

## Second Supporting Information

### Asymmetric Alkynylation of Aldehydes Catalyzed by a In(III)/BINOL Complex

Ryo Takita, Kenichiro Yakura, Takashi Ohshima,<sup>†</sup> and Masakatsu Shibasaki\*

*Graduate School of Pharmaceutical Sciences, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan*

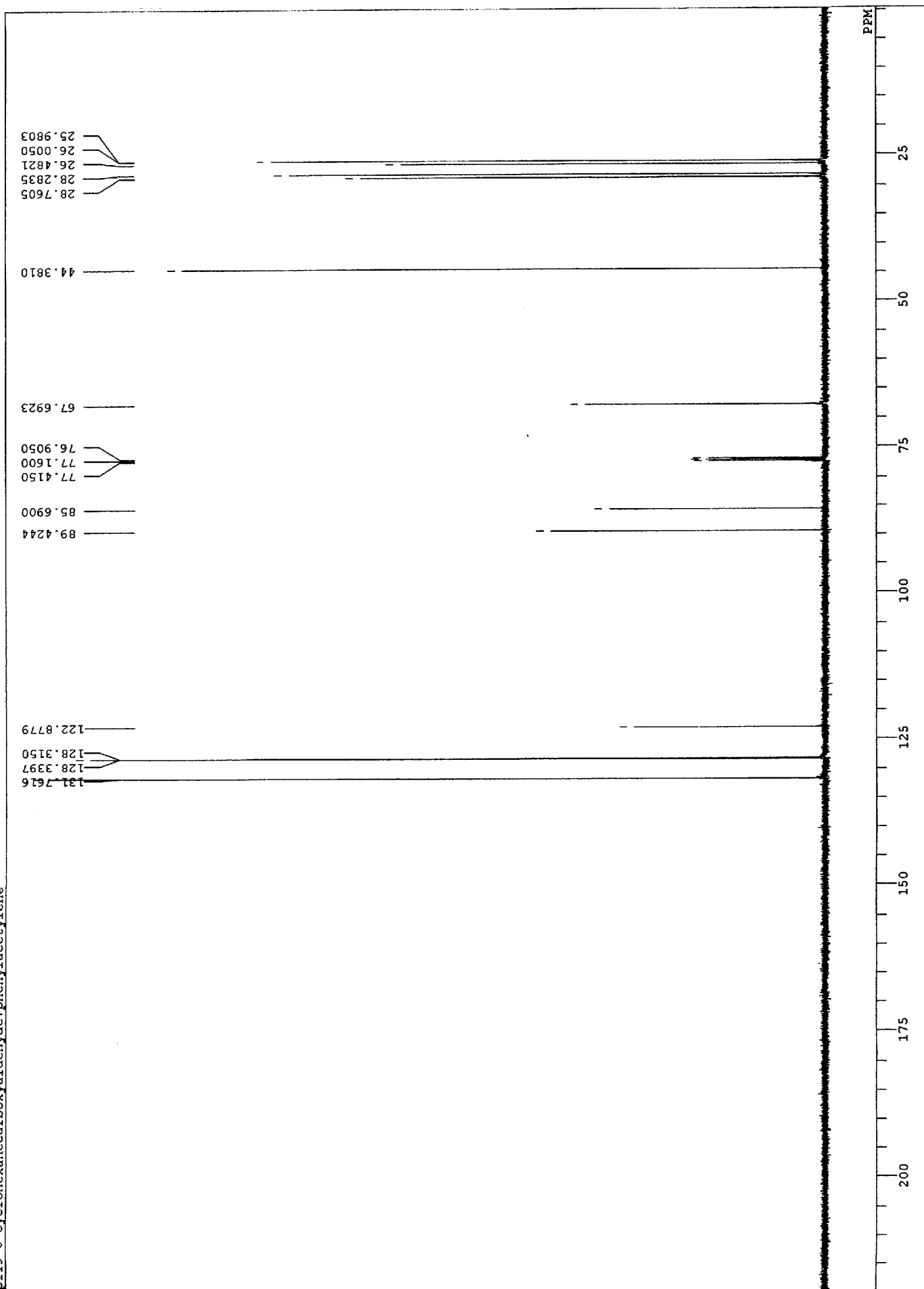
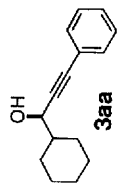
e-mail: mshibasa@mol.f.u-tokyo.ac.jp

<sup>13</sup>C NMR spectra for all products mentioned in the manuscript are attached.  
For **3eb** and **3ga**, <sup>1</sup>H NMR spectra are also provided here.

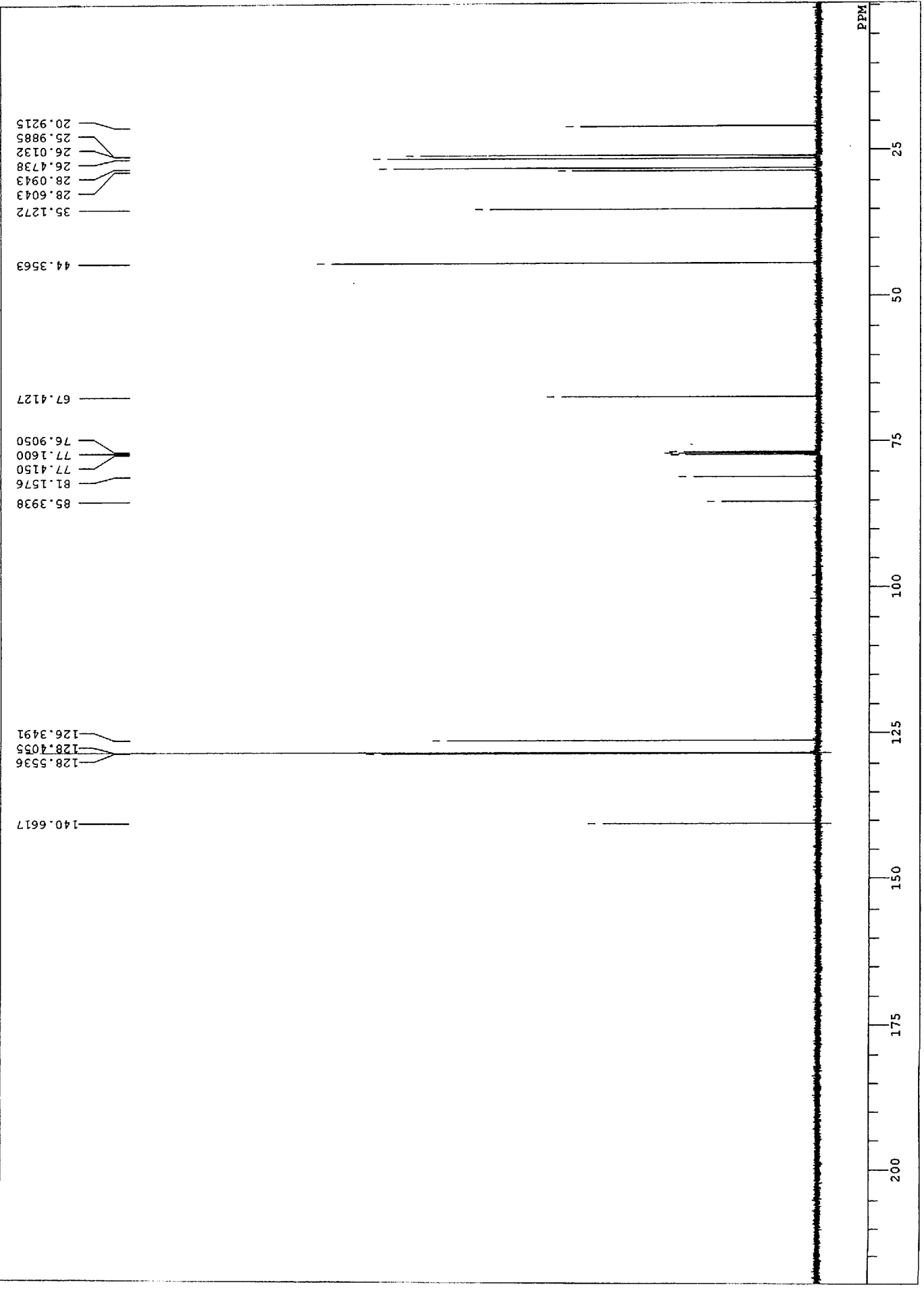
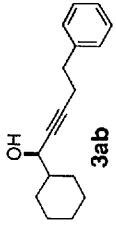
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<sup>†</sup> *Current Address:* Department of Chemistry, Graduate School of Engineering Science, Osaka University, Toyonaka, Osaka 560-8531, Japan

