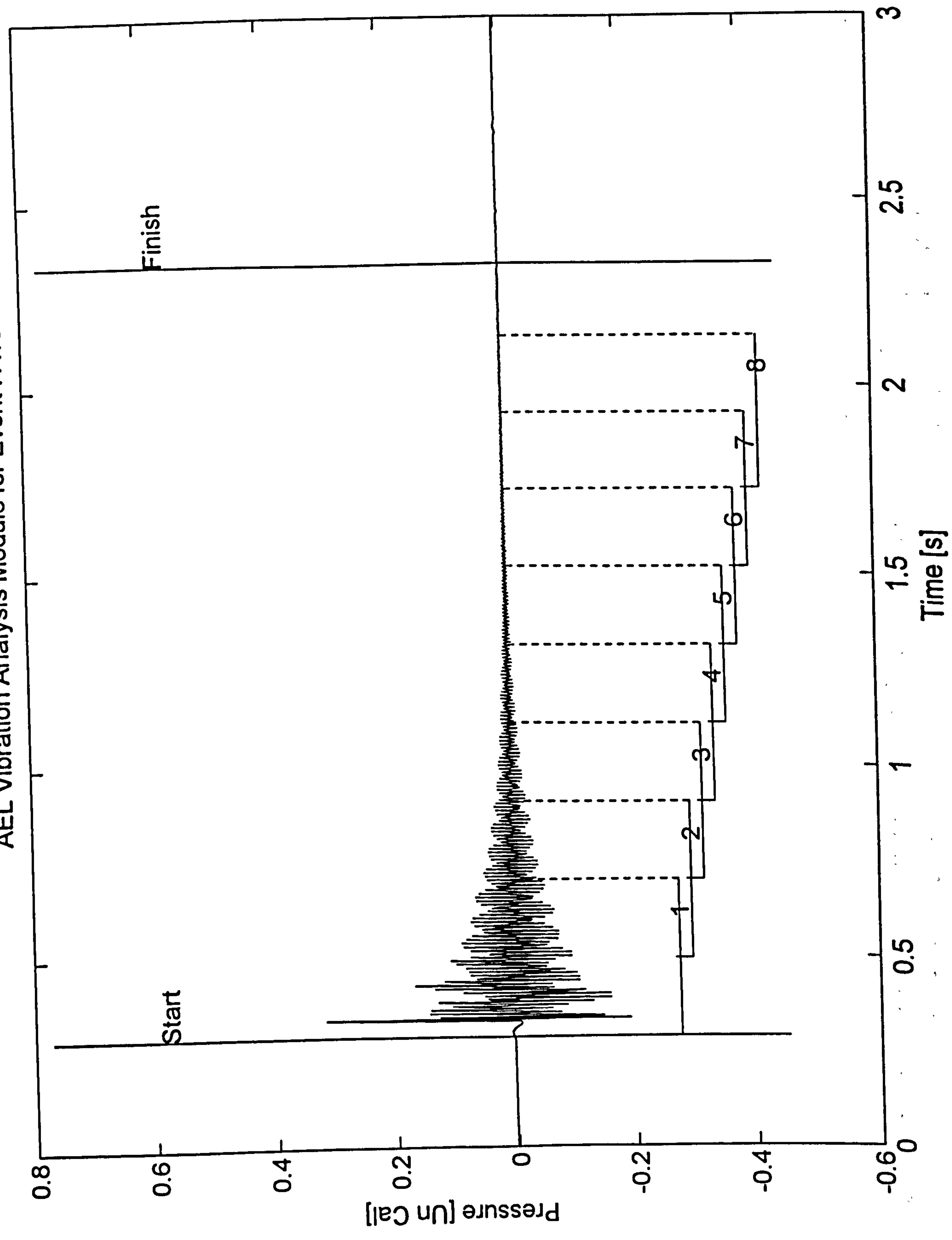
T=c.1s



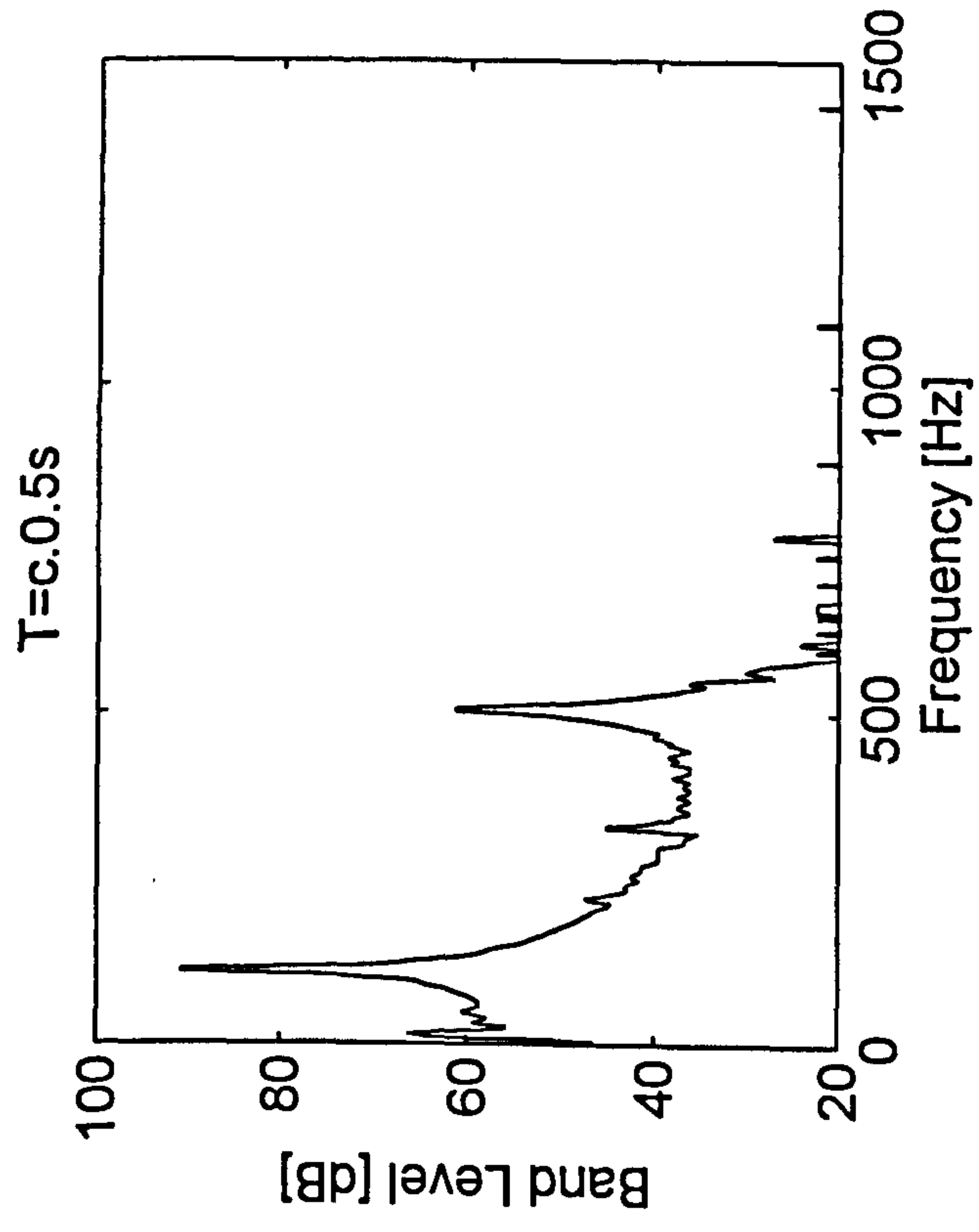
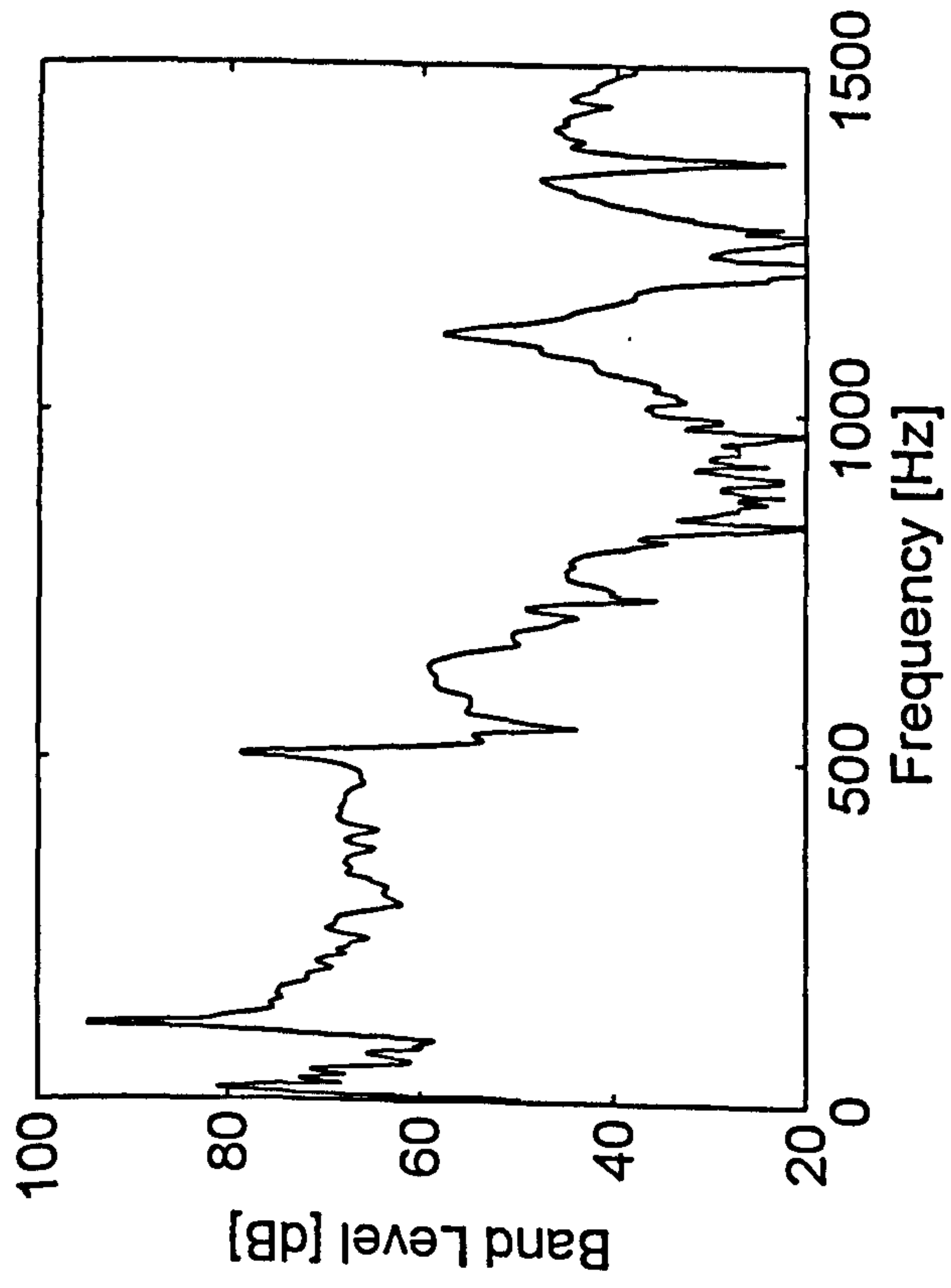
T=2.0s



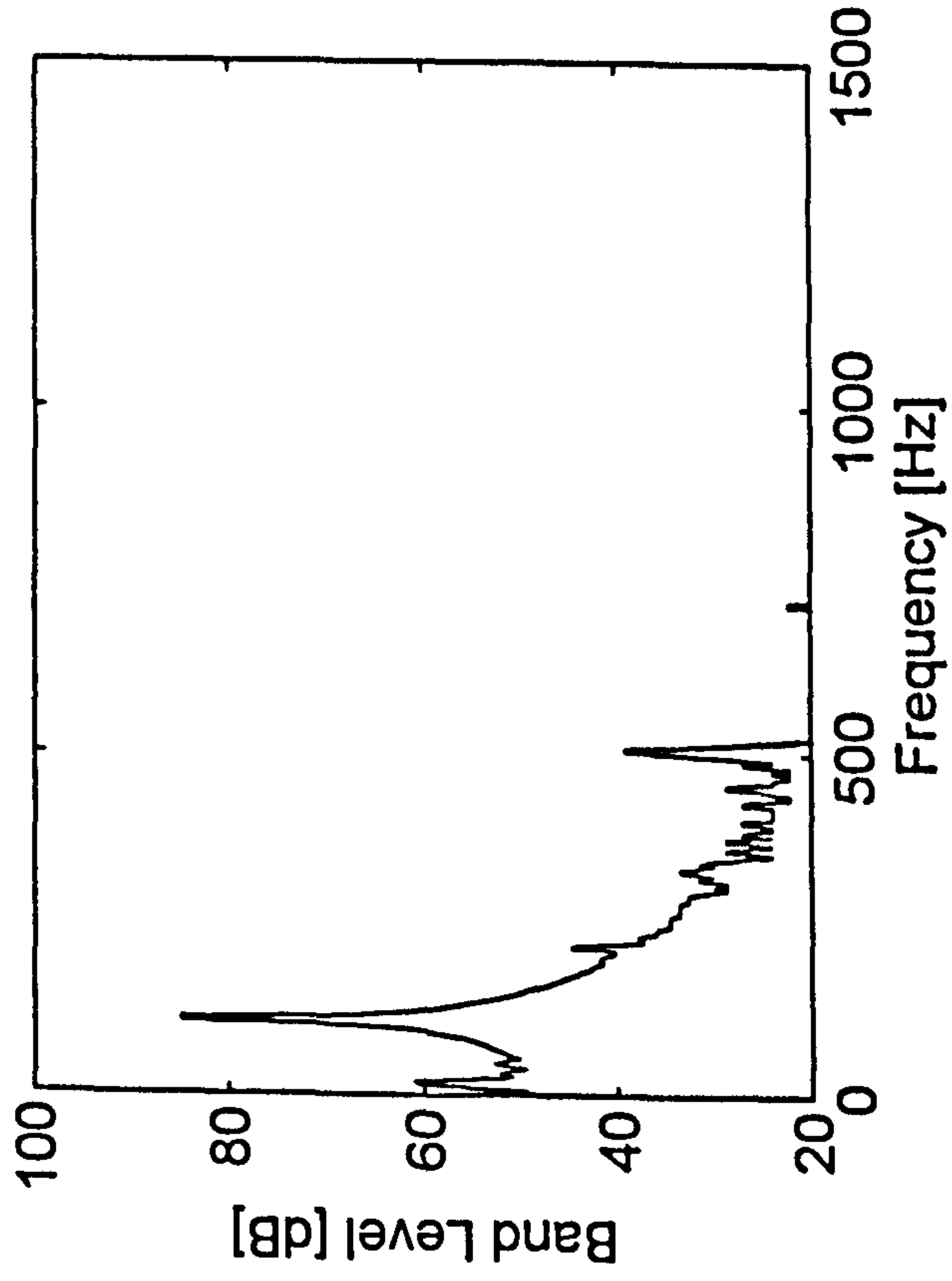
AEL Vibration Analysis Module for Event : A18



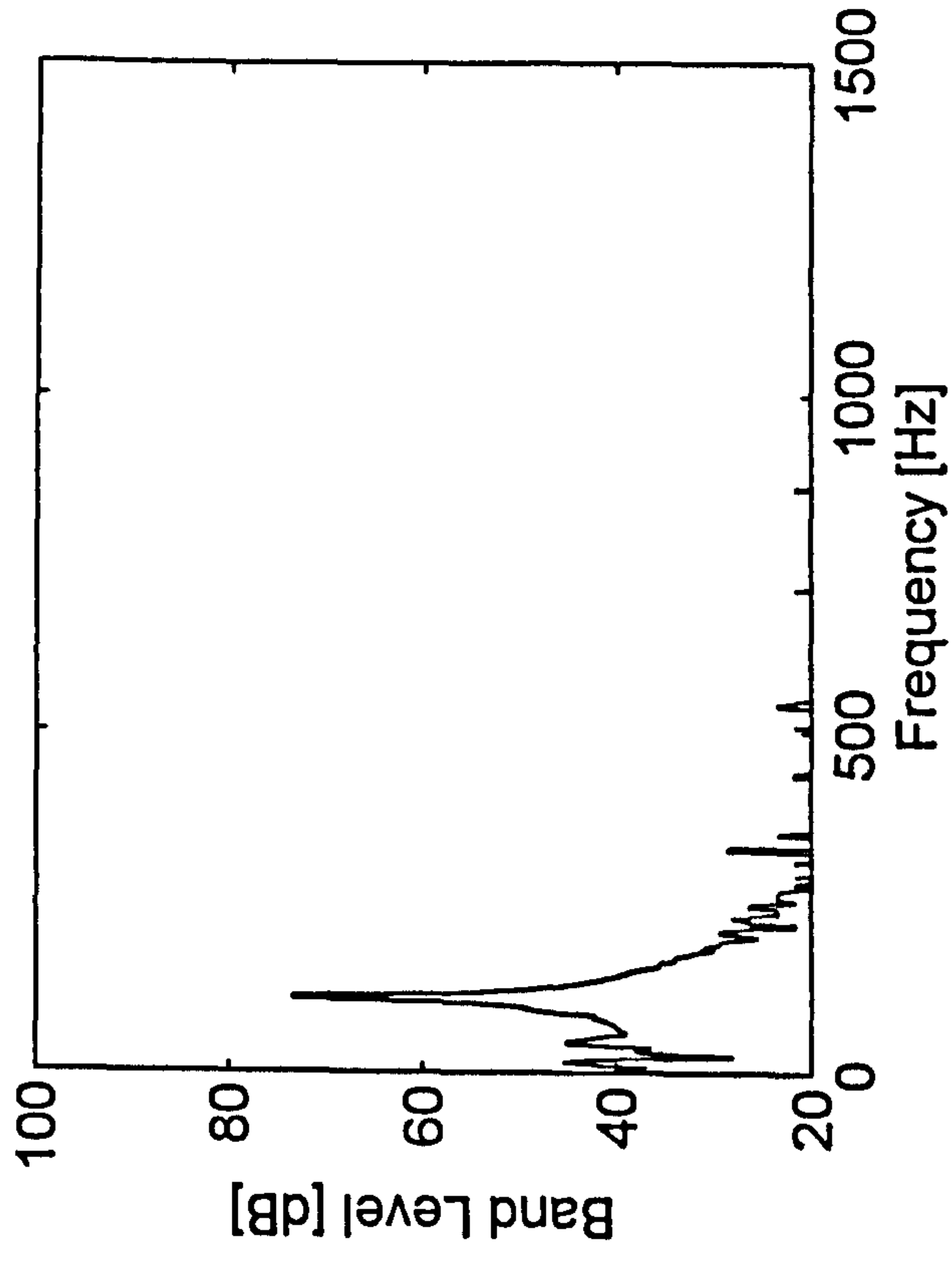
Event : A18T=0s



T=c.1s

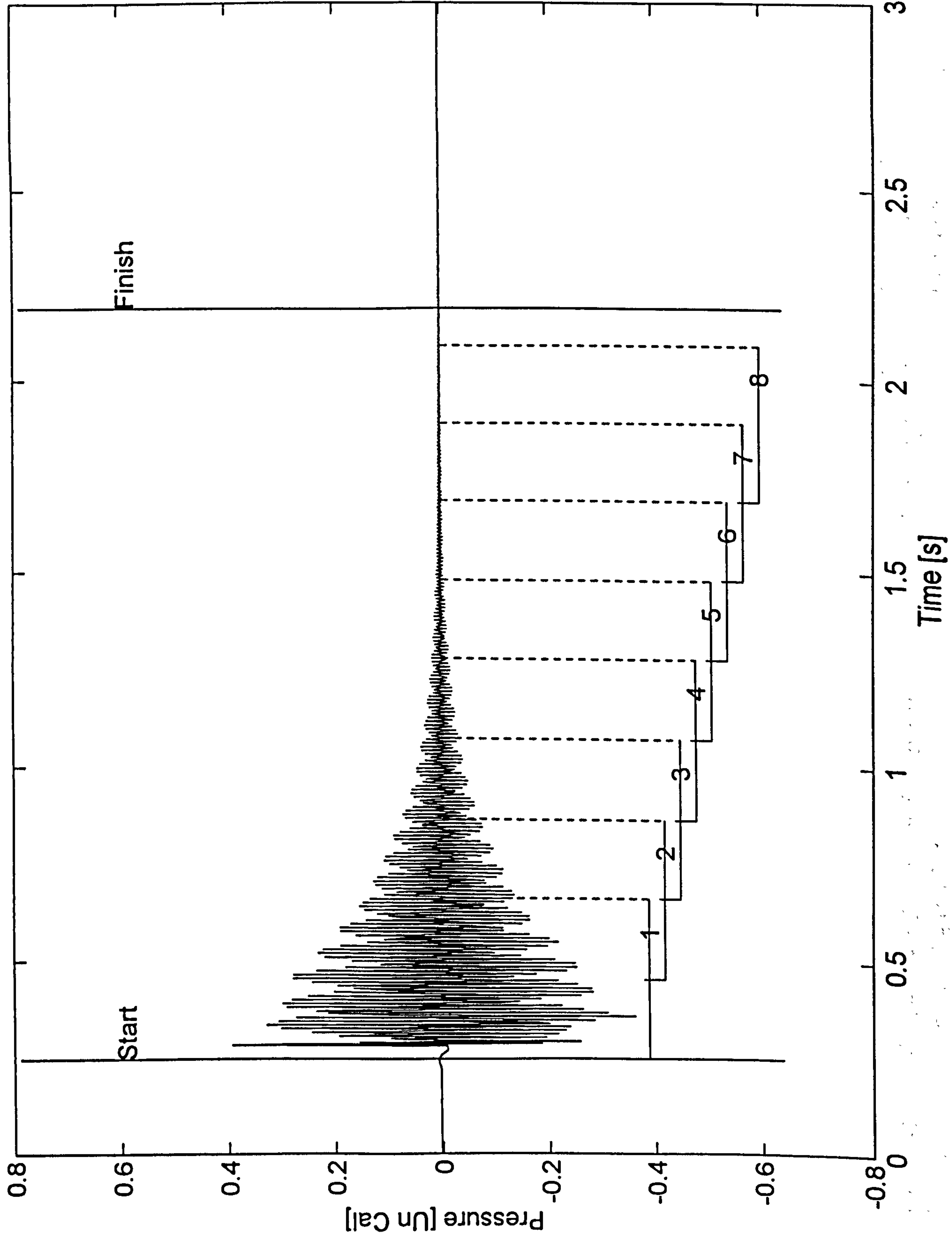


T=2.0s

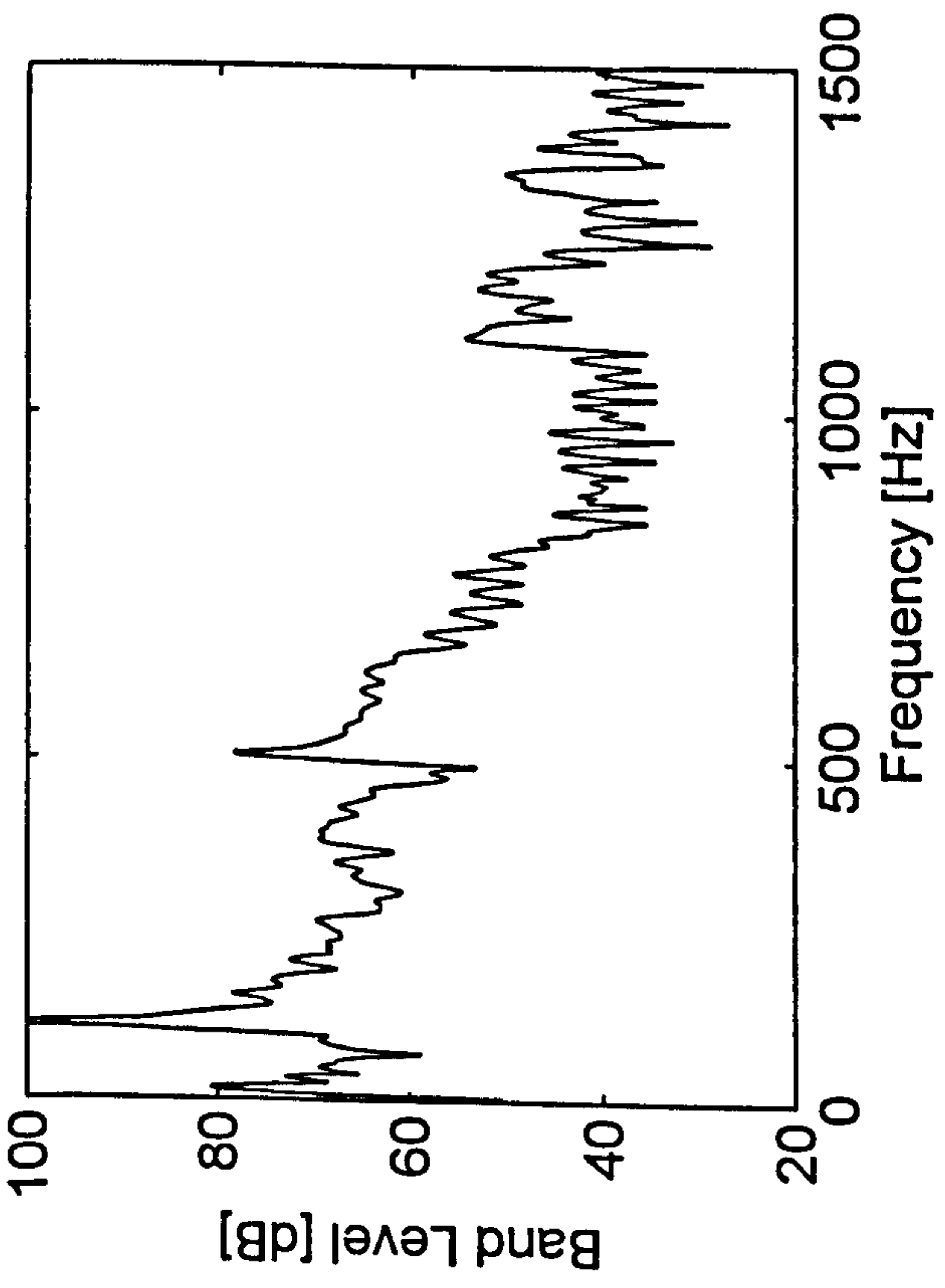




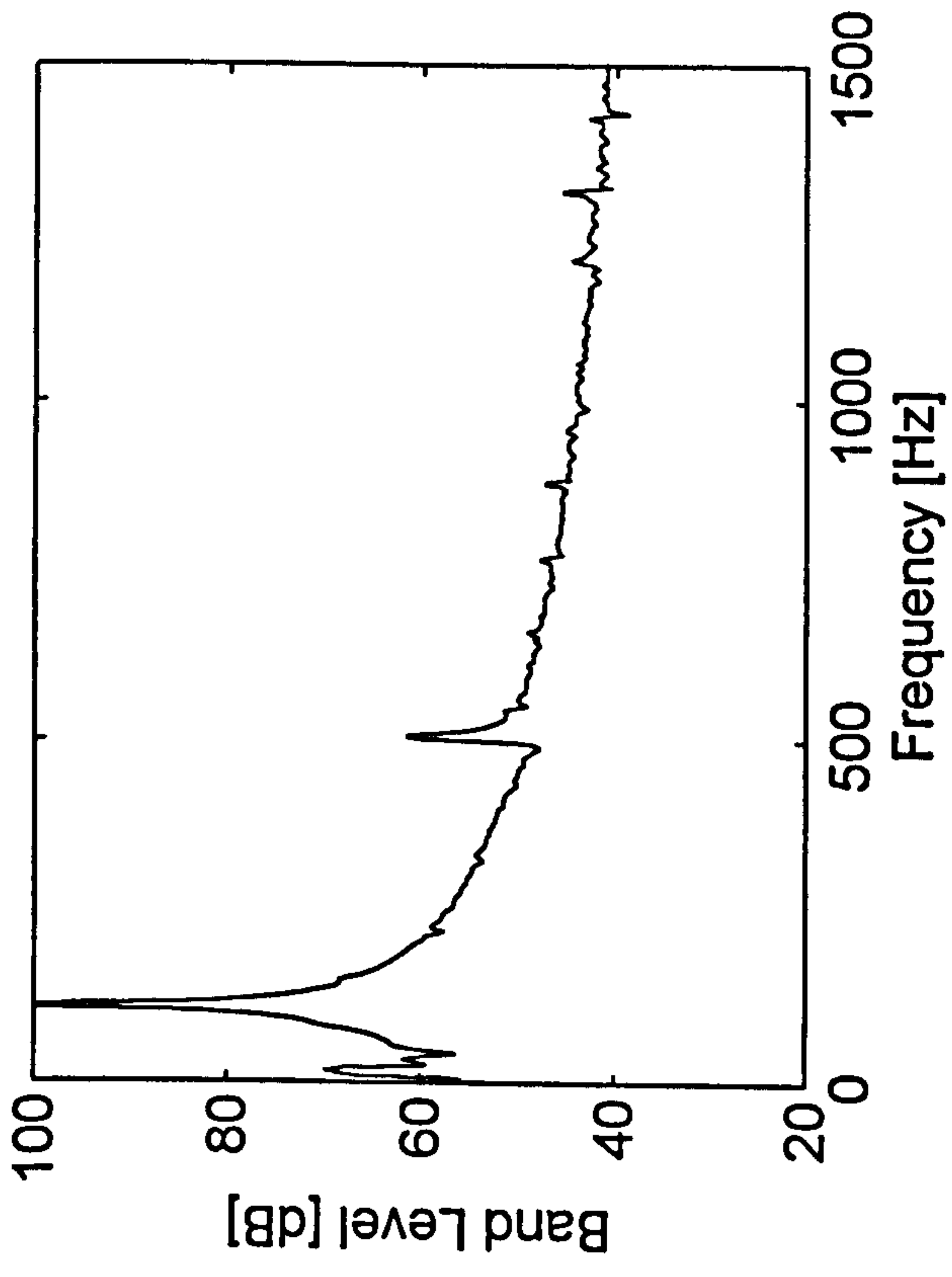
AEL Vibration Analysis Module for Event : A19



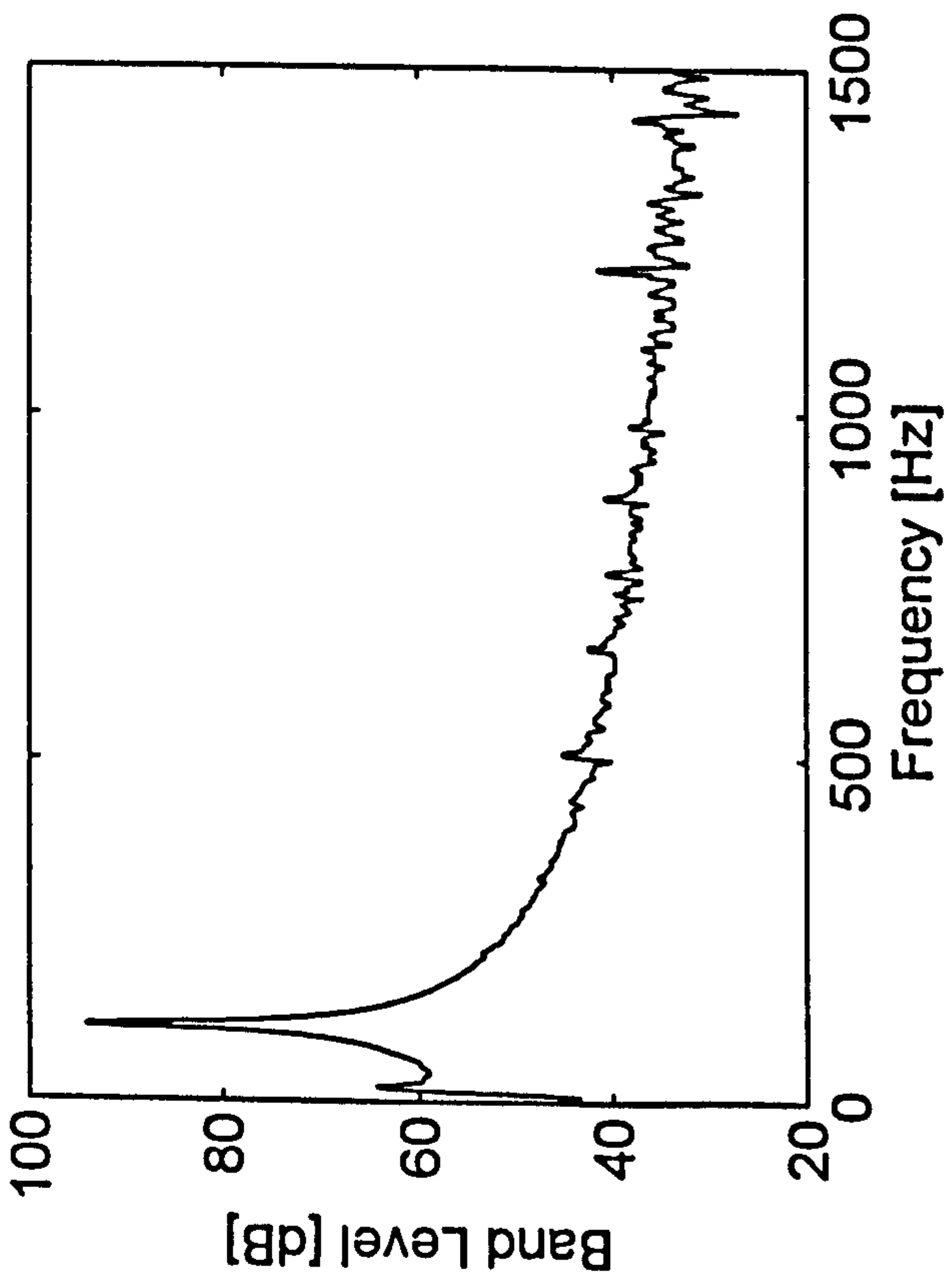
Event : A19T=0s



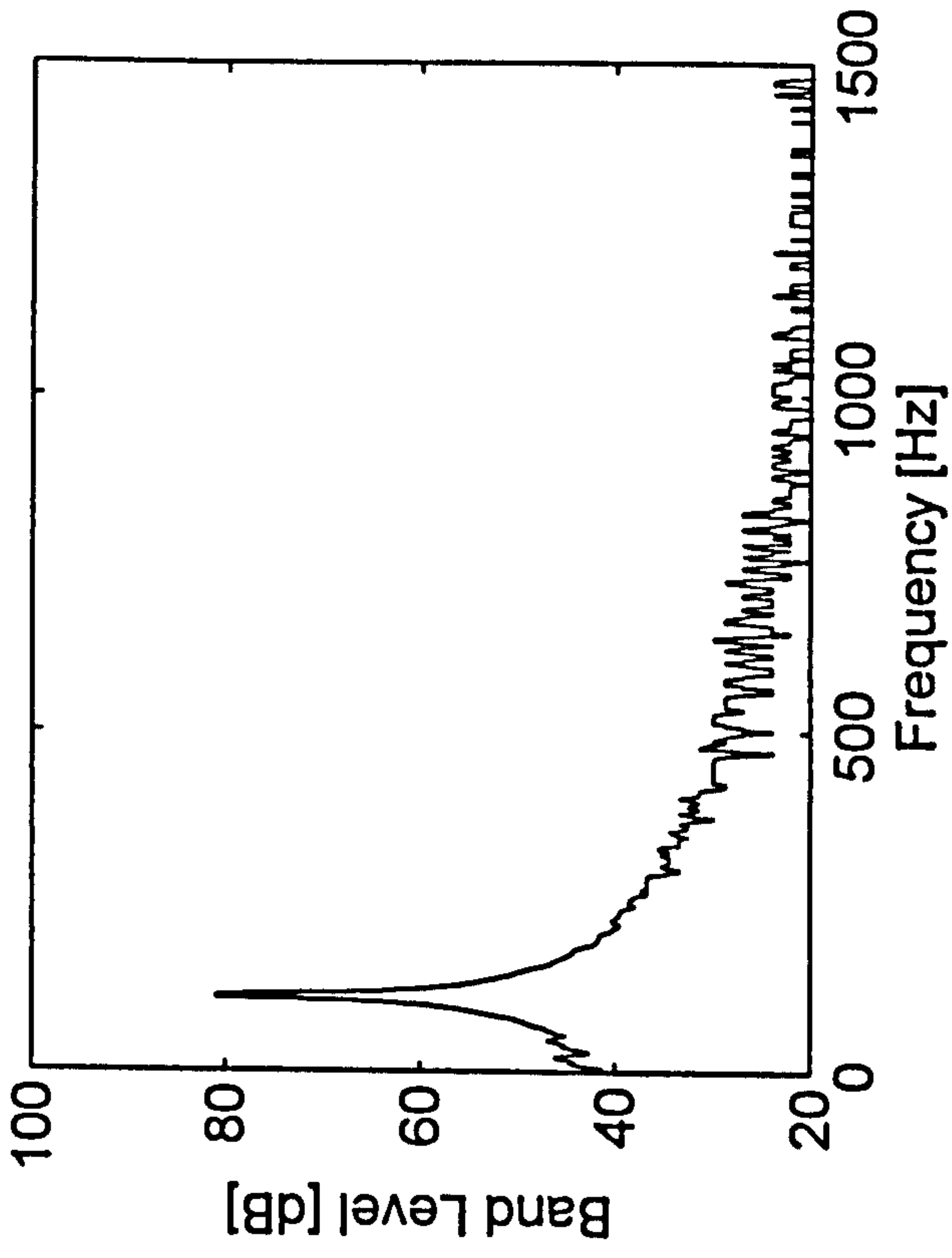
T=c.0.5s



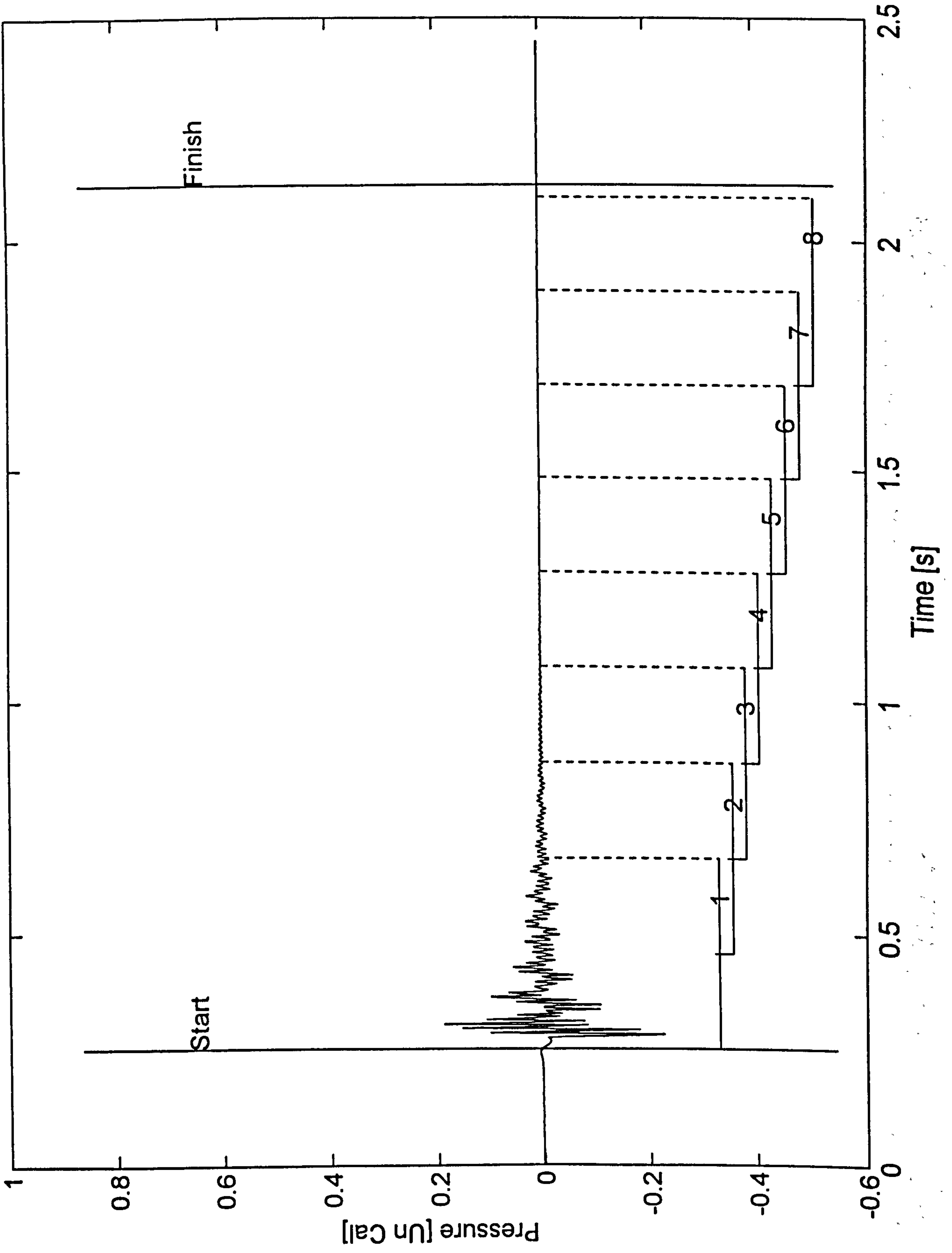
T=c.1s



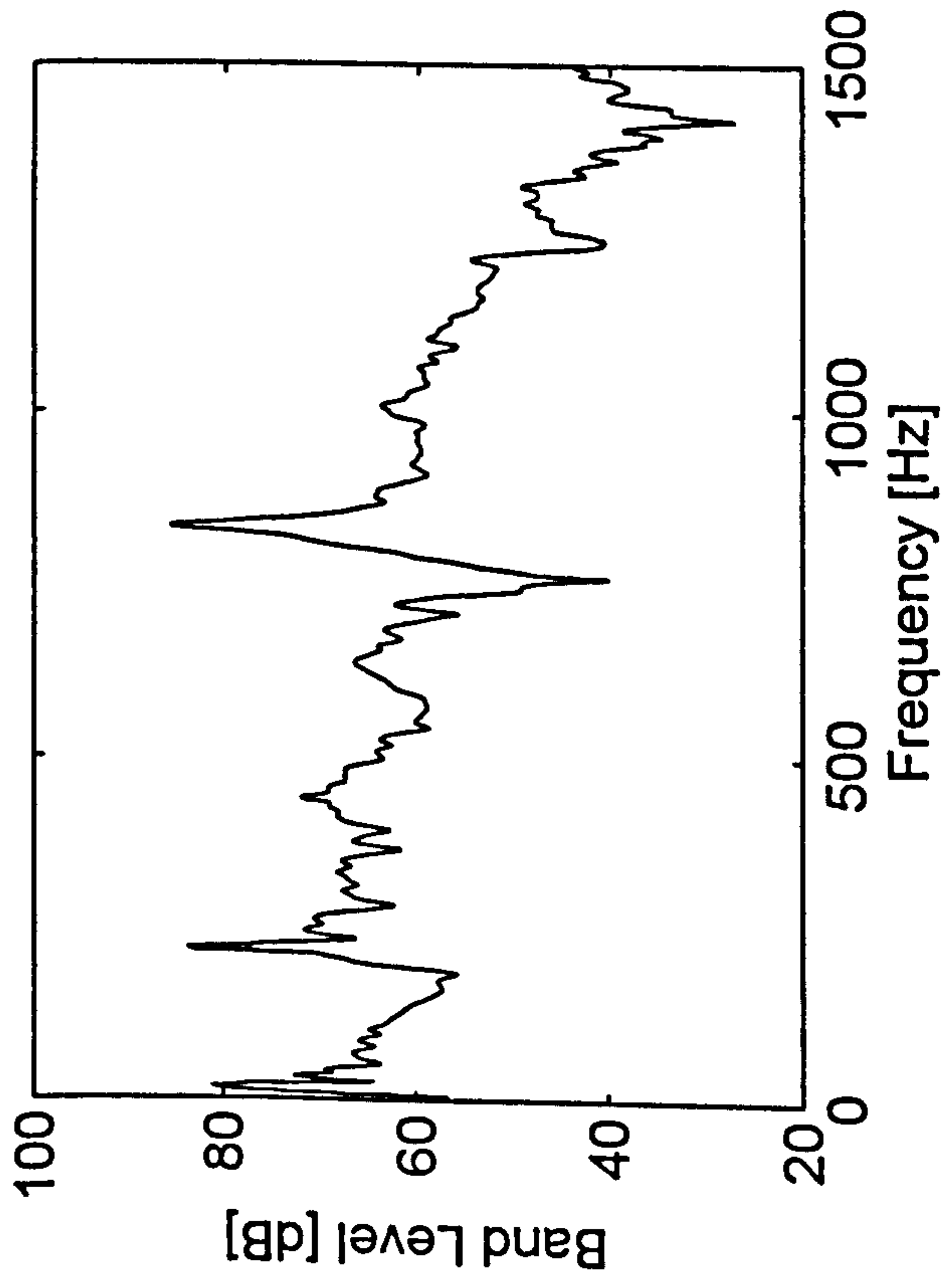
T=2.0s



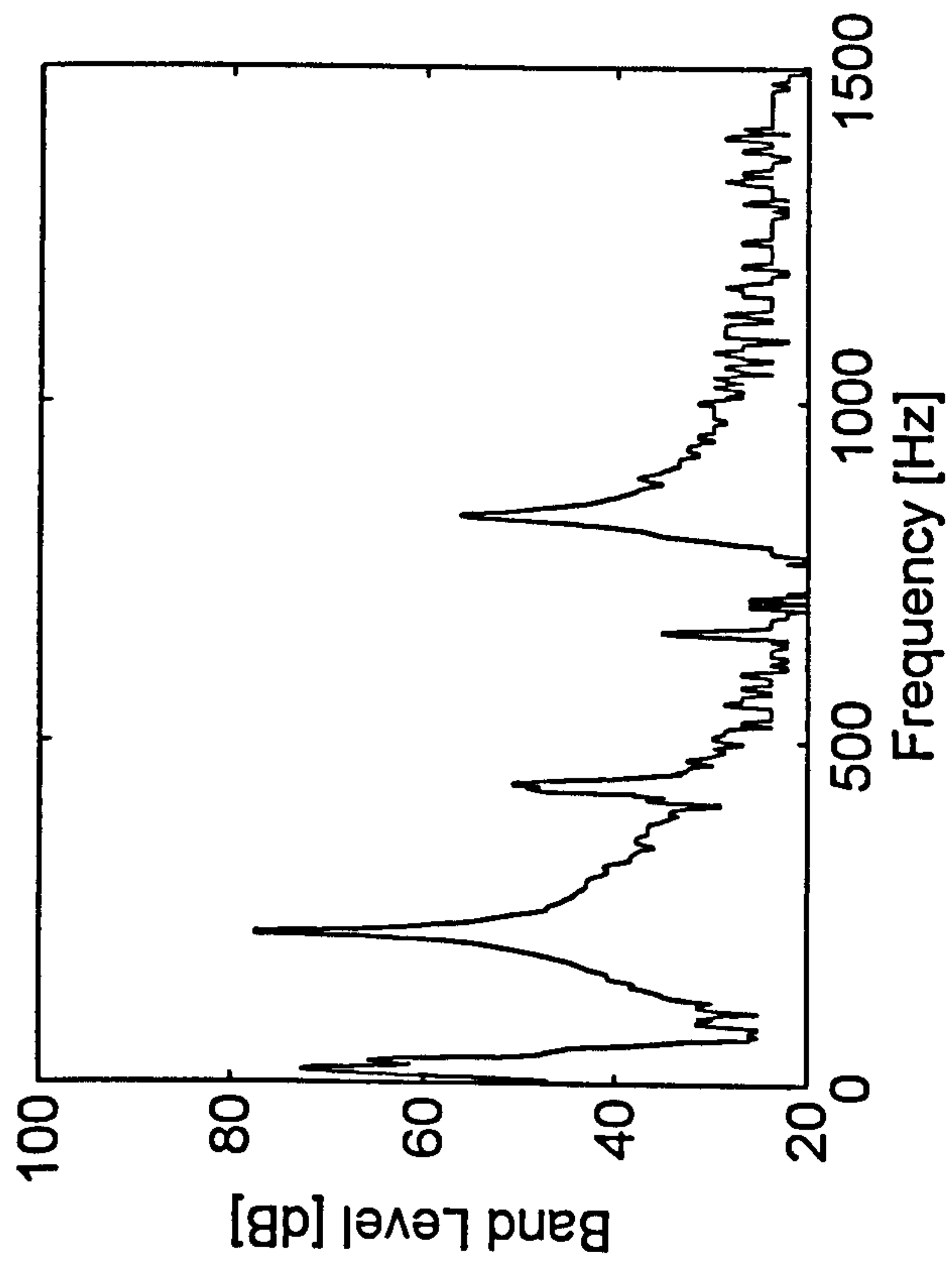
AEL Vibration Analysis Module for Event : A20



