

# **Rate Enhanced Olefin Cross Metathesis Reactions: The Copper Iodide Effect**

Karl Voigtritter, Subir Ghorai, and Bruce H. Lipshutz\*

*Department of Chemistry & Biochemistry  
University of California,  
Santa Barbara, CA 93106*

lipshutz@chem.ucsb.edu

## **Supporting Information**

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**General Informationss:** All reactions were performed either in a pear shaped flask or 2-5 mL microwave reactor vials under an argon atmosphere containing a Teflon coated stir bar and septum. A stock solution of 2.5% (w/w) TPGS-750-M in ultrapure degassed H<sub>2</sub>O were made and stored in a sealed serum bottle on the bench-top. Column chromatography was performed using 60 Å flash silica gel. Thin-Layer-Chromatography analysis was conducted using commercially available silica gel 60 F<sub>254</sub> plates. Nuclear Magnetic Resonance spectra were obtained in CDCl<sub>3</sub>, with proton and carbon resonances at 400 and 100 MHz, respectively, and are referenced to the residual solvent signal at 7.27 ppm for <sup>1</sup>H and δ 77.23 ppm for <sup>13</sup>C. Data for <sup>1</sup>H are reported as follows: chemical shift (δ ppm), multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet, sep = septet), coupling constant and integration. Data for <sup>13</sup>C NMR are reported in terms of chemical shift. Infrared spectra were obtained either neat or by thin-film on NaCl plates and are reported as cm<sup>-1</sup>. Grubbs second generation catalysts were obtained from Materia, Inc. and stored in a glove box under an Ar atmosphere.

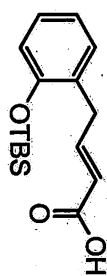
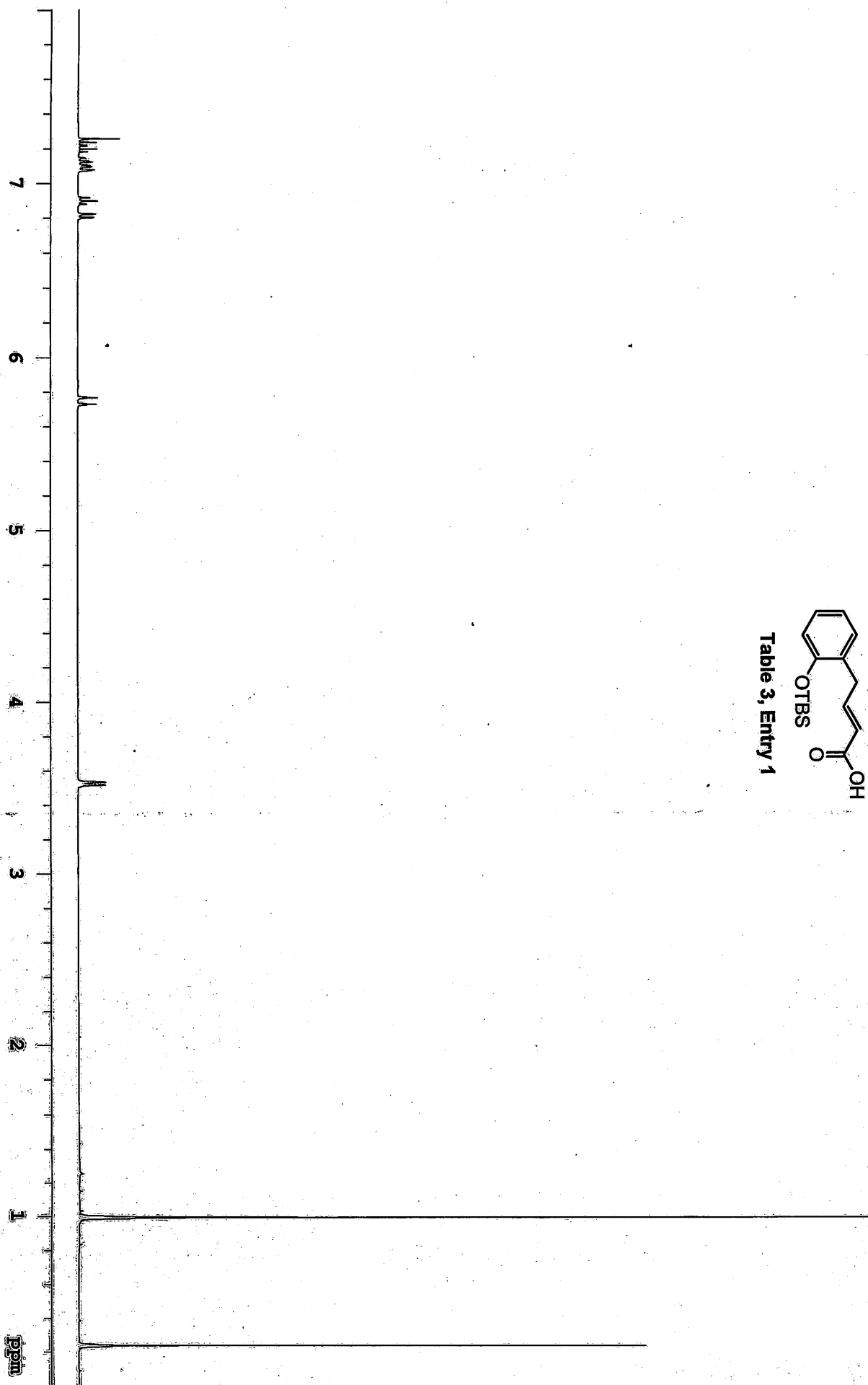