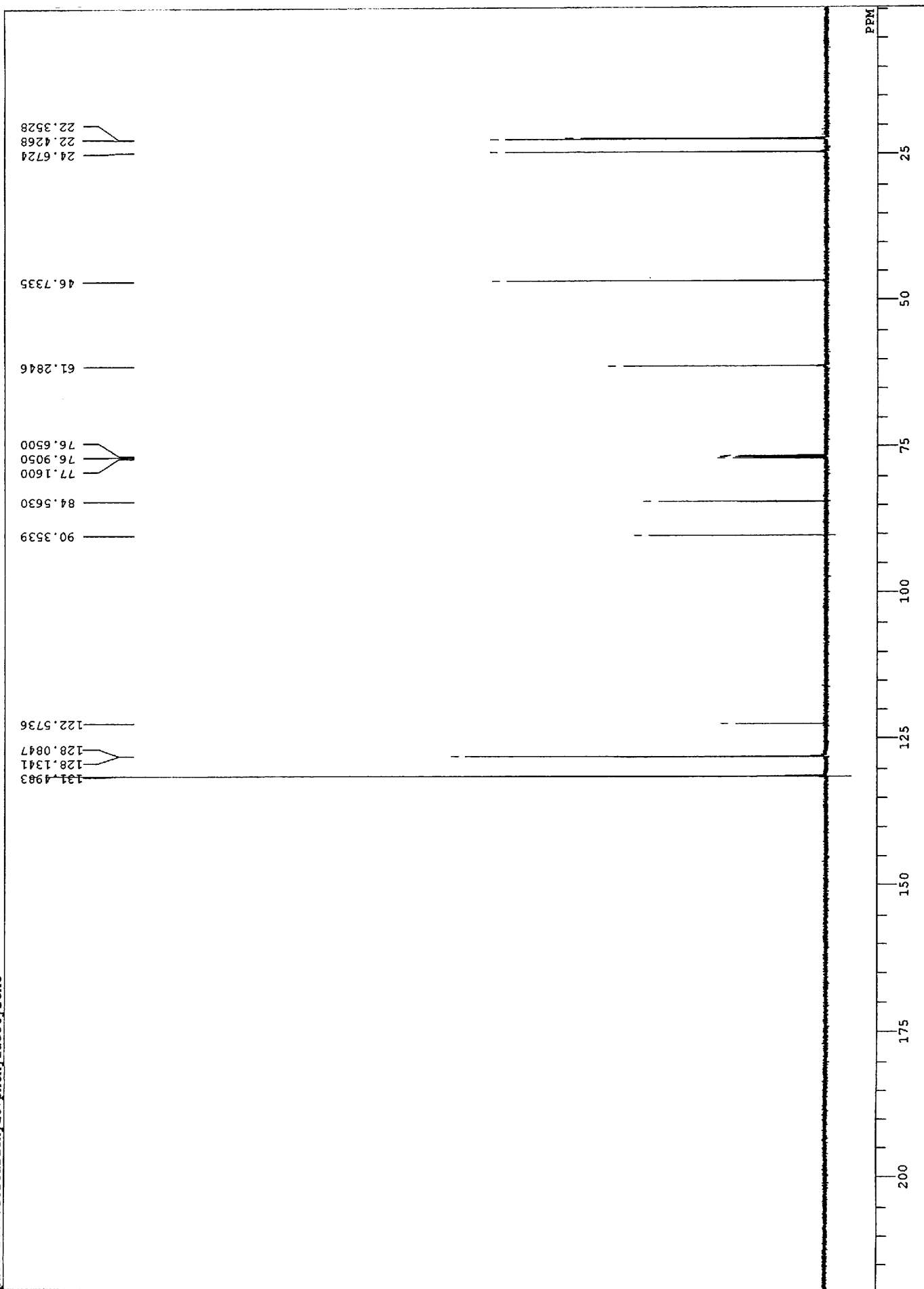
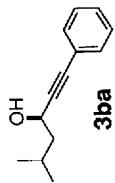
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p119-6 cyclohexanecarboxyaldehyde+phenylacetylene



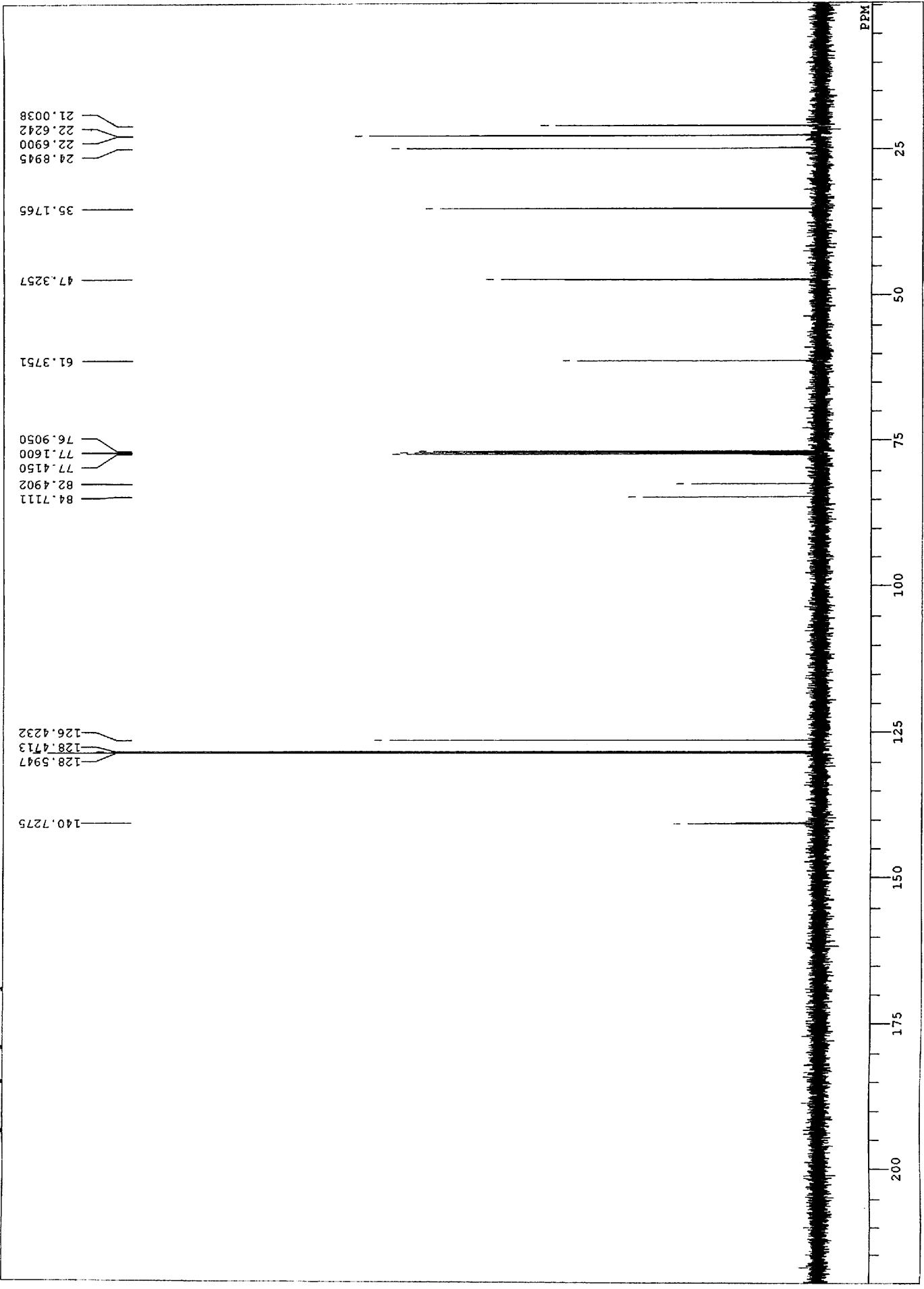
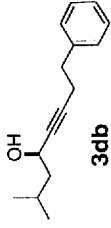
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p126\_cyclohexanecarboxyaldehyde+4-Ph-1-butyne