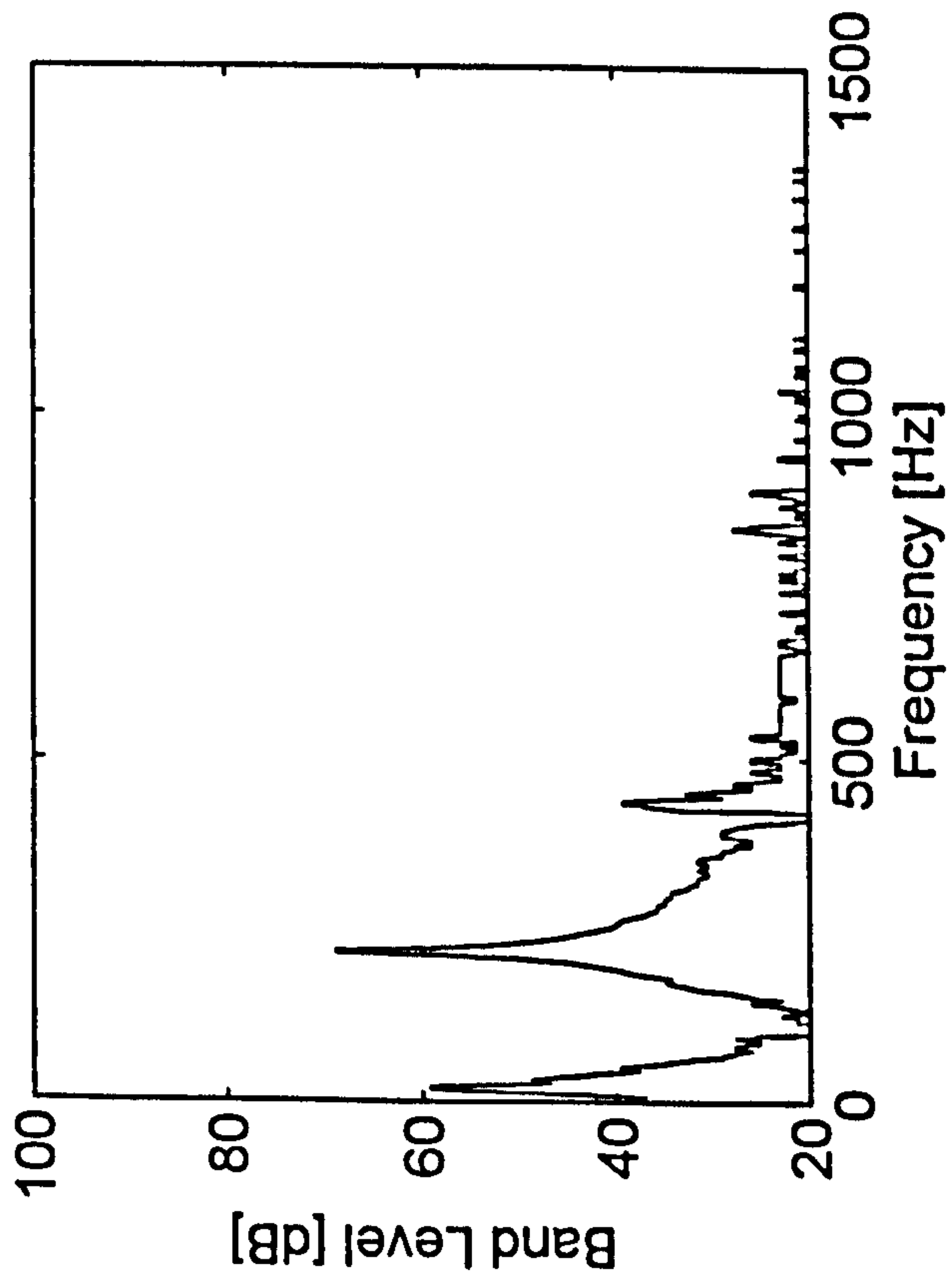
Event : A20T=0s



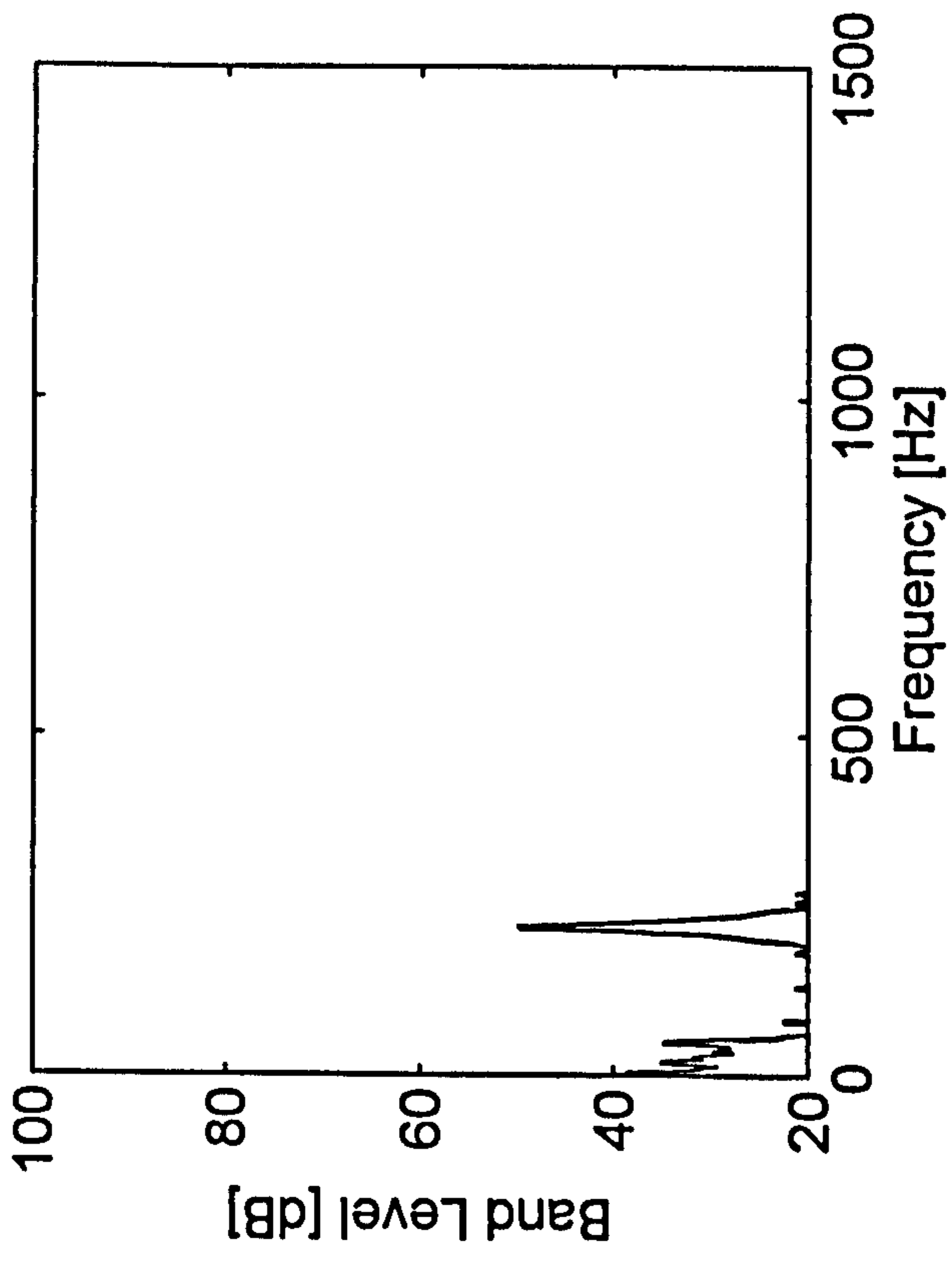
T=c.0.5s



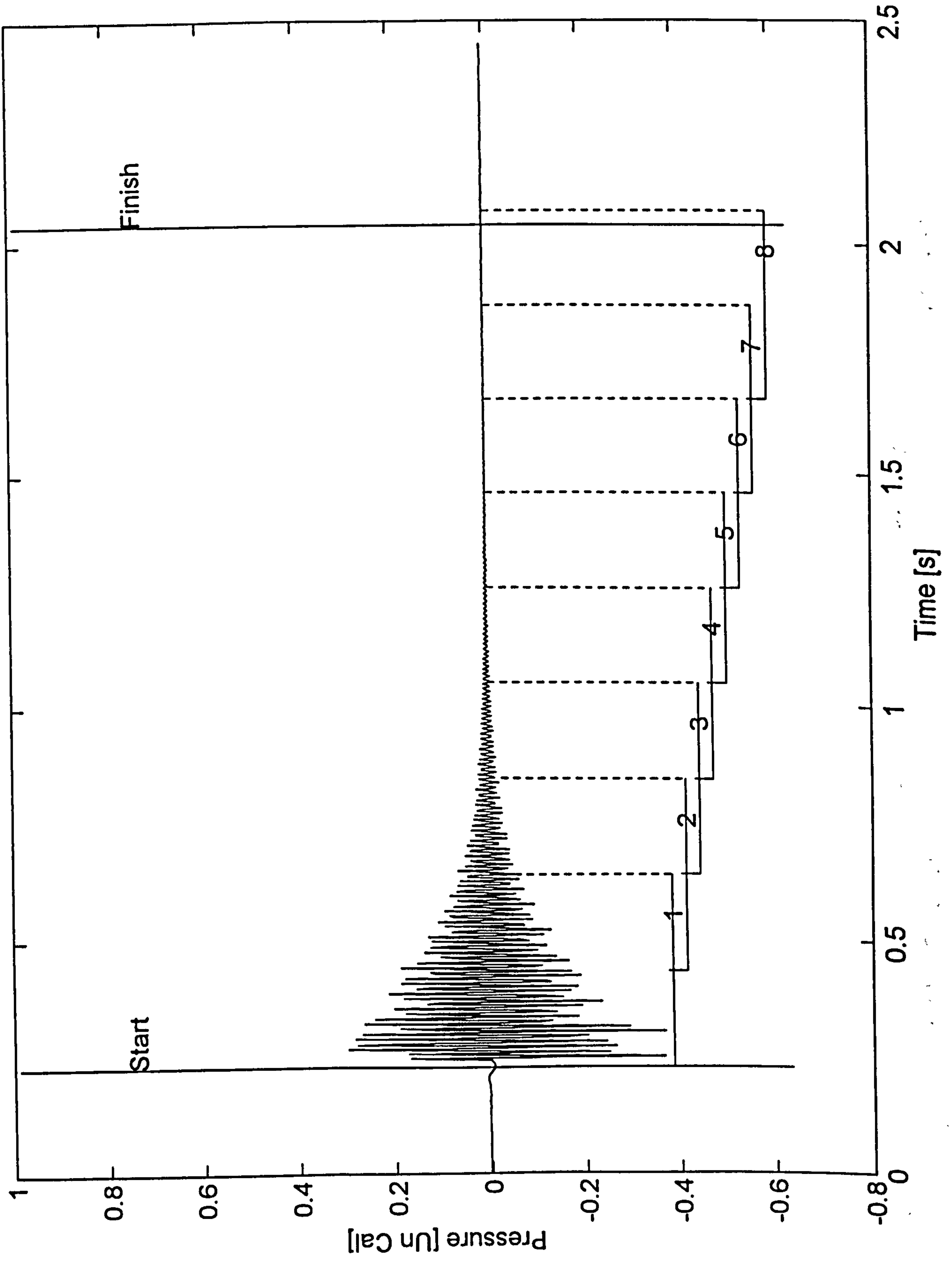
T=c.1s



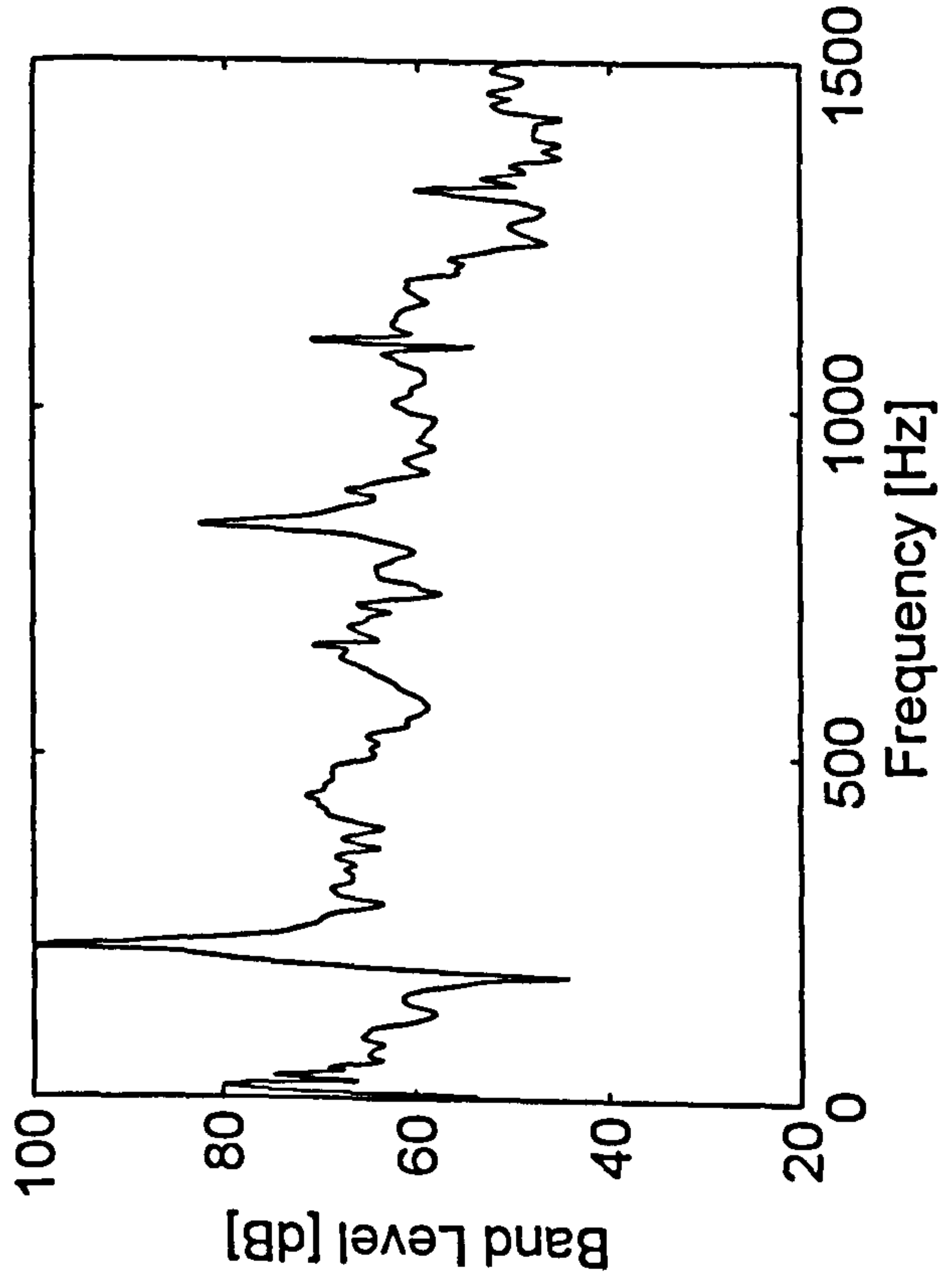
T=2.0s



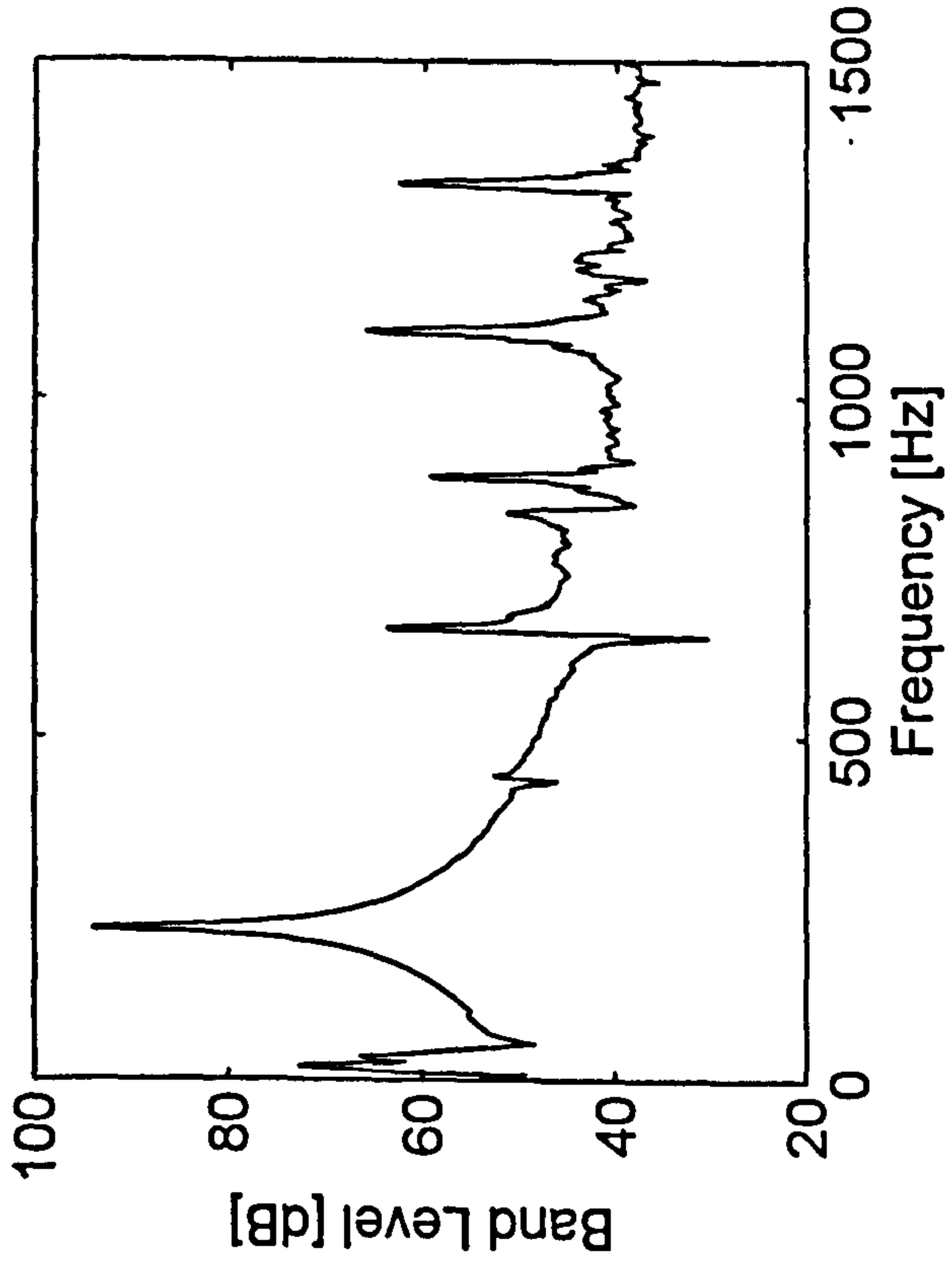
AEL Vibration Analysis Module for Event : A21



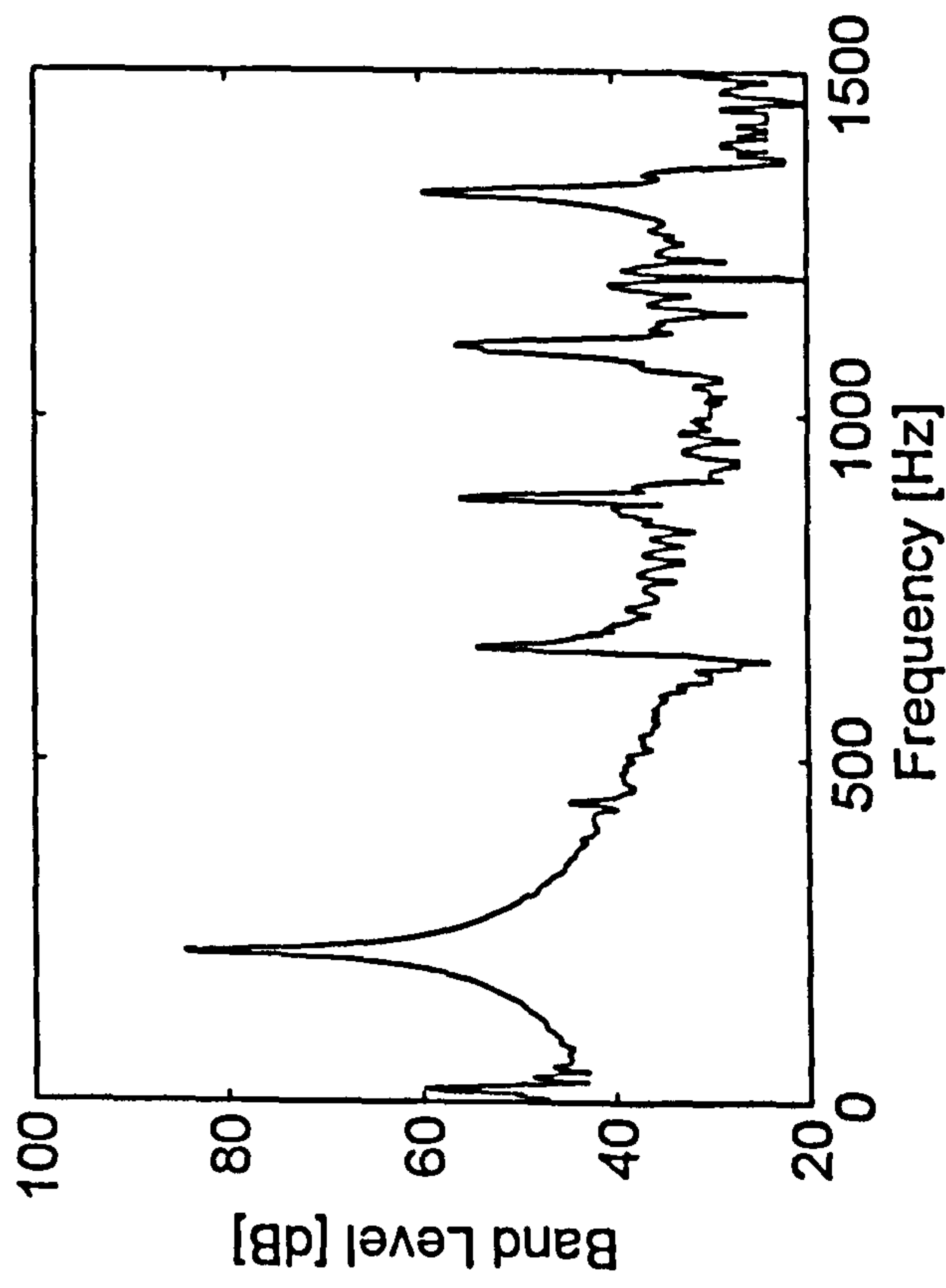
Event : A21T=0s



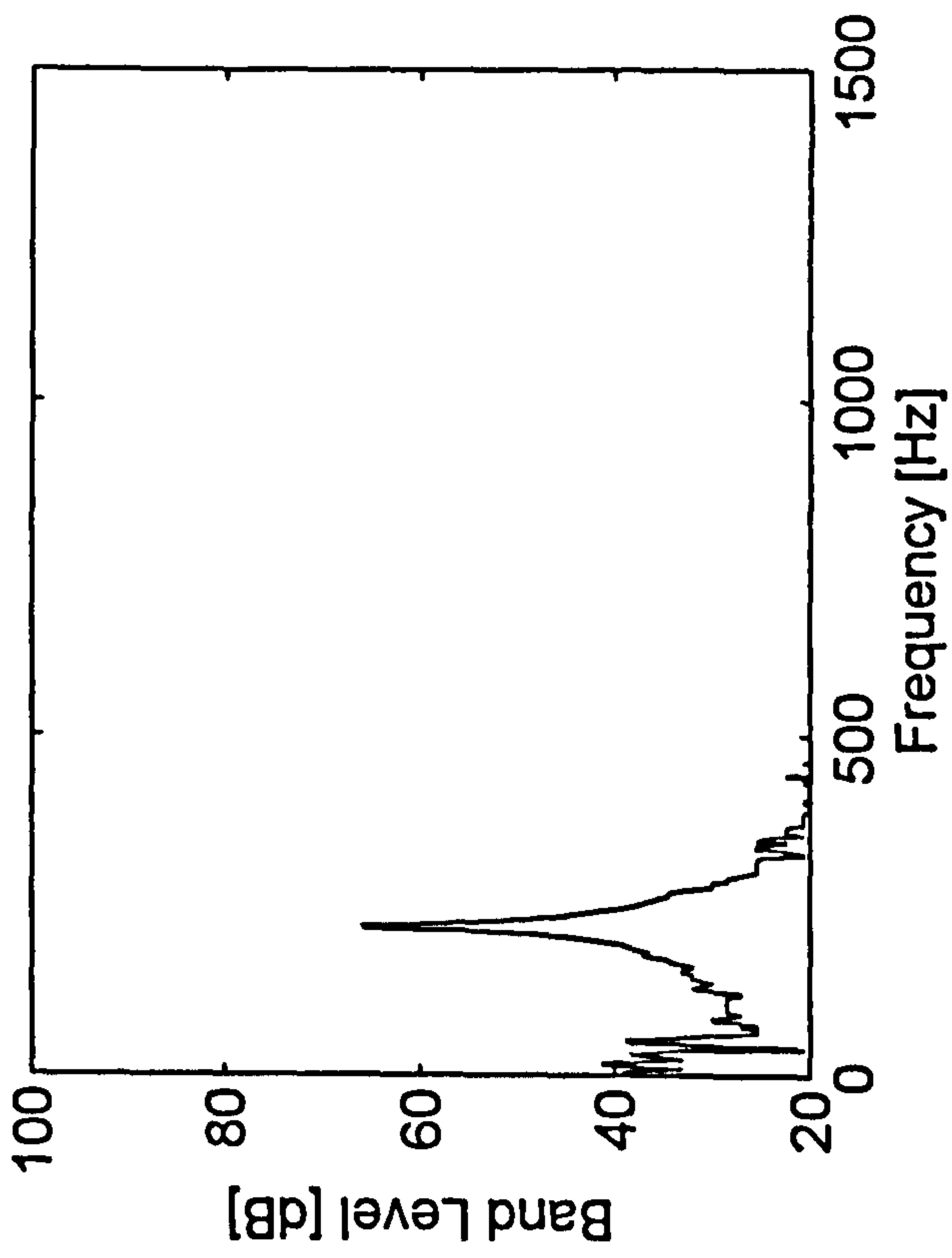
T=c.0.5s



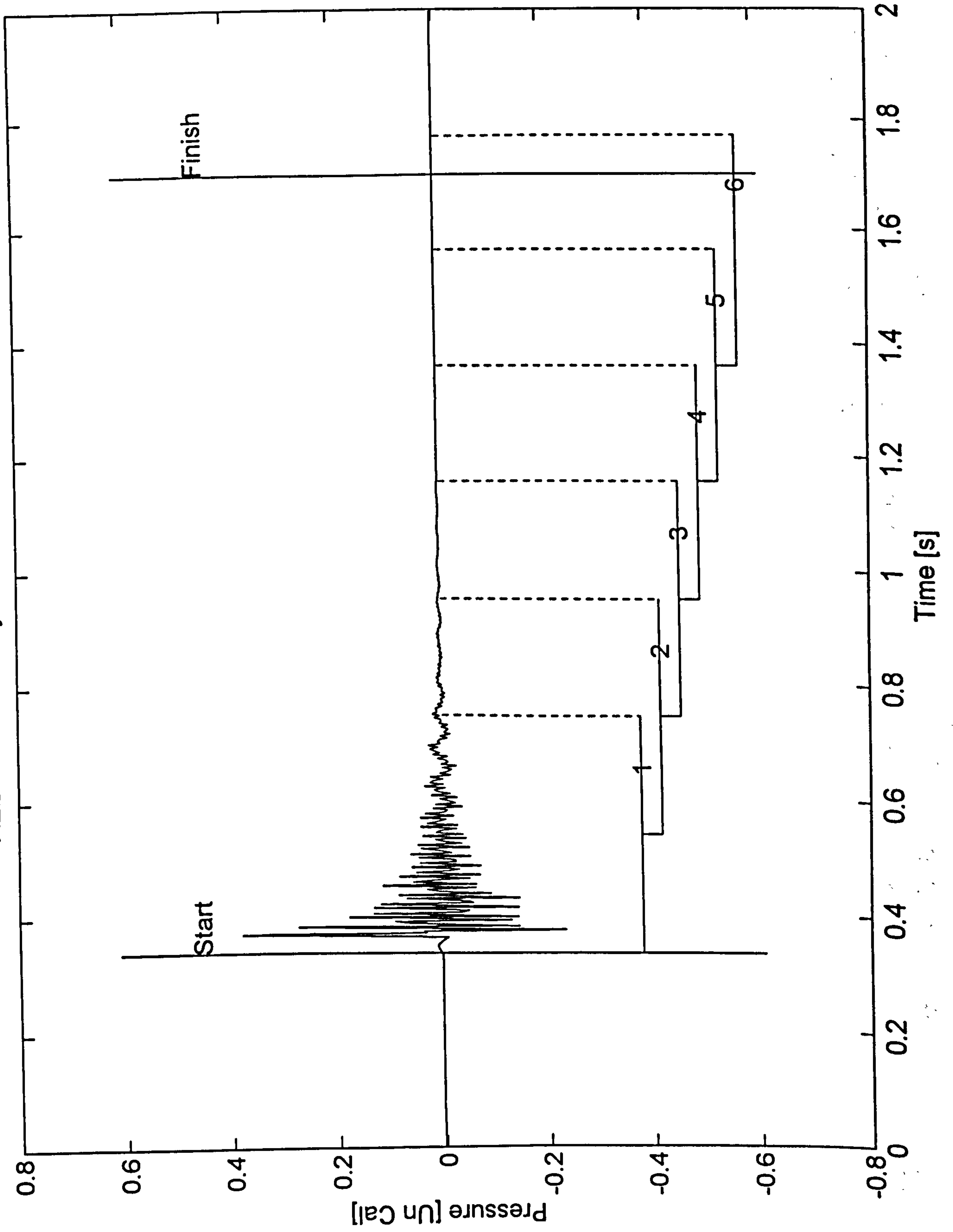
T=c.1s



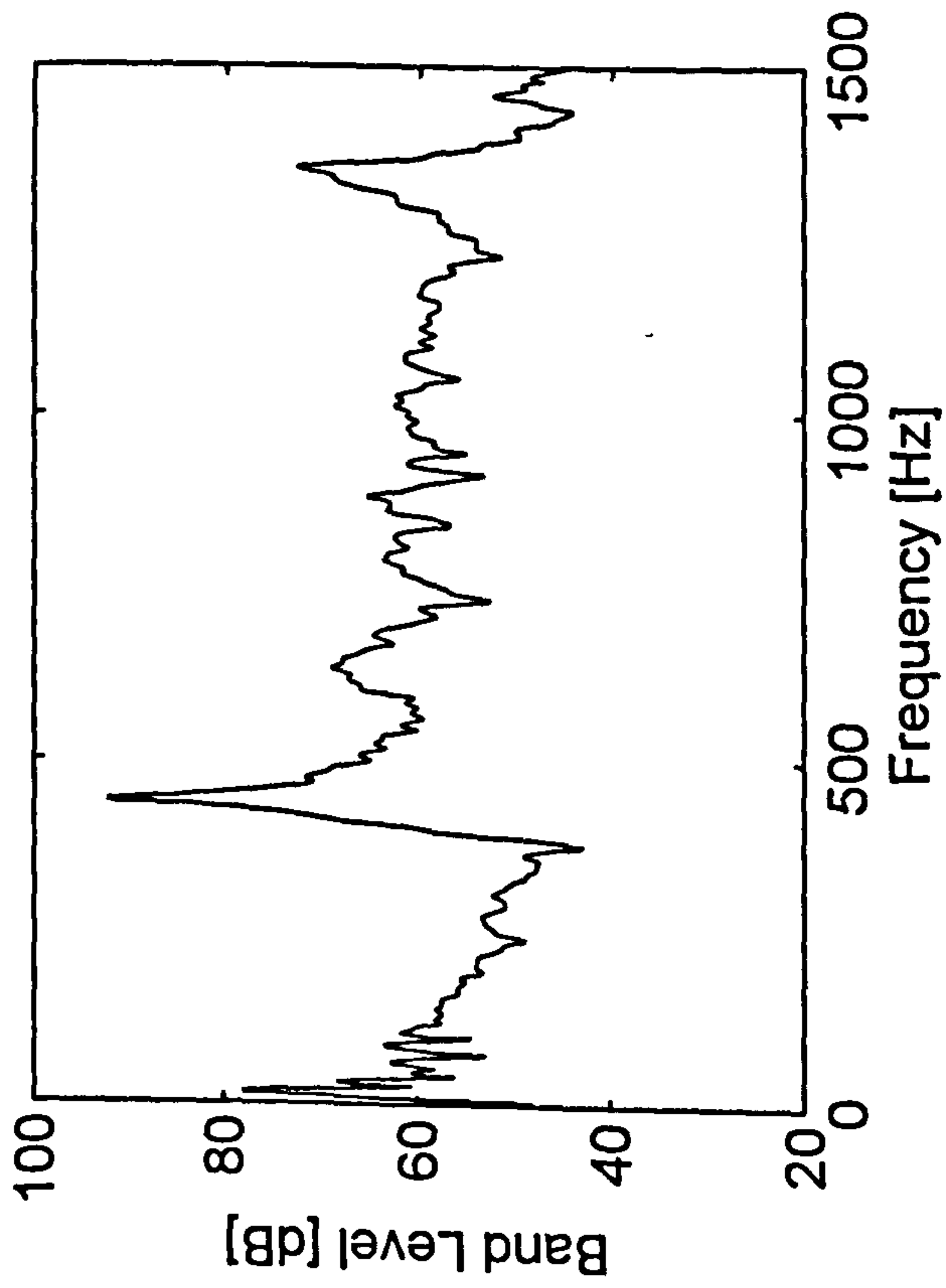
T=2.0s



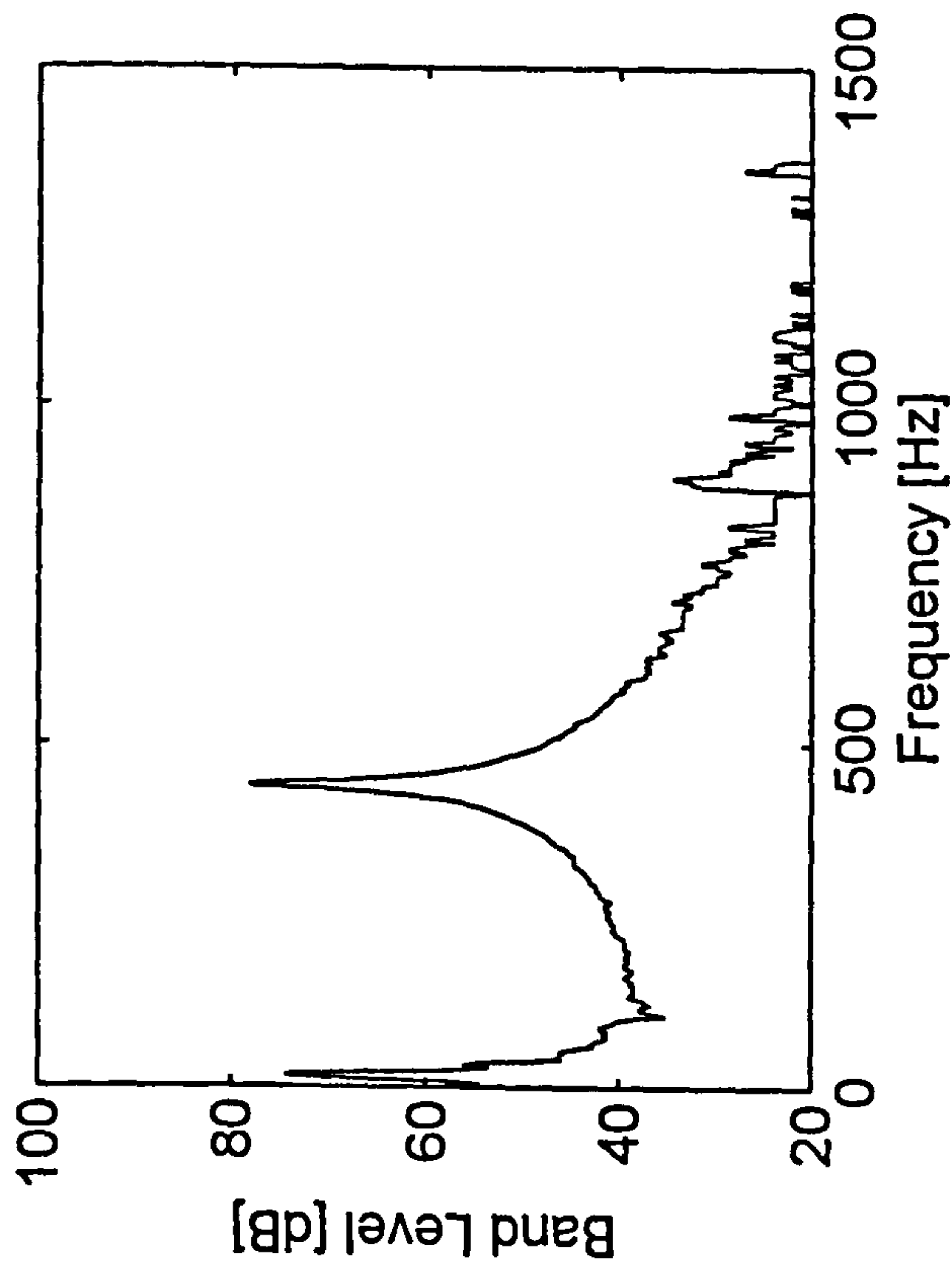
AEL Vibration Analysis Module for Event : A22