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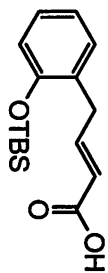
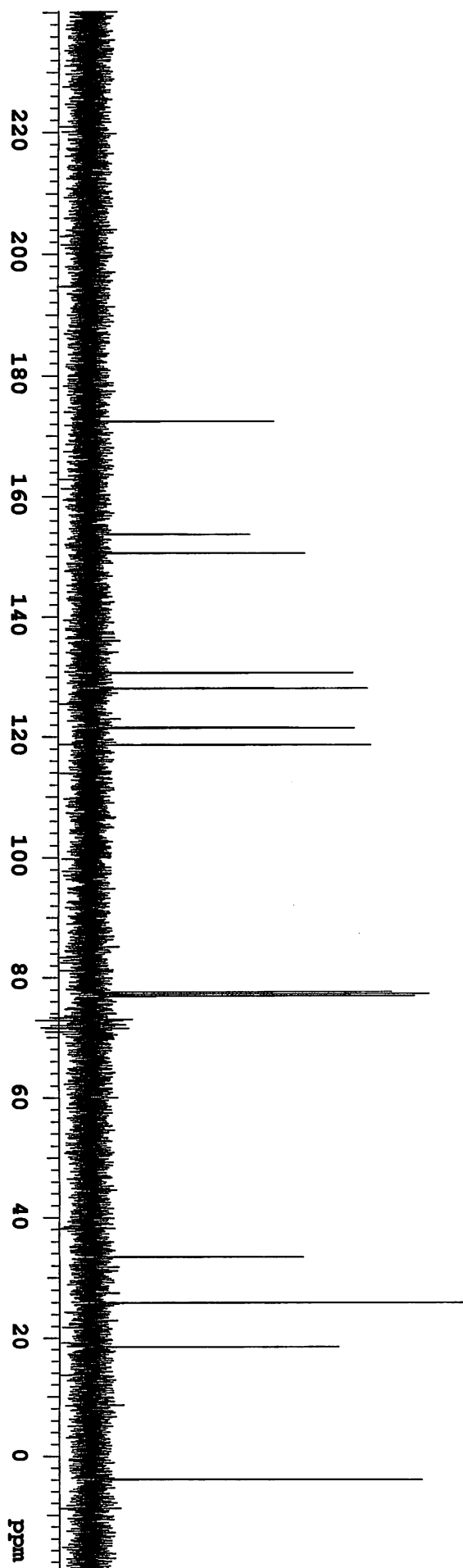