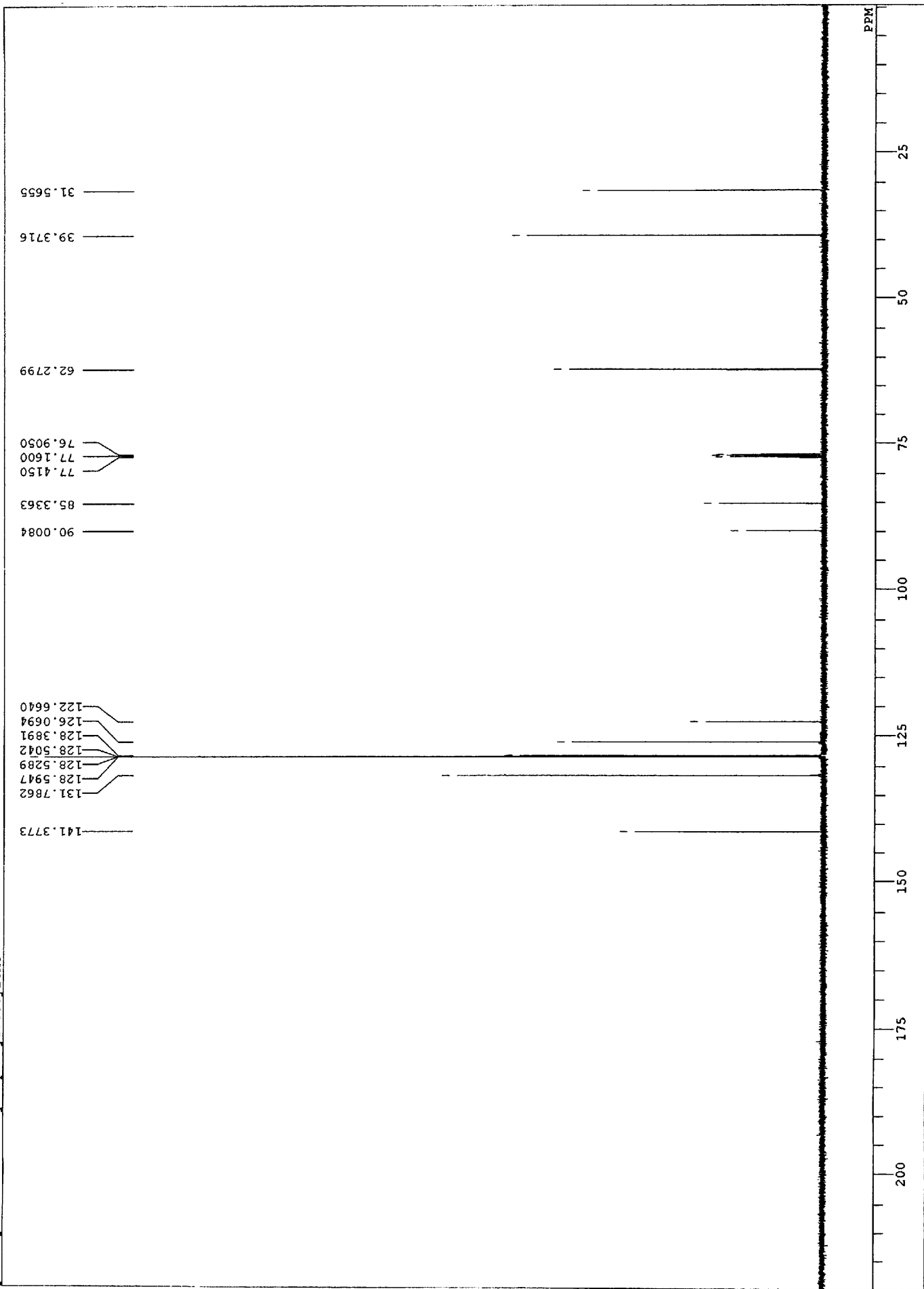
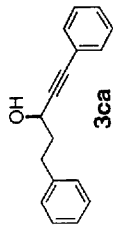
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p130\_isodecylaldehyde+phenylacetylene



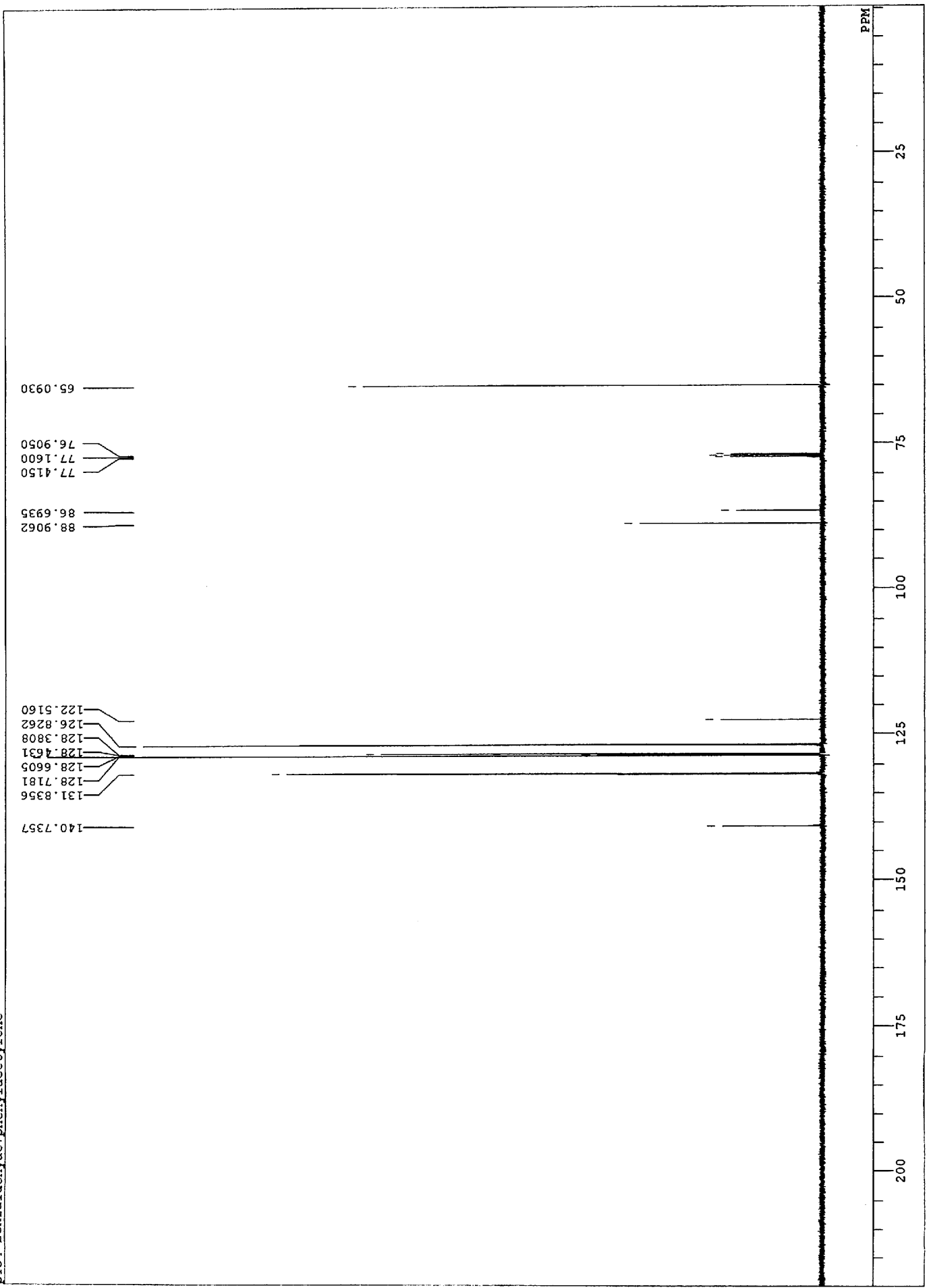
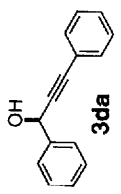
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p135 isovaleraldehyde+4-phenyl-1-butyne