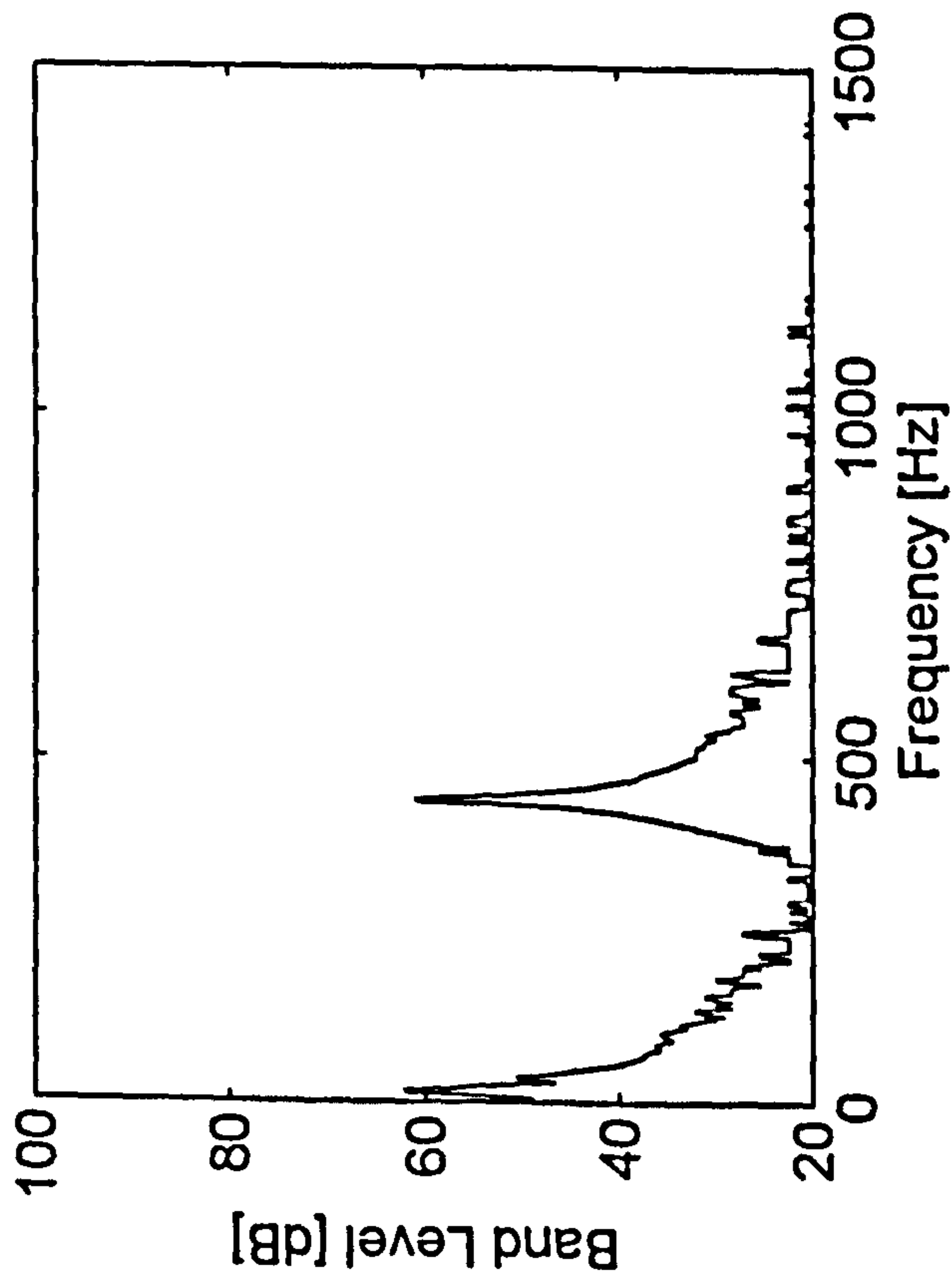
Event : A22T=0s



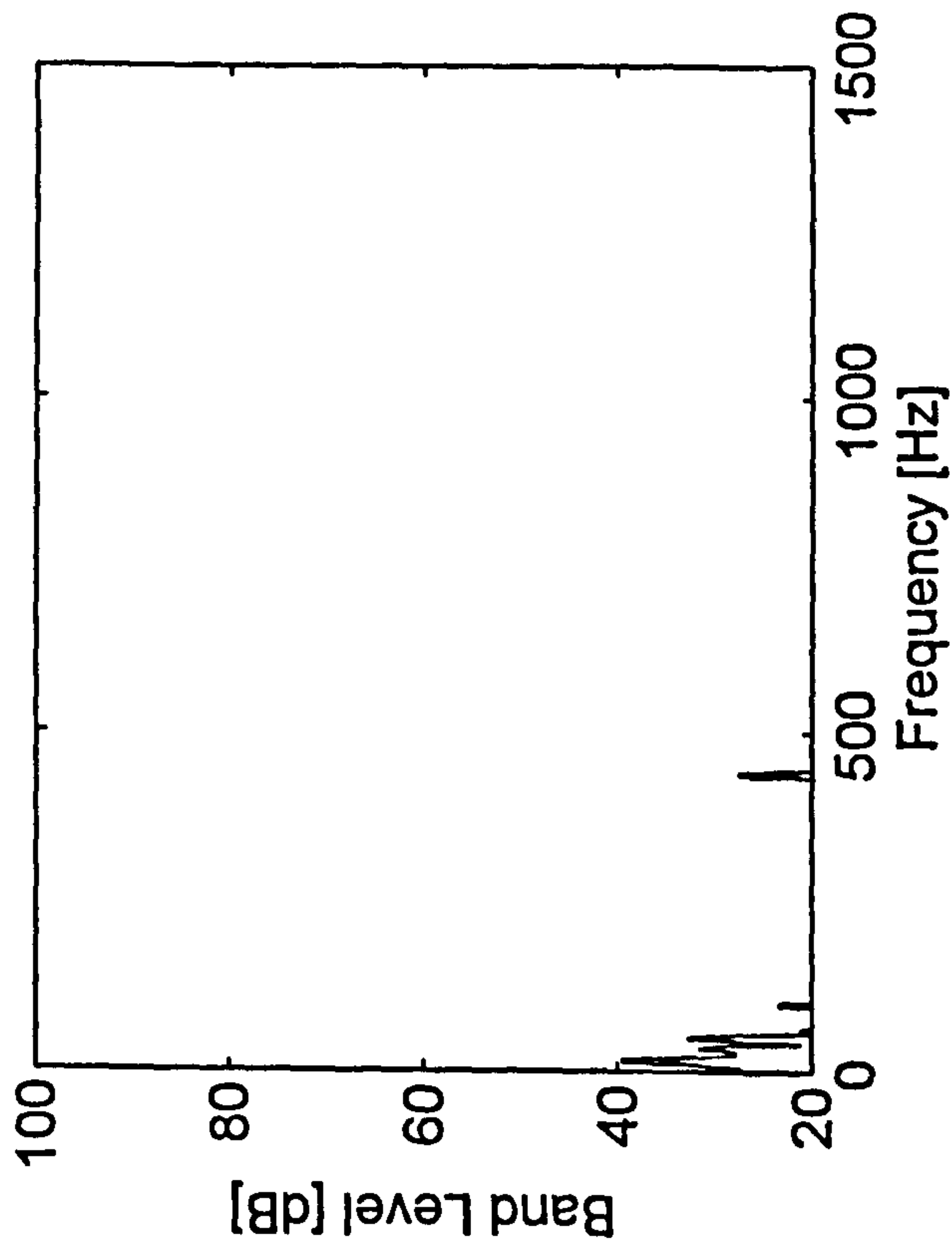
T=c.0.5s



T=c.1s

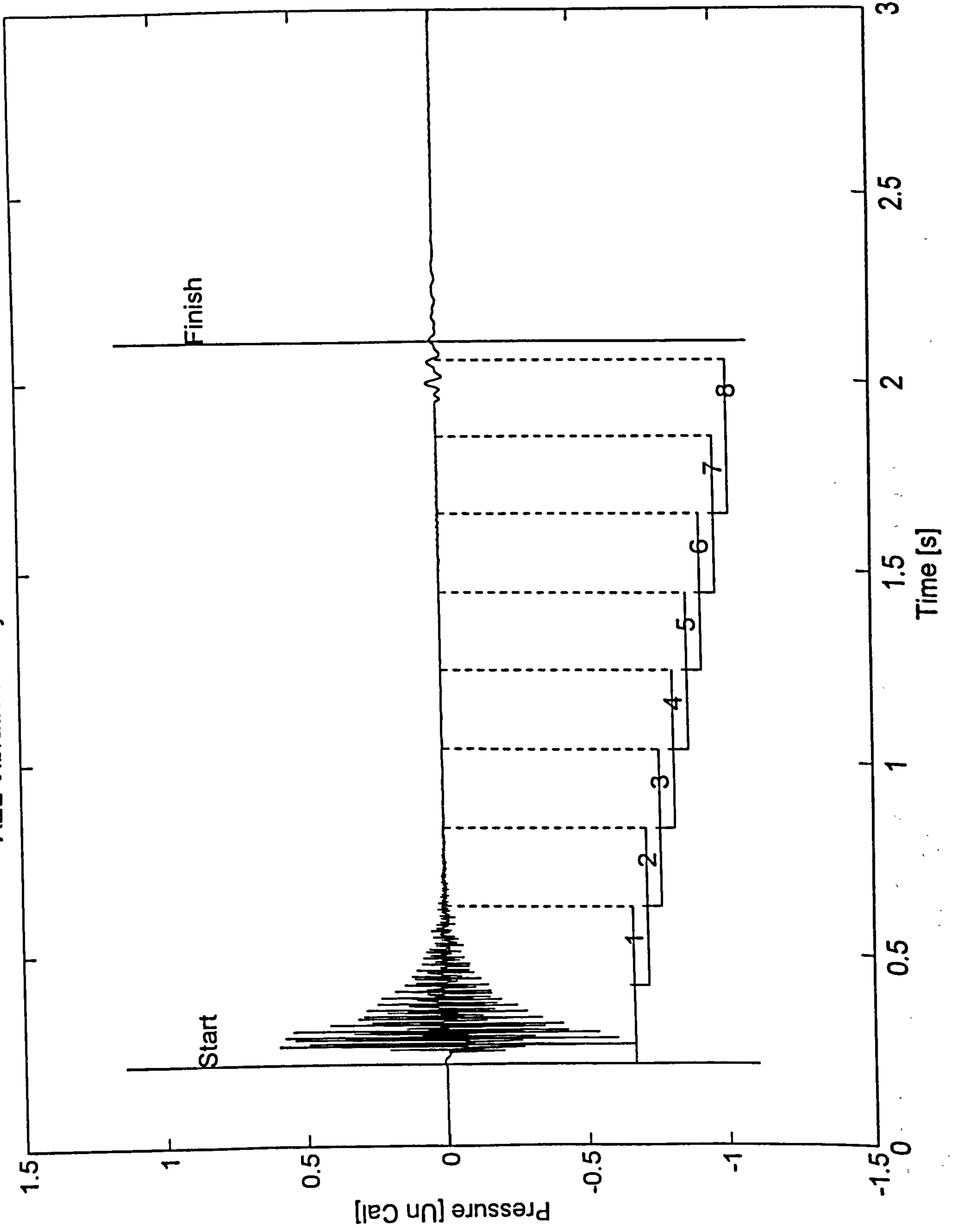


T=2.0s

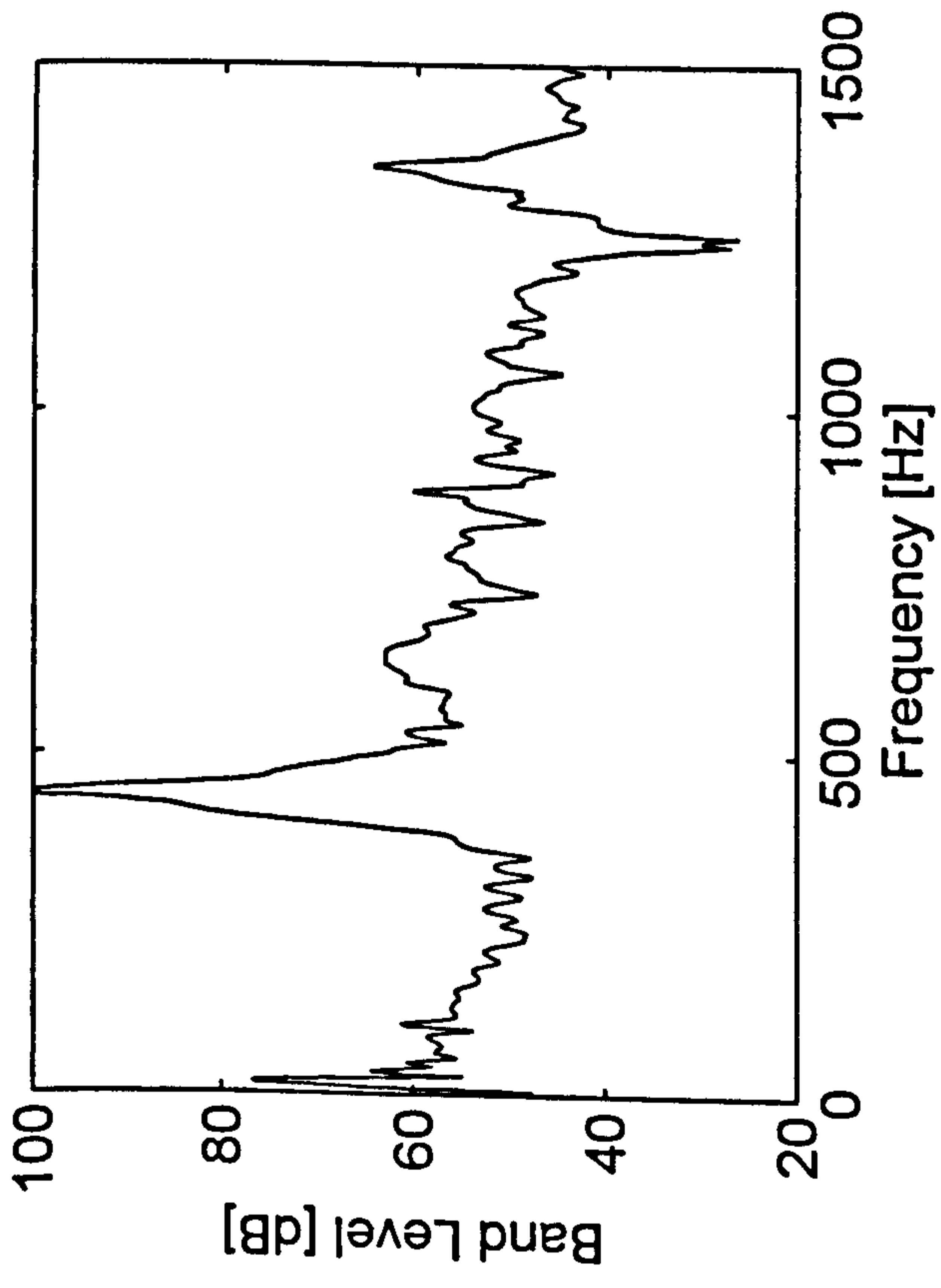




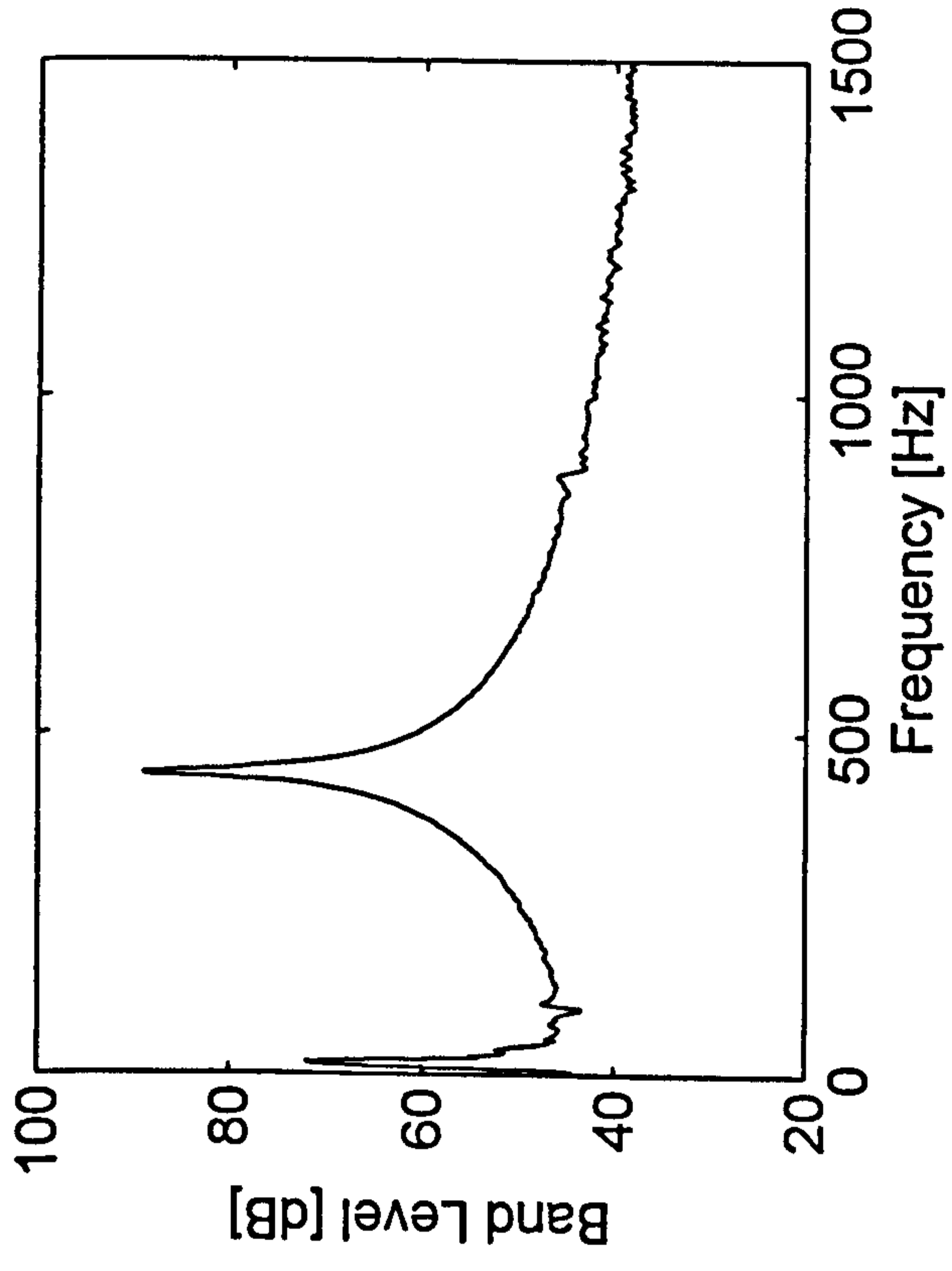
AEL Vibration Analysis Module for Event : A23



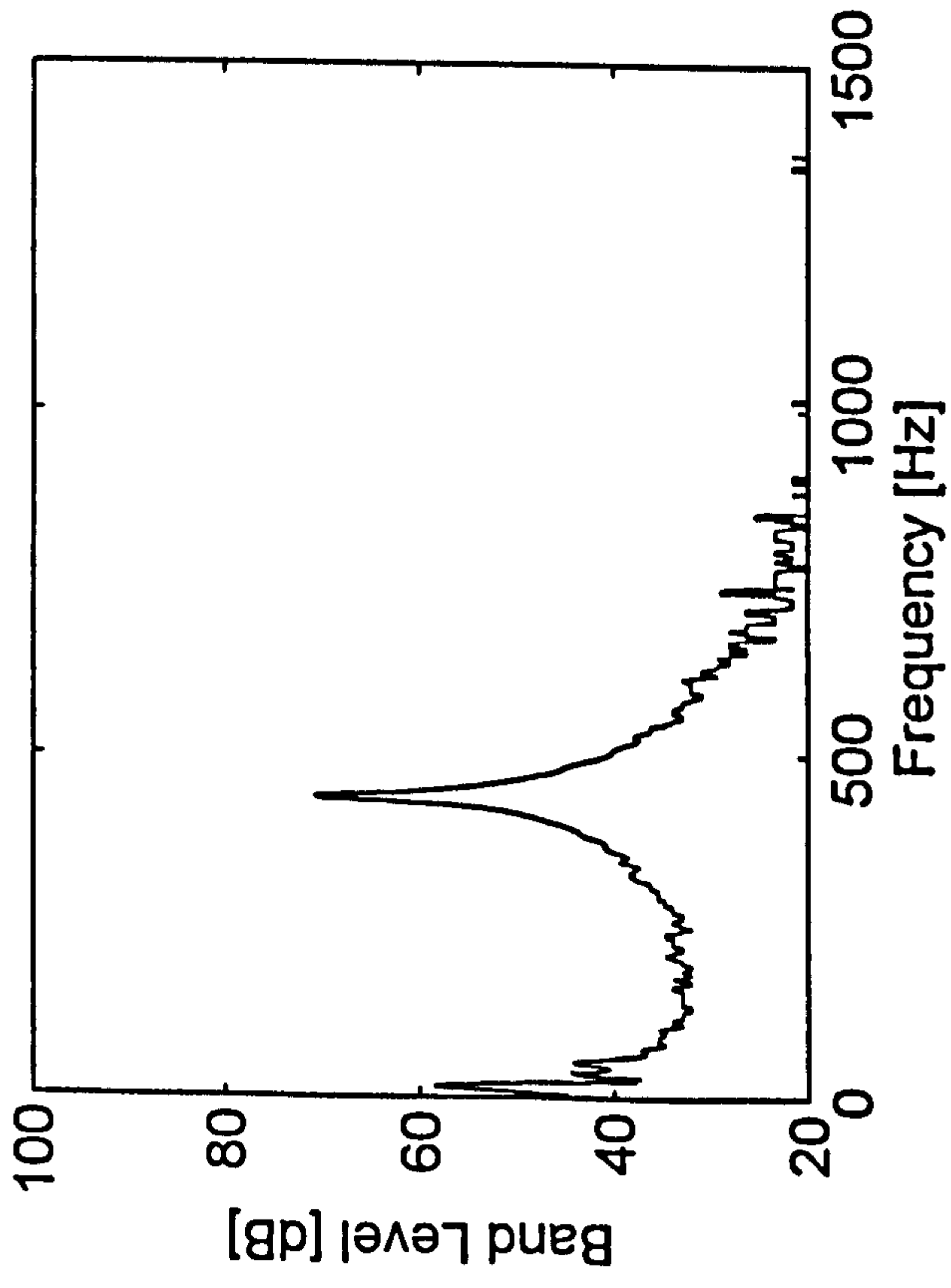
Event : A23T=0s



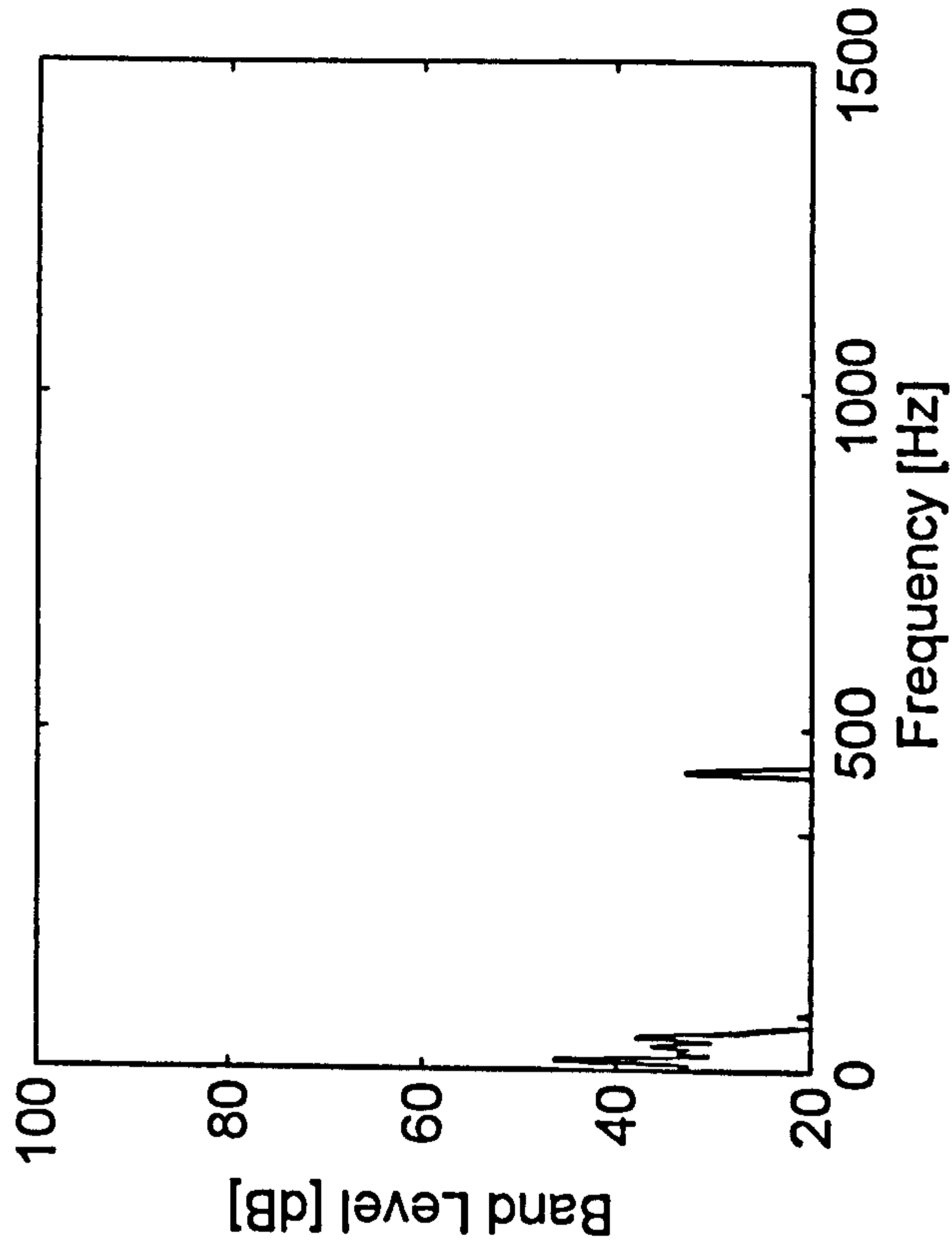
T=c.0.5s



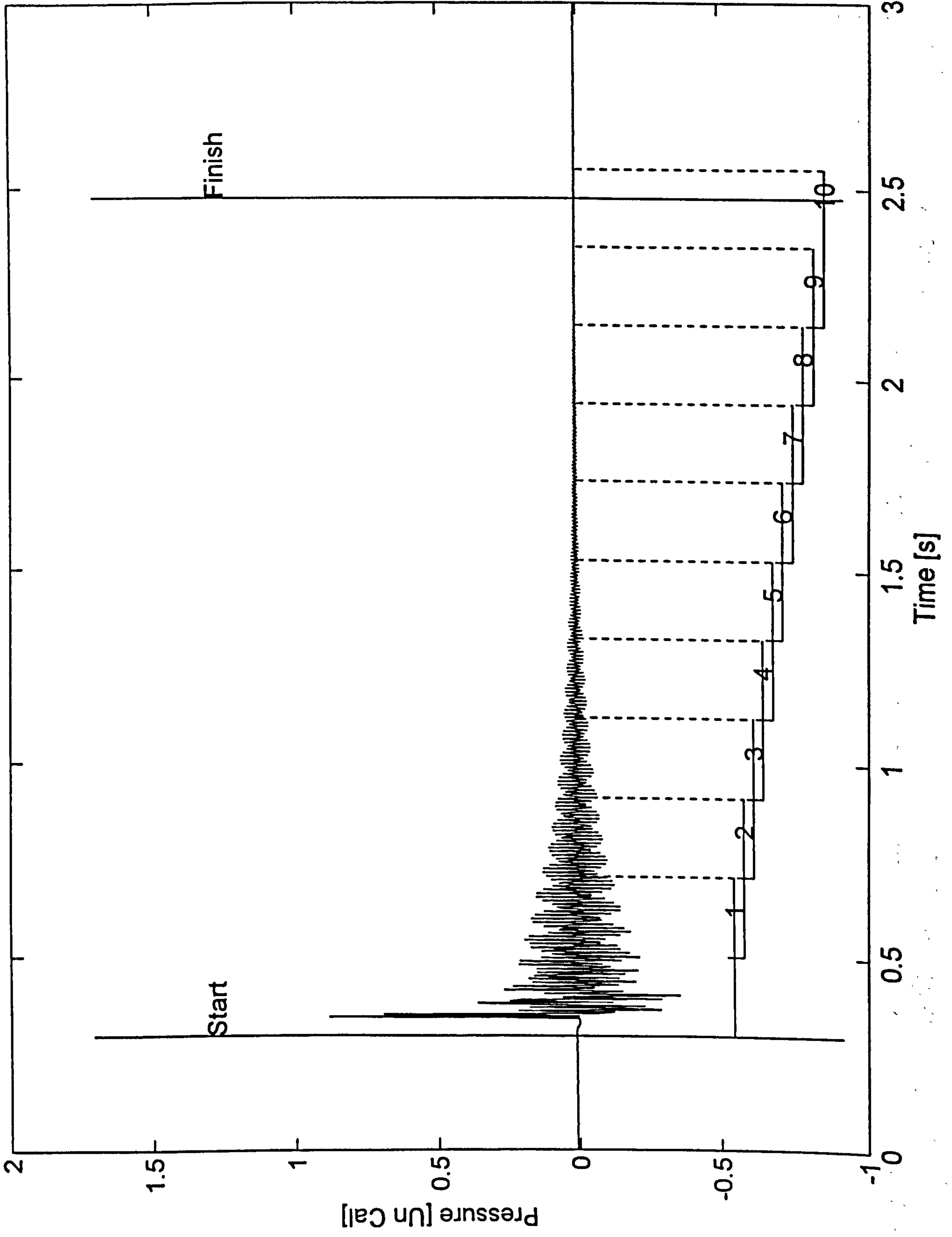
T=c.1s



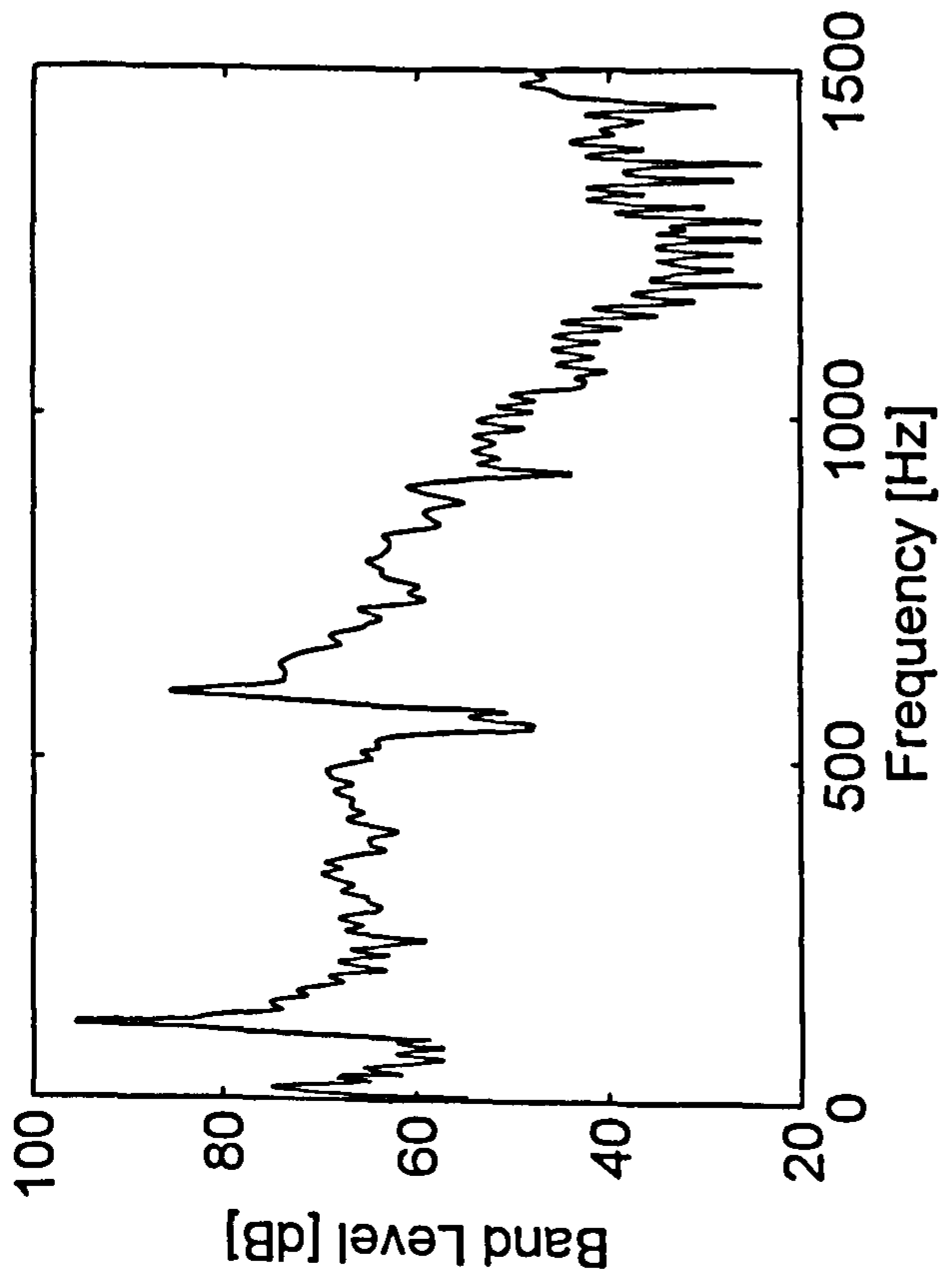
T=2.0s



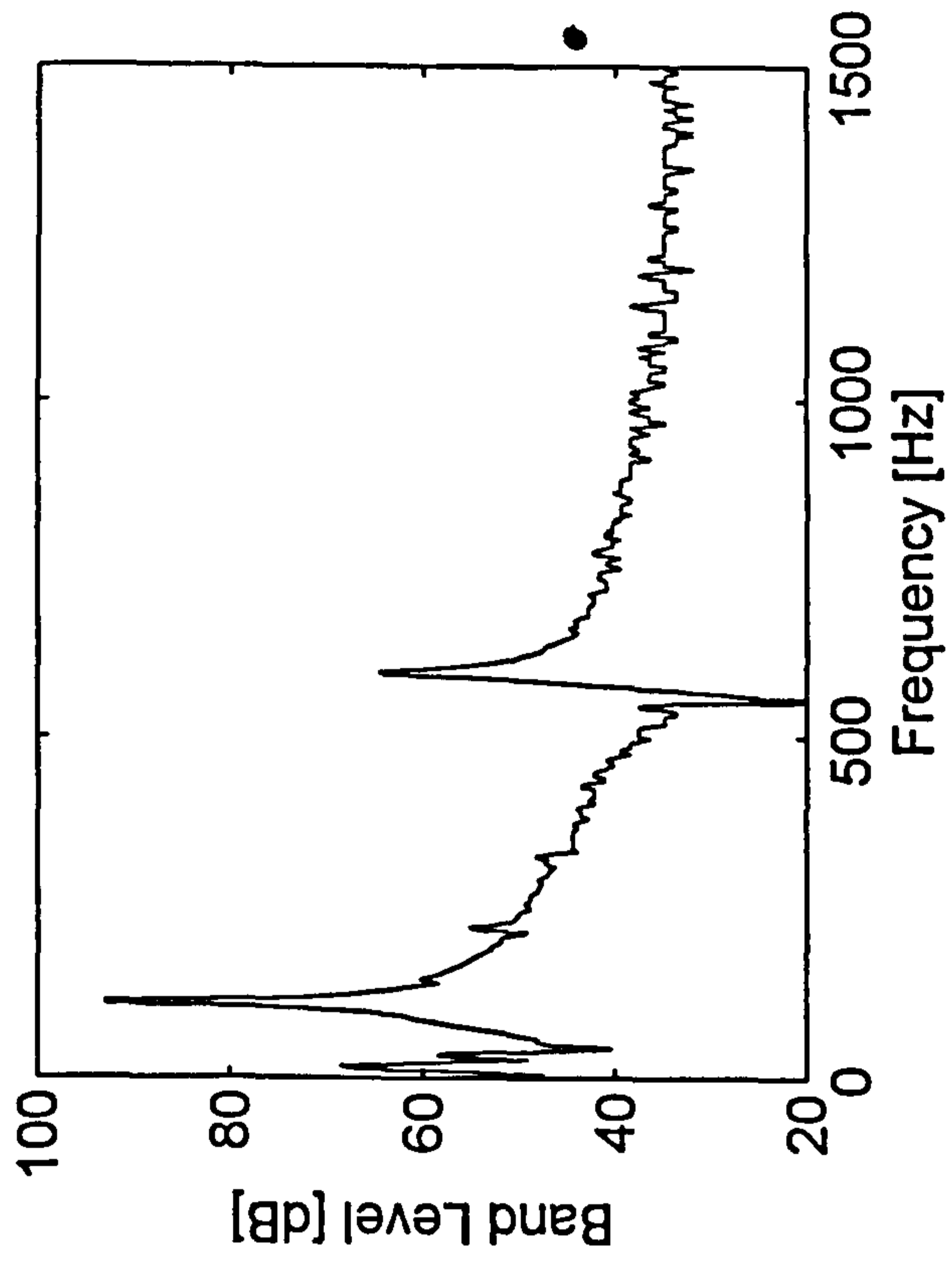
AEL Vibration Analysis Module for Event : A24