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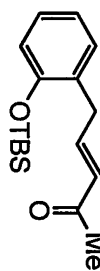
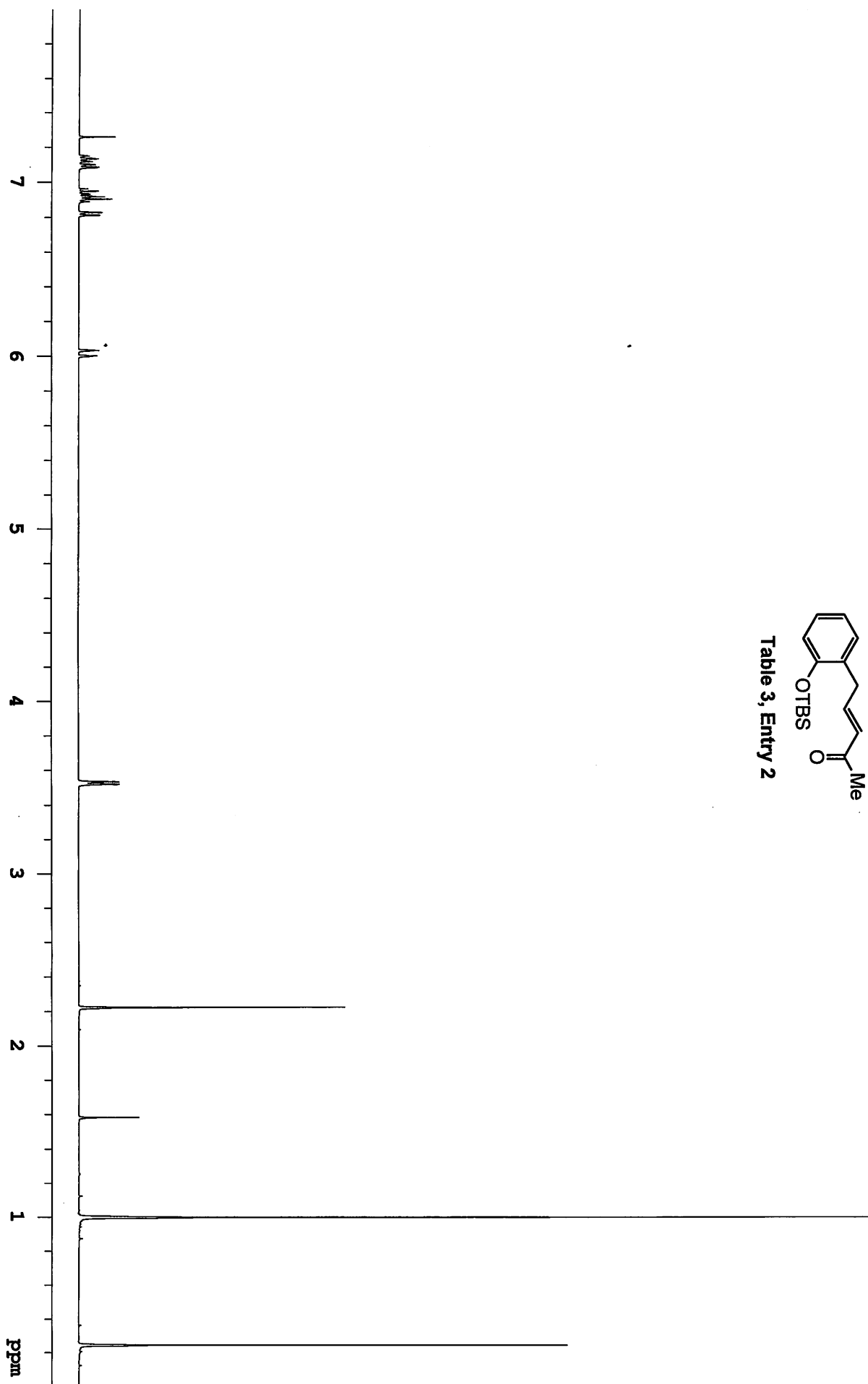