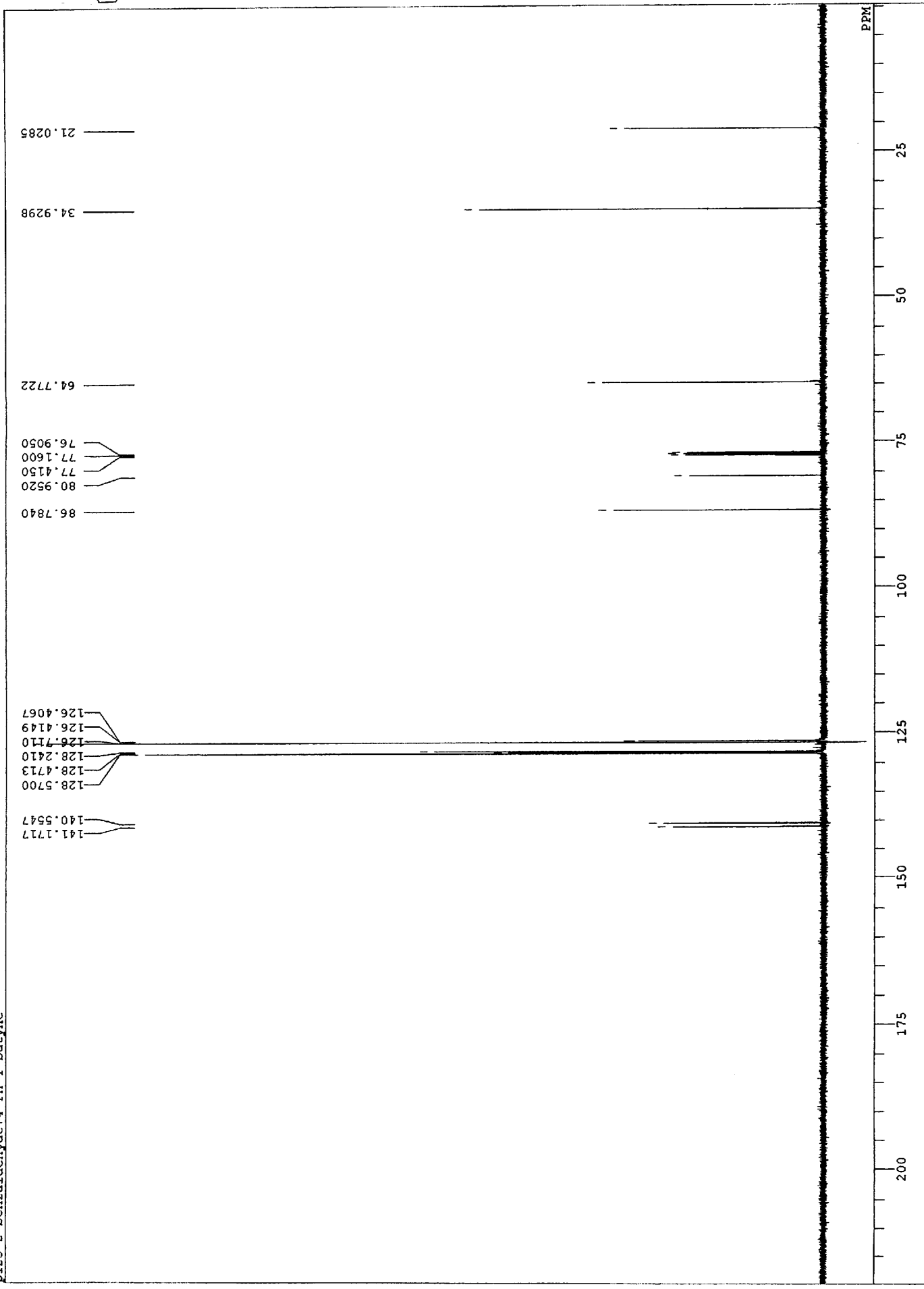
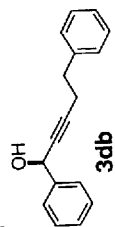
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p136 hydrocinnamaldehyde+phenylacetylene



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p134\_benzaldehyde-phenylacetylene

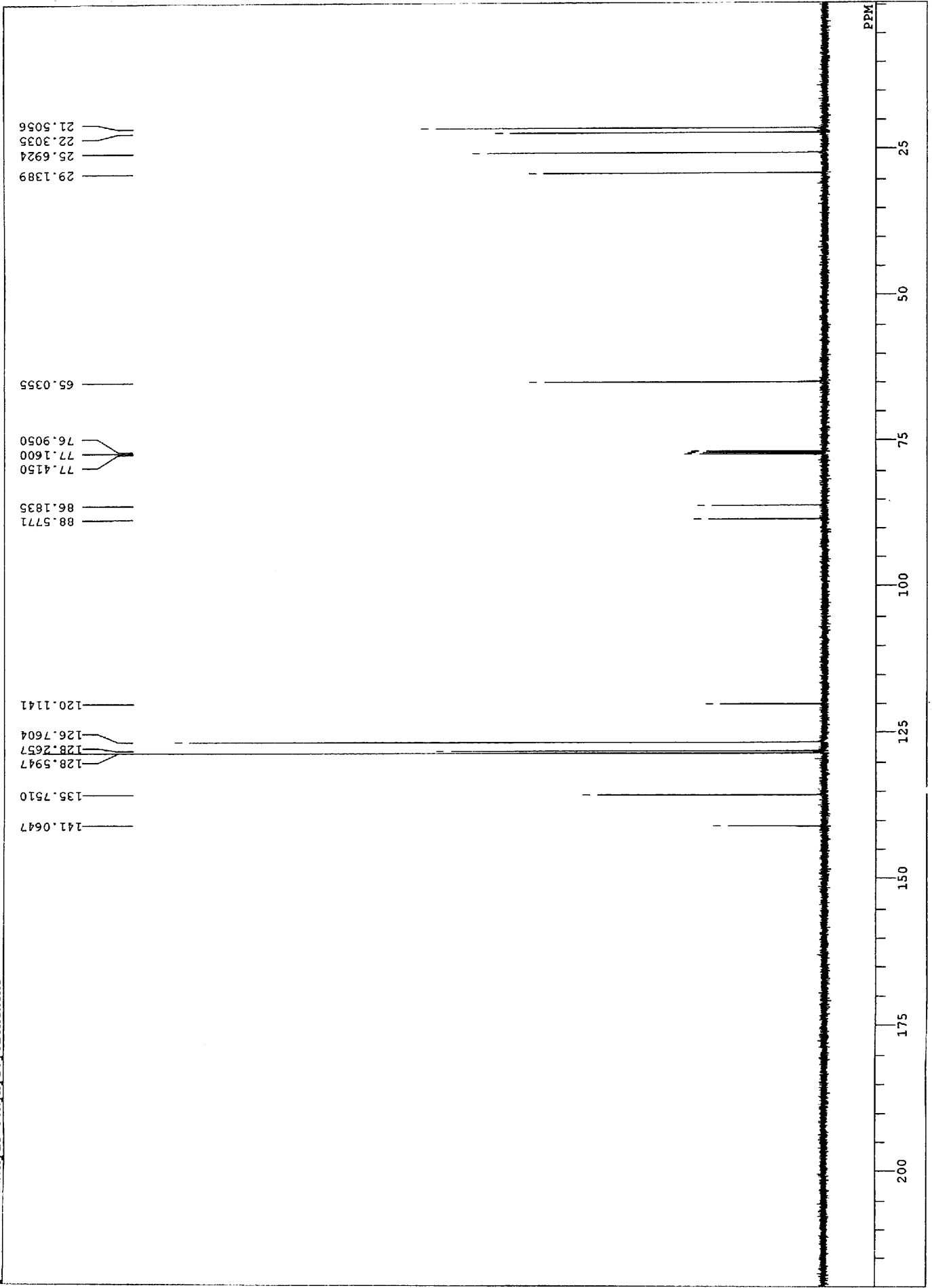
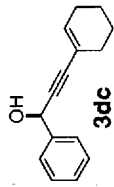