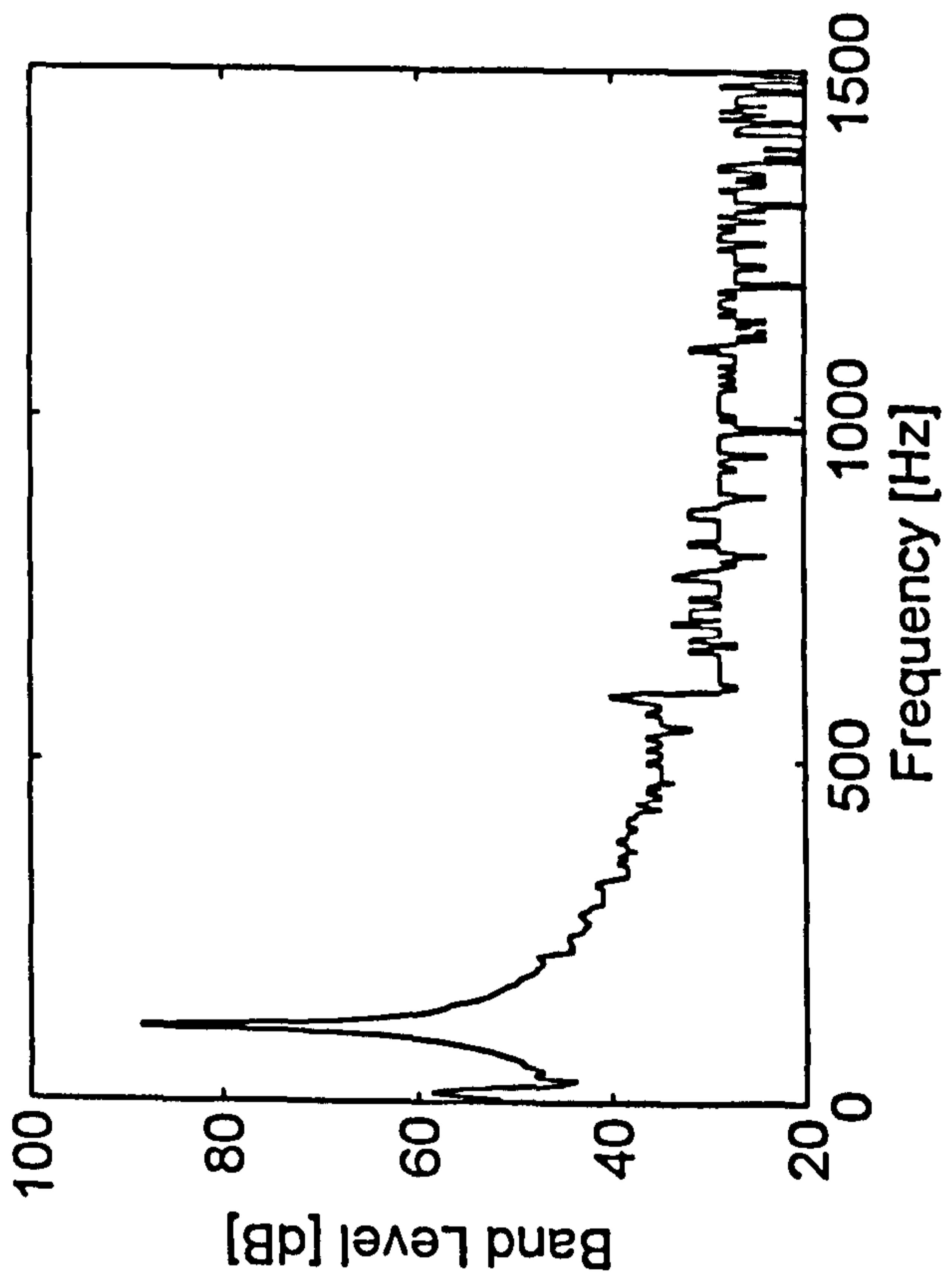
Event : A24T=0s



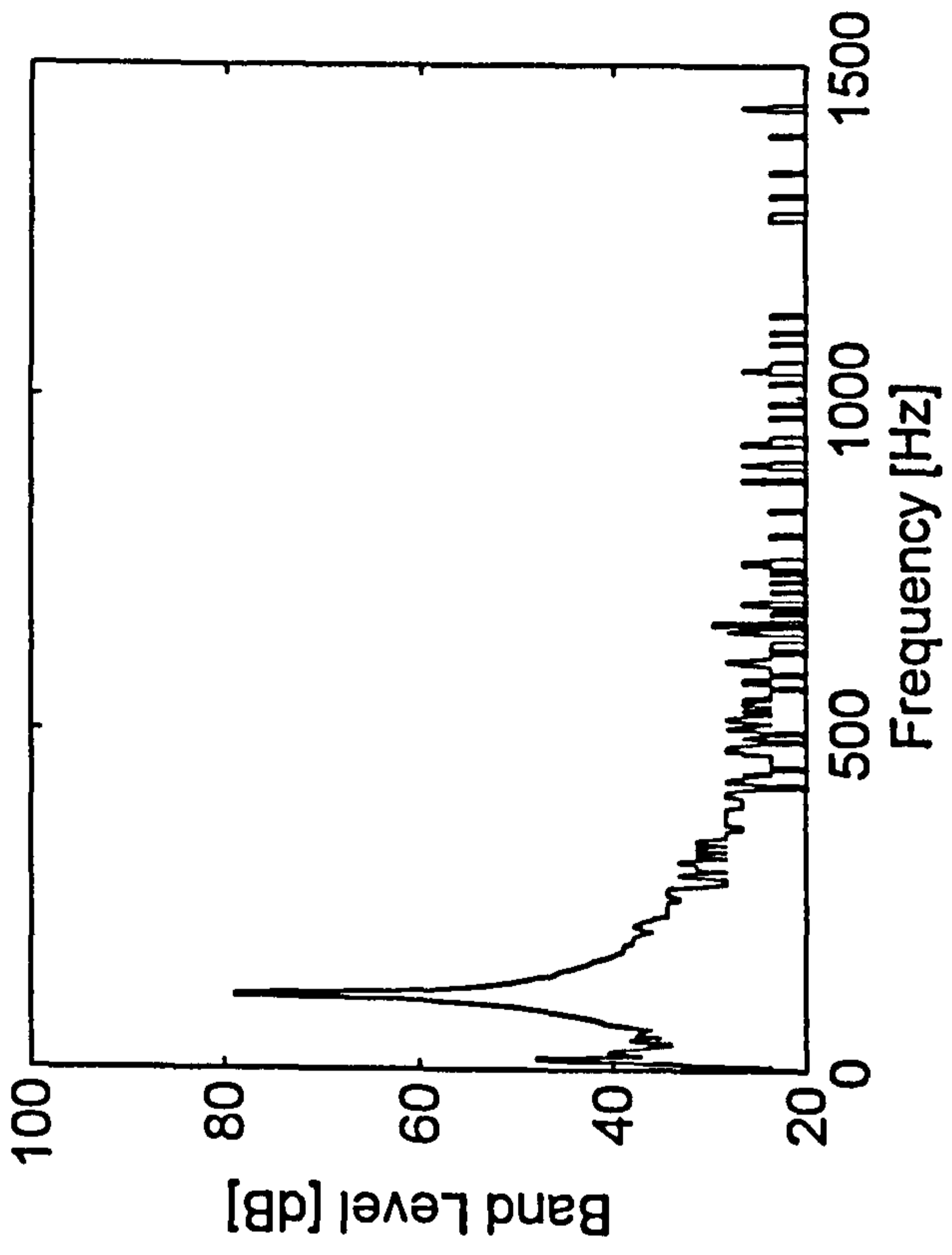
T=c.0.5s



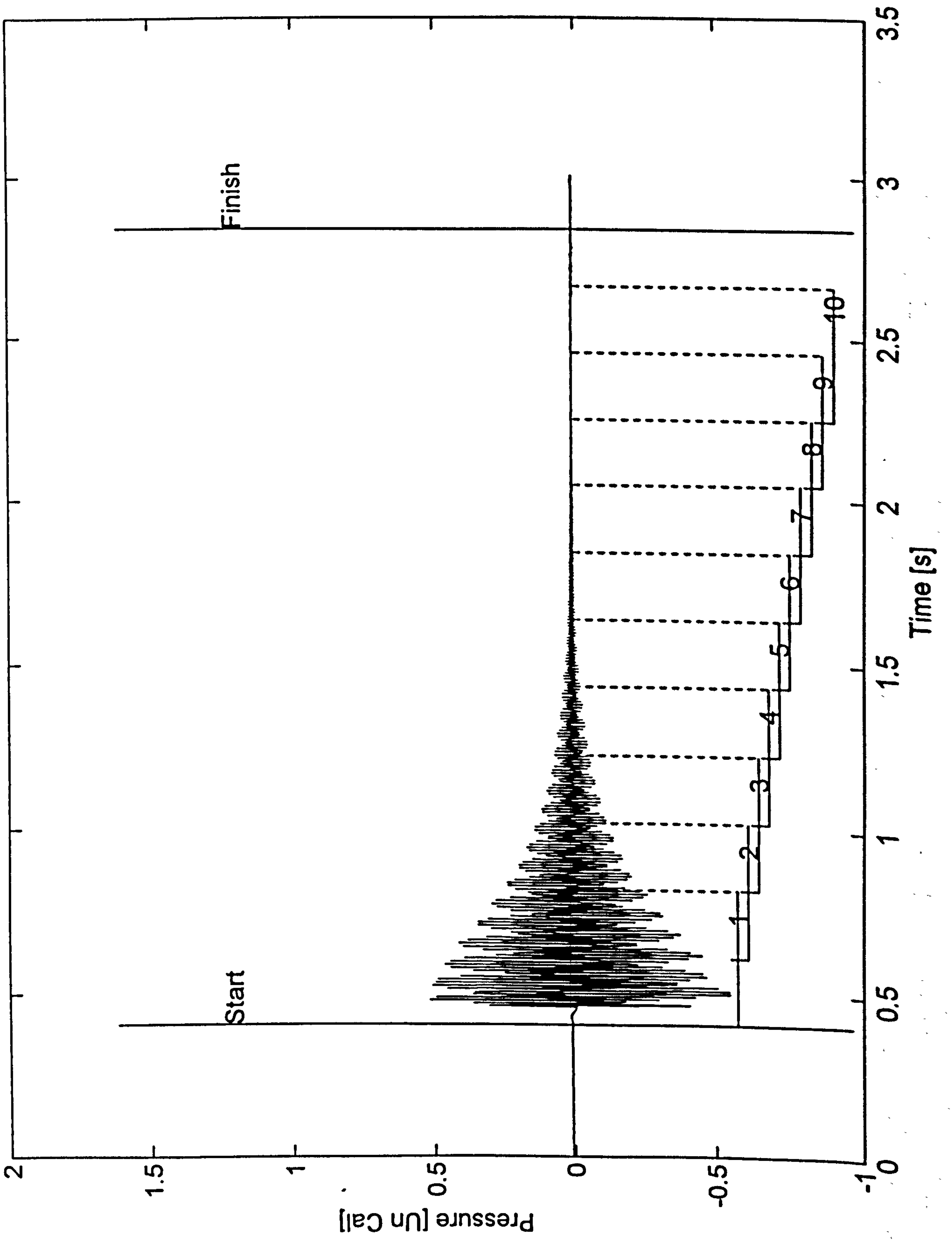
T=c.1s



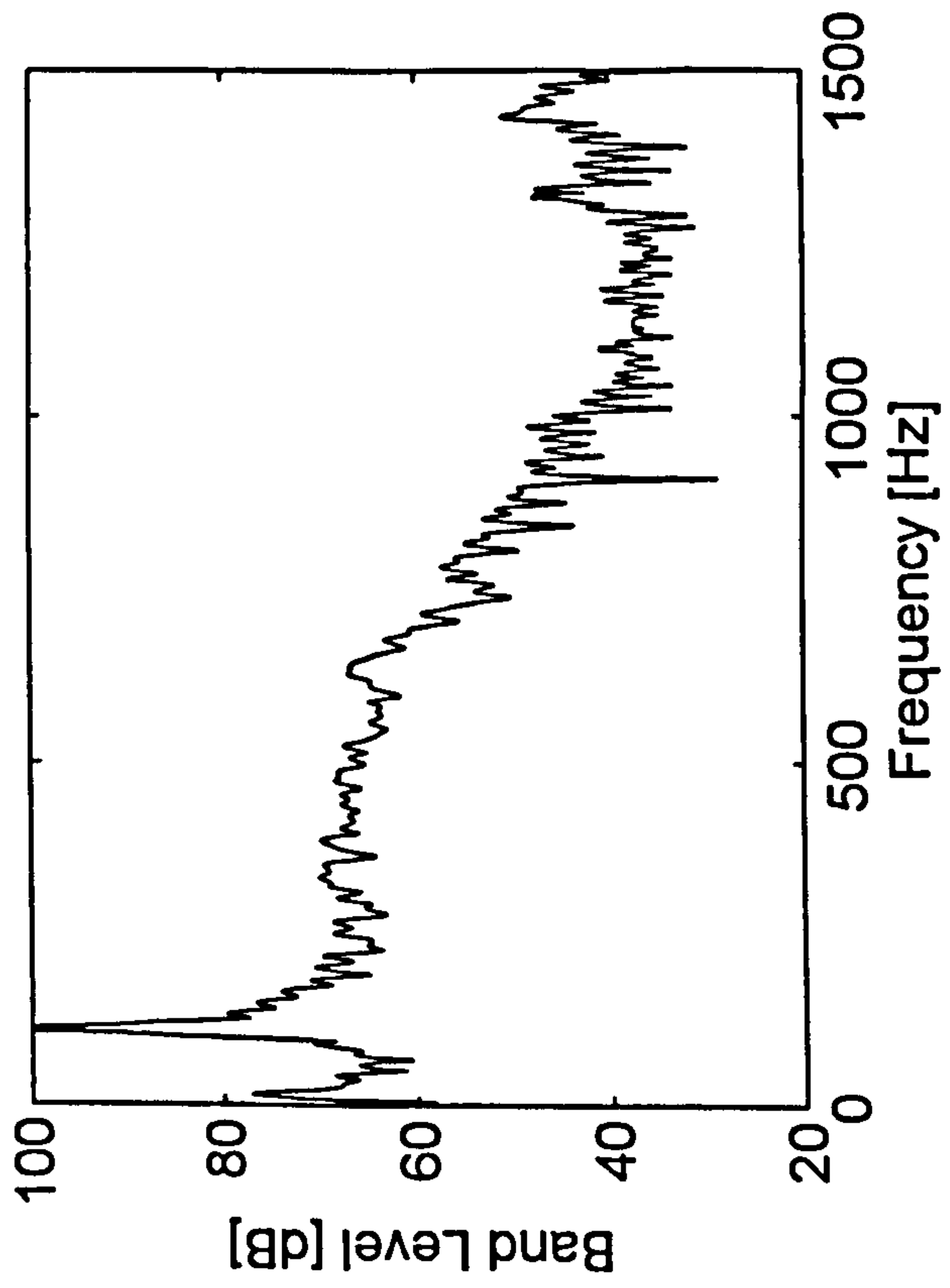
T=2.0s



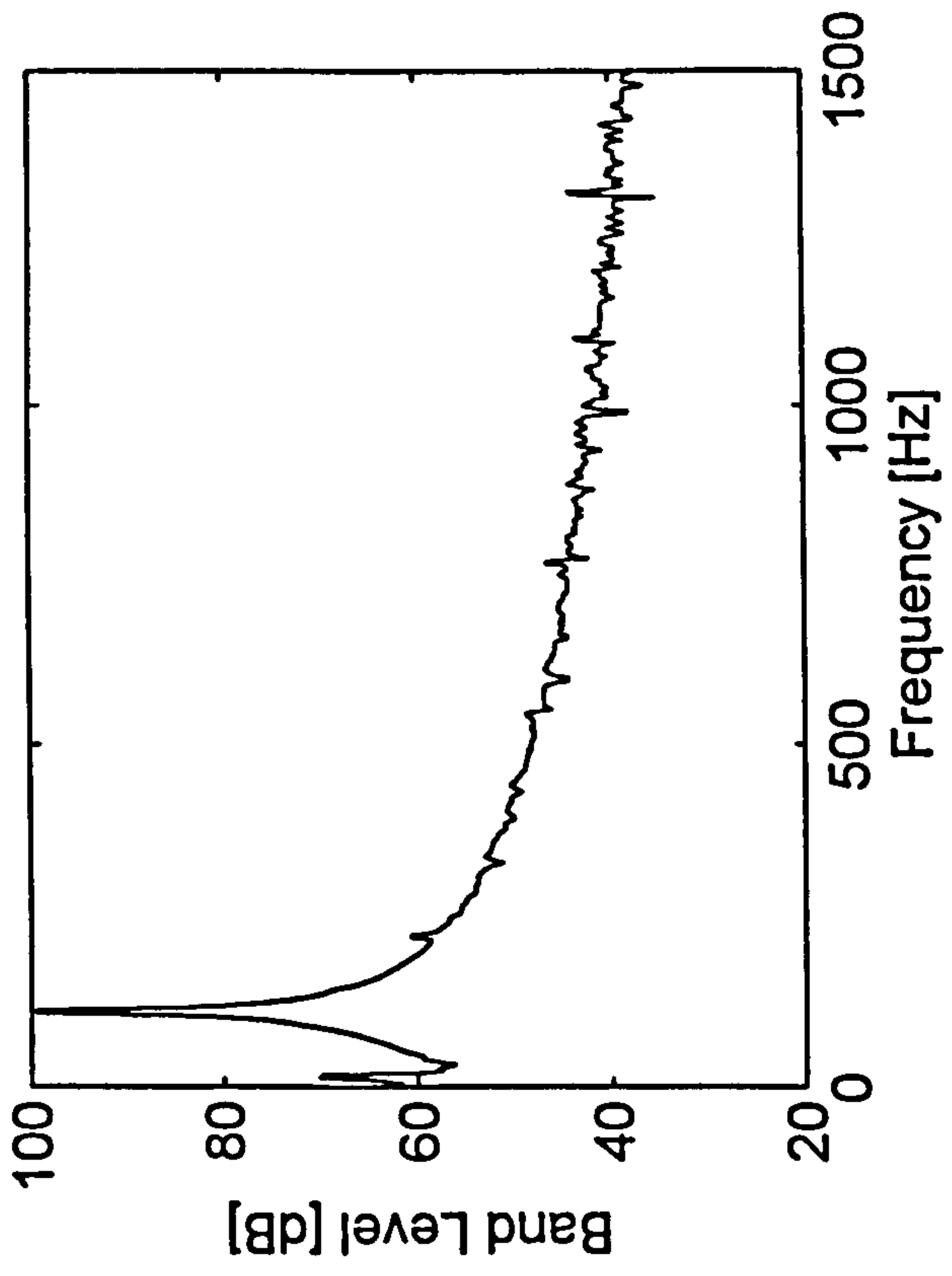
AEL Vibration Analysis Module for Event : A25



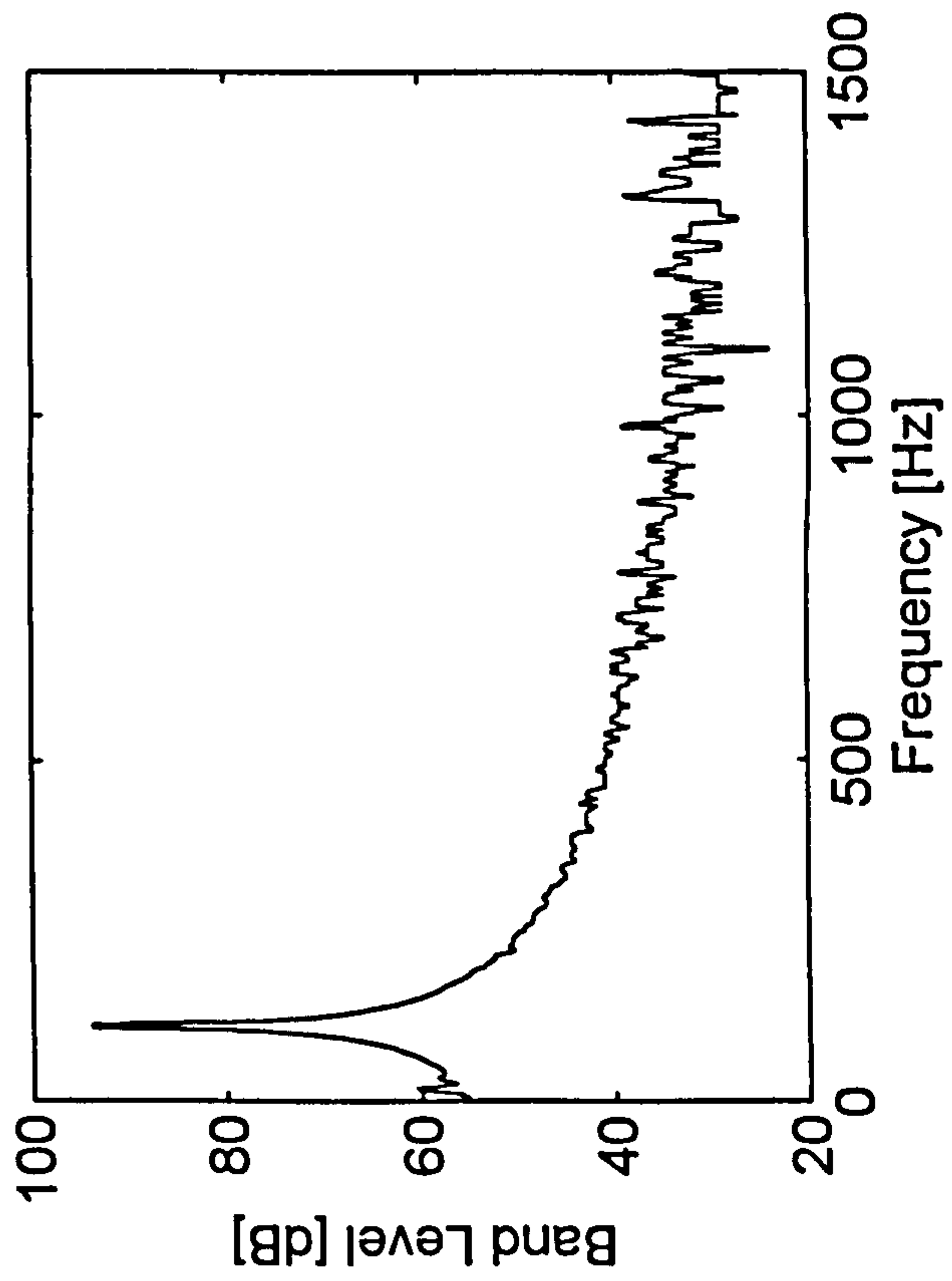
Event : A25T=0s



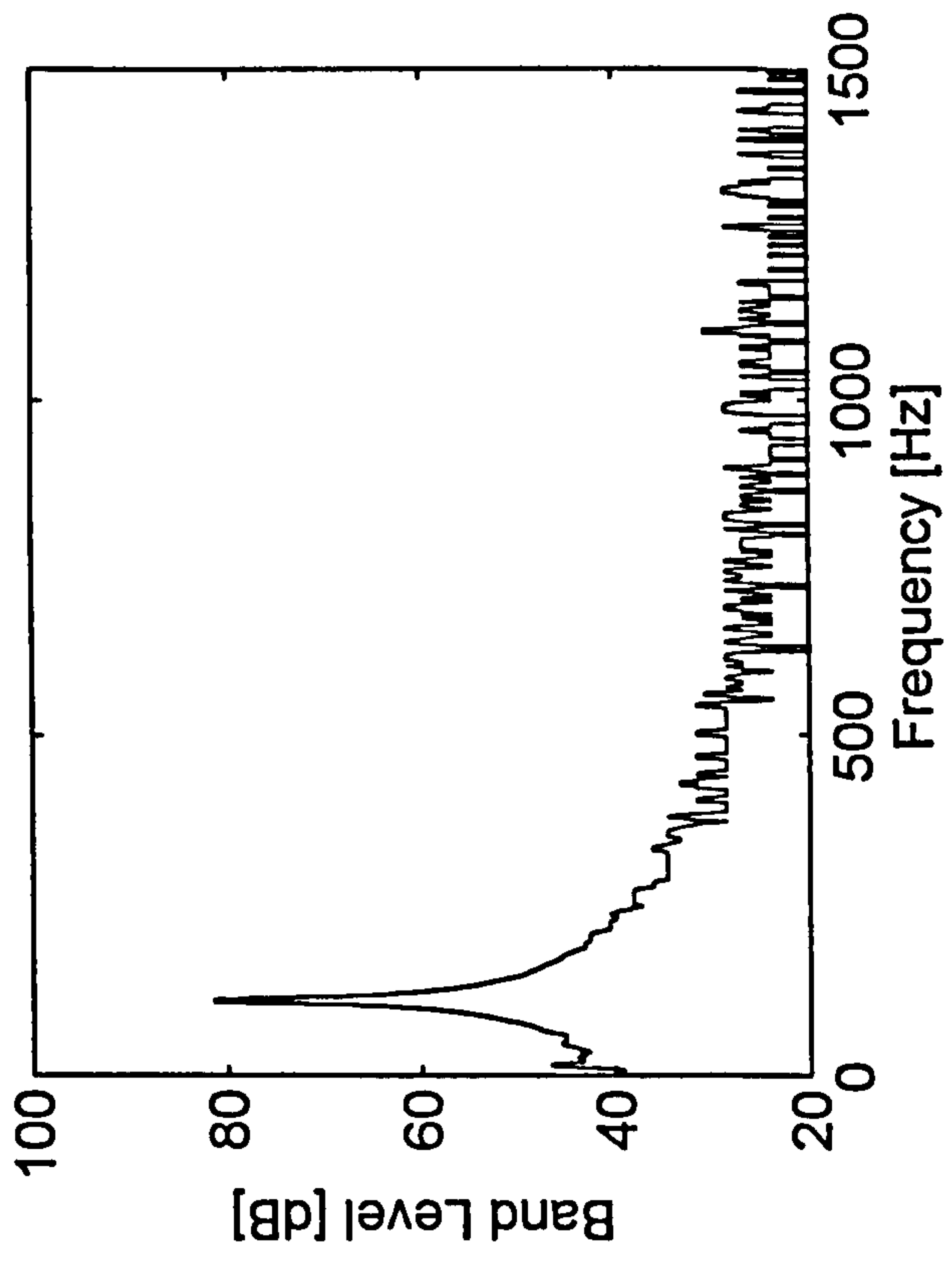
T=c.0.5s



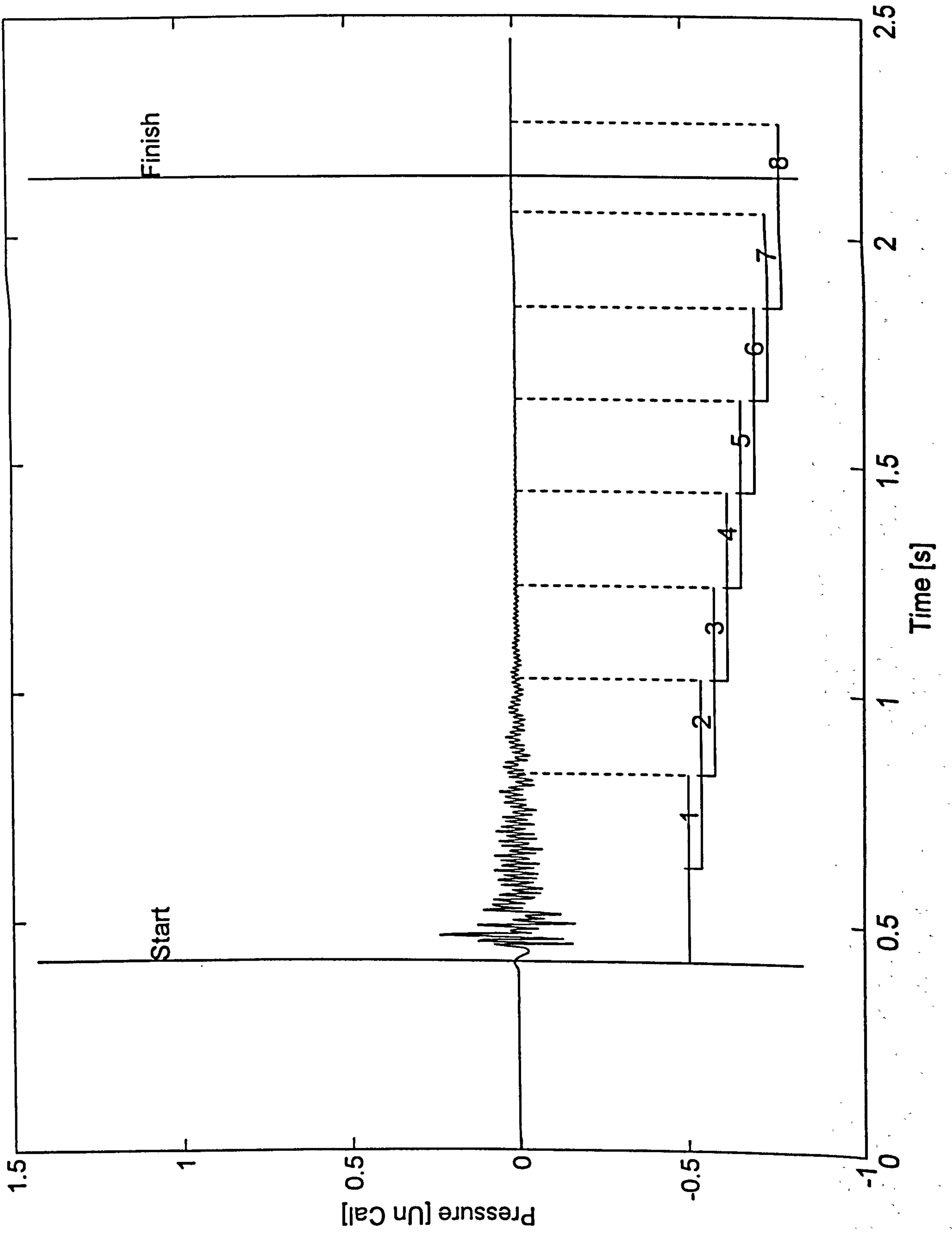
T=c.1s



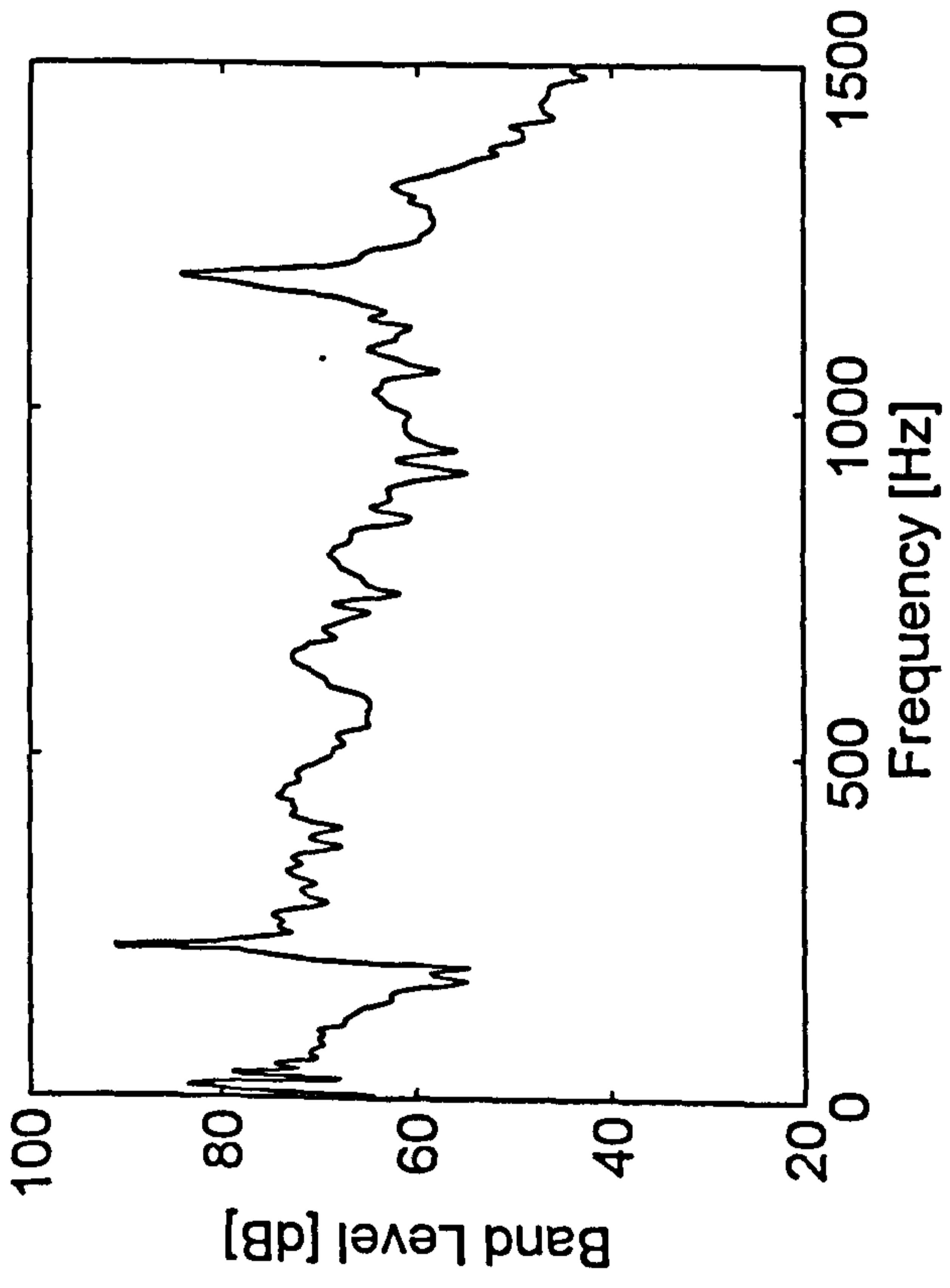
T=2.0s



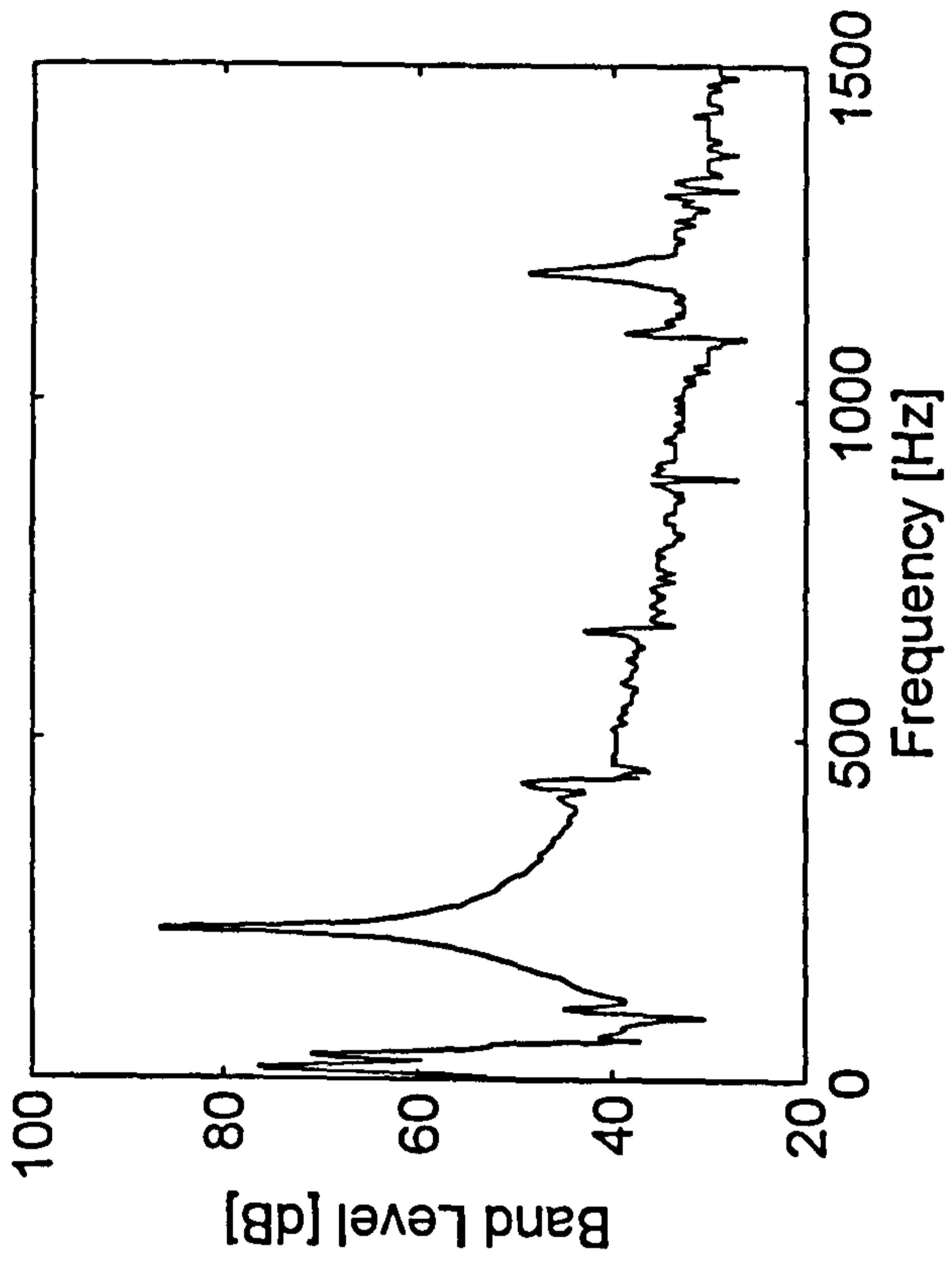
AEL Vibration Analysis Module for Event : A26



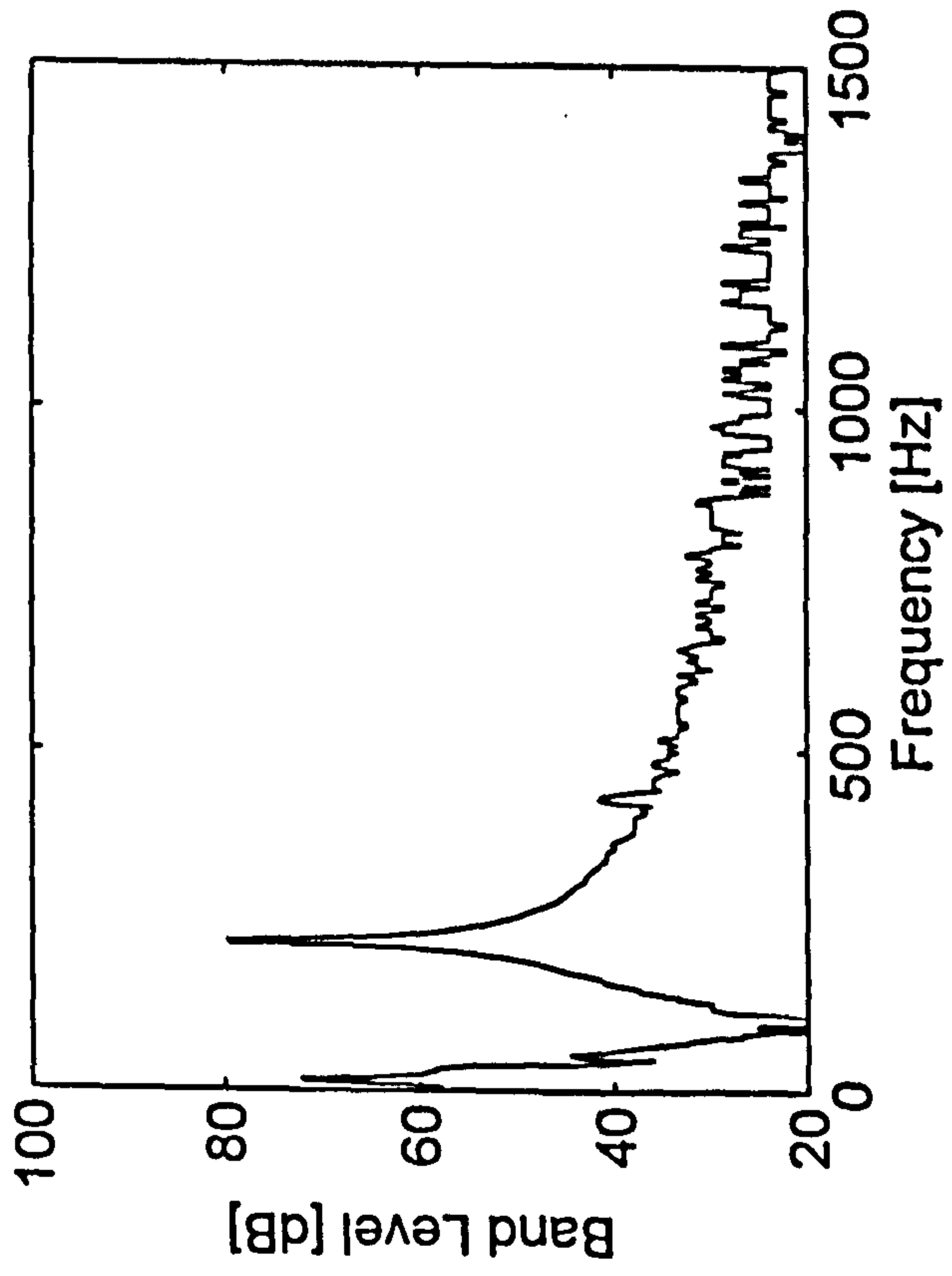
Event : A26T=0s



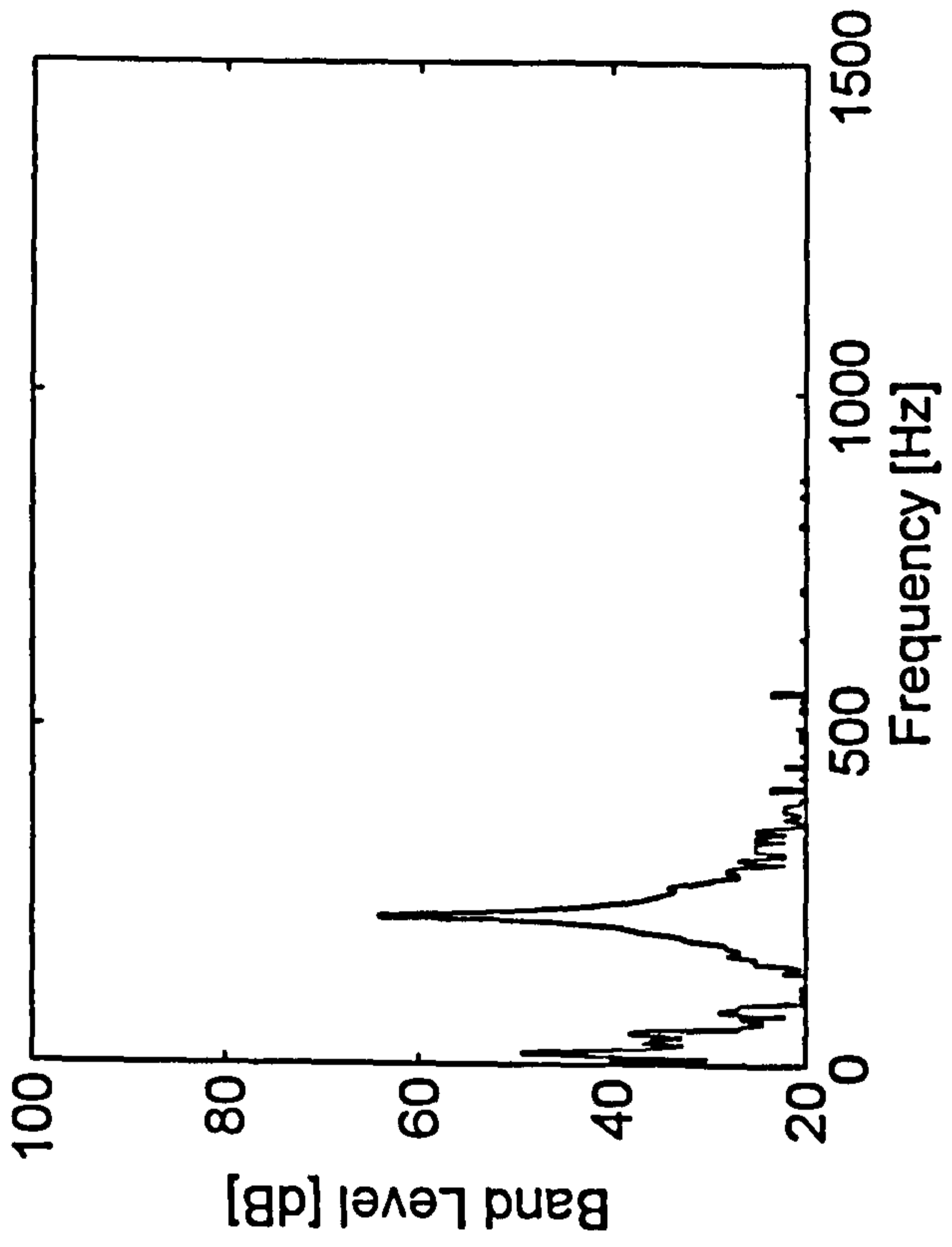
T=c.0.5s



T=c.1s

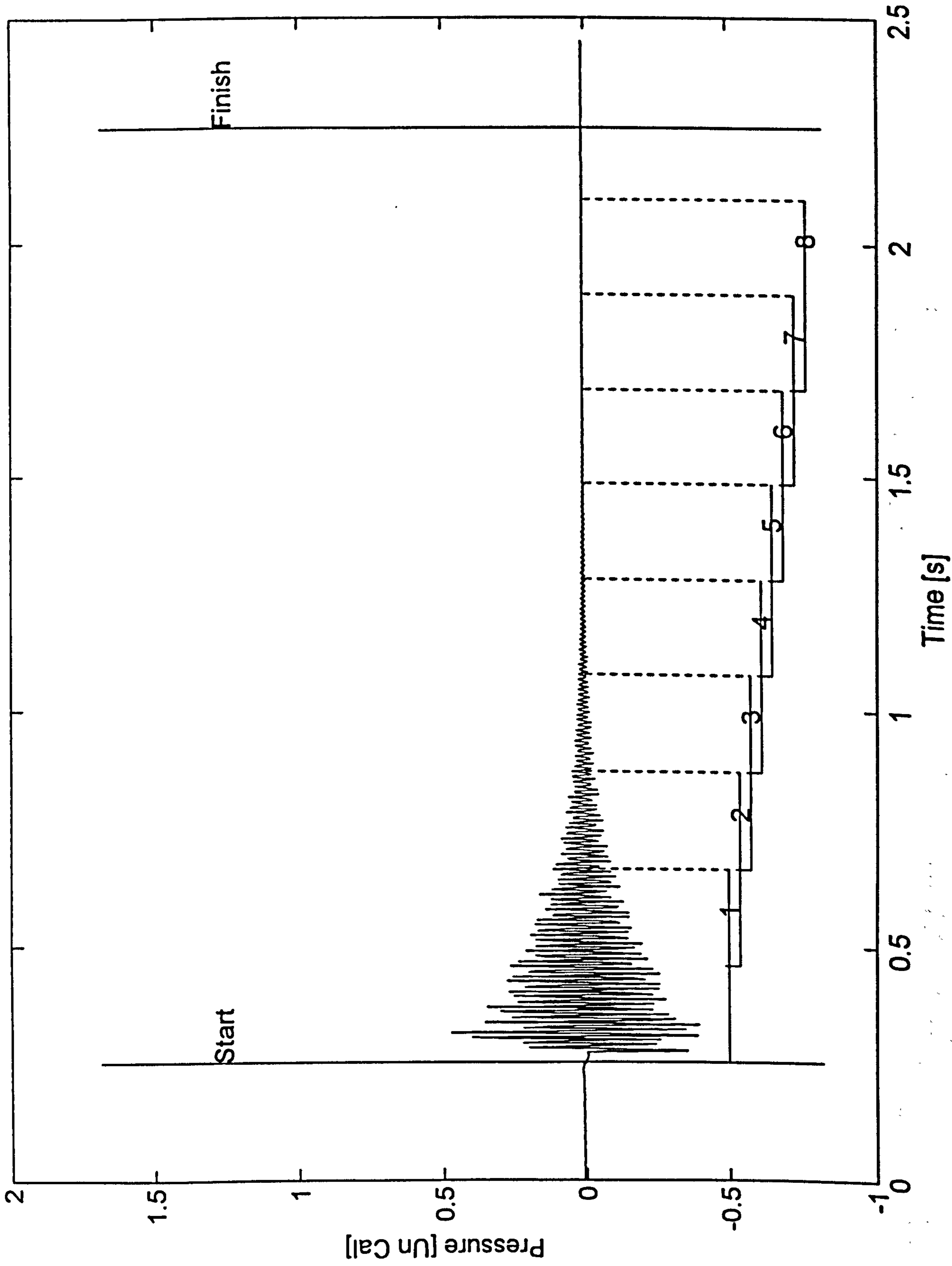


T=2.0s

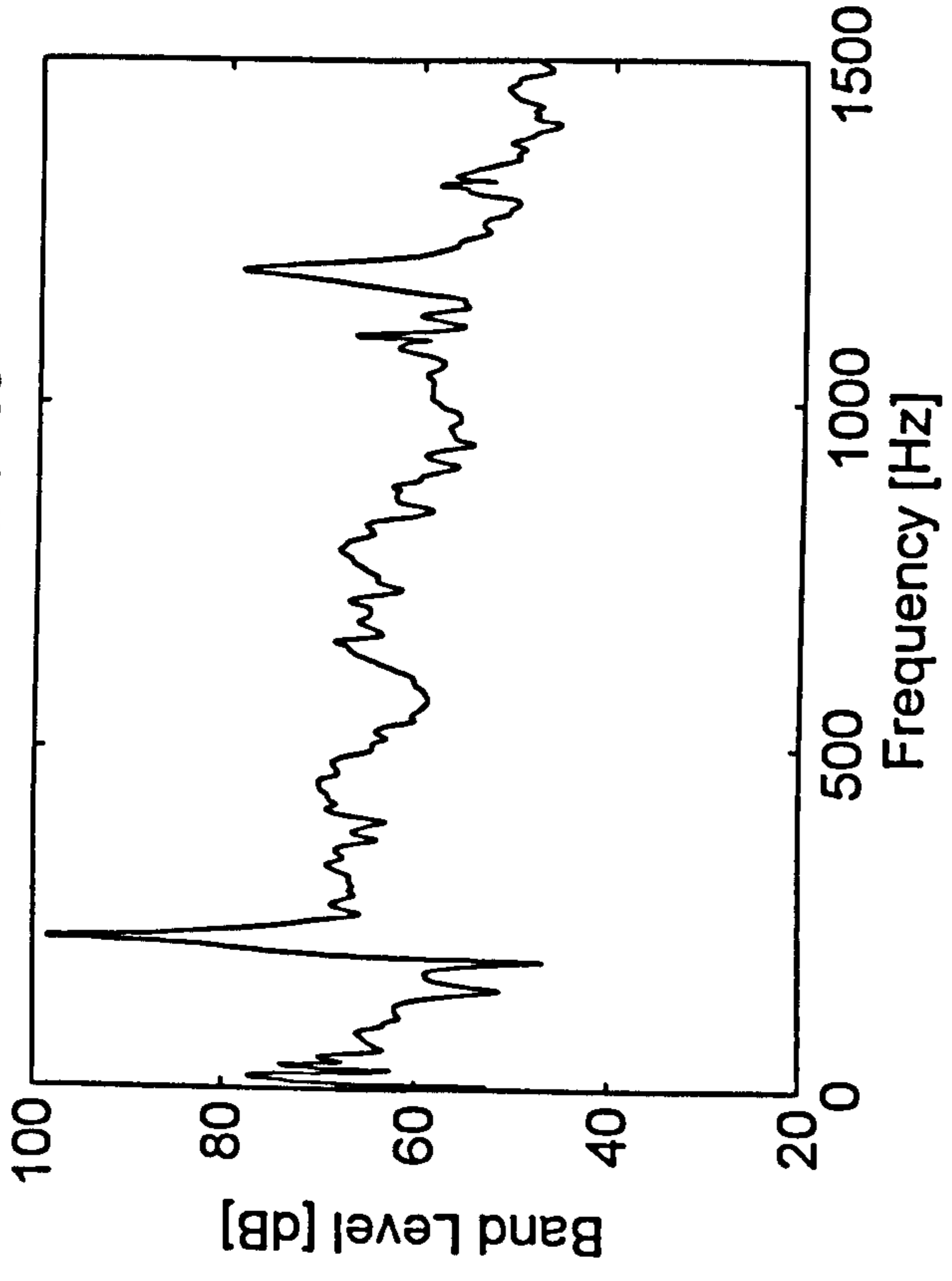




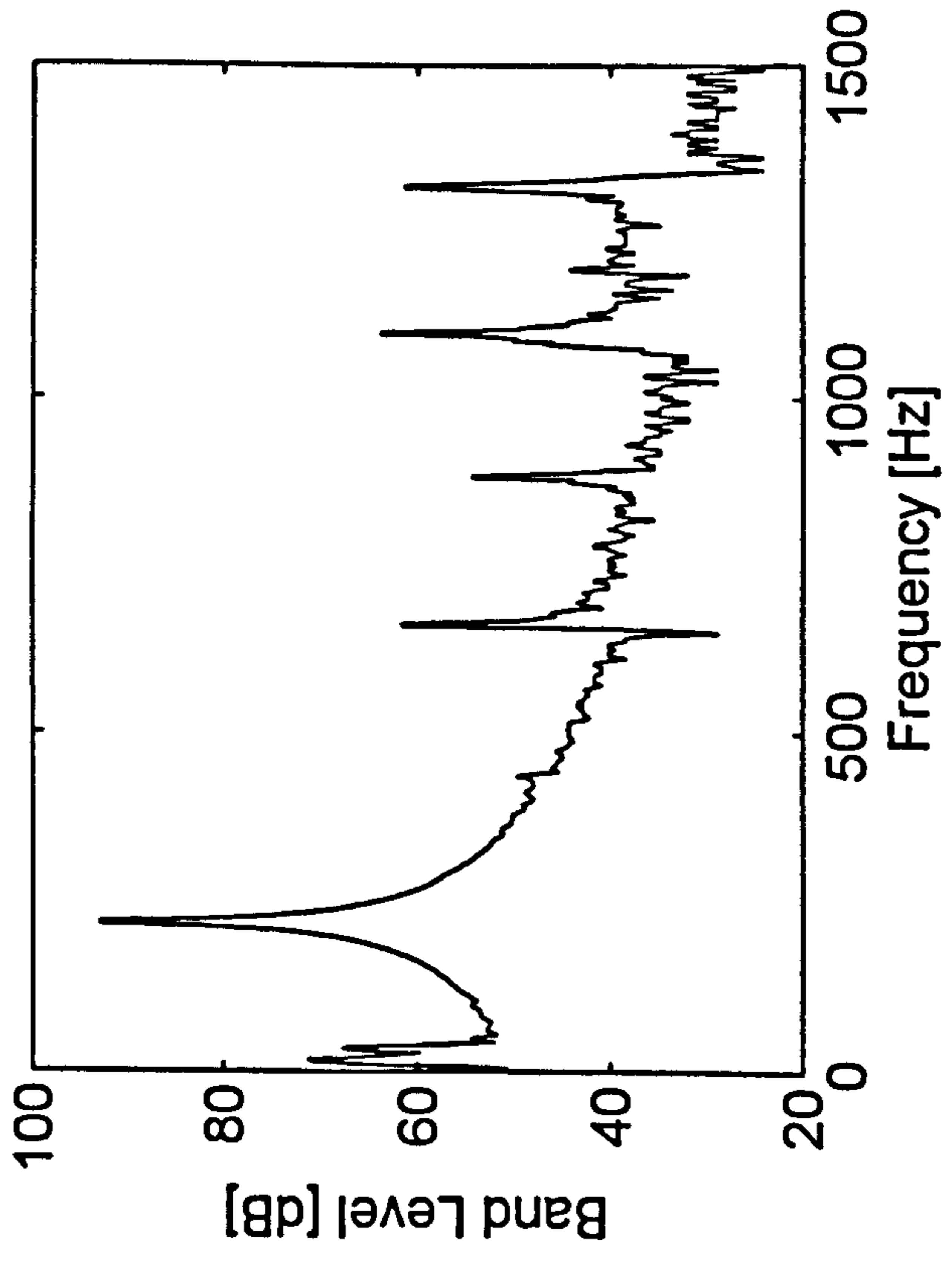
AEL Vibration Analysis Module for Event : A27