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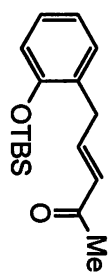
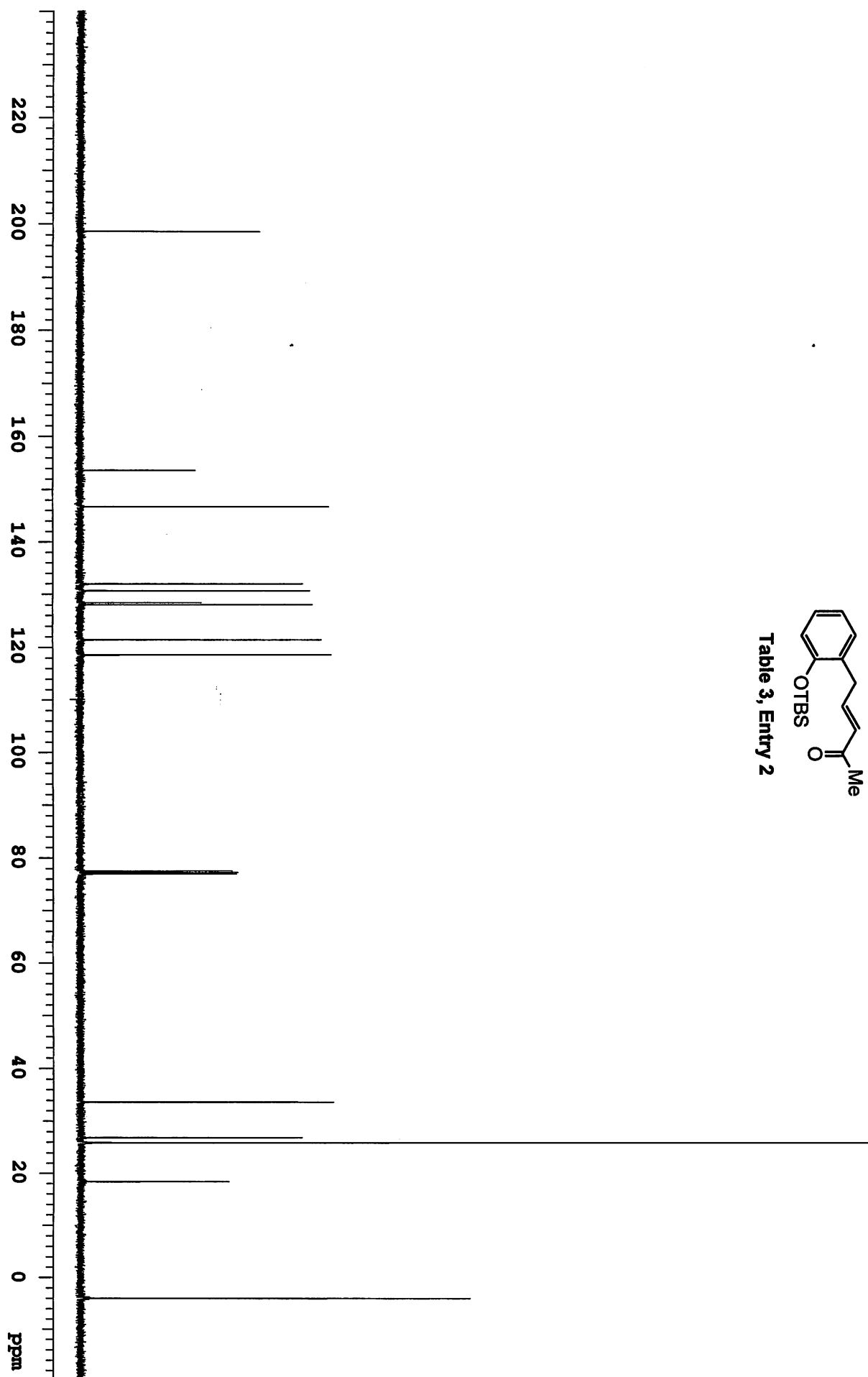


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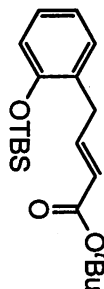
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expt szpu1

SAMPLE

DEC. & VT

Table 3, Entry 3



|             |             |      |            |
|-------------|-------------|------|------------|
| date        | Oct 11 2010 | dn   | H1         |
| solvent     | cdcl3       | do   | -1425.0    |
| file        | exp         | dm   | nm         |
| ACQUISITION |             |      |            |
| sfrq        | 399.951     | dmm  | 200        |
| tn          | H1          | dmf  | 22.0       |
| at          | 2.502       | temp | PROCESSING |
| np          | 36008       | lb   | 0.10       |
| sw          | 7196.8      | fn   | 65536      |
| fb          | not used    | math | f          |
| bs          | 4           |      |            |
| pw          | 8.0         | weff |            |
| tpwr        | 8.0         | wexp |            |
| di          | 37          | wds  |            |
| tof         | 3.000       | wht  |            |
| nt          | -6.9        |      |            |
| ct          | 1000        | sp   | DISPLAY    |
| alock       | 20          | wp   | -1594.8    |
| gain        | n           | vs   | 7196.6     |
|             | not used    | sc   | 18         |
| FLAGS       |             | wc   | 0          |
| il          | n           | h2mm | 250        |
| in          | n           | is   | 3.81       |
| dp          | y           | rfl  | 500.00     |
| hs          | nm          | rff  | 4502.6     |
|             |             | rffp | 2907.6     |
|             |             | th   | 2          |
|             |             | ins  | 1.000      |
|             |             | ai   | ph         |