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p123-2\_benzaldehyde+4-Ph-1-butynol

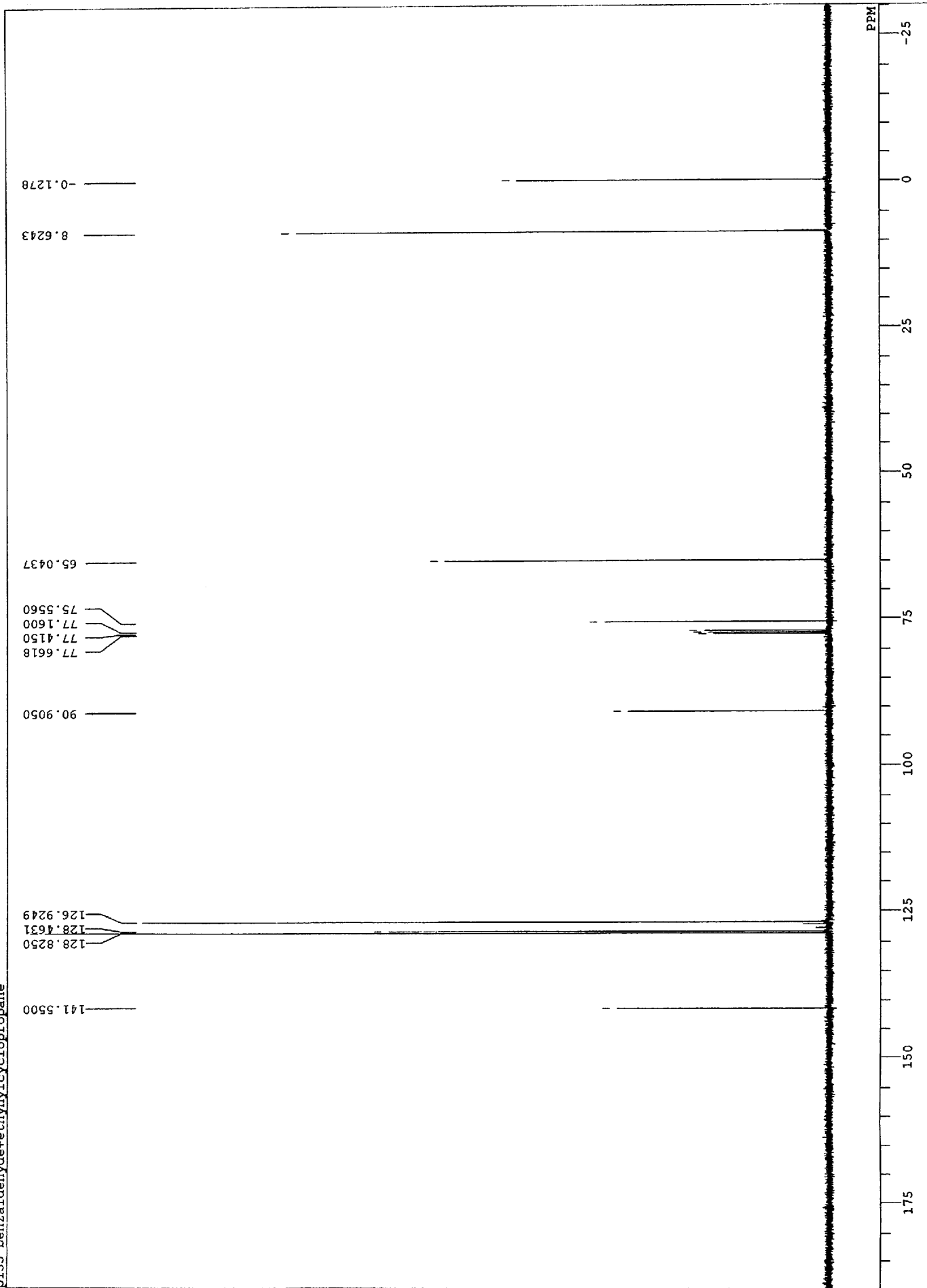
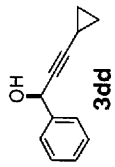