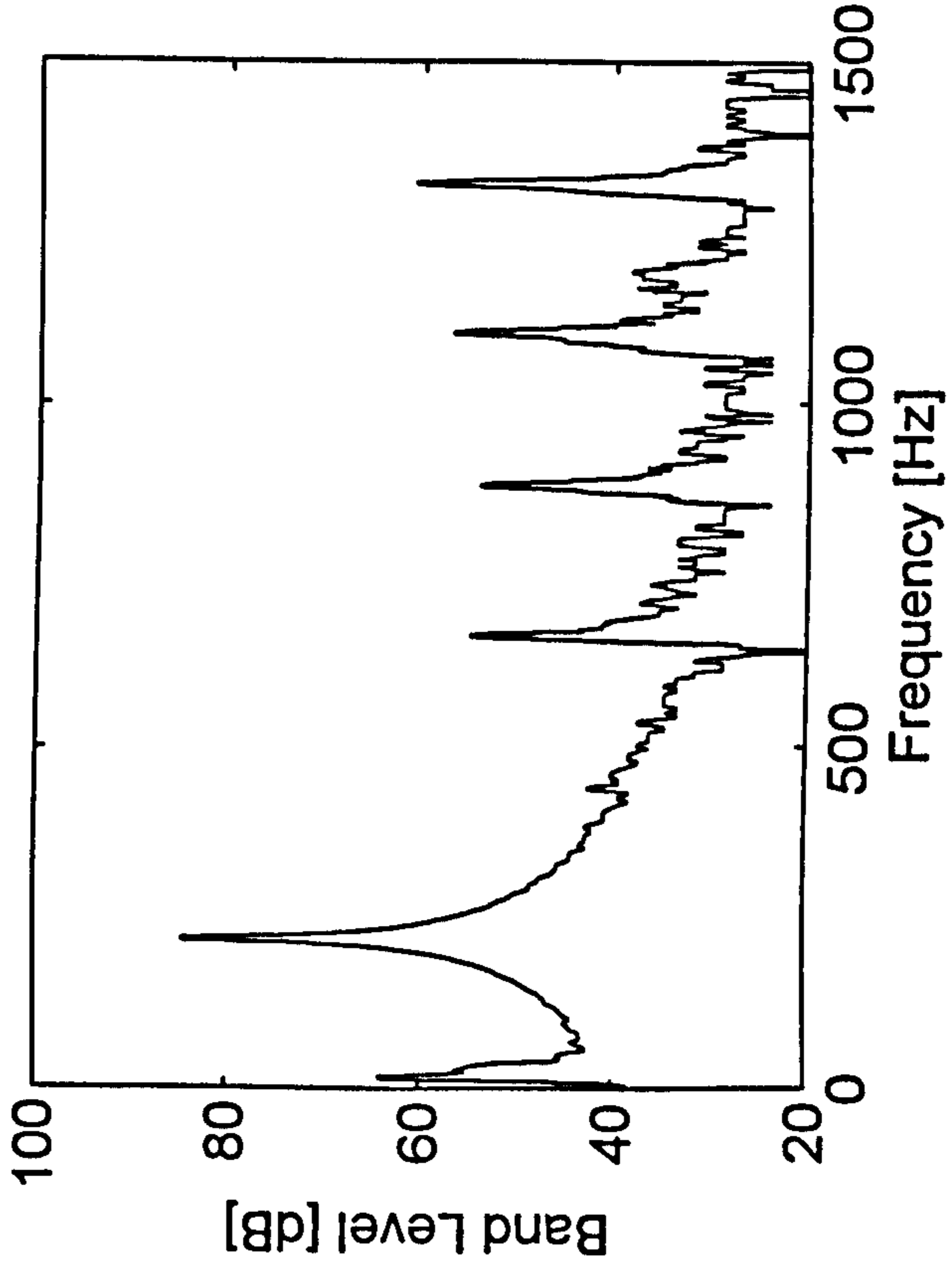
Event : A27T=0s



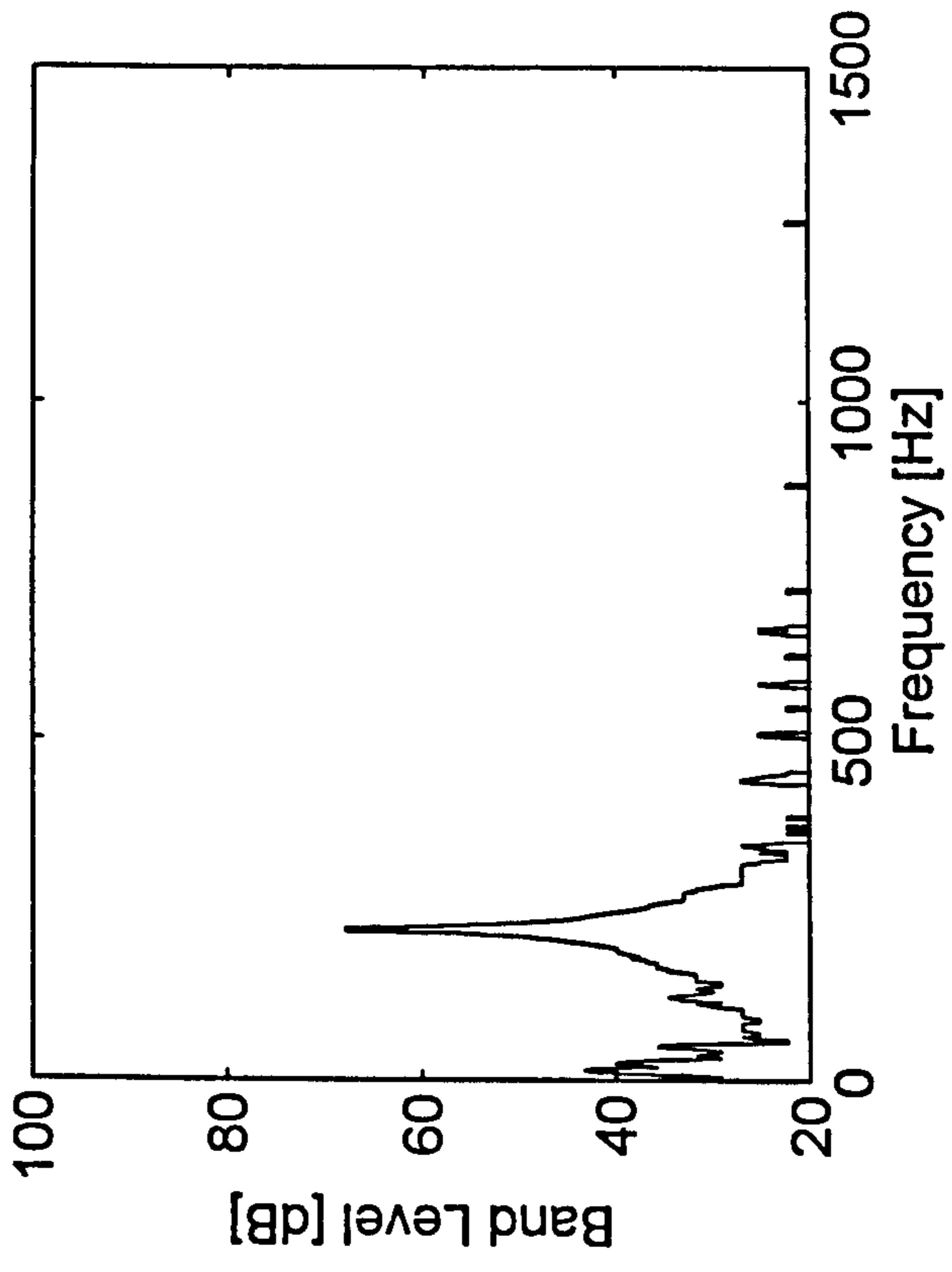
T=c.0.5s



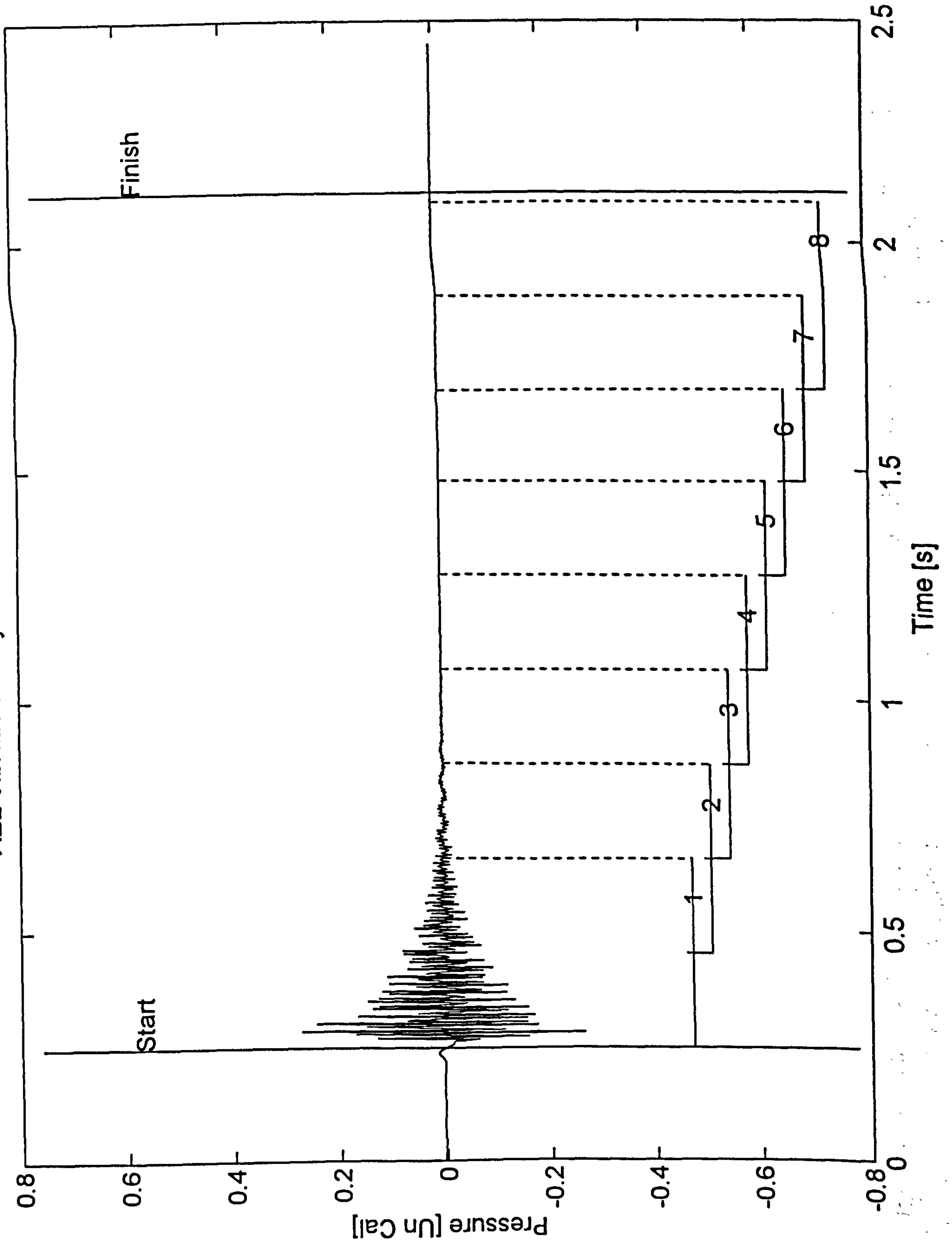
T=c.1s



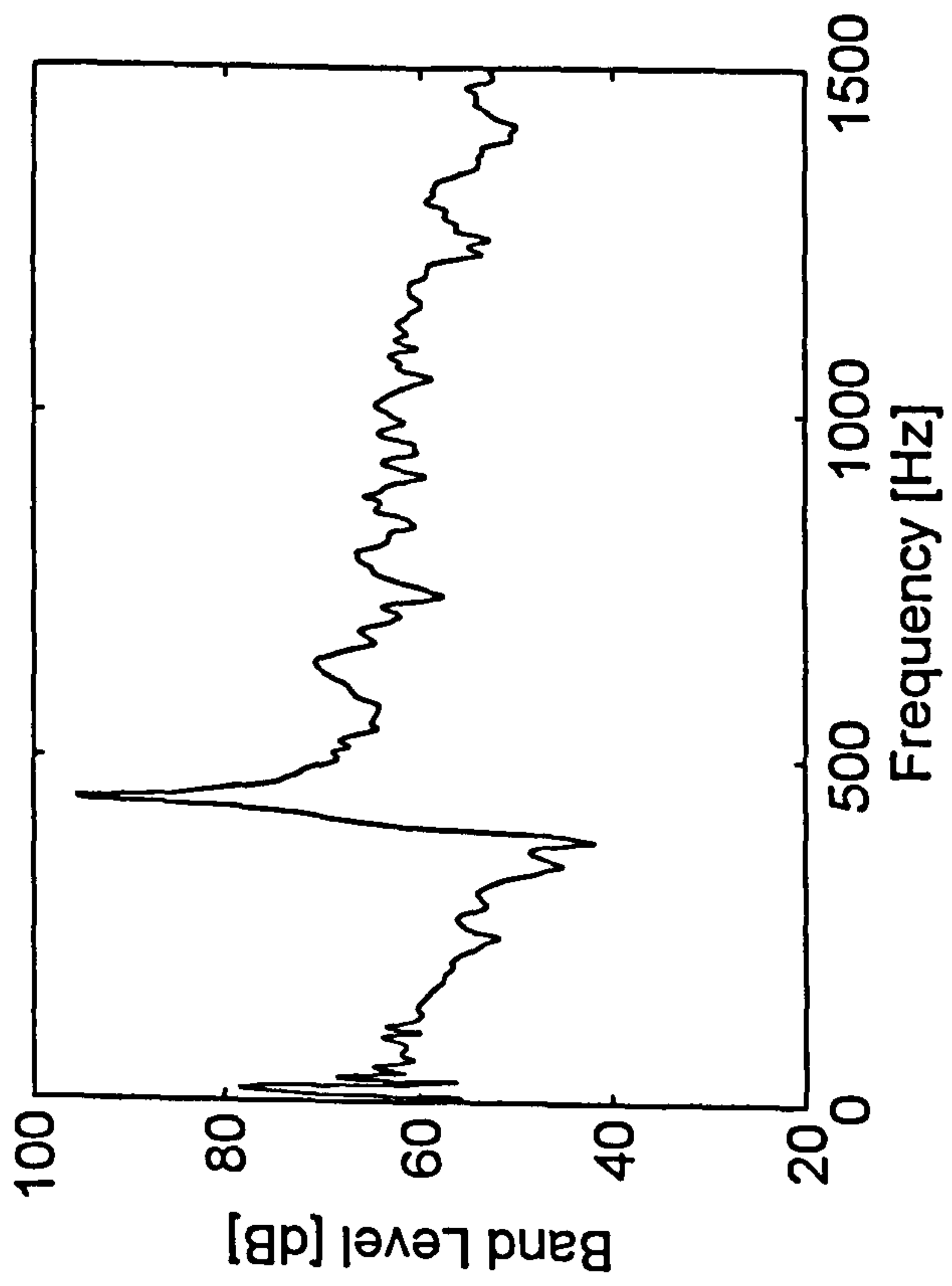
T=2.0s



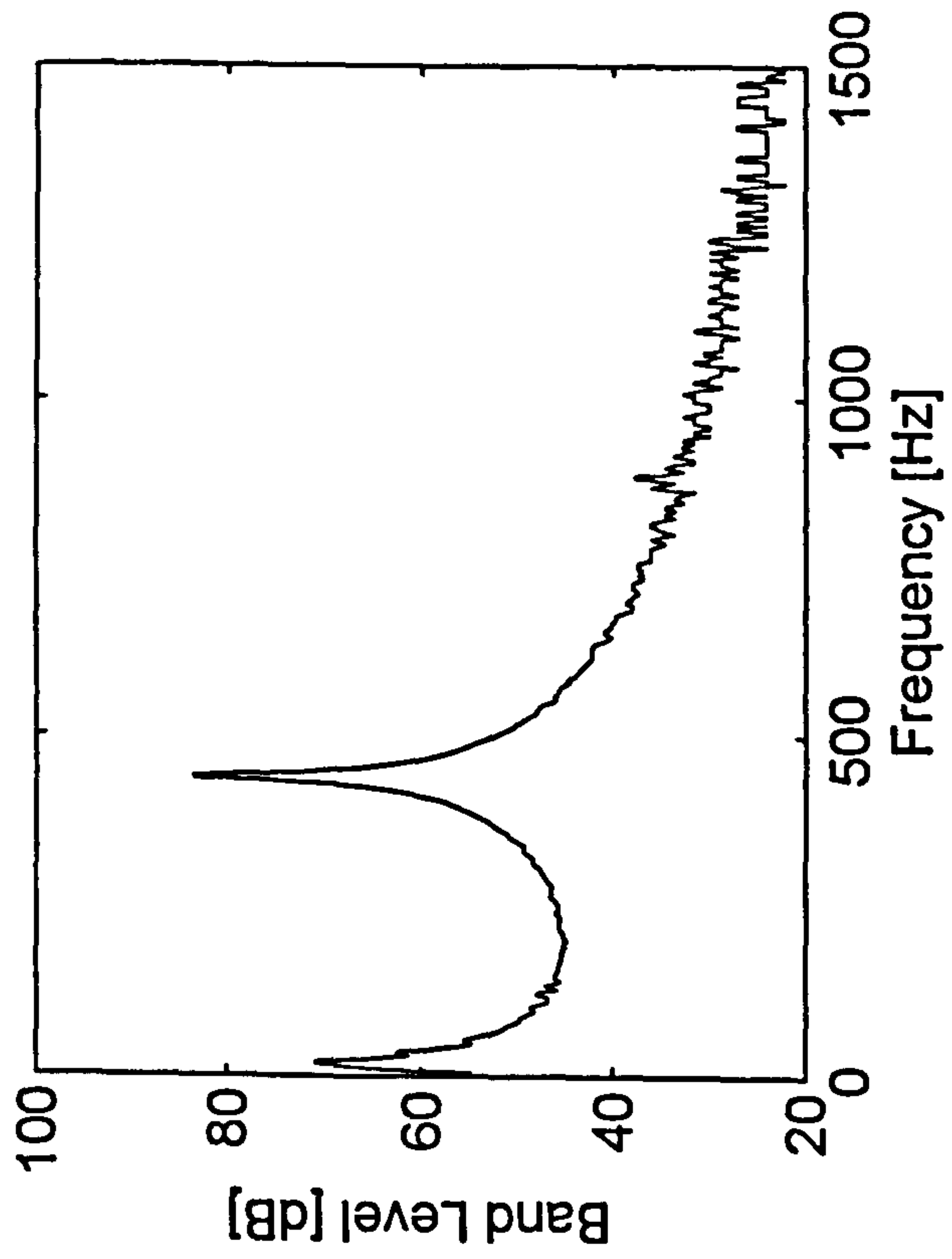
AEI Vibration Analysis Module for Event : A28



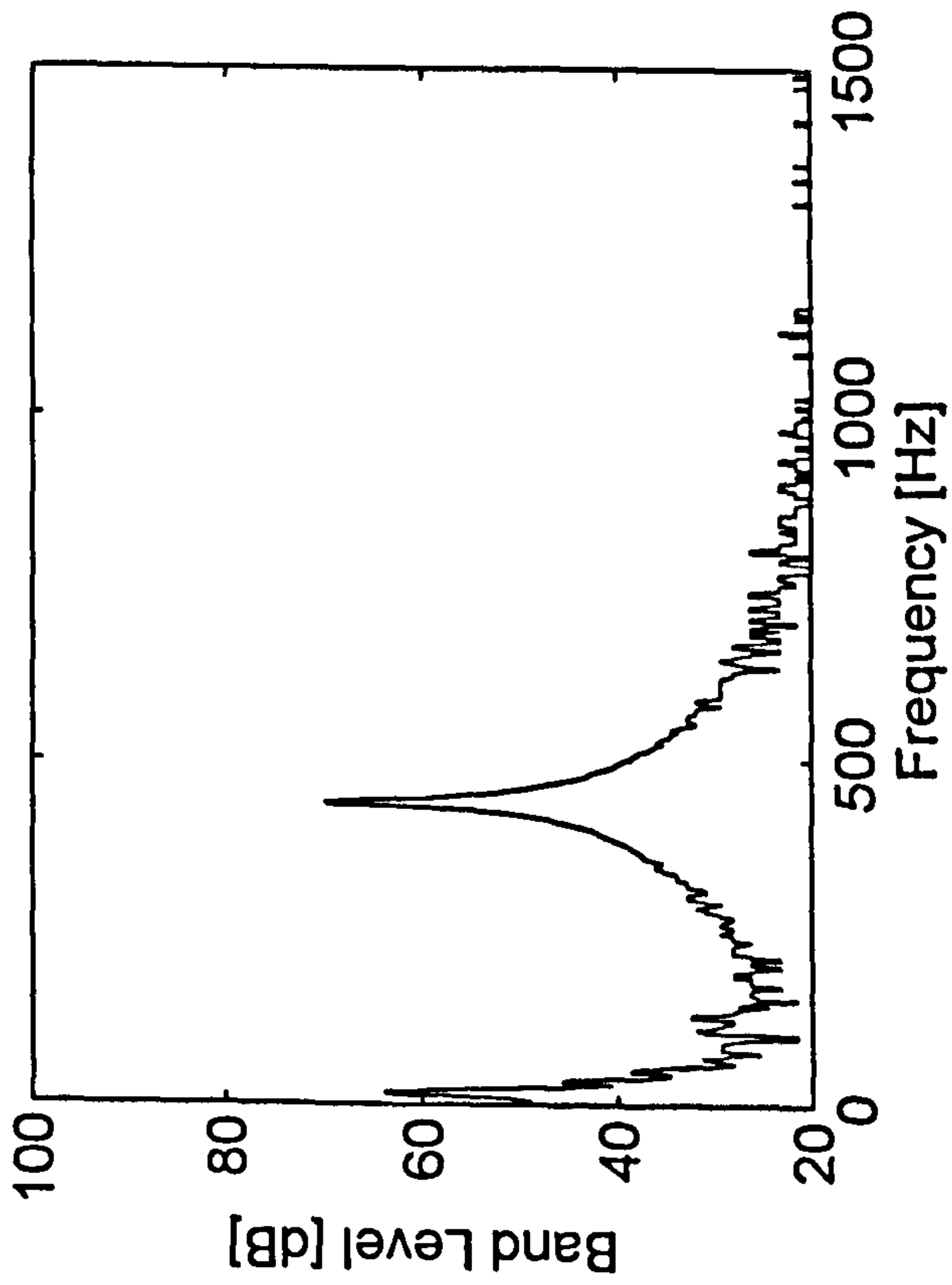
Event : A28T=0s



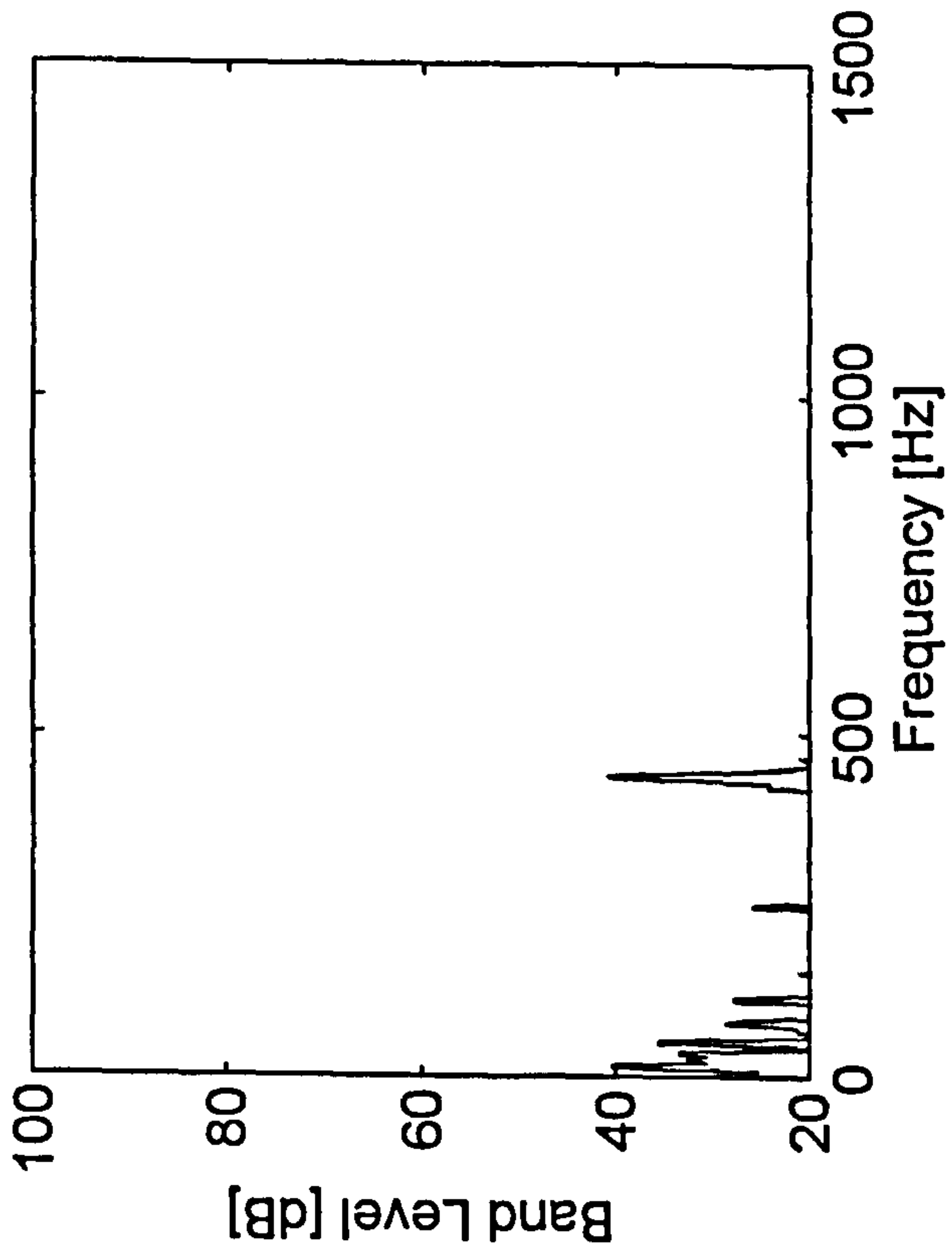
T=c.0.5s



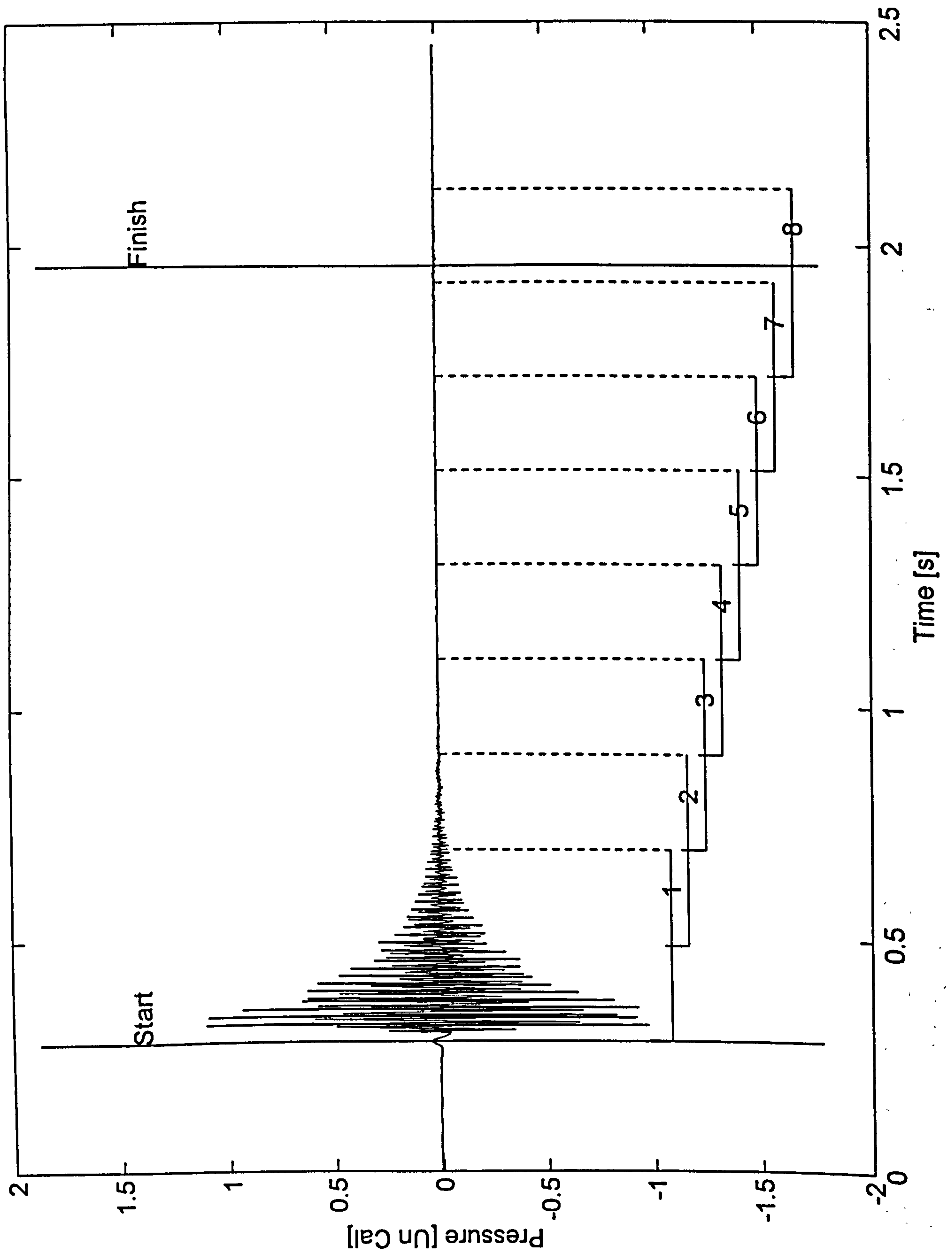
T=c.1s

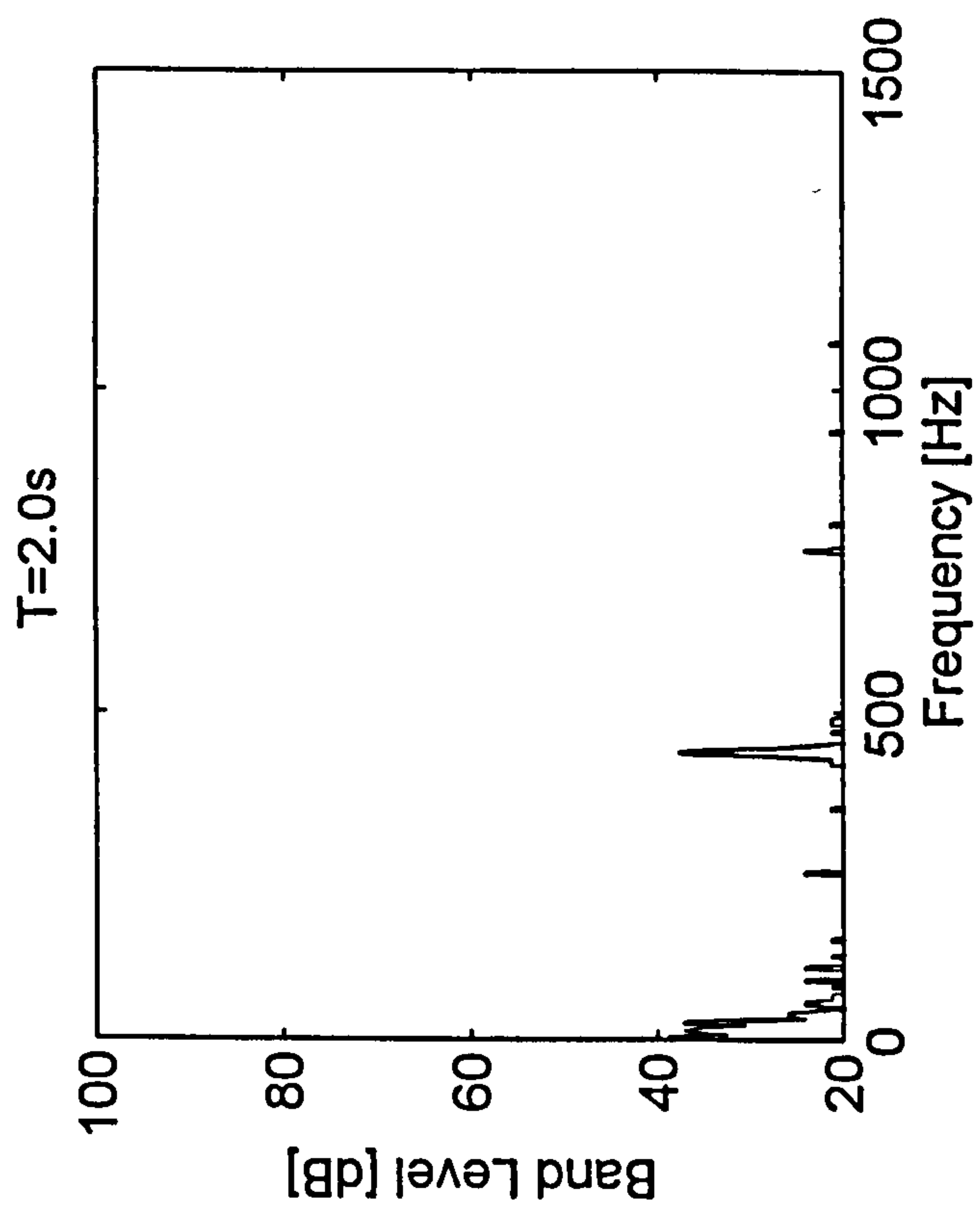
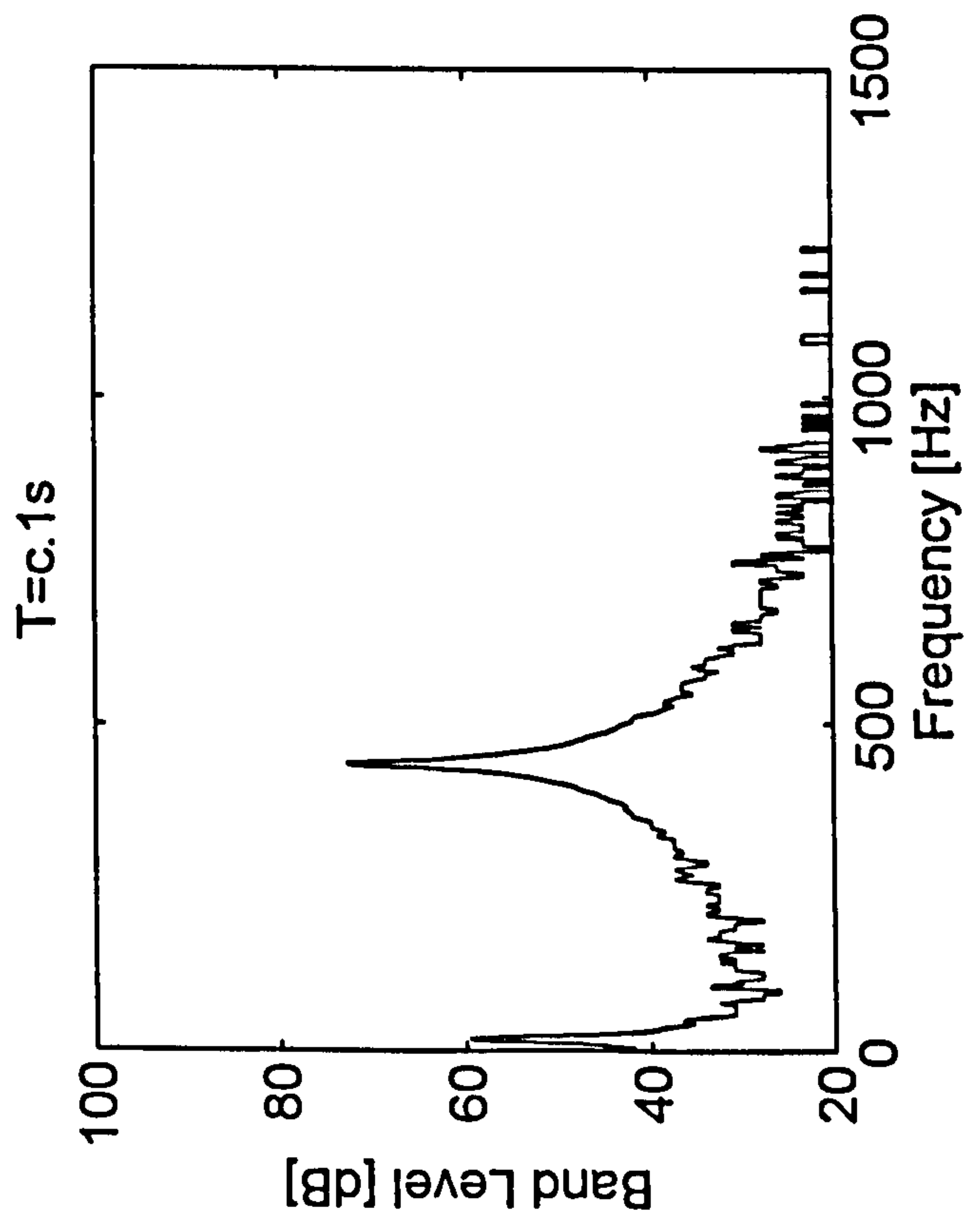
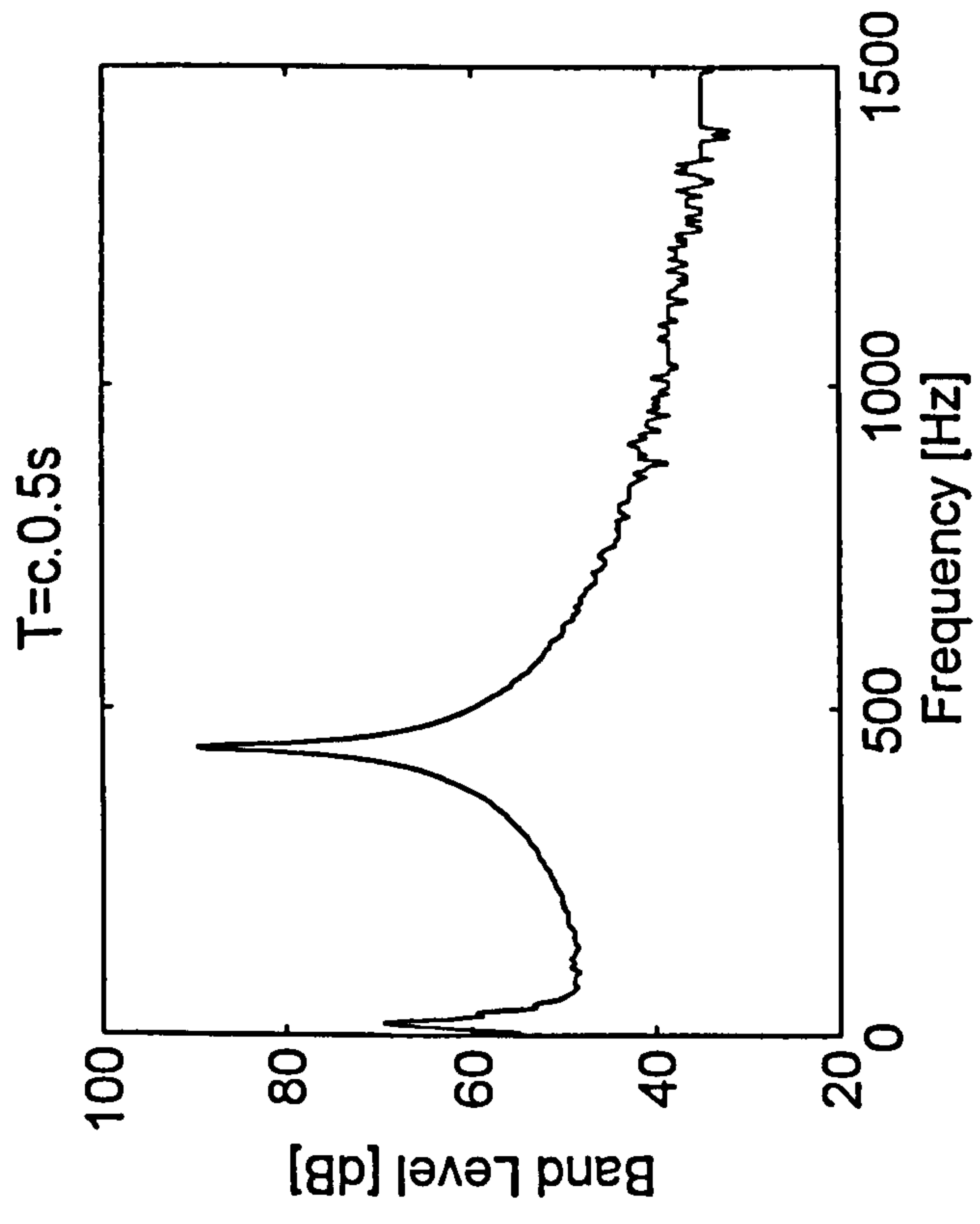
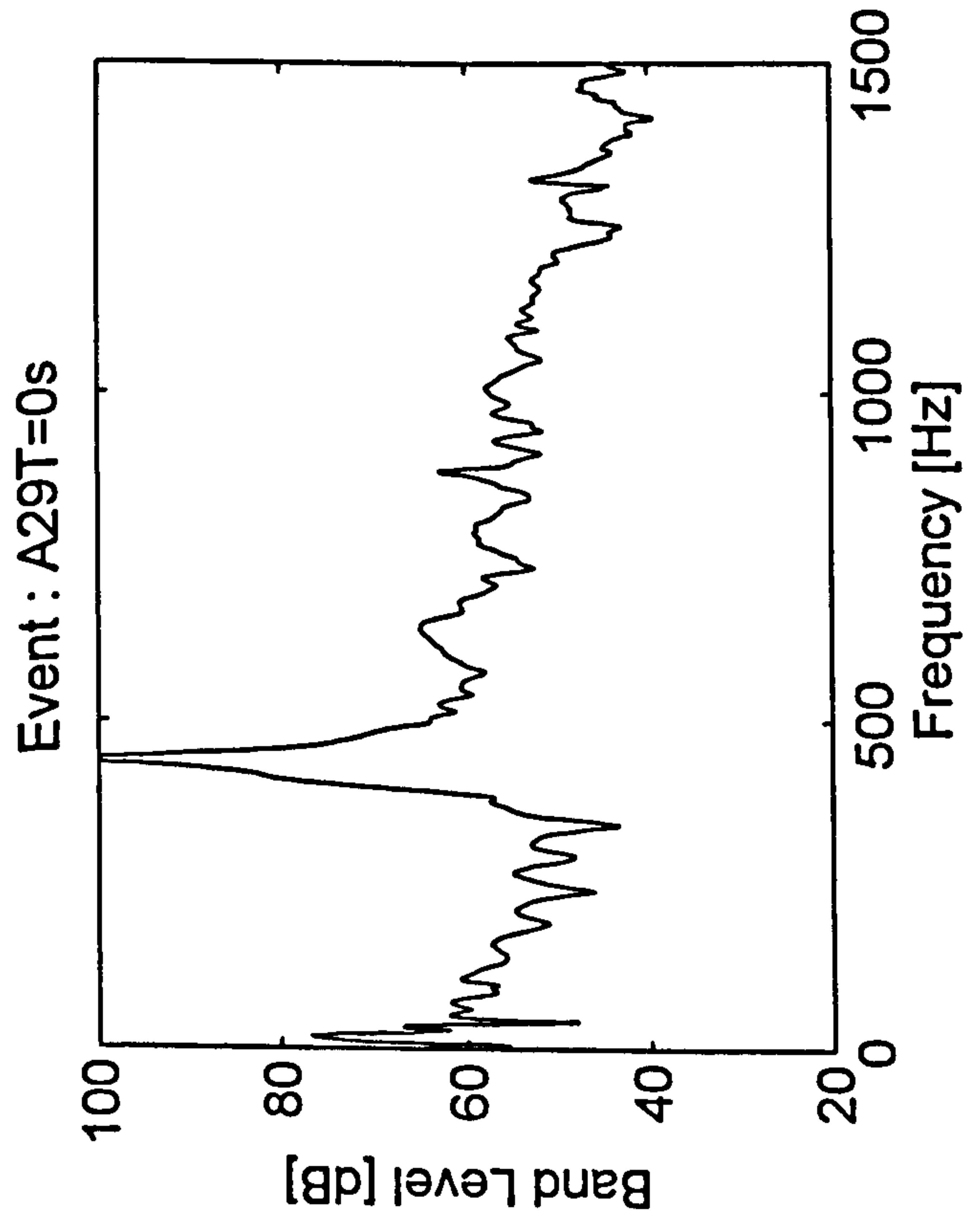