12

10

8

6

4

2

0

-2

ppm

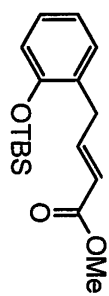
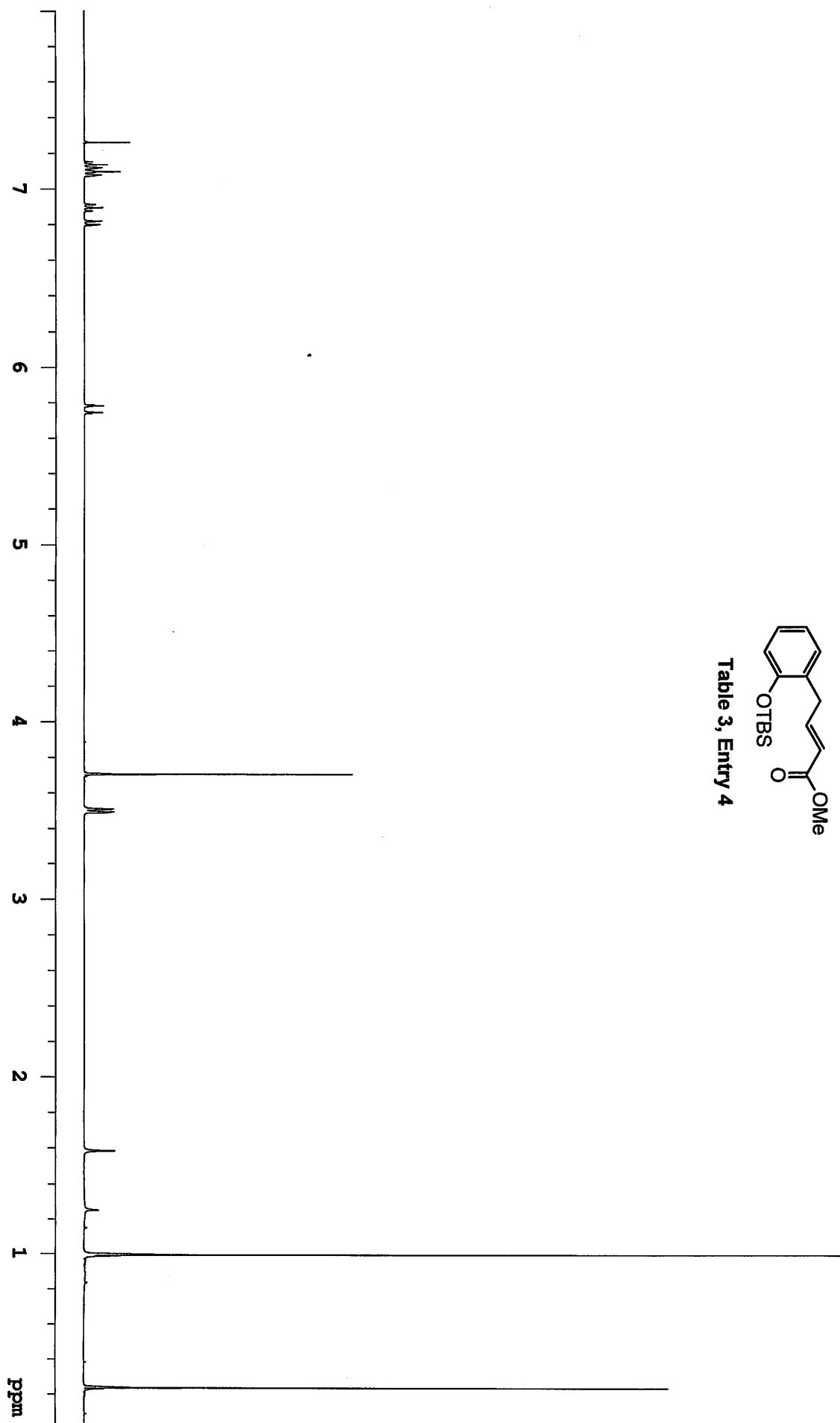