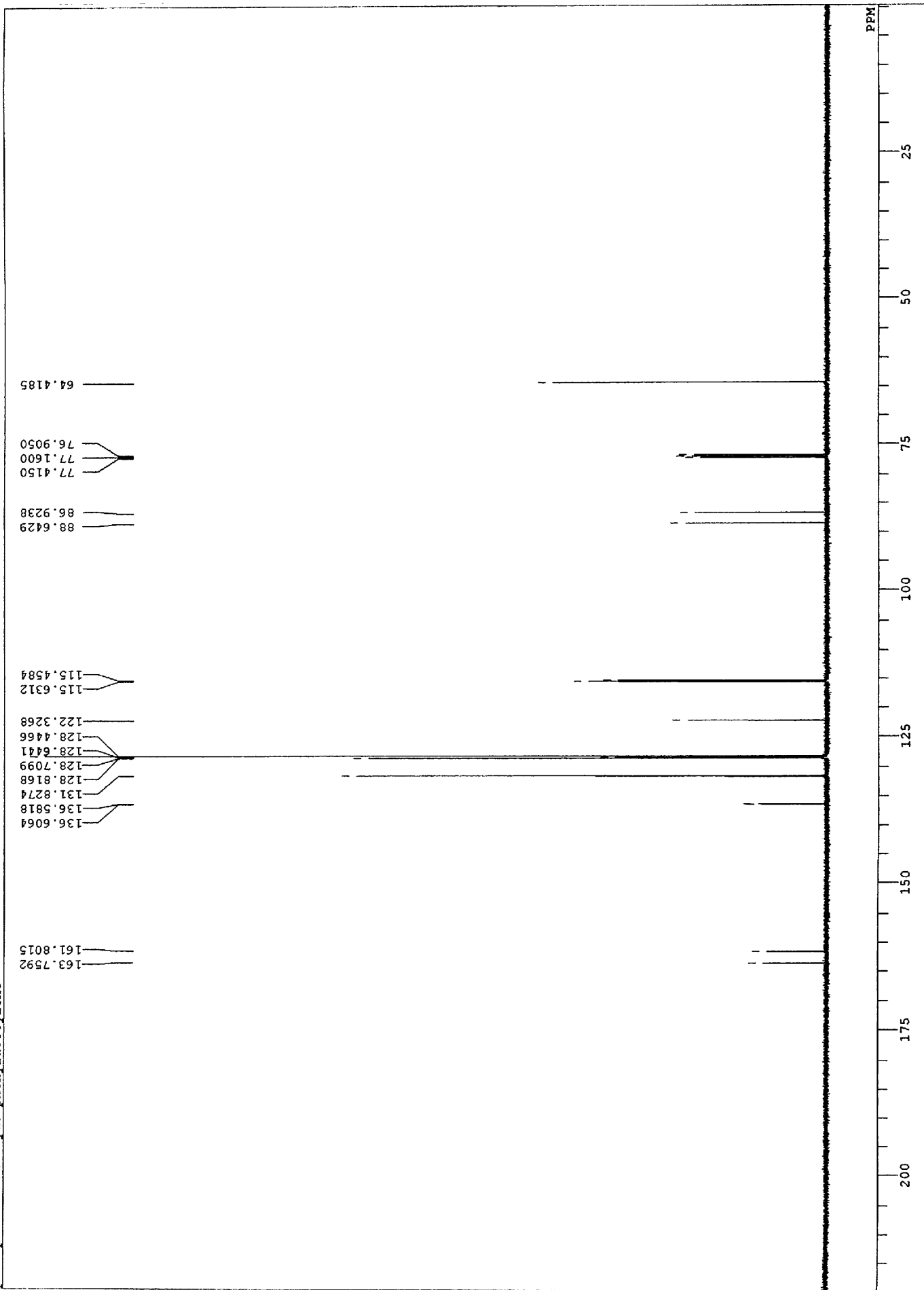
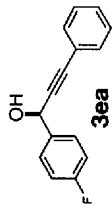
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p67-2\_benzaldehydetethynylcyclohexene



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p133\_benzaldehyde+ethynylcyclopropane



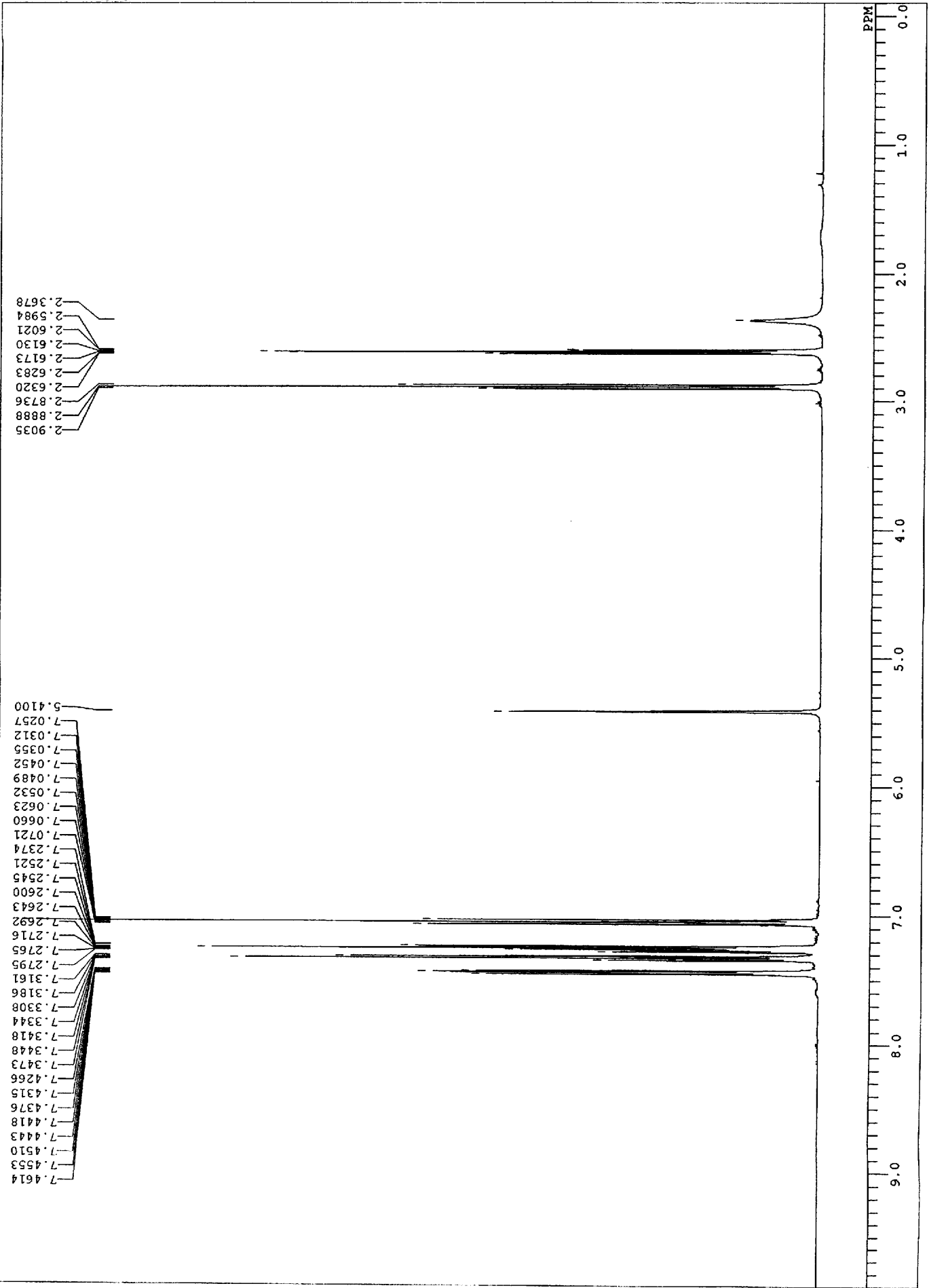
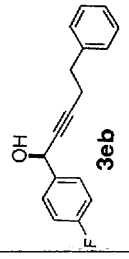
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p124 p-F-benzaldehyde+phenylacetylene