T=2.0s

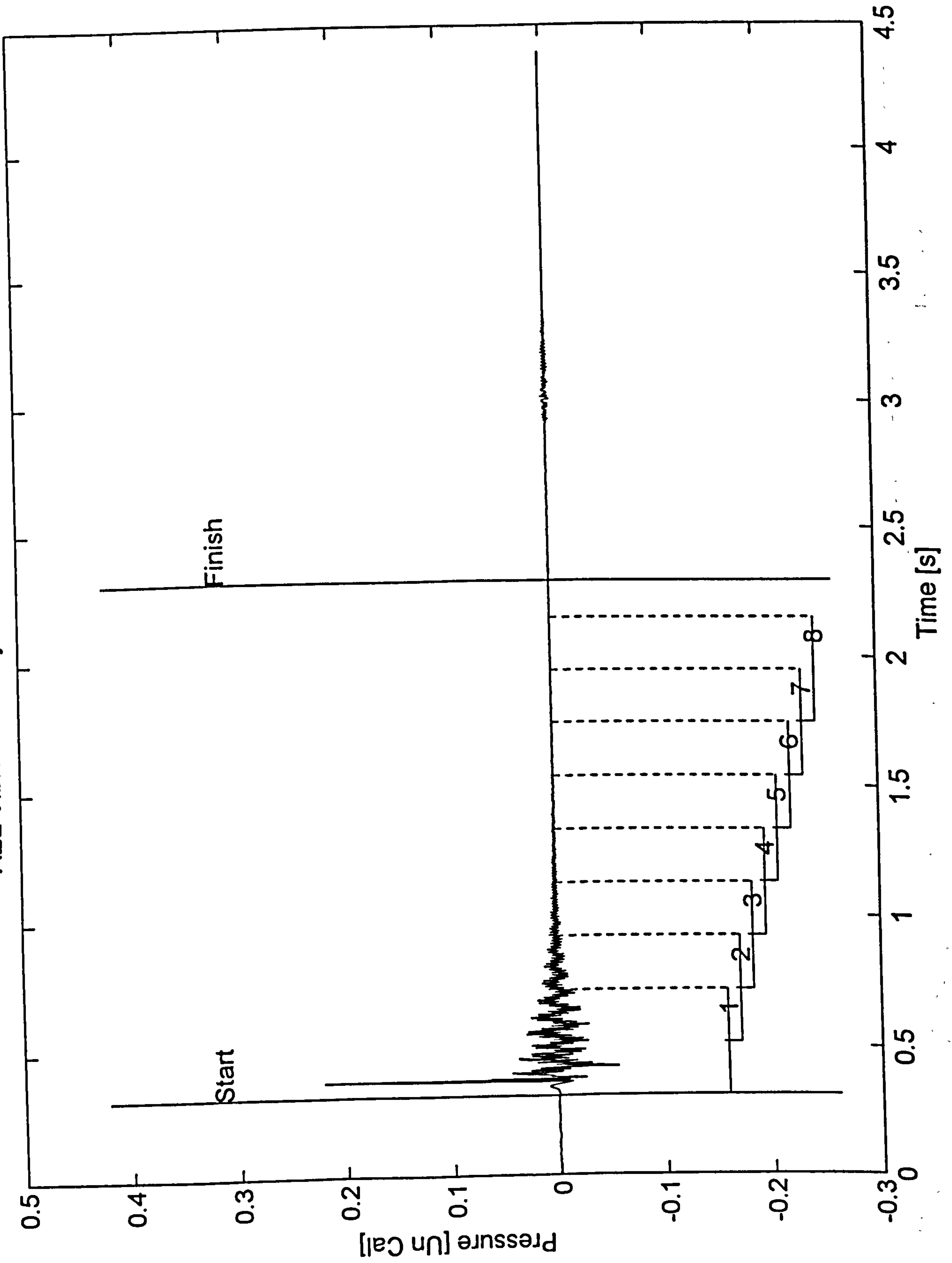


AEL Vibration Analysis Module for Event : A29

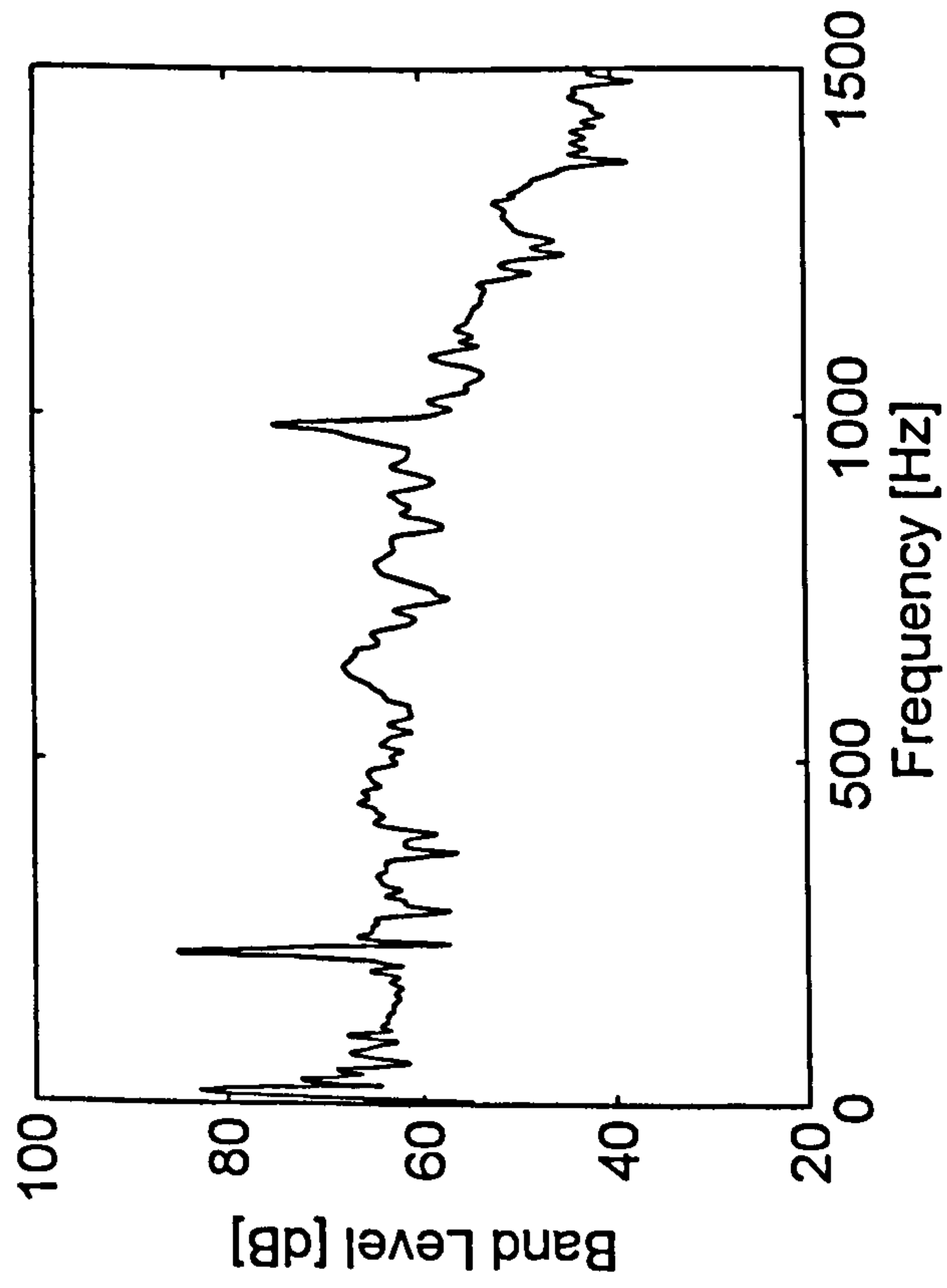




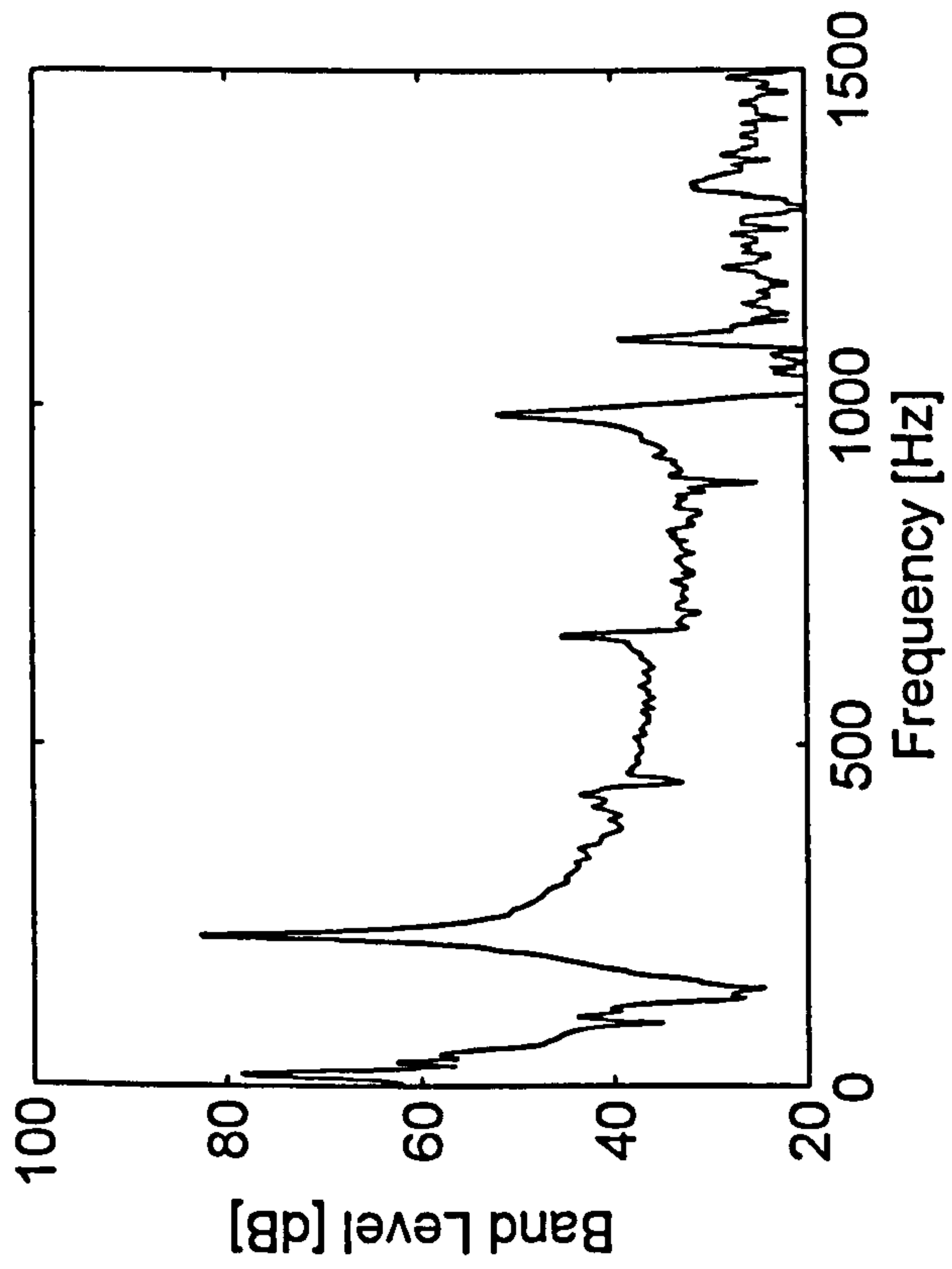
AEL Vibration Analysis Module for Event : A30



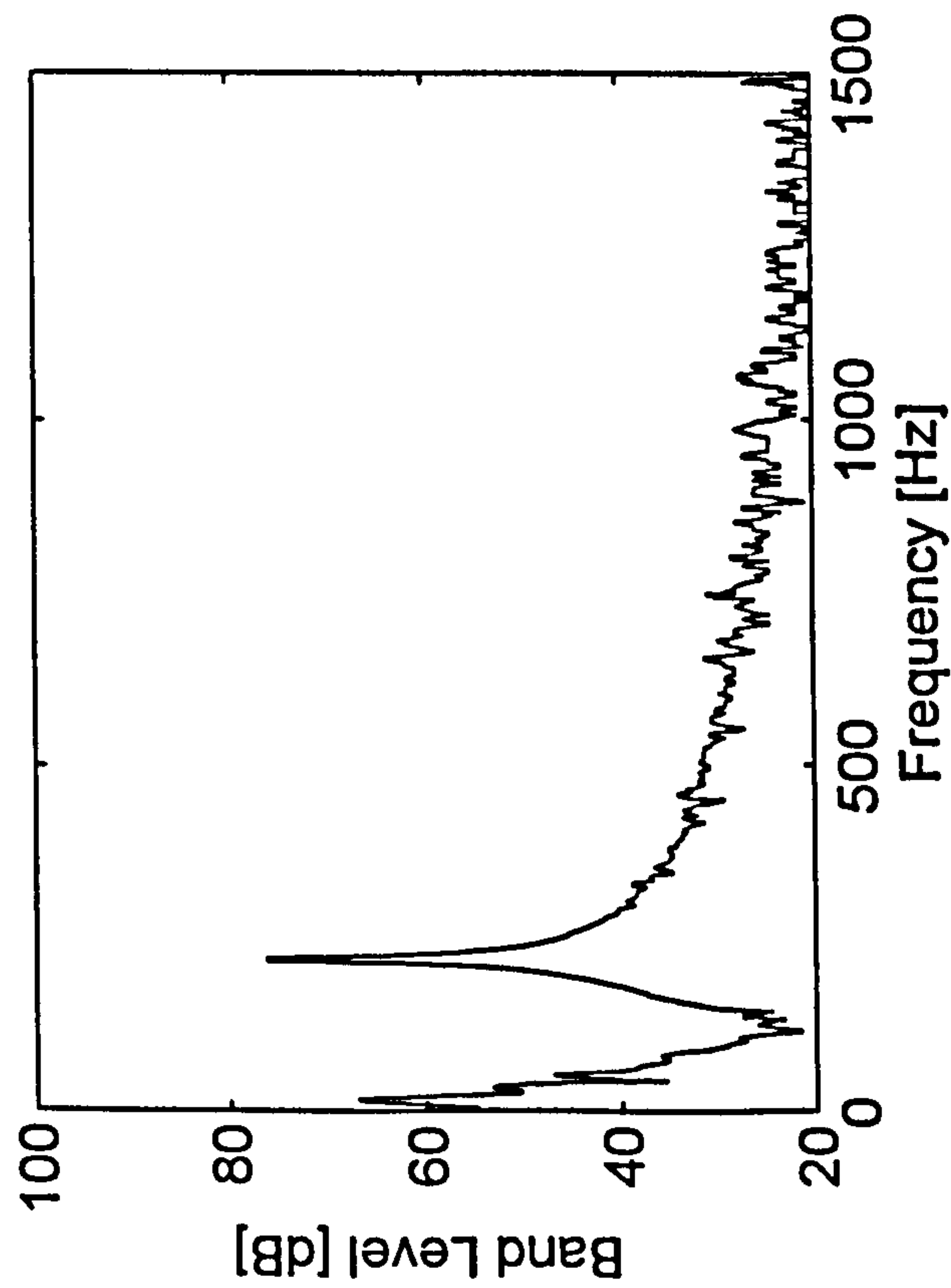
Event : A30T=0s



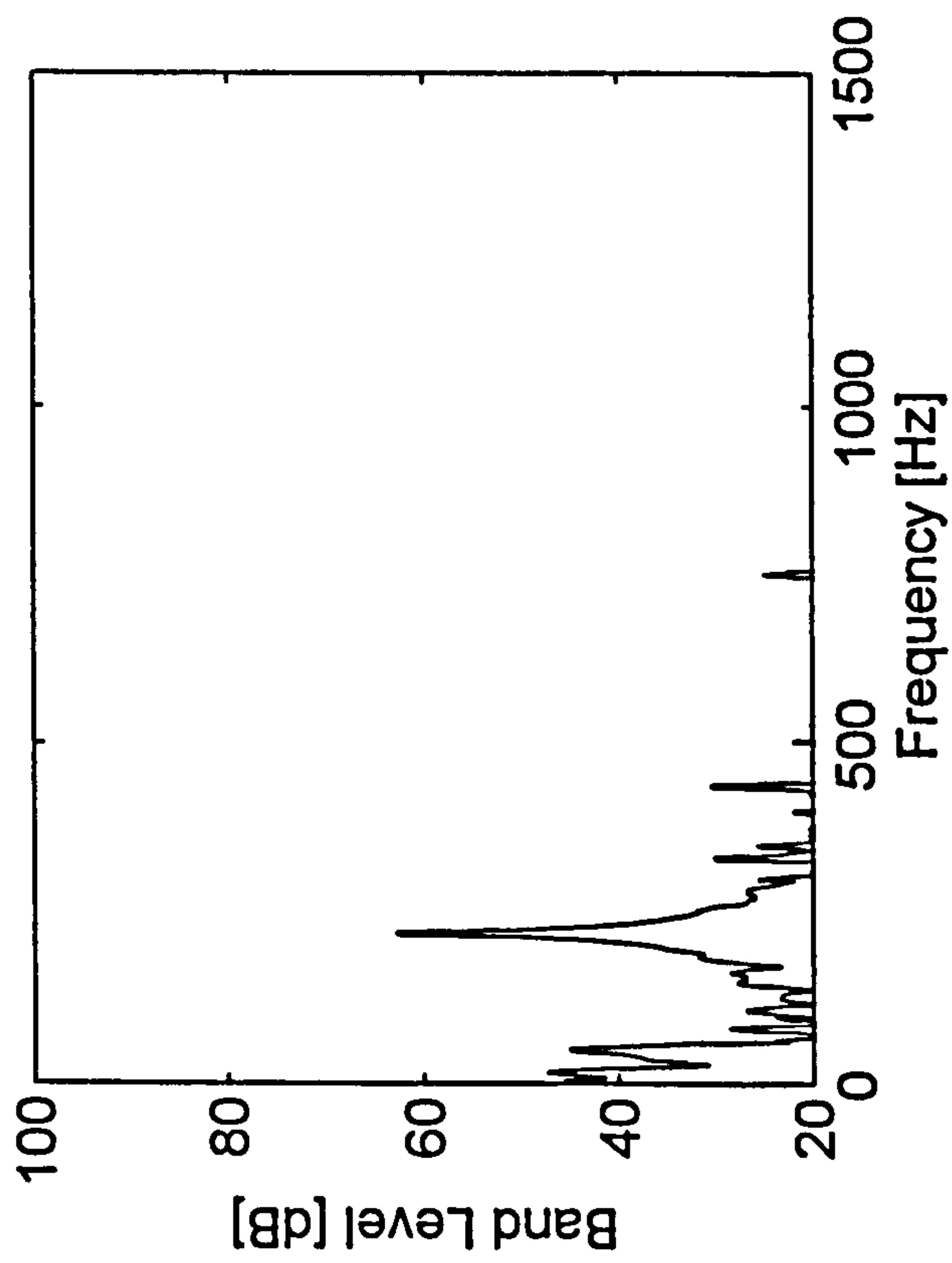
T=c.0.5s



T=c.1s

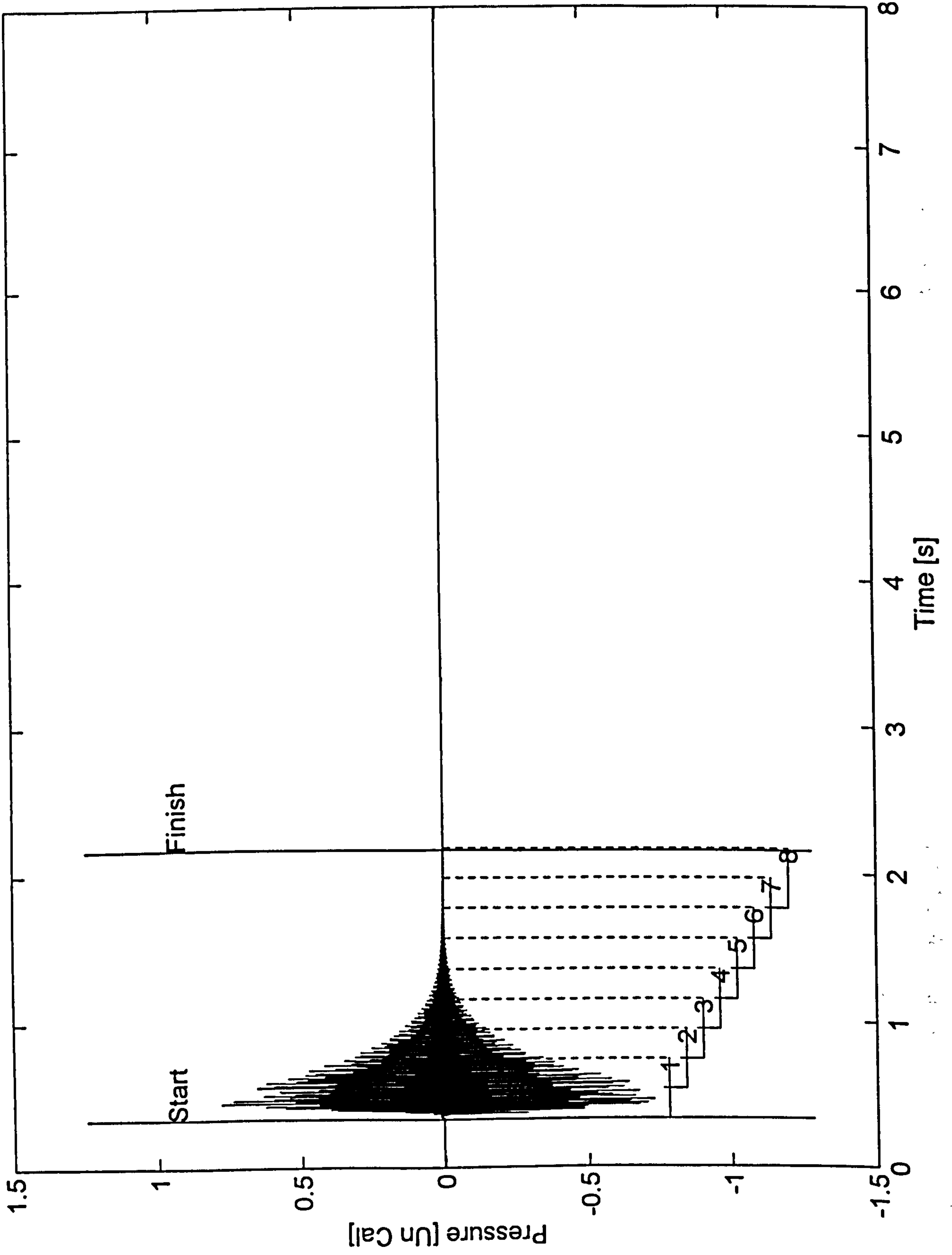


T=2.0s

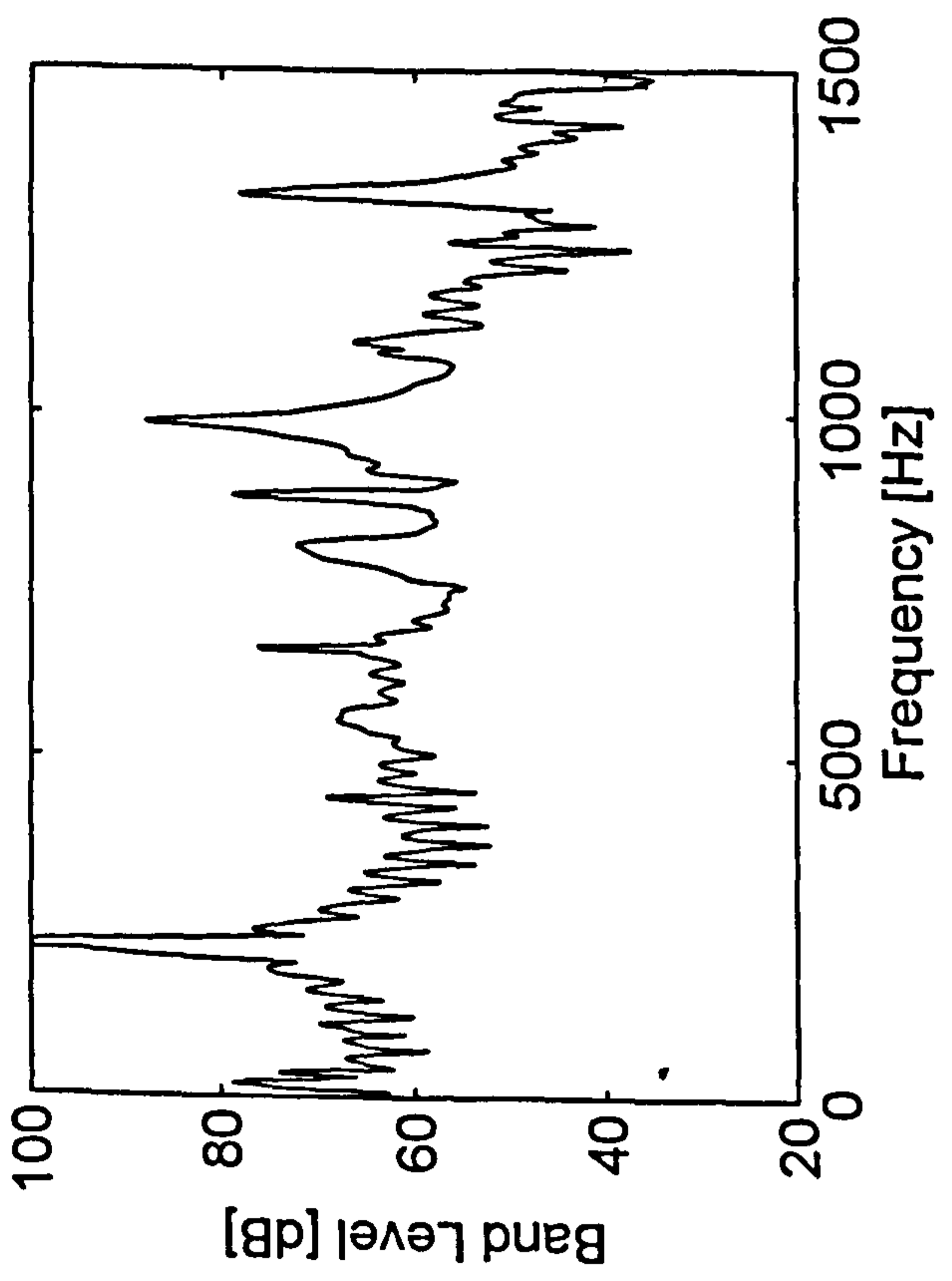




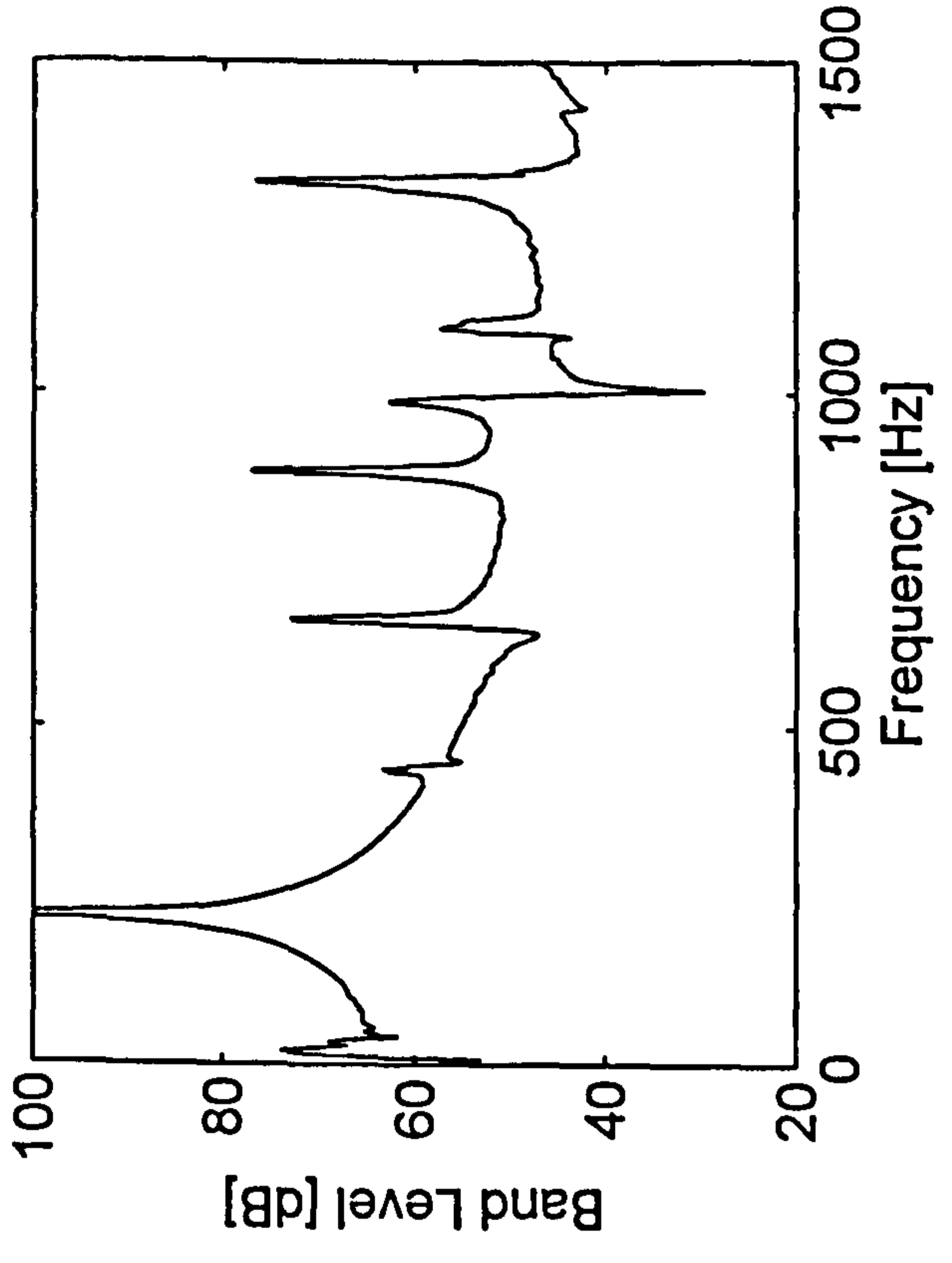
AEL Vibration Analysis Module for Event : A31



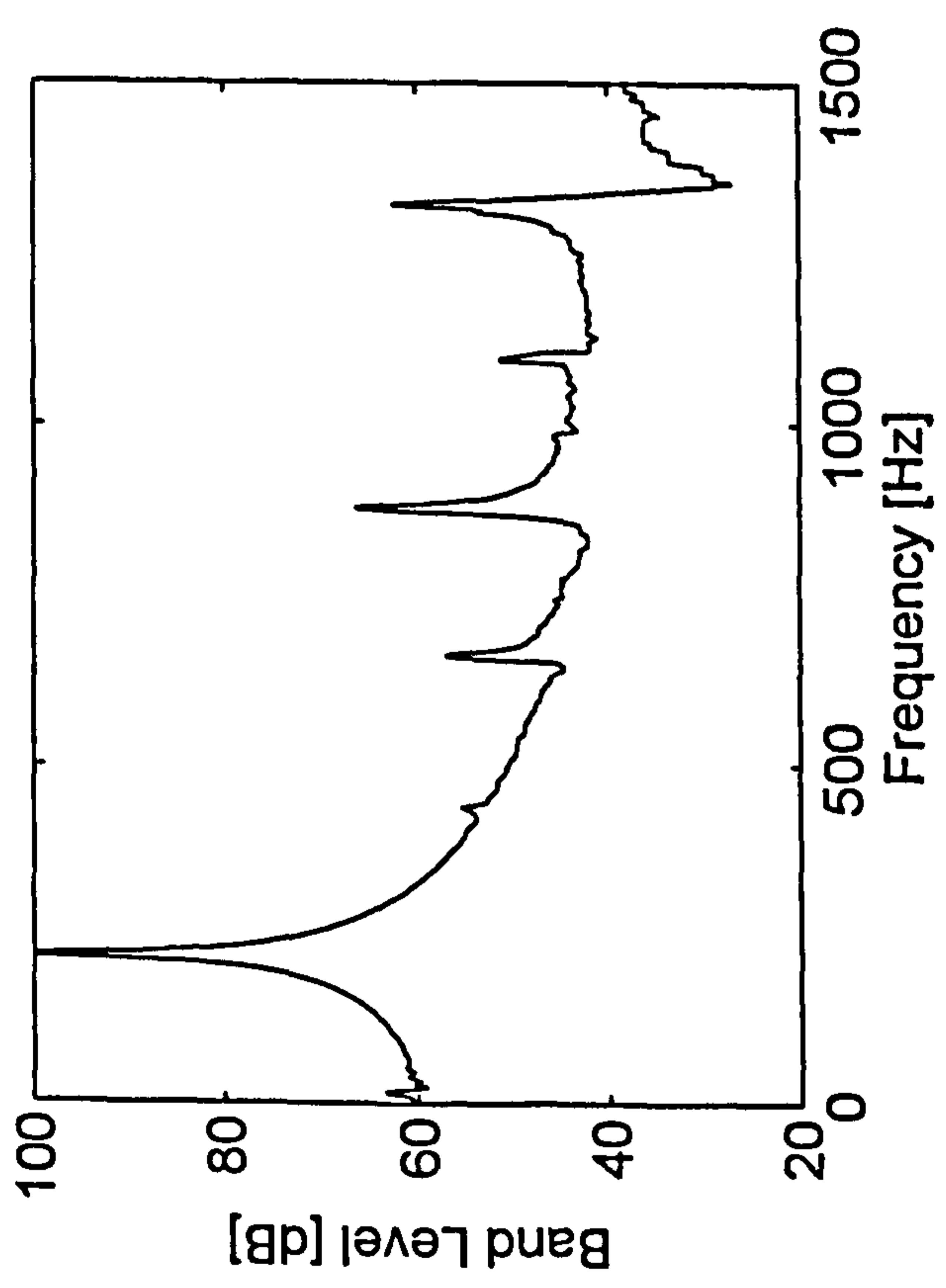
Event : A31T=0s



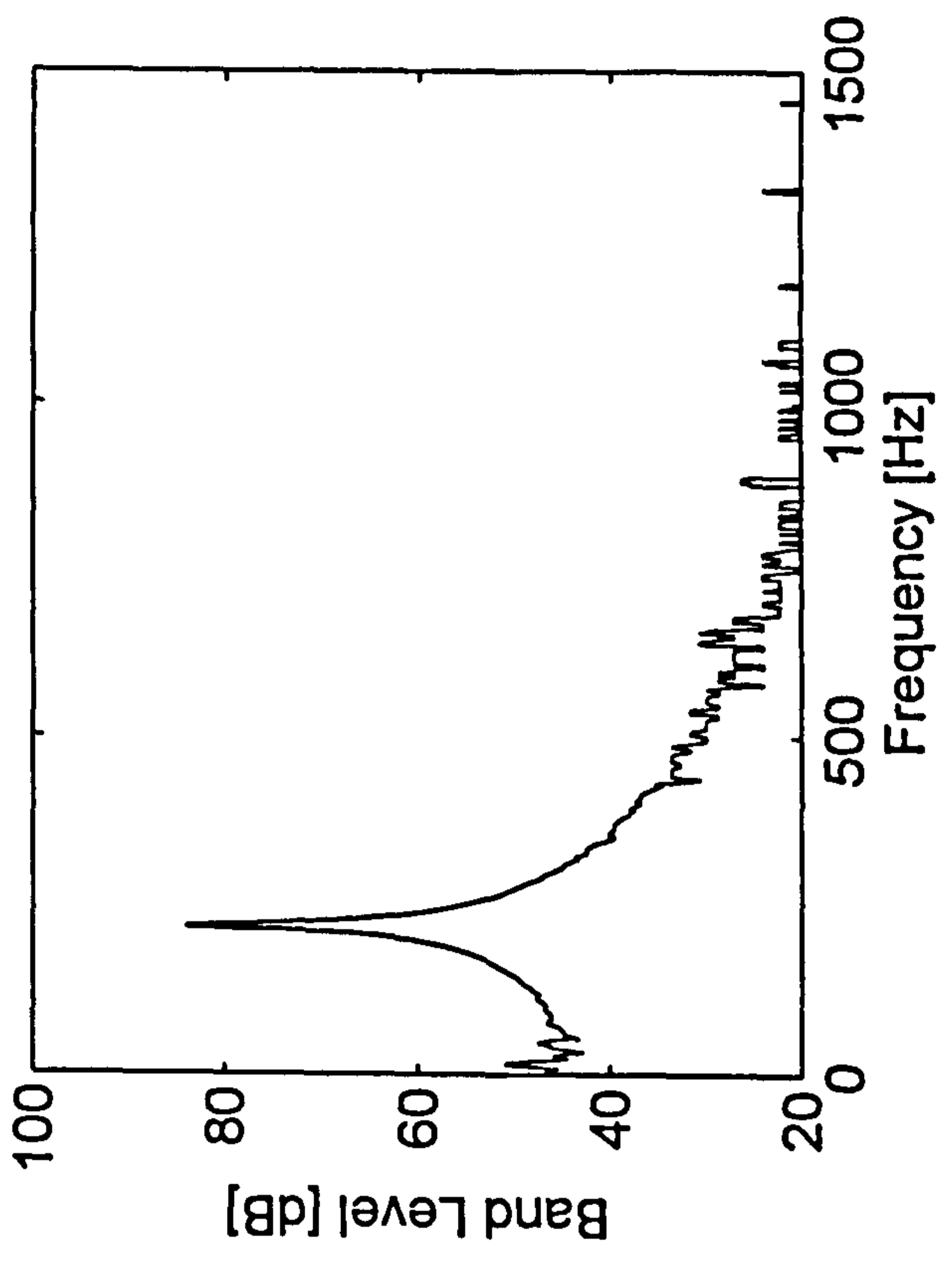
T=c.0.5s



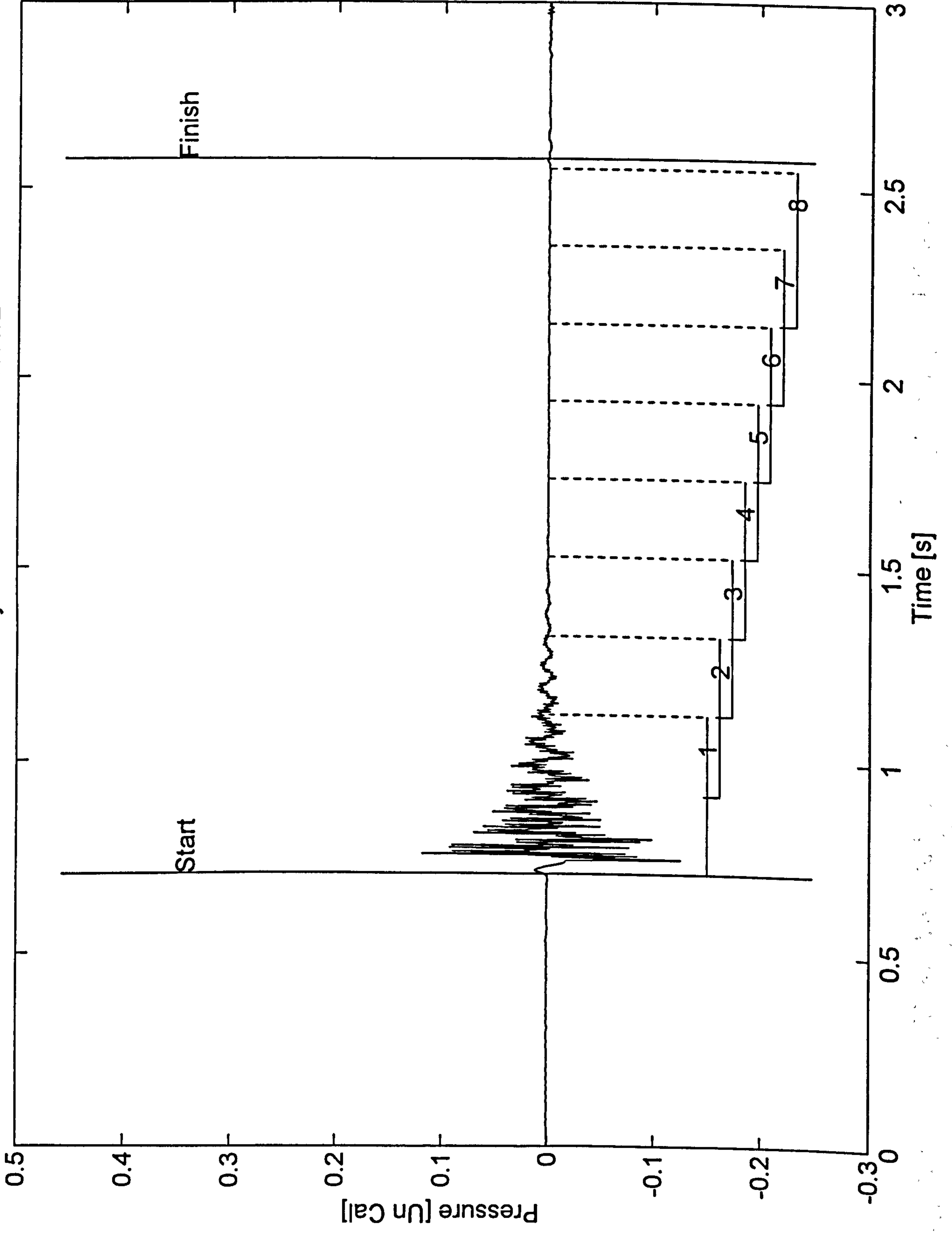
T=c.1s



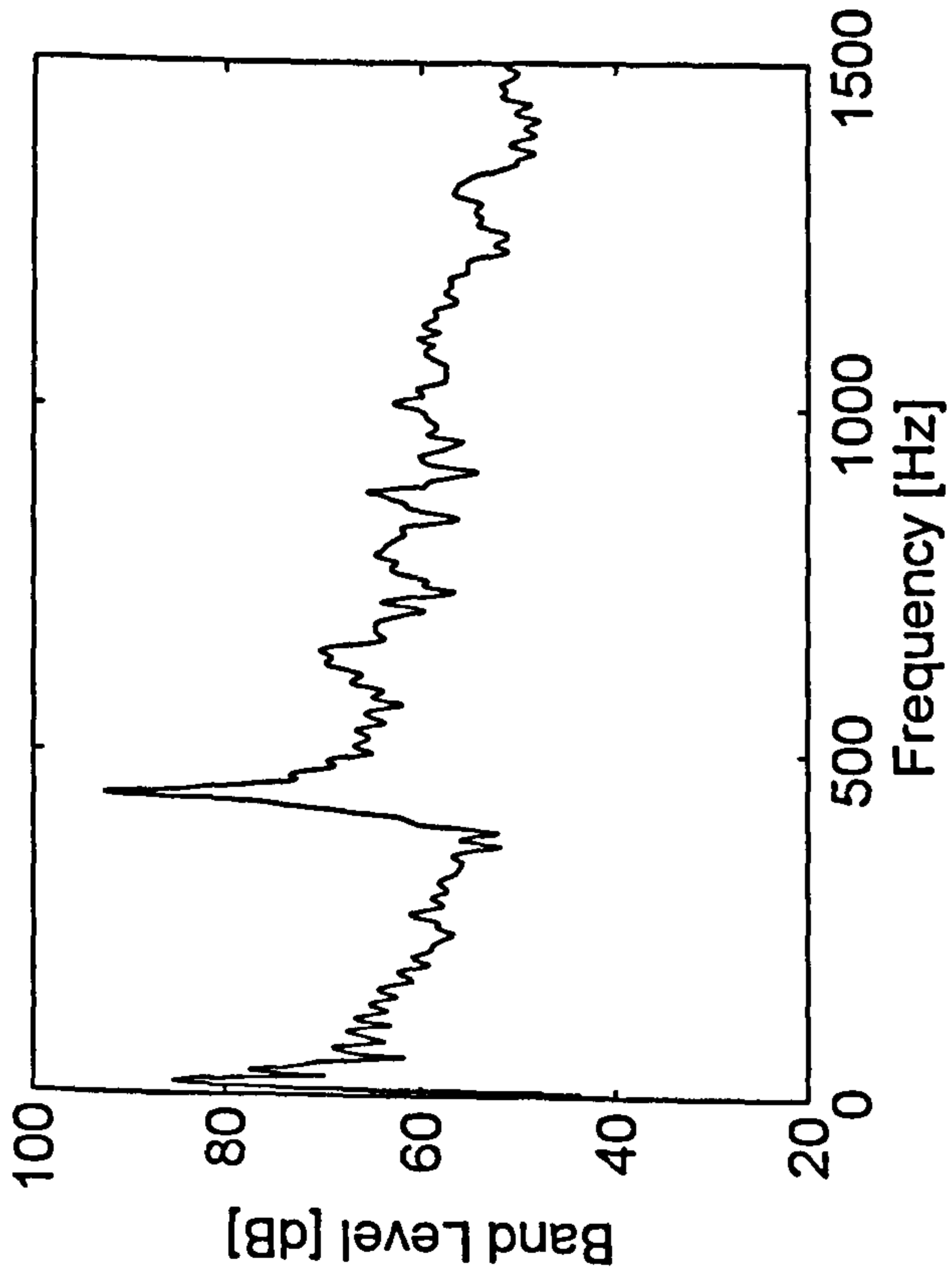
T=2.0s



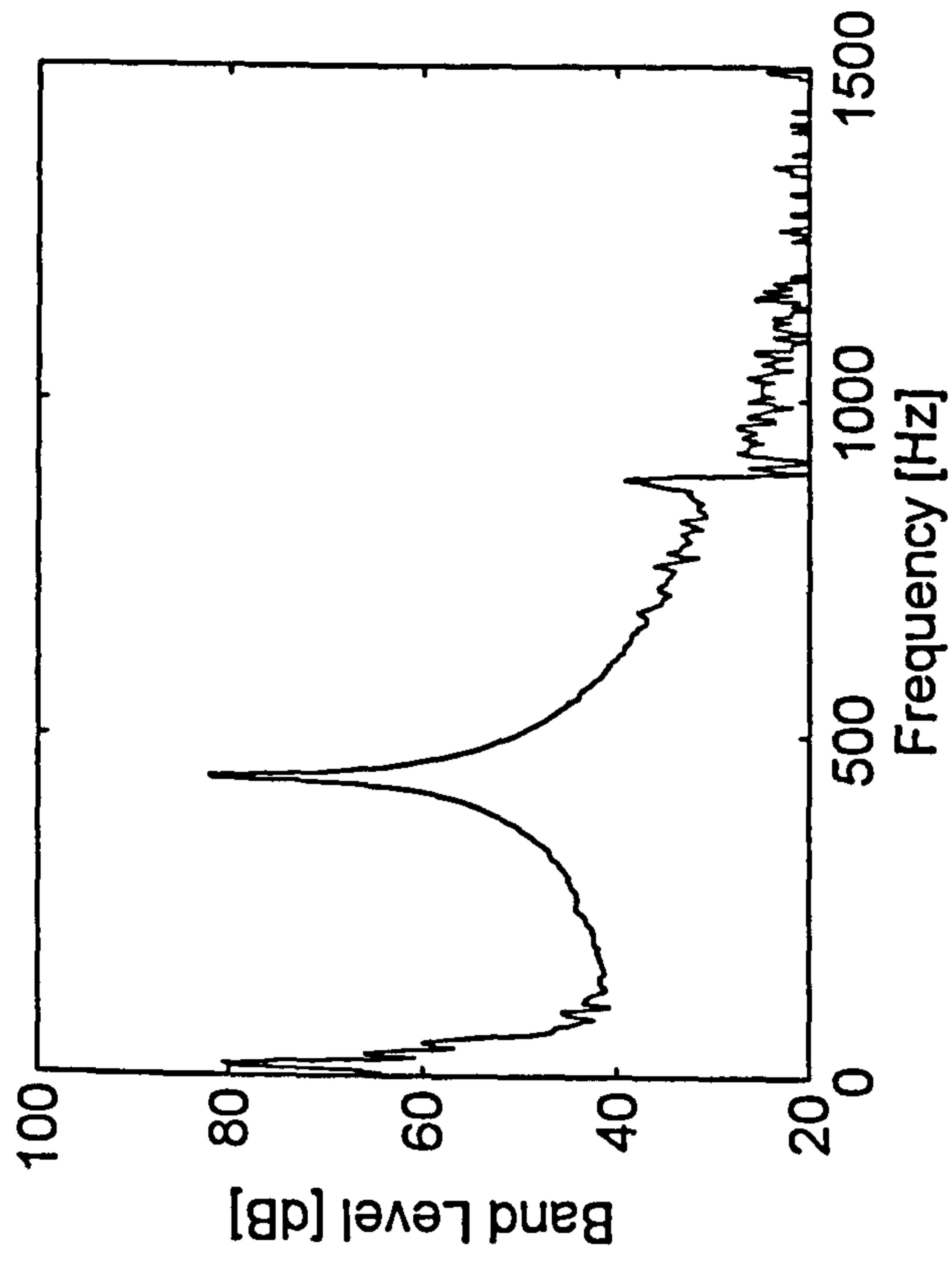
AEL Vibration Analysis Module for Event : A32



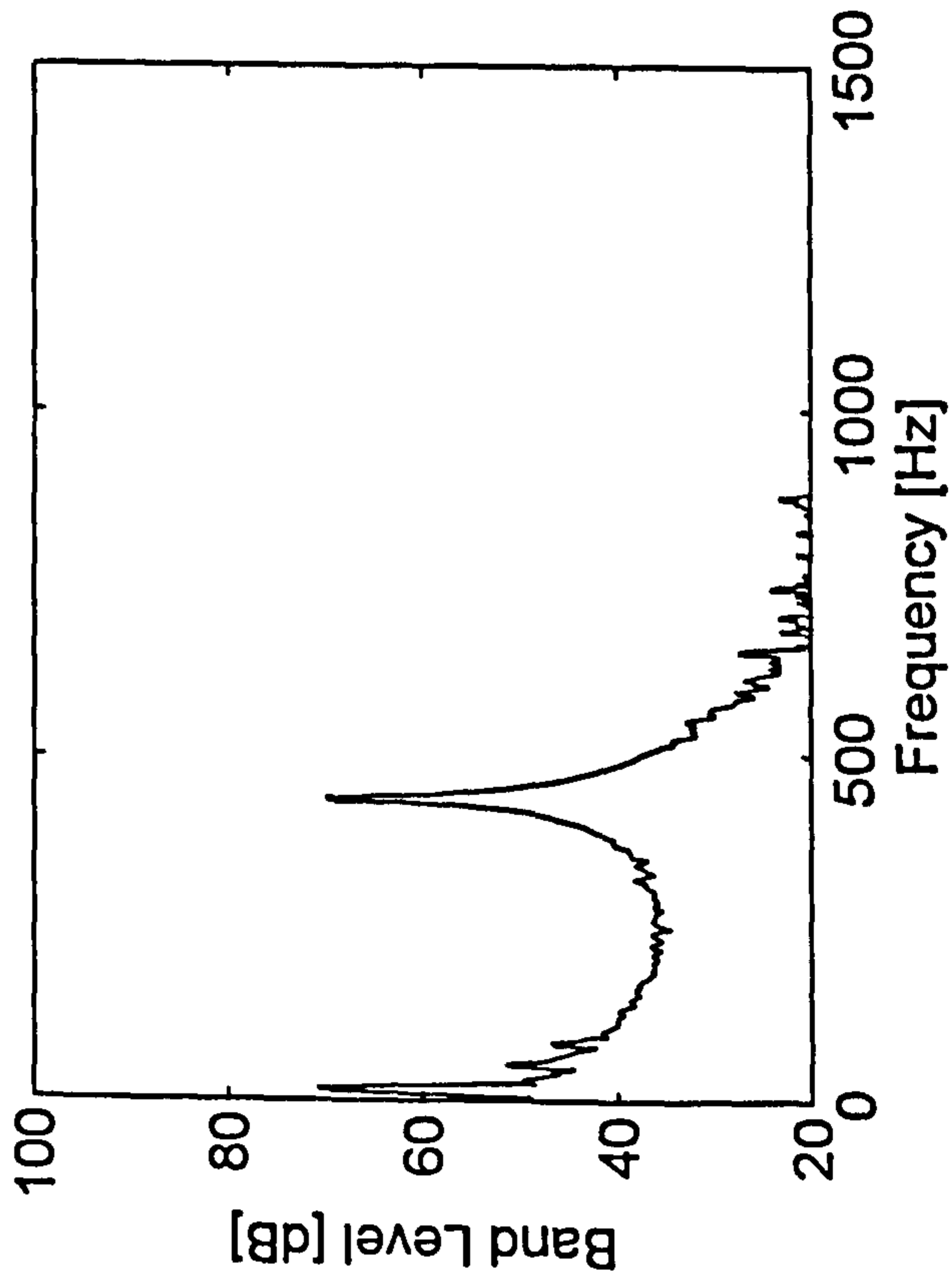
Event : A32T=0s



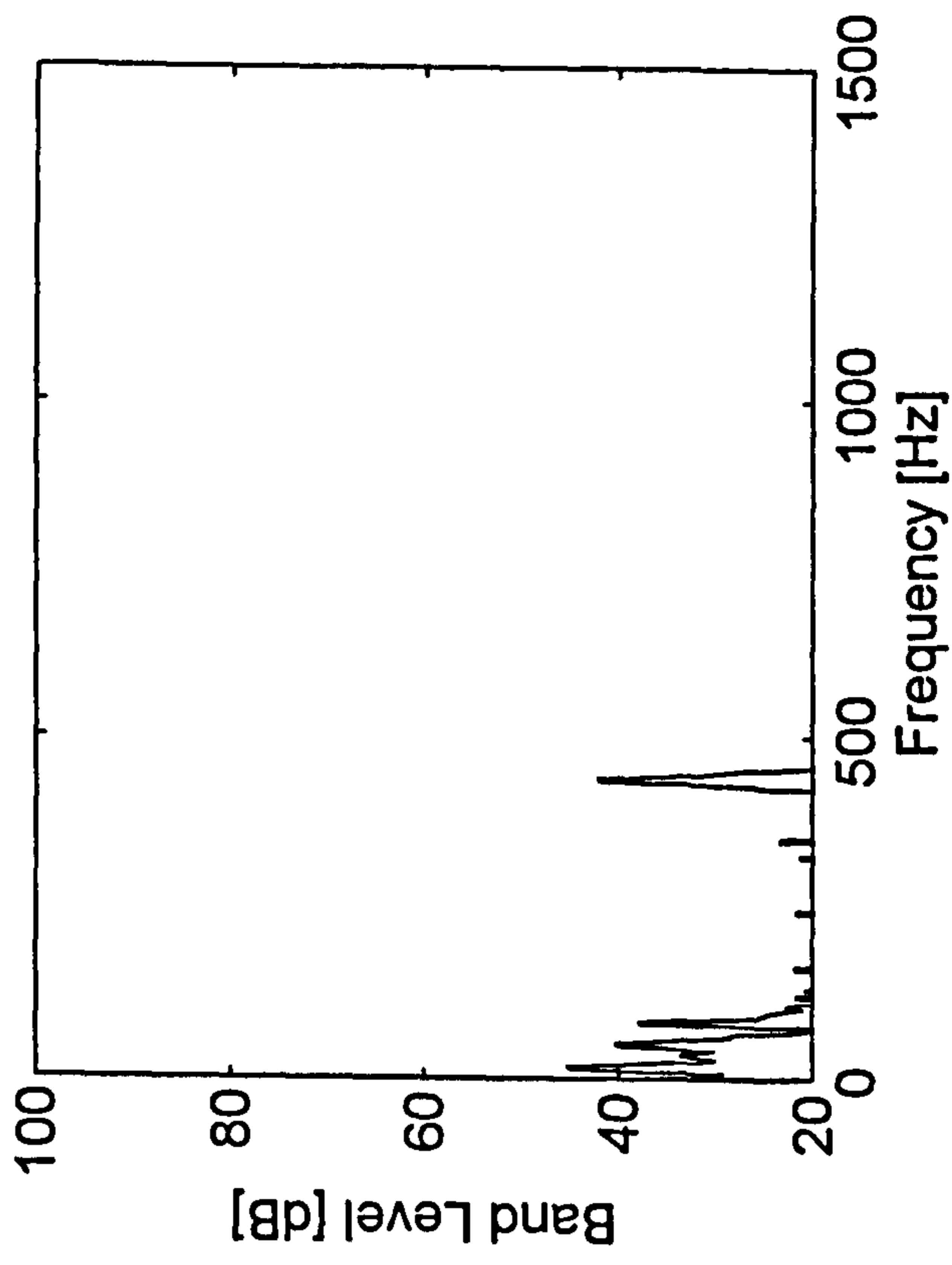
T=c.0.5s



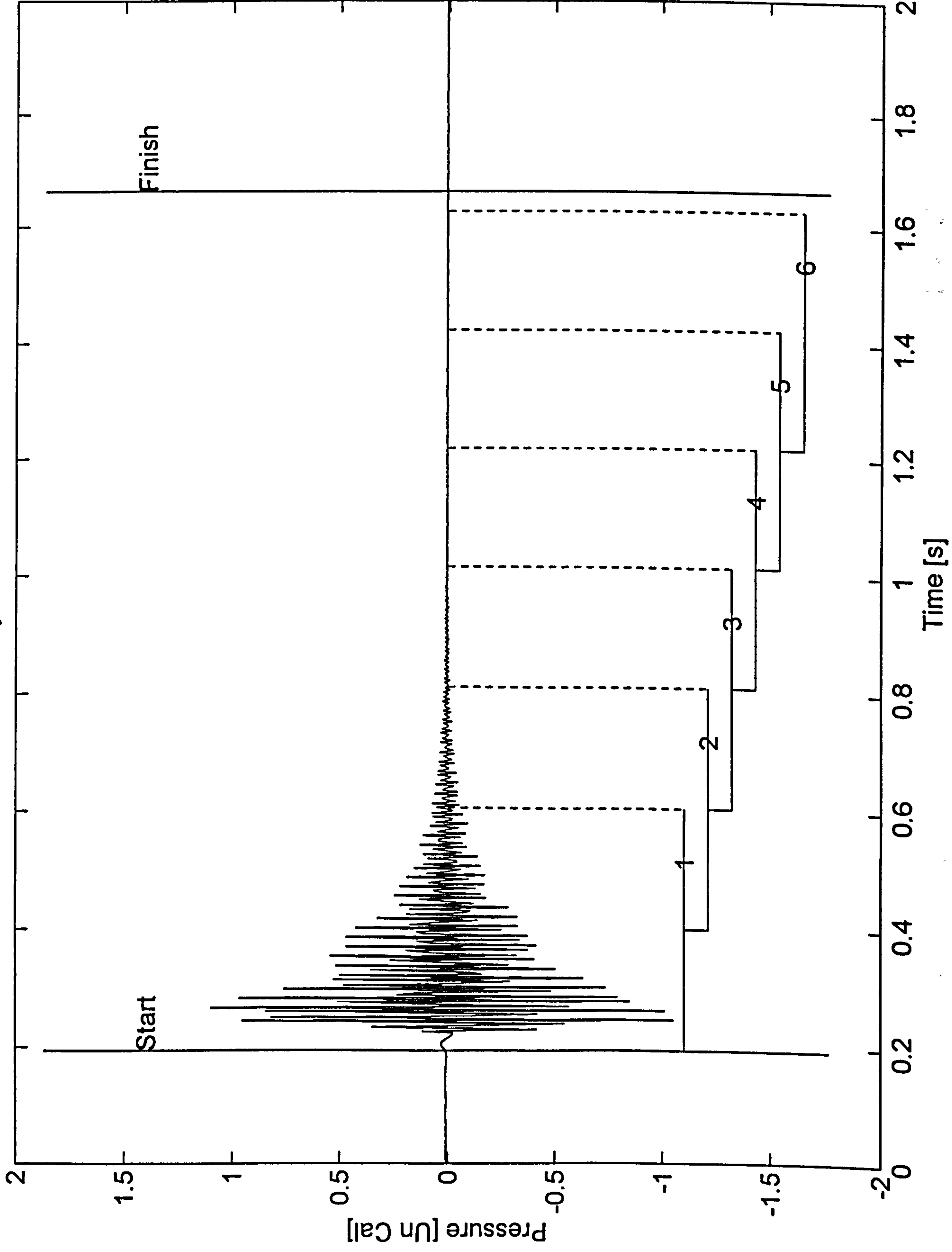
T=c.1s



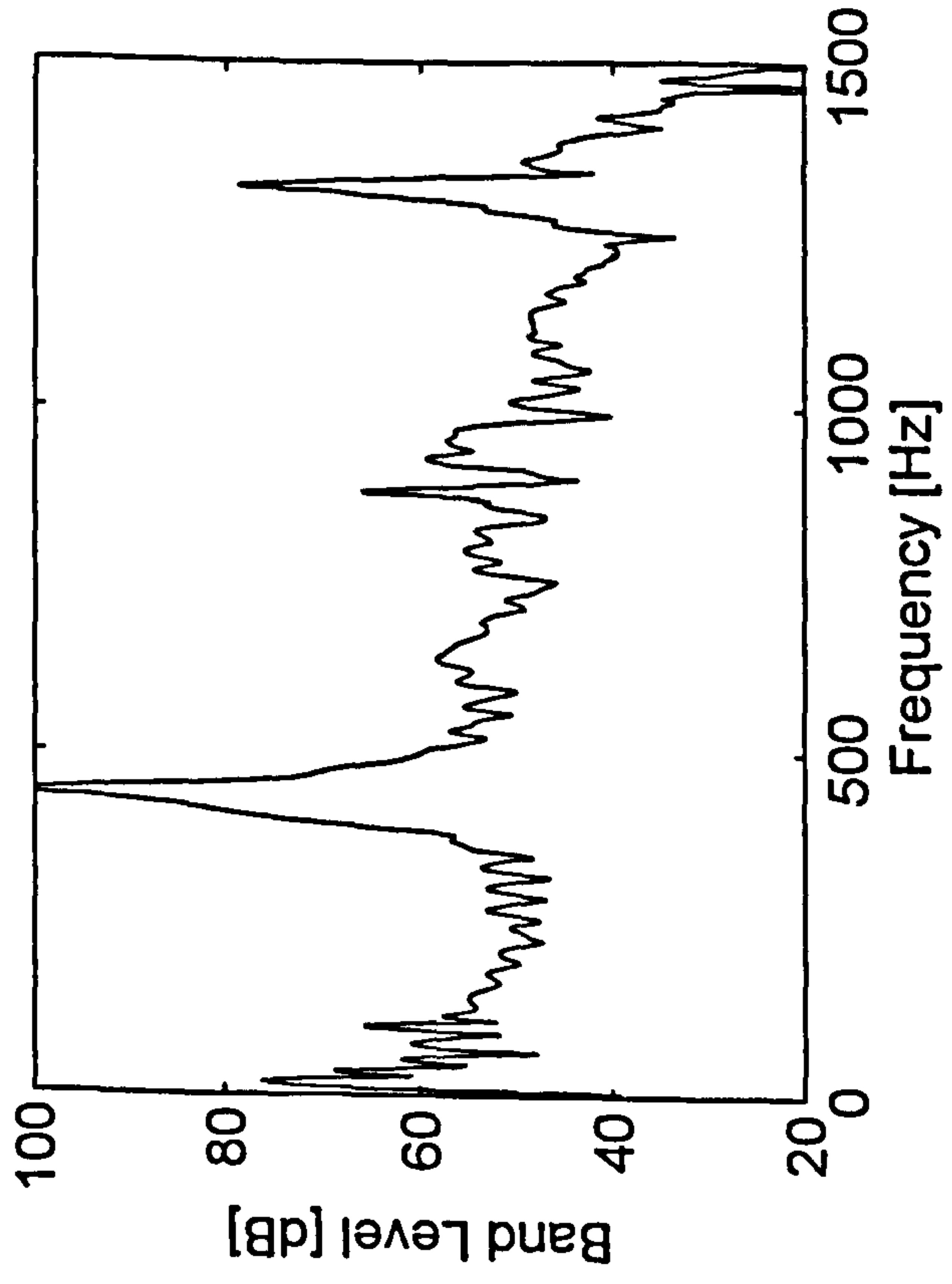
T=2.0s



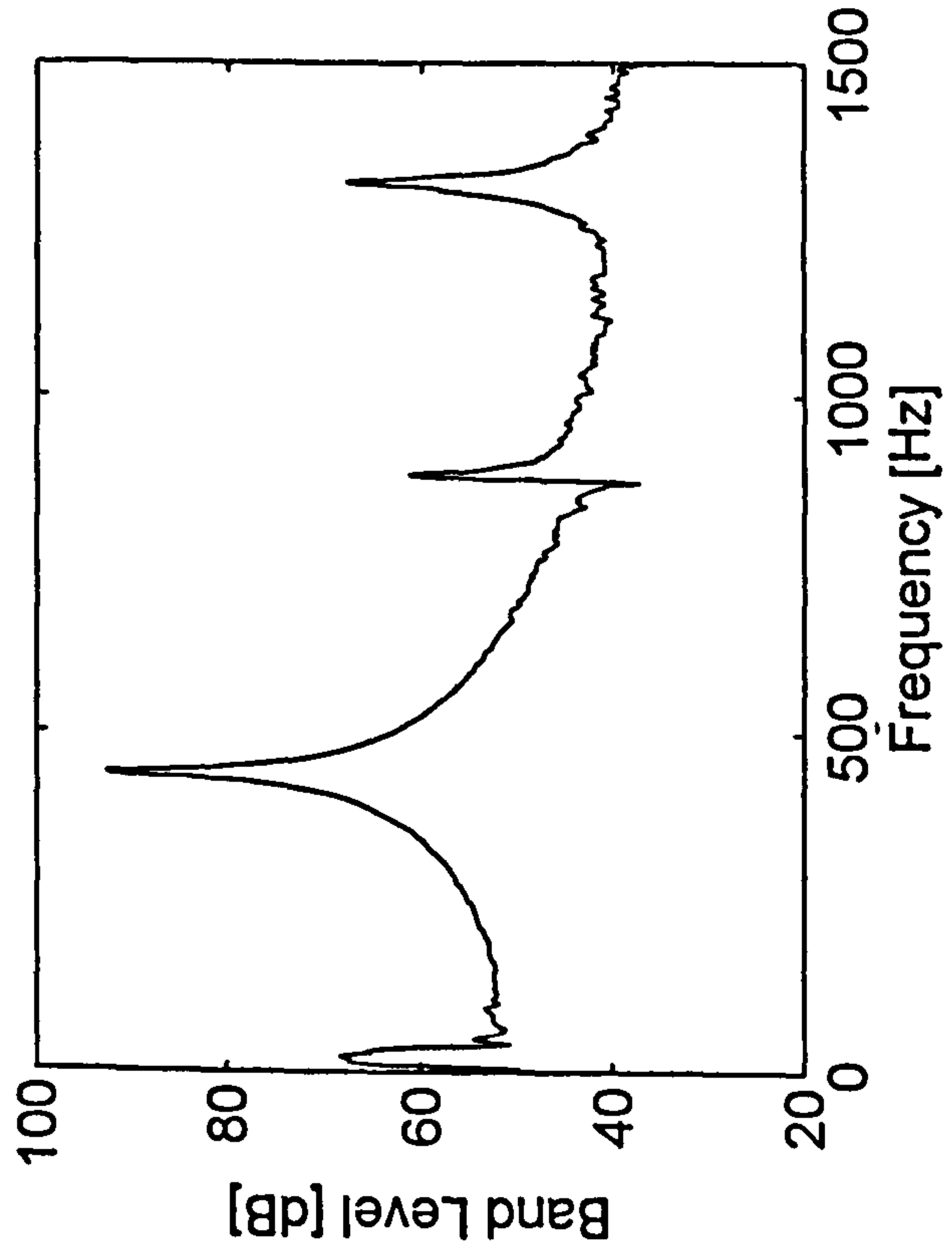
AEL Vibration Analysis Module for Event : A33



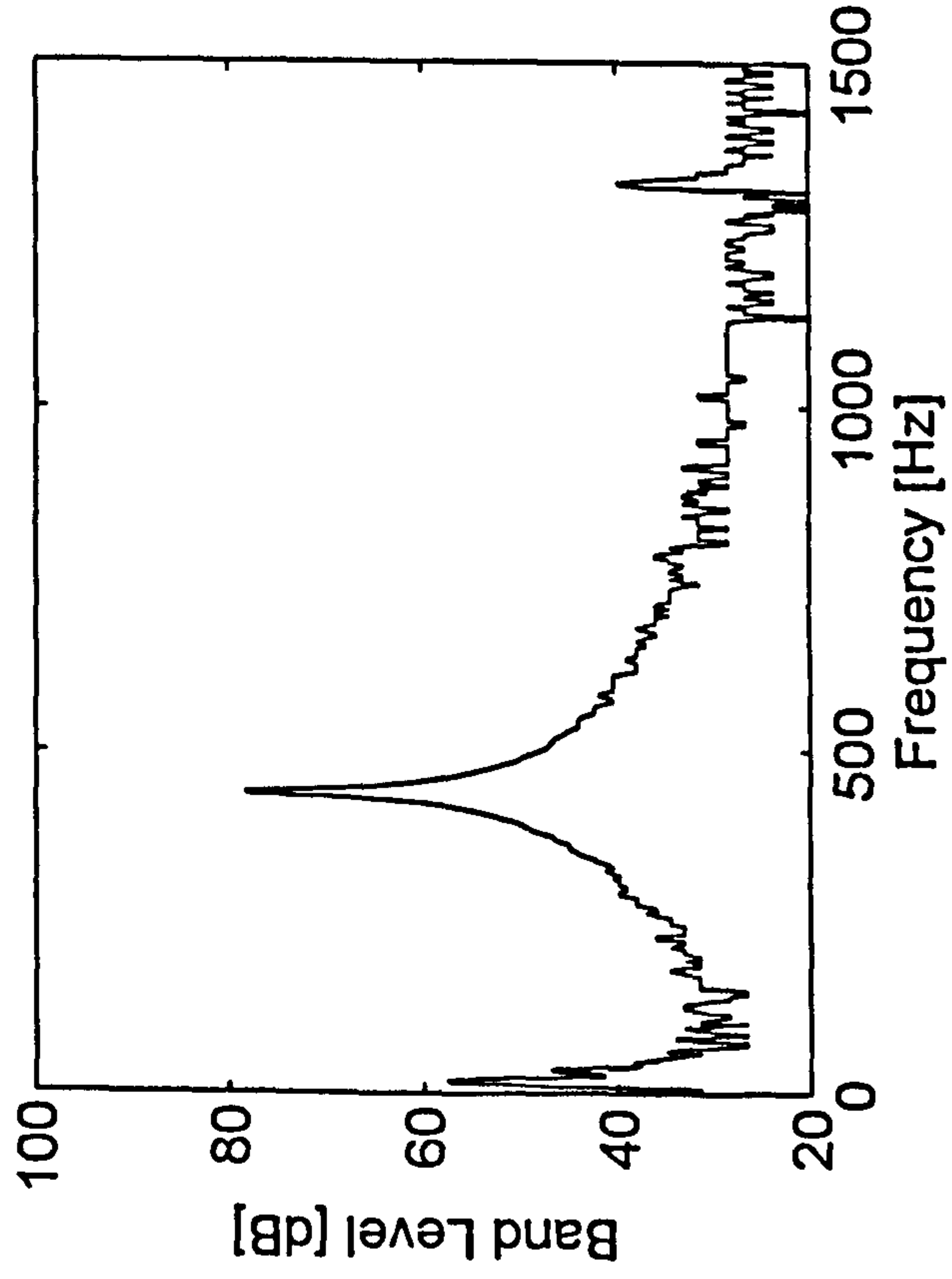
Event : A33T=0s



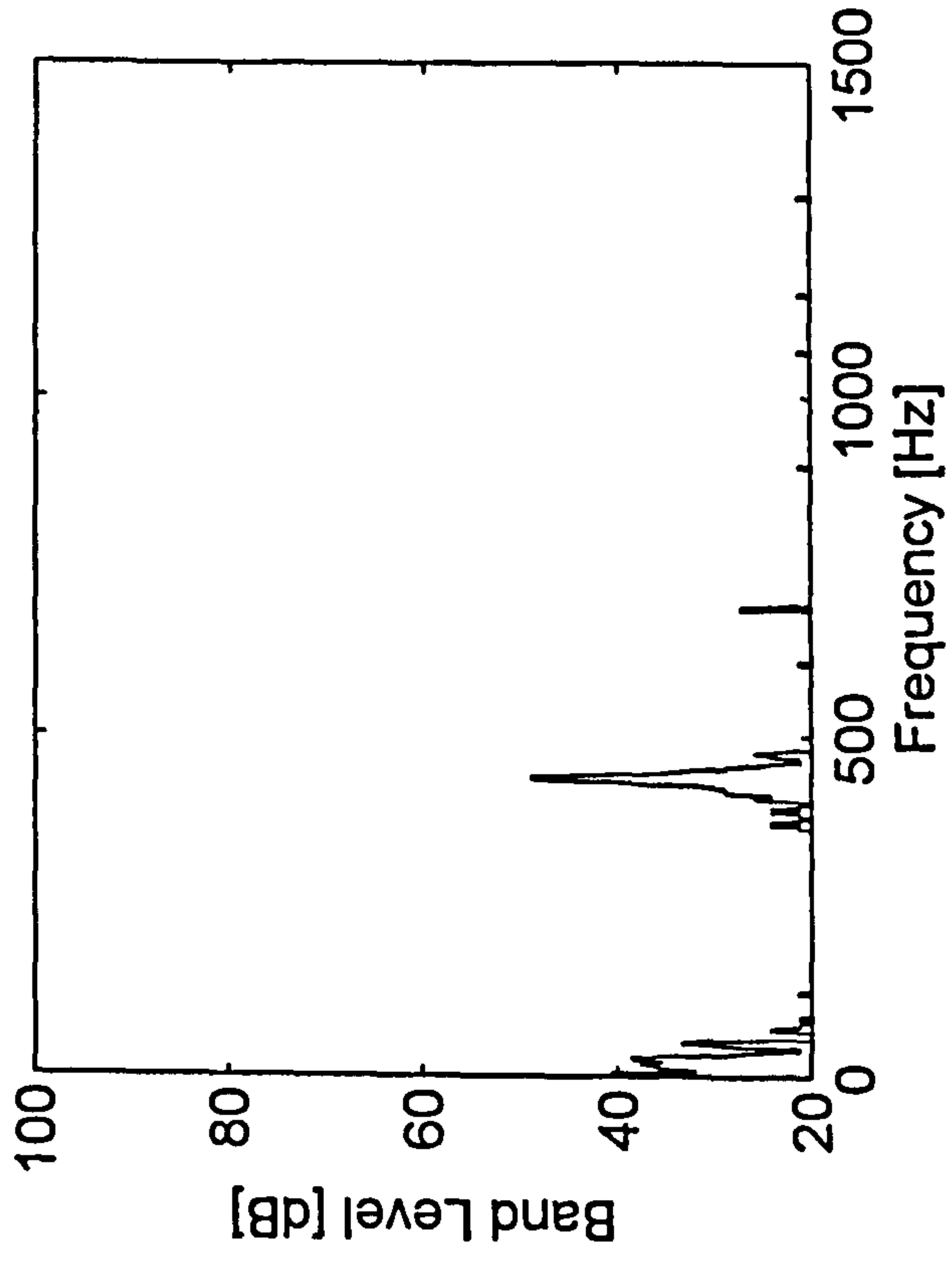
T=c.0.5s



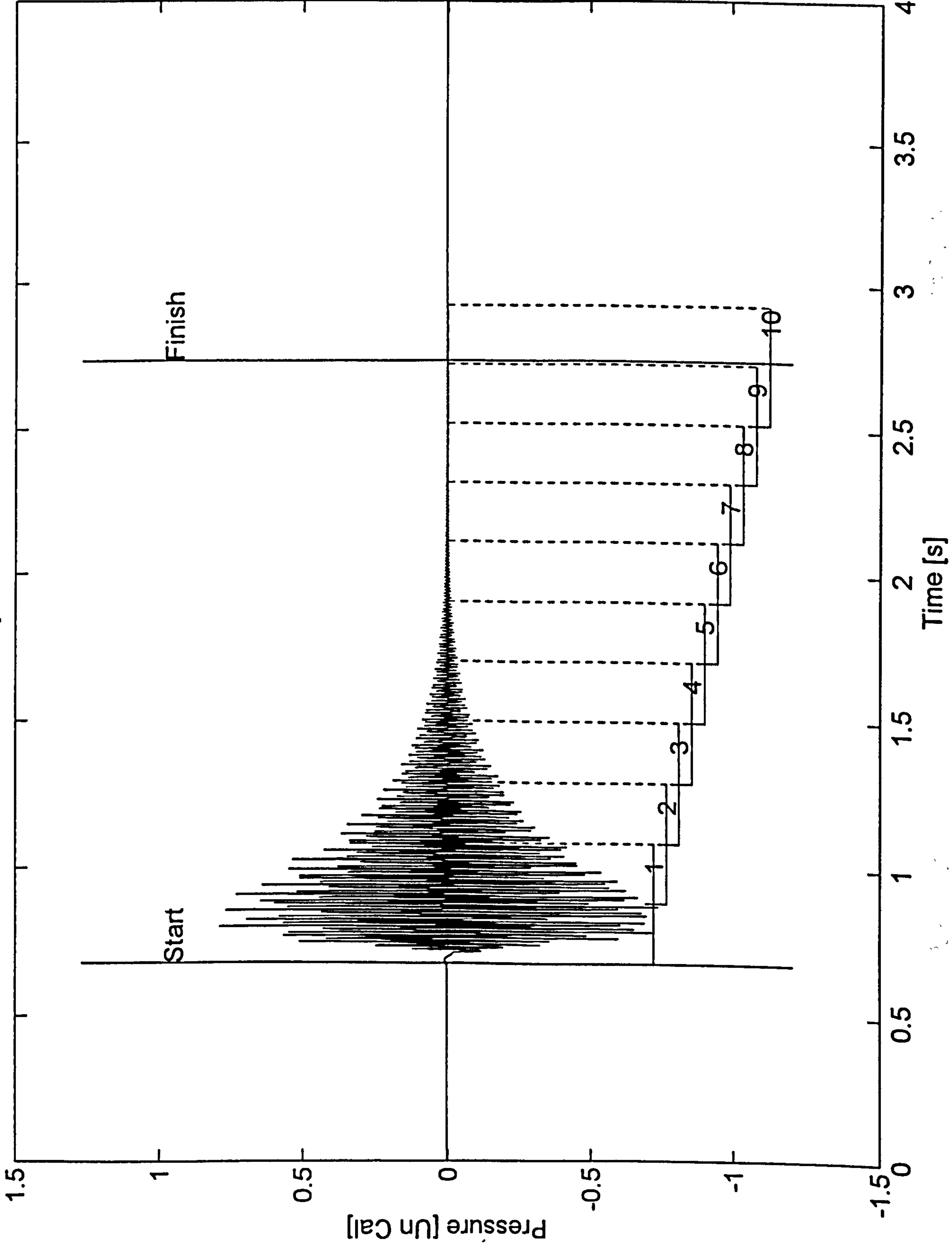
T=c.1s



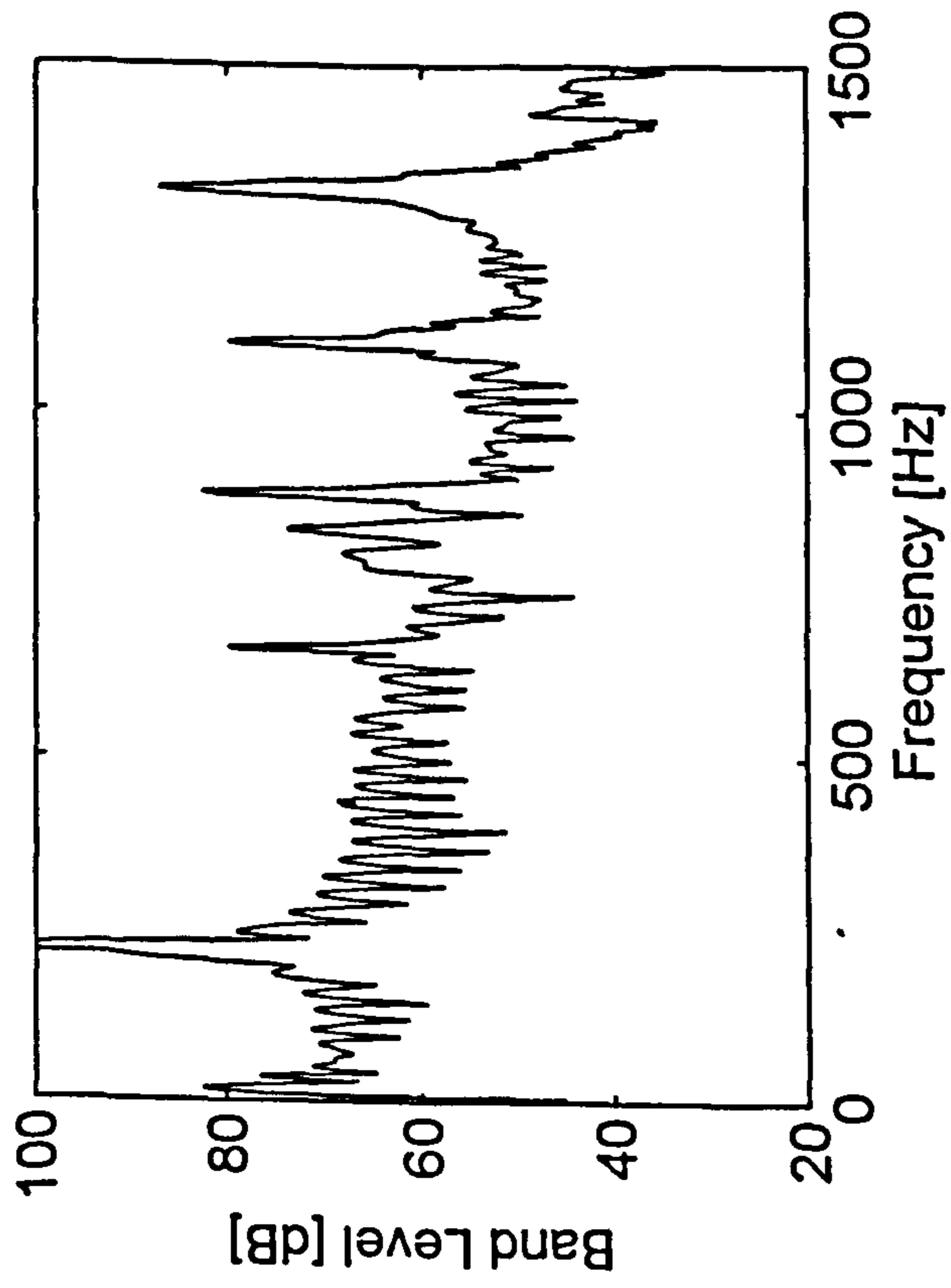
T=2.0s



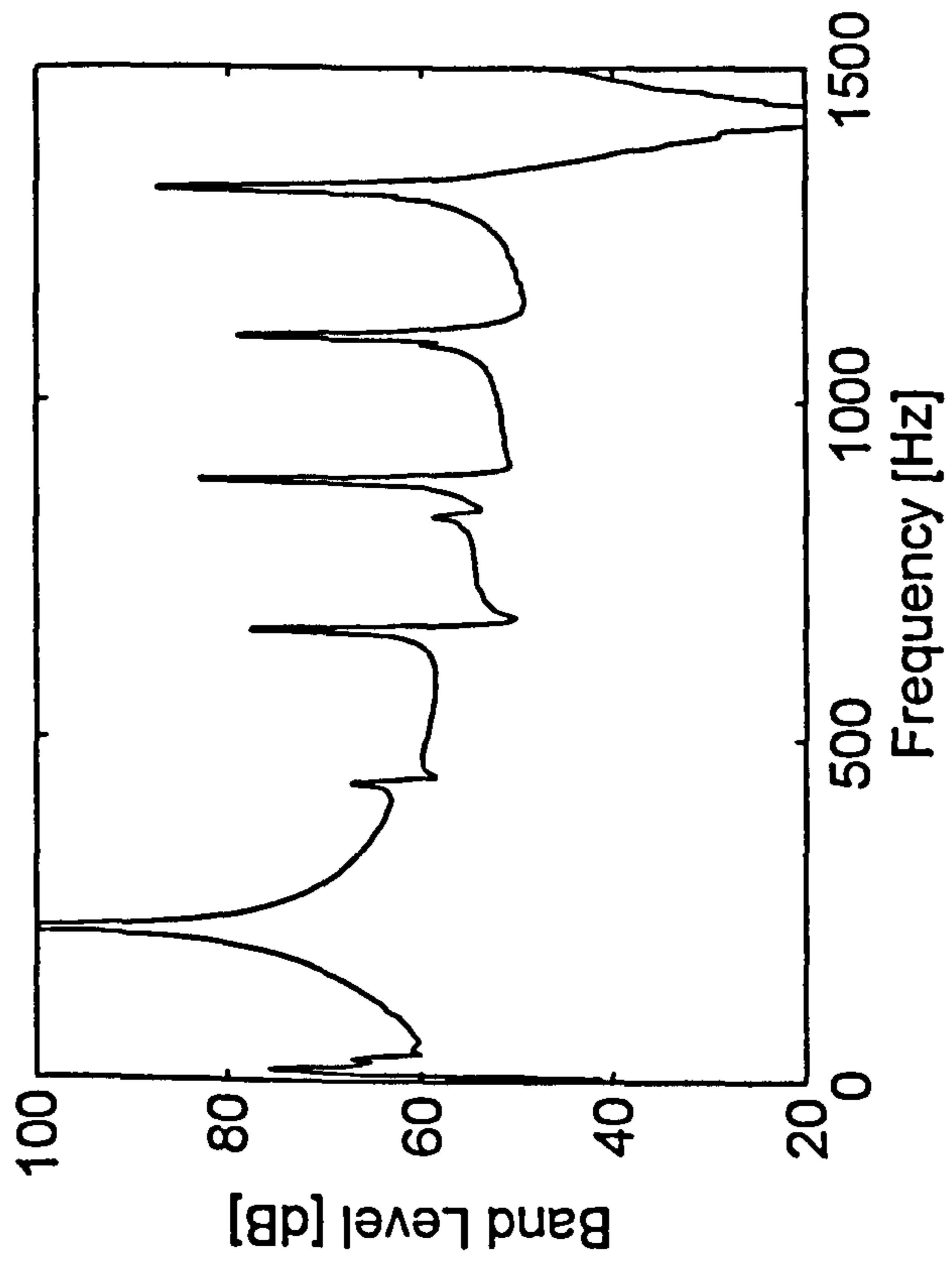
AEL Vibration Analysis Module for Event : A35