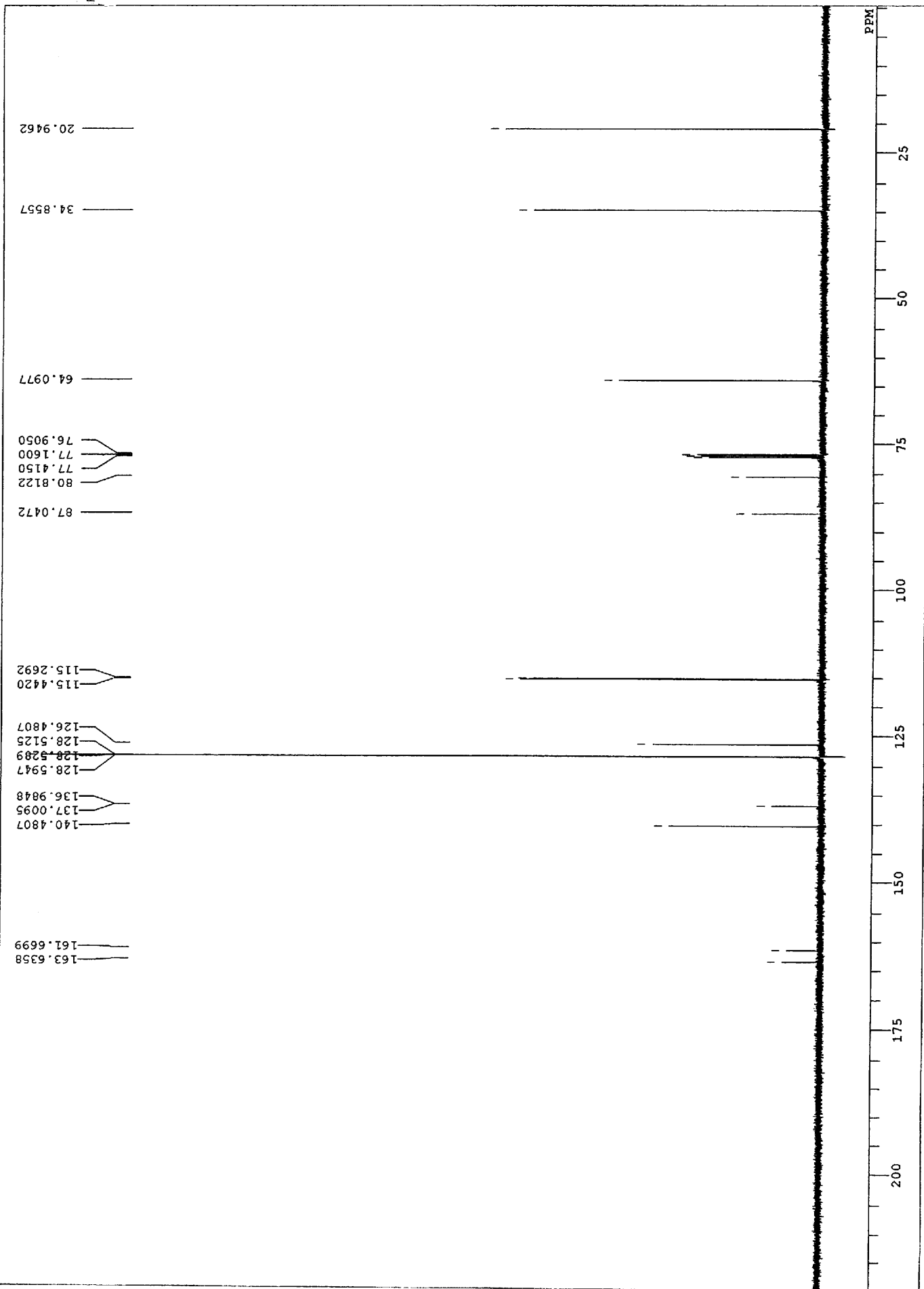
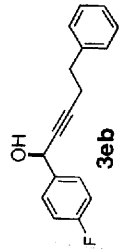
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p128 p-f-Benzaldehyde+4-Ph-1-butyne

- 7.4614
- 7.4553
- 7.4510
- 7.4443
- 7.4418
- 7.4376
- 7.4315
- 7.4266
- 7.3473
- 7.3448
- 7.3418
- 7.3344
- 7.3308
- 7.3186
- 7.3161
- 7.2795
- 7.2765
- 7.2716
- 7.2692
- 7.2643
- 7.2600
- 7.2545
- 7.2521
- 7.2374
- 7.2321
- 7.0721
- 7.0660
- 7.0623
- 7.0532
- 7.0489
- 7.0452
- 7.0355
- 7.0312
- 7.0257
- 5.4100

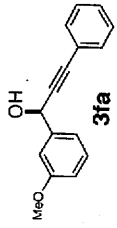
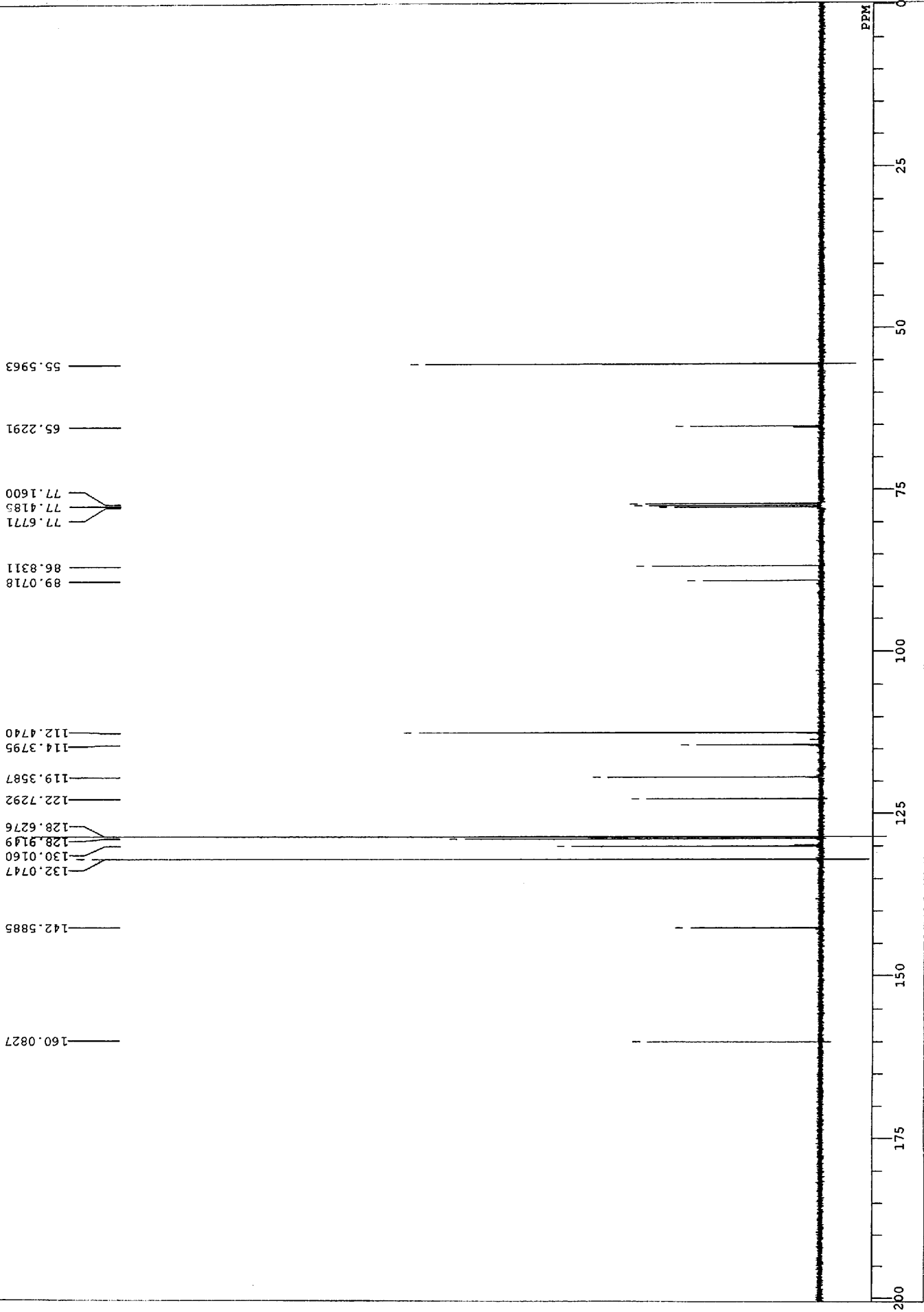
- 2.9035
- 2.8888
- 2.8736
- 2.6320
- 2.6283
- 2.6173
- 2.6130
- 2.6021
- 2.5984
- 2.3678

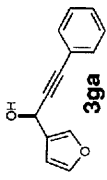


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Pl28 p-F-benzaldehyde+4-Ph-1-butynol