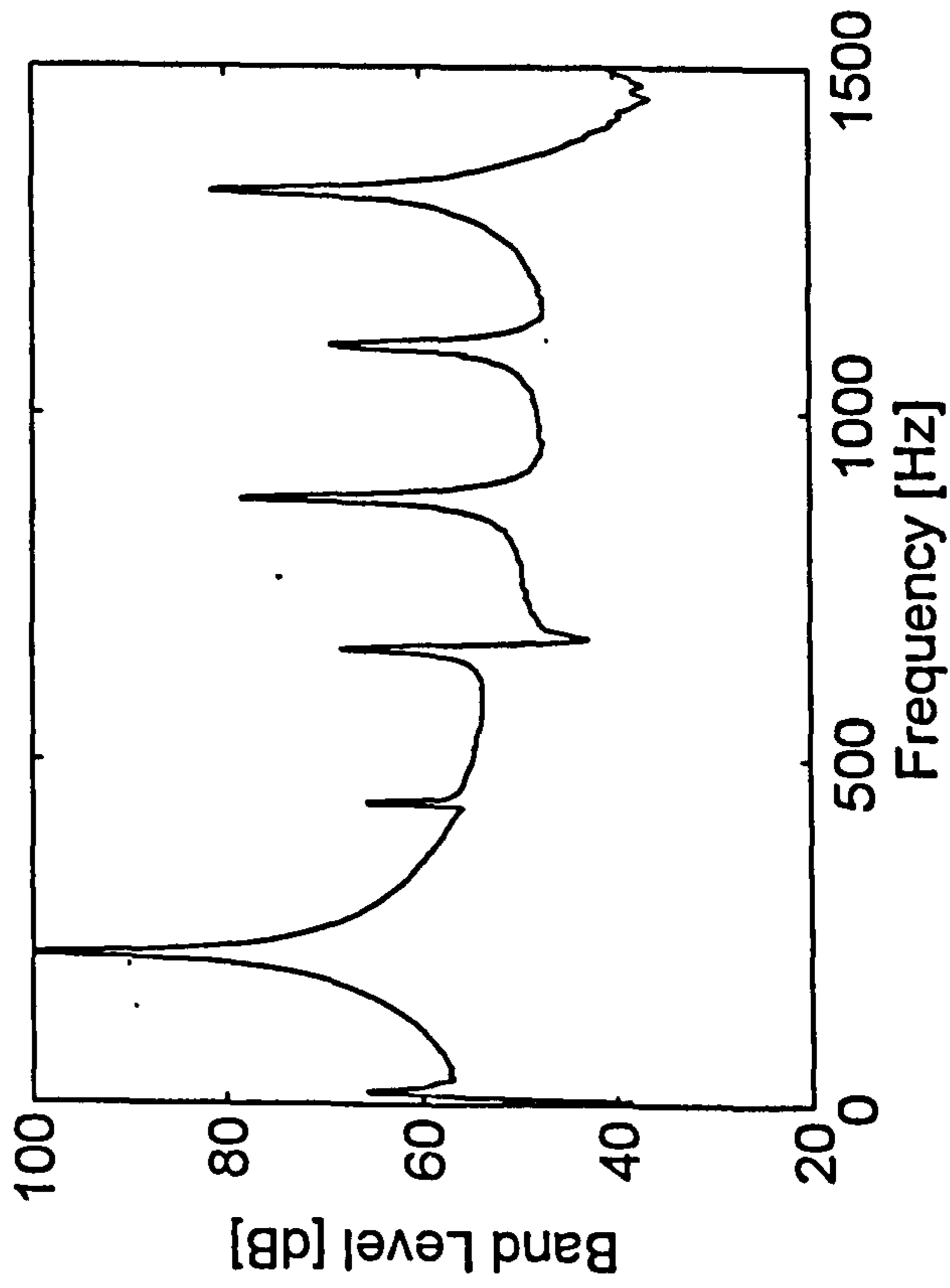
Event : A35T=0s



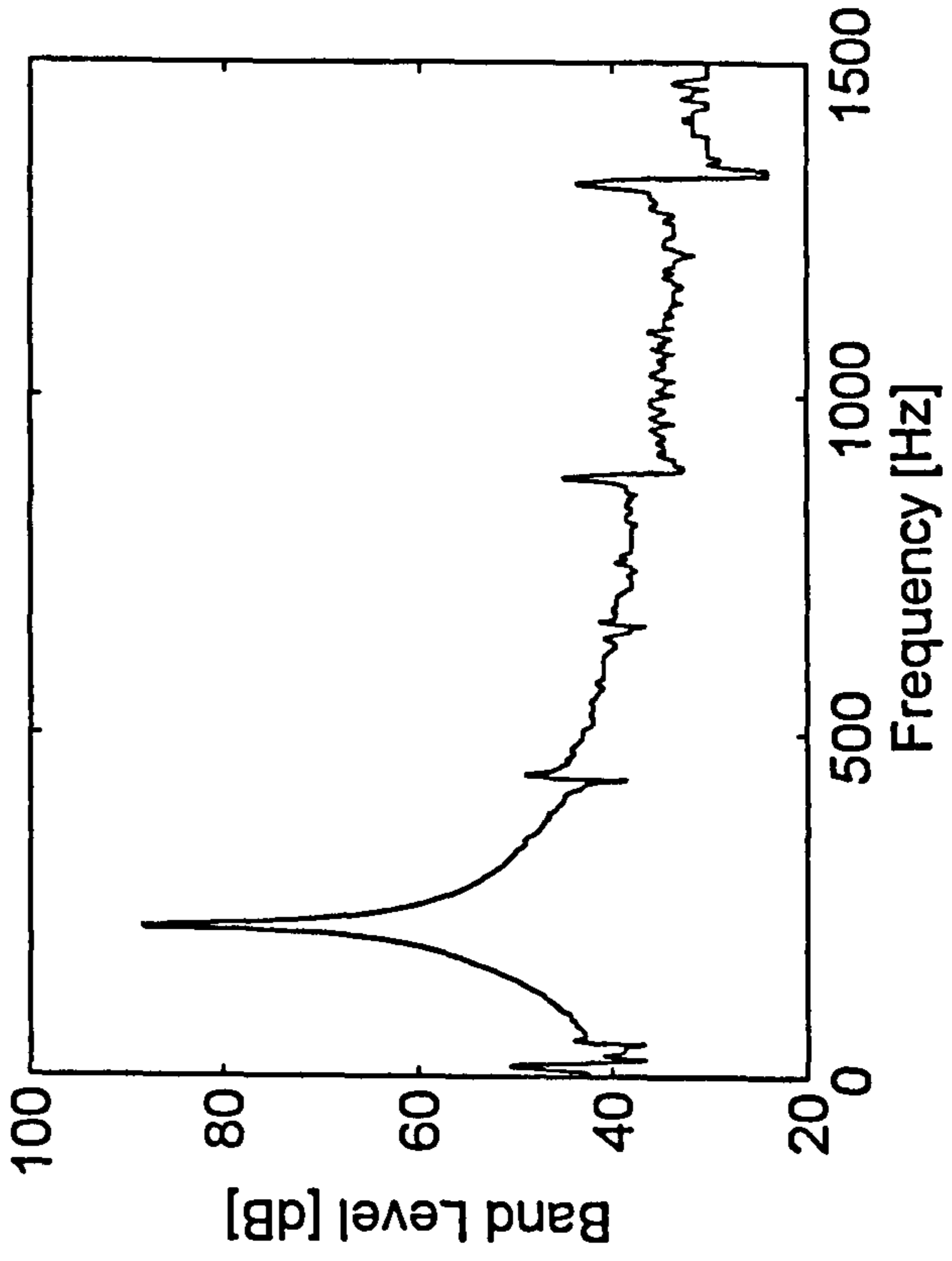
T=c.0.5s



T=c.1s

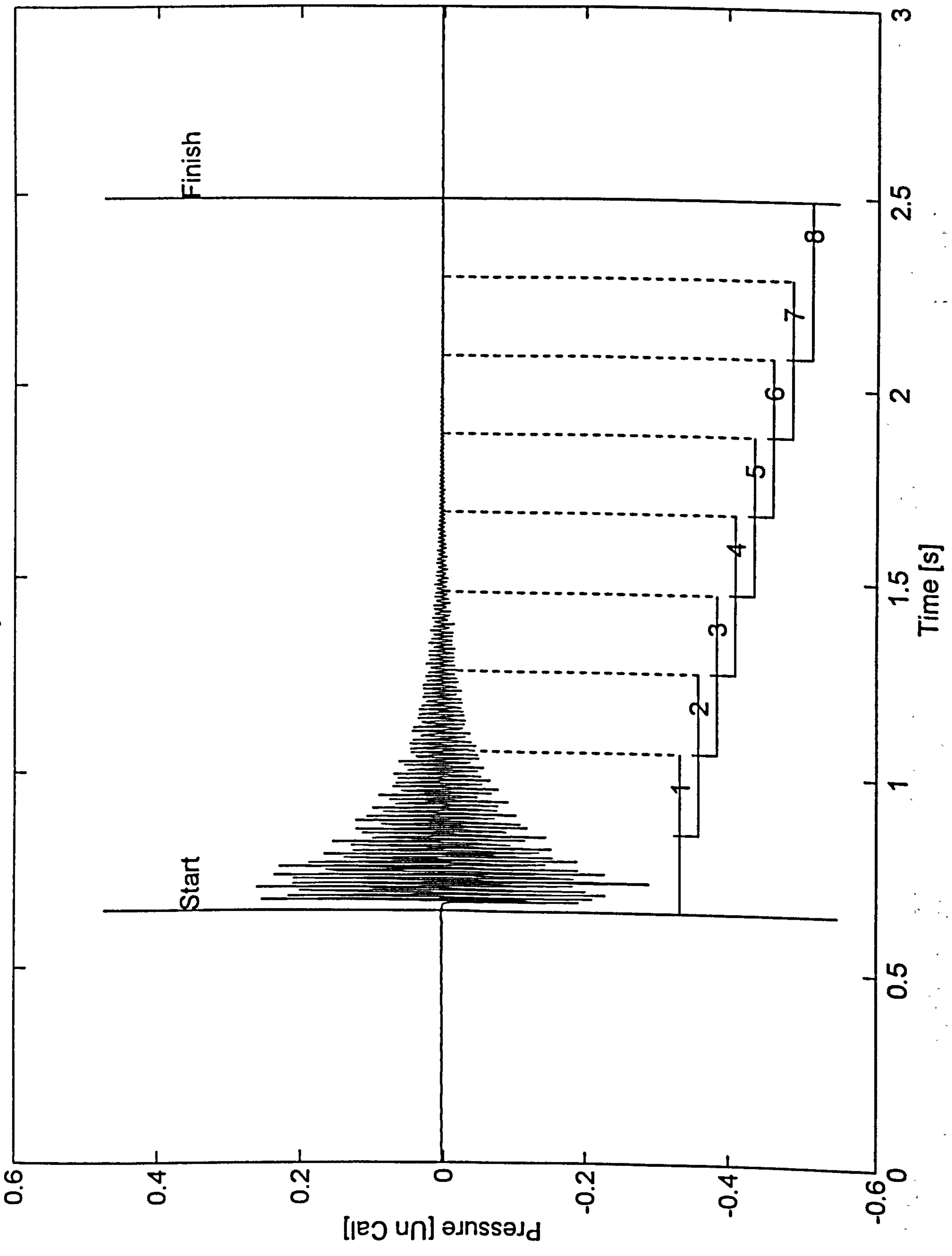


T=2.0s

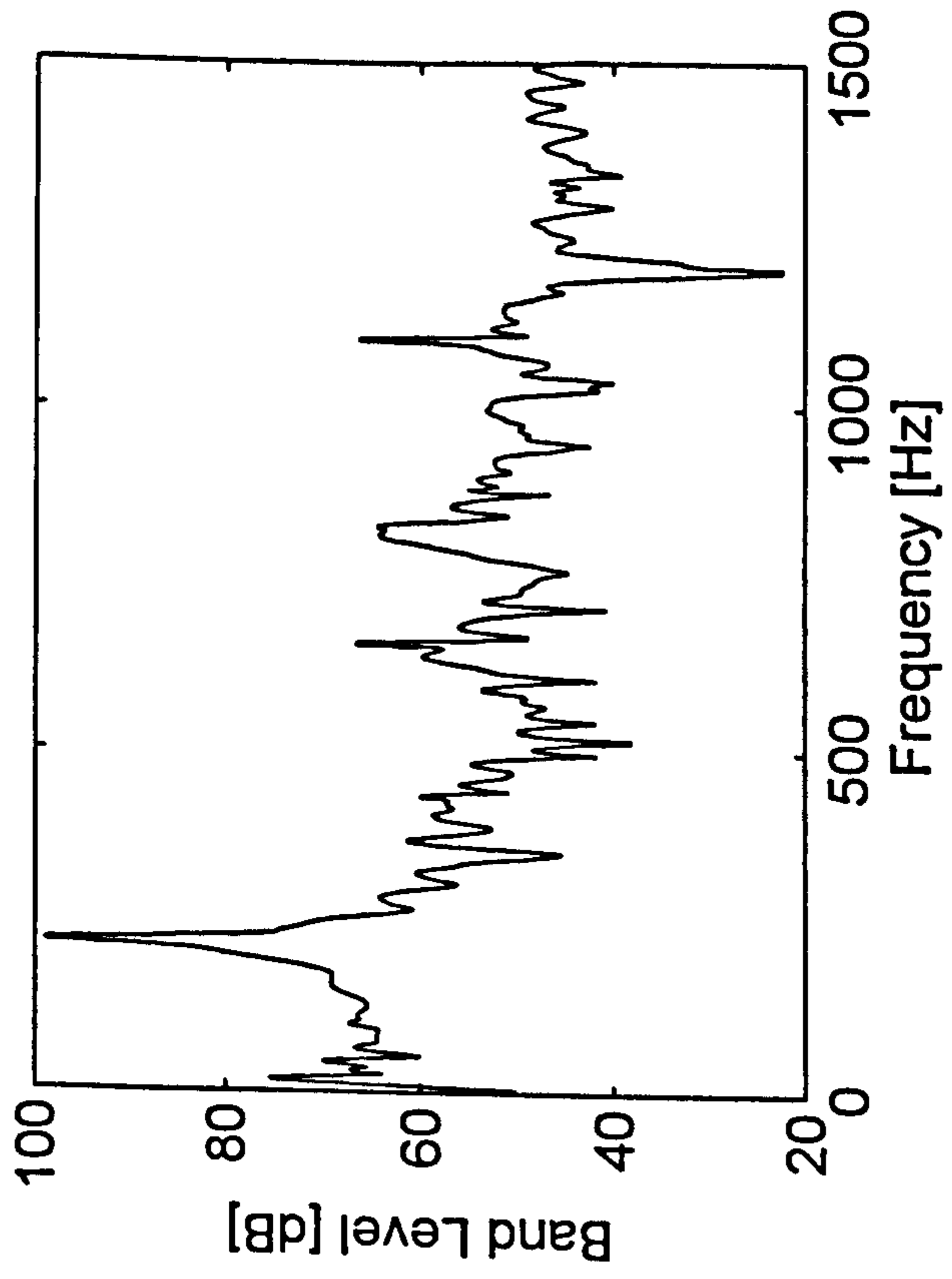




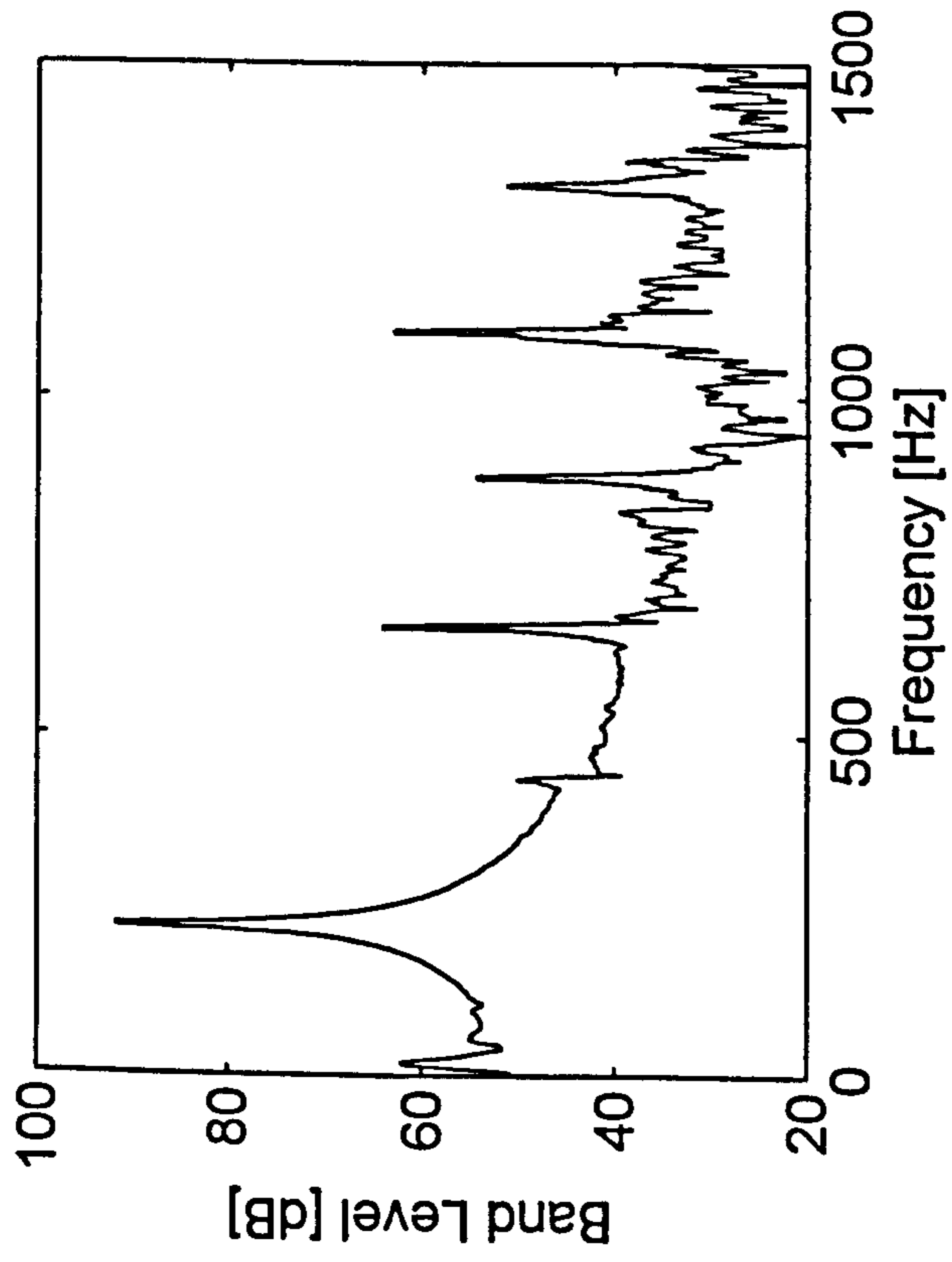
AEL Vibration Analysis Module for Event : A39



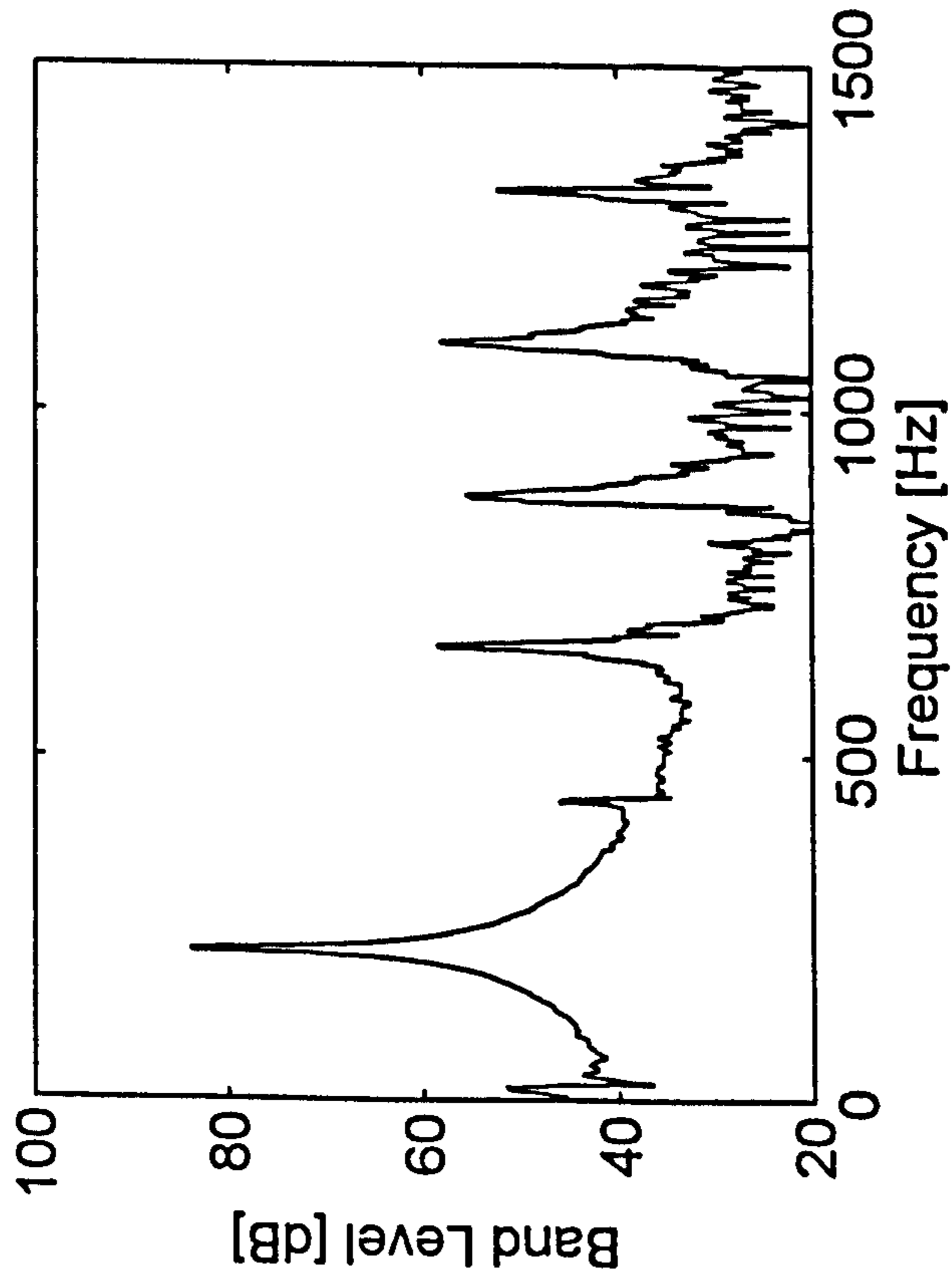
Event : A39T=0s



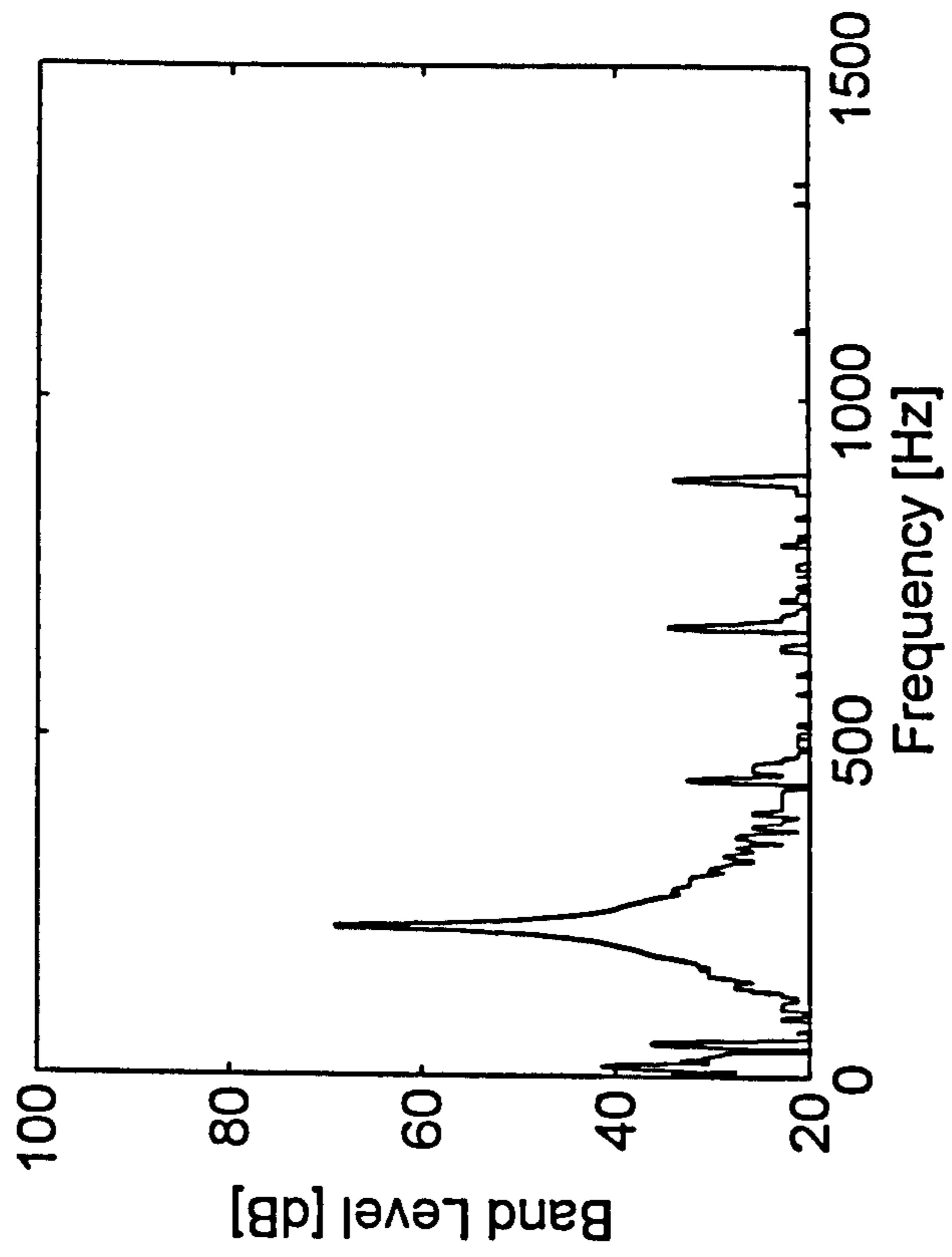
T=c.0.5s



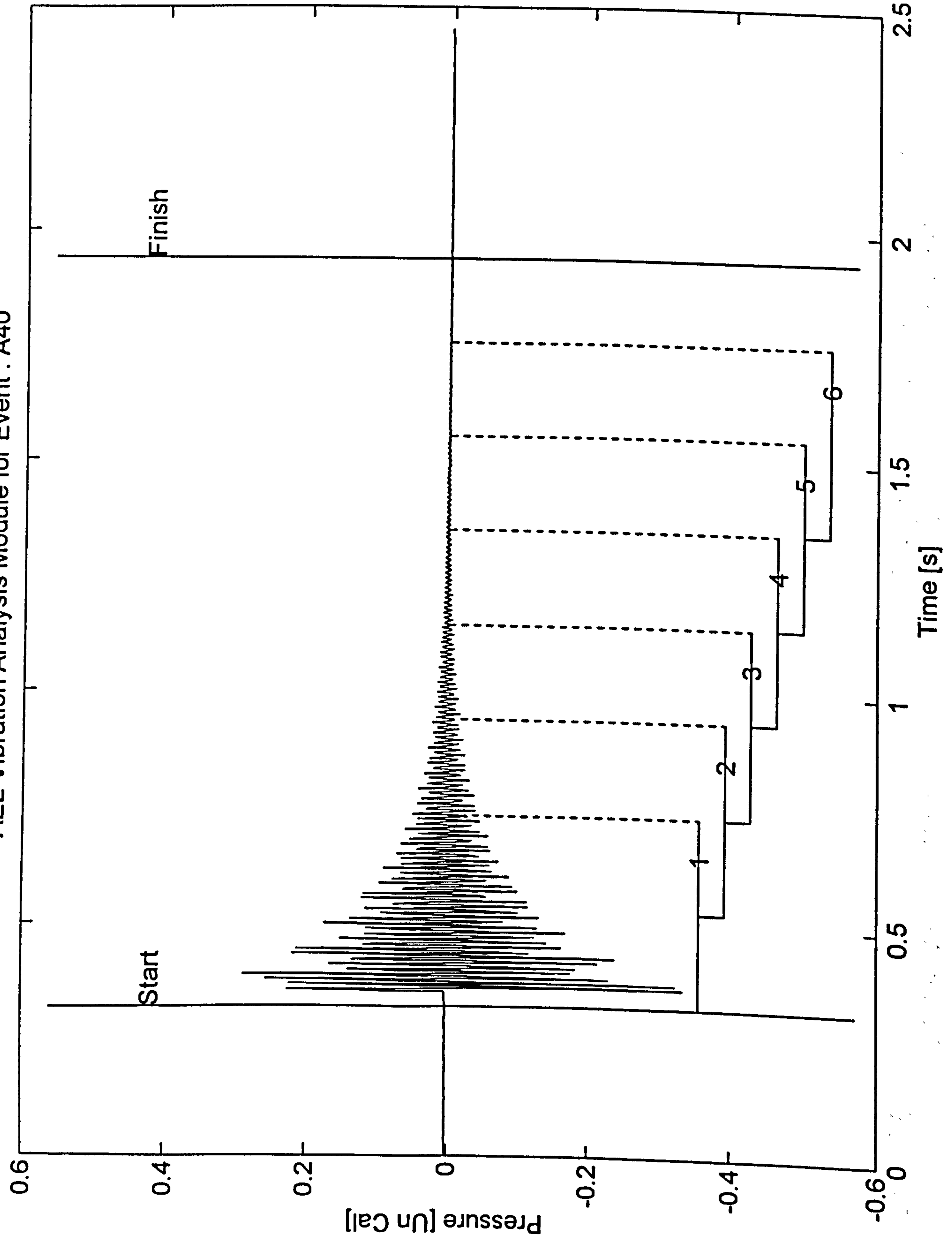
T=c.1s



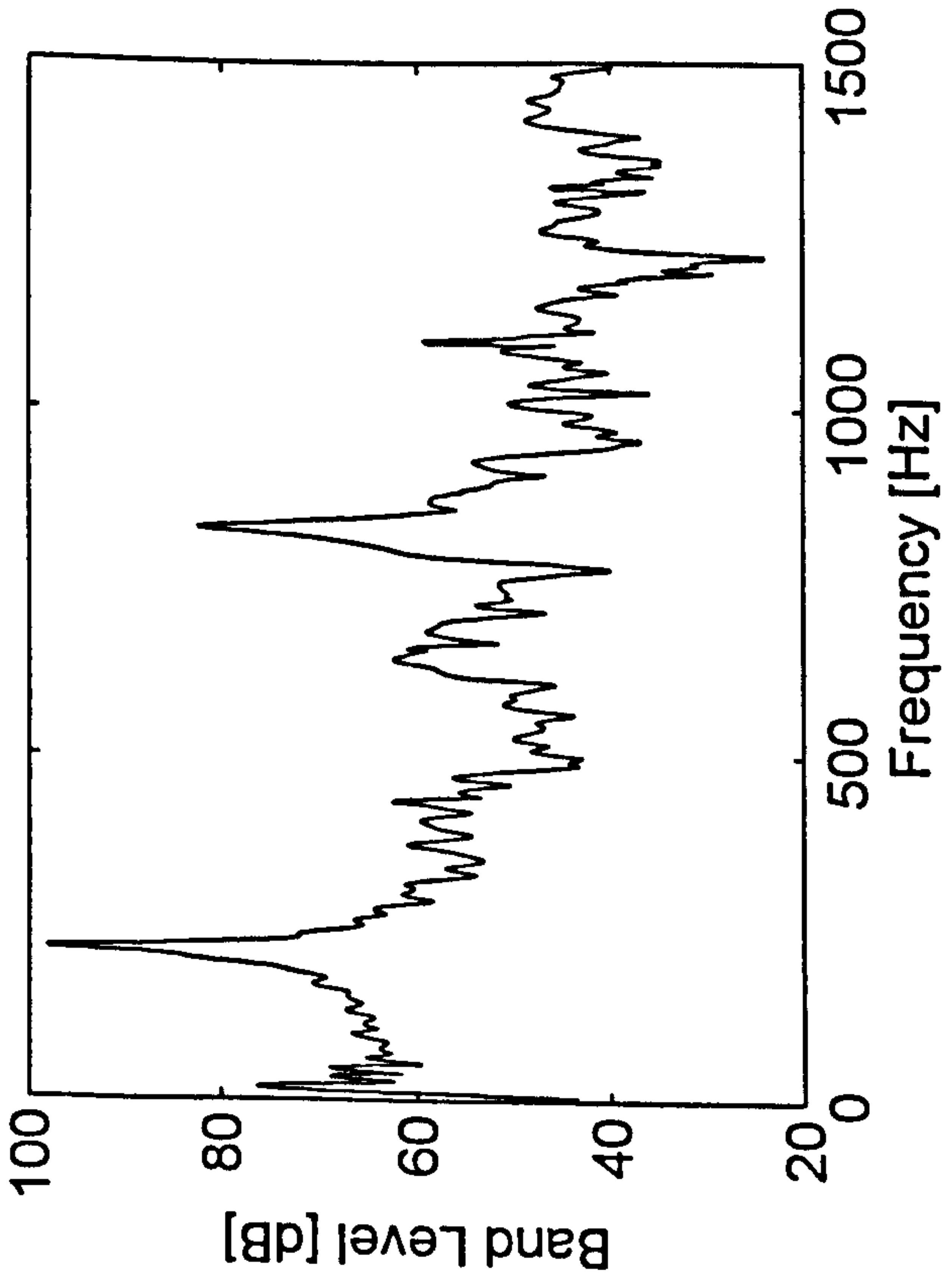
T=2.0s



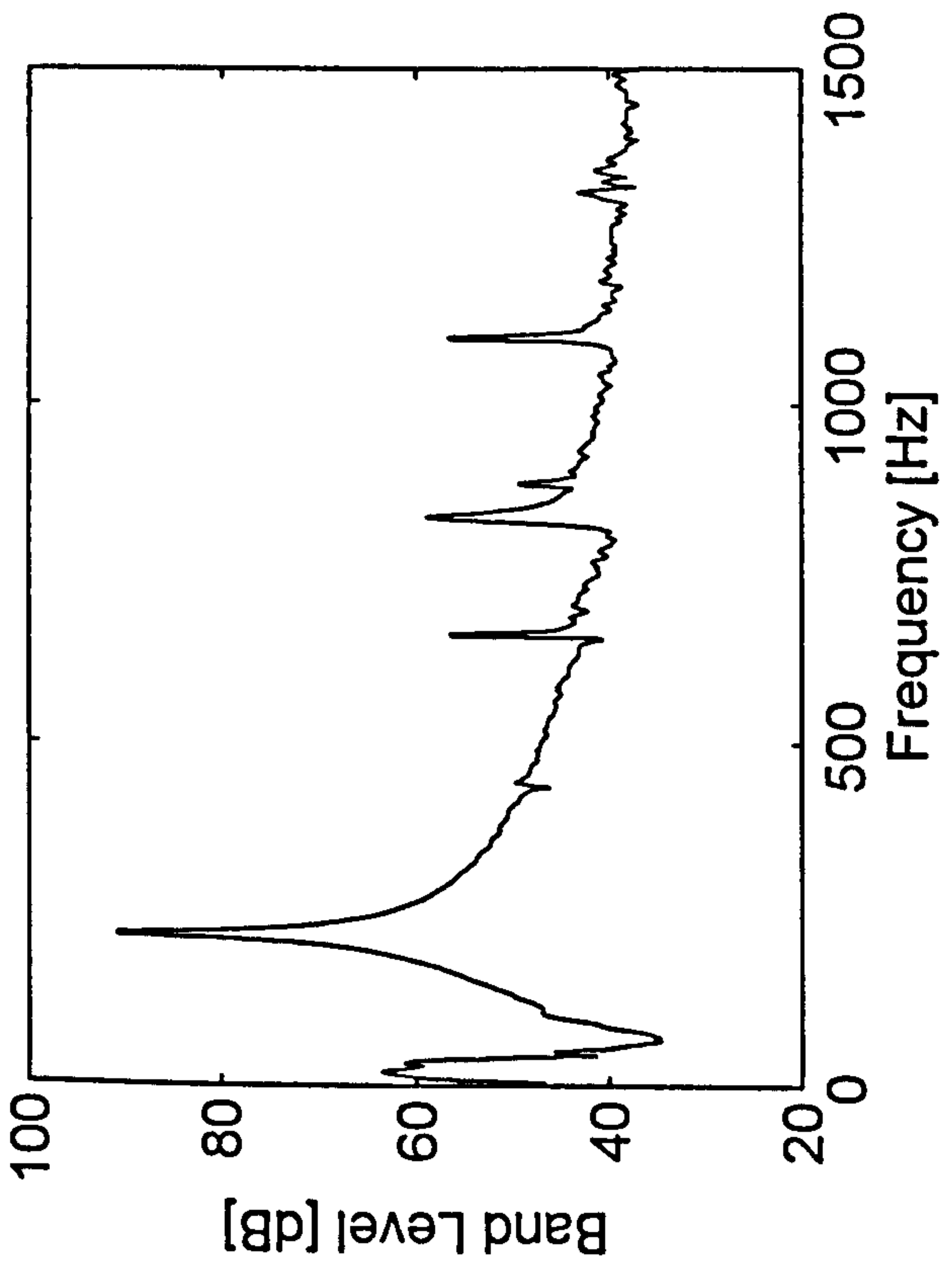
AEL Vibration Analysis Module for Event : A40



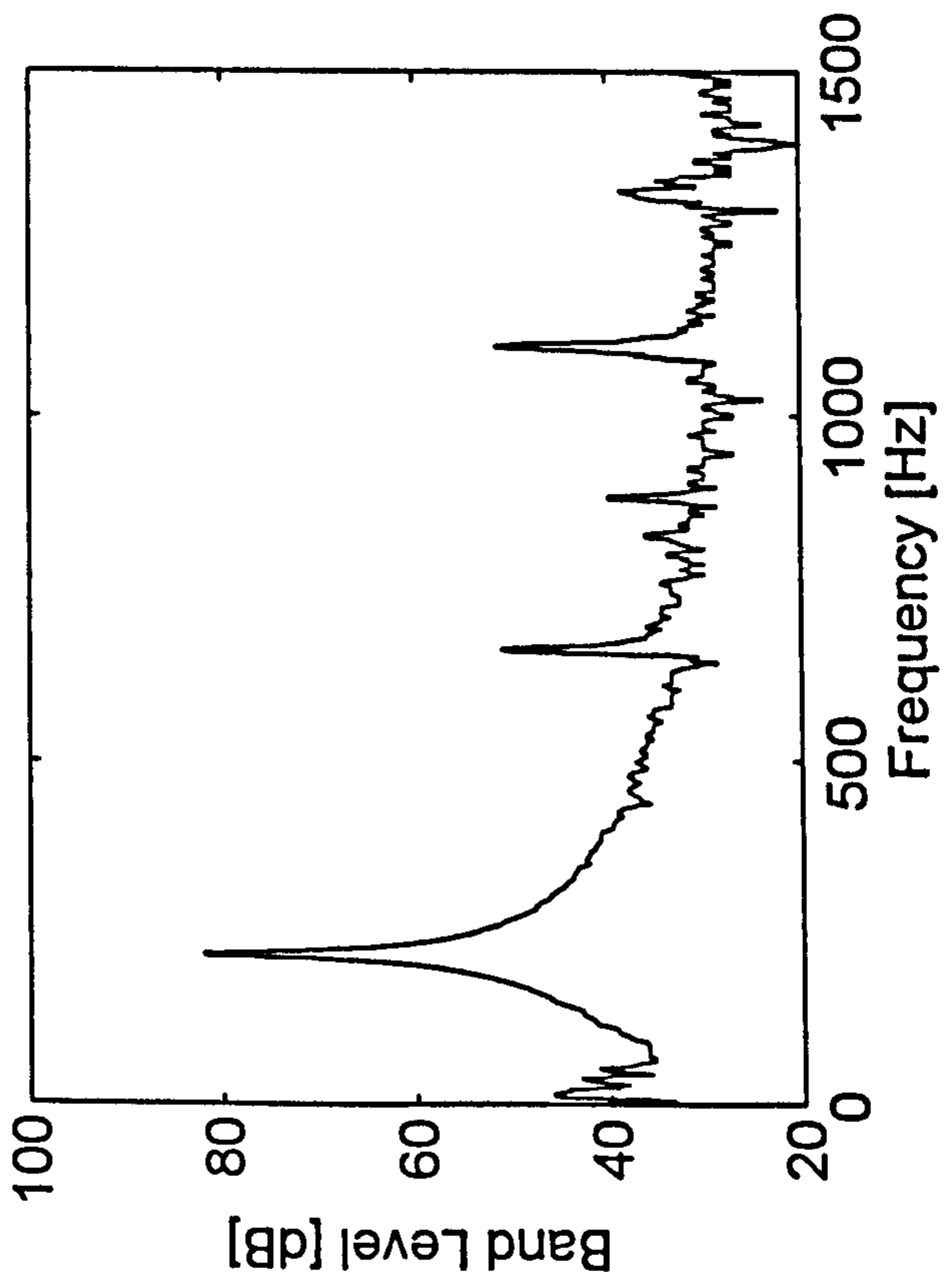
Event : A40T=0s



T=c.0.5s



T=c.1s



T=2.0s