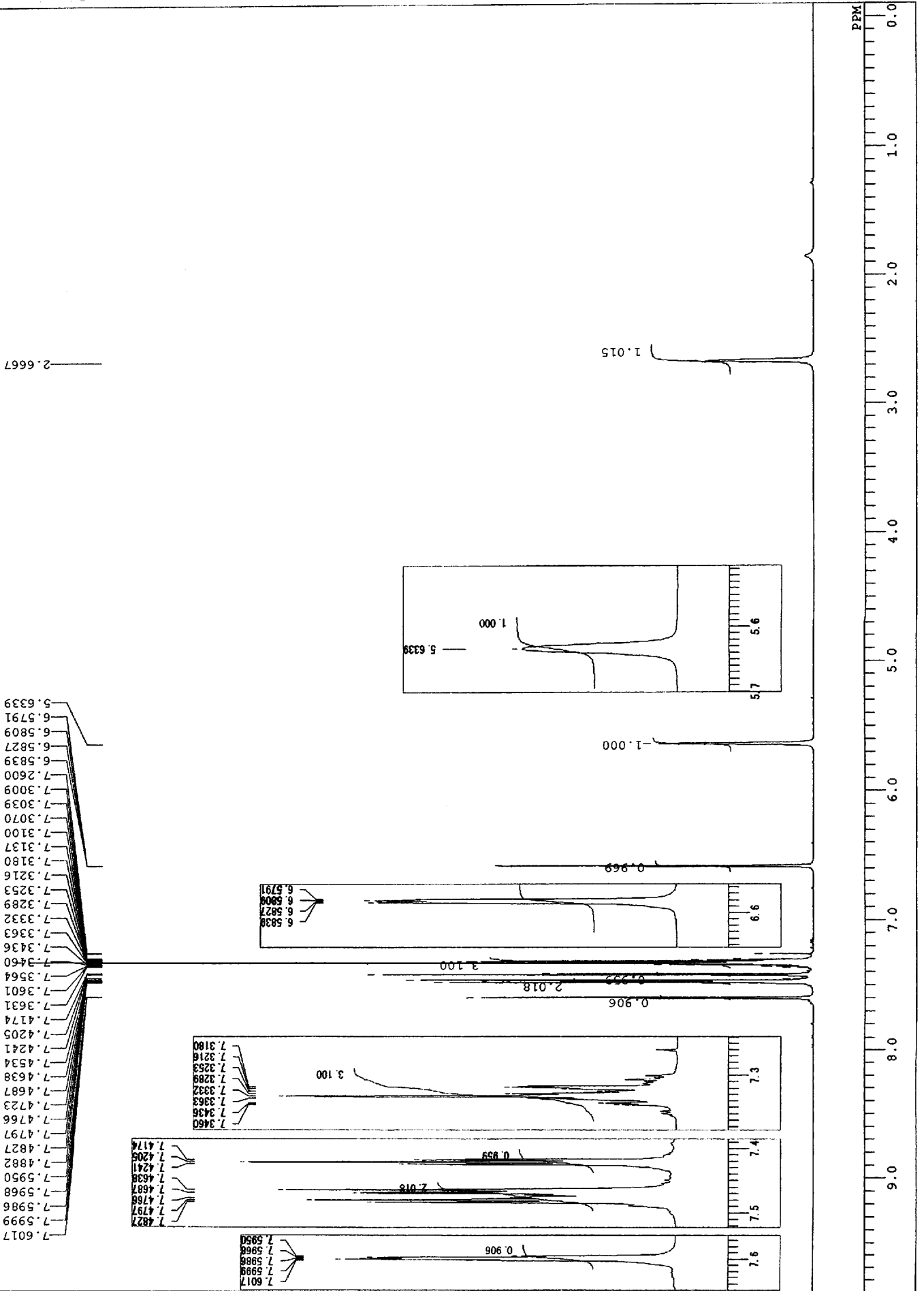


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P125-2 m-MeO-benzaldehyde +phenylacetylene

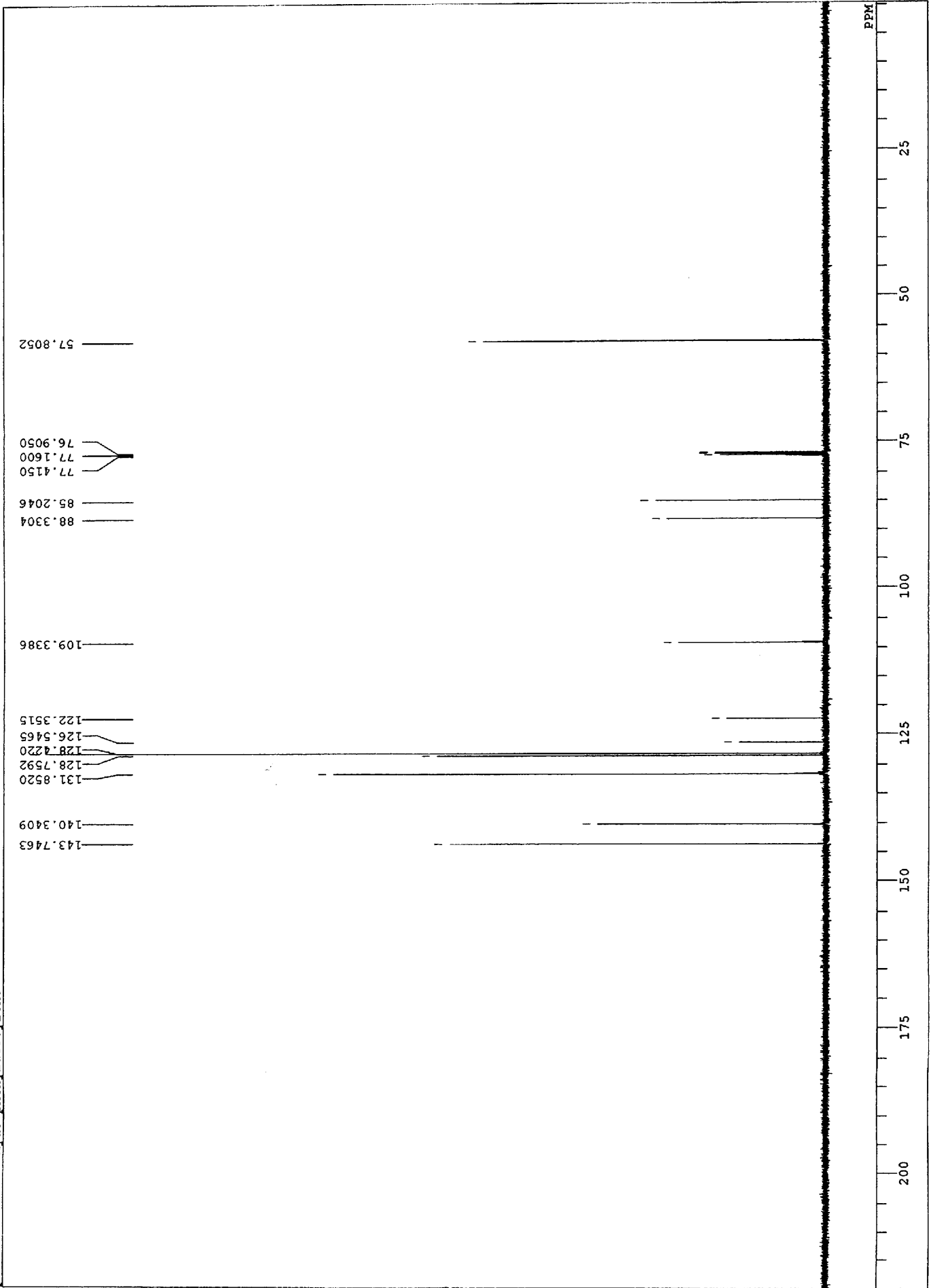
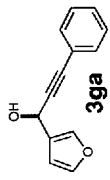




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p122-2\_3-furaldehyd+phenylacetylene



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p122-2 3-furaldehyde-phenylacetylene





D:\050816\_04\_13C\savedata77.nmfid  
p129 3-thienylaldehyde+phenylacetylene