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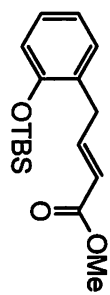


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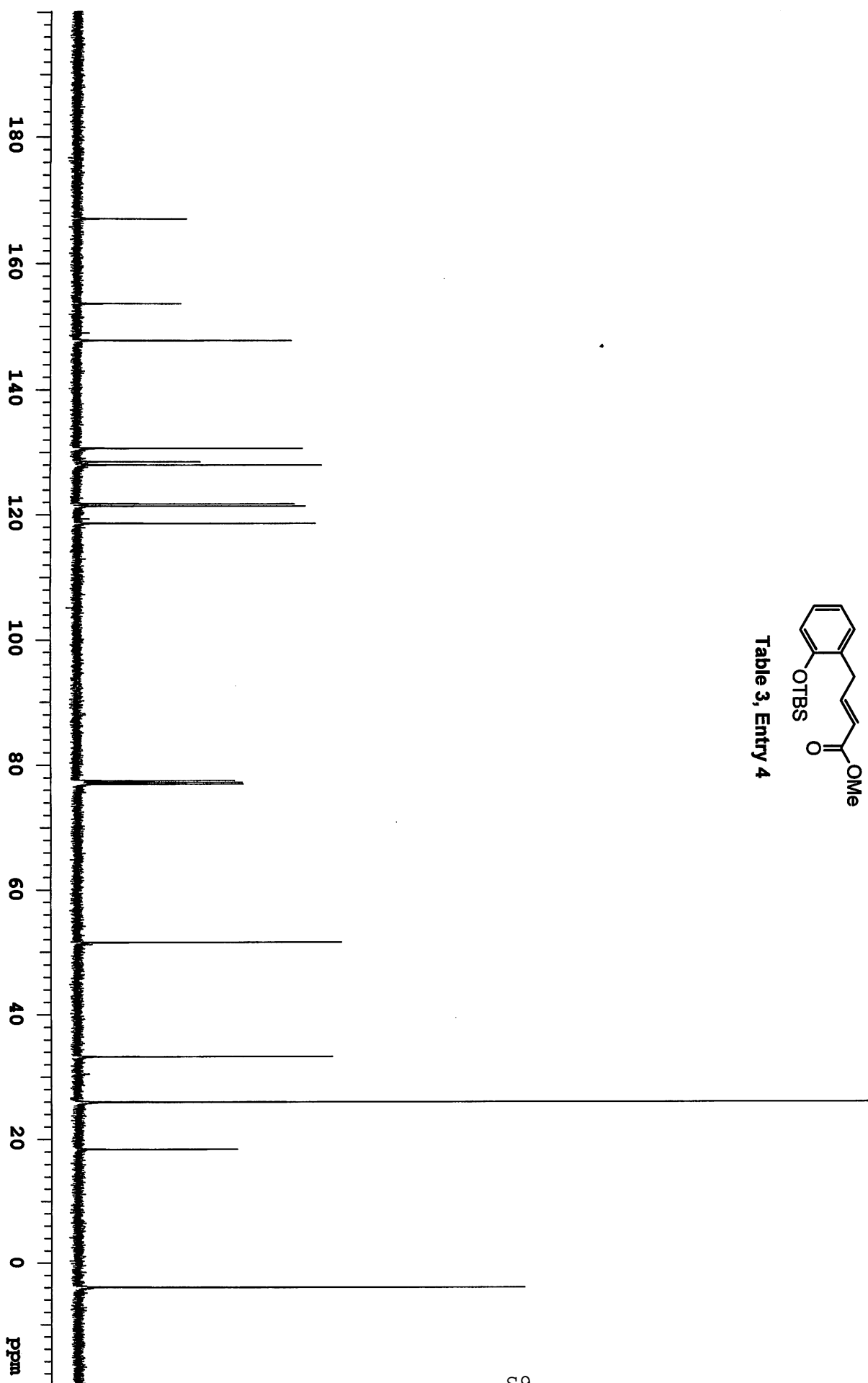
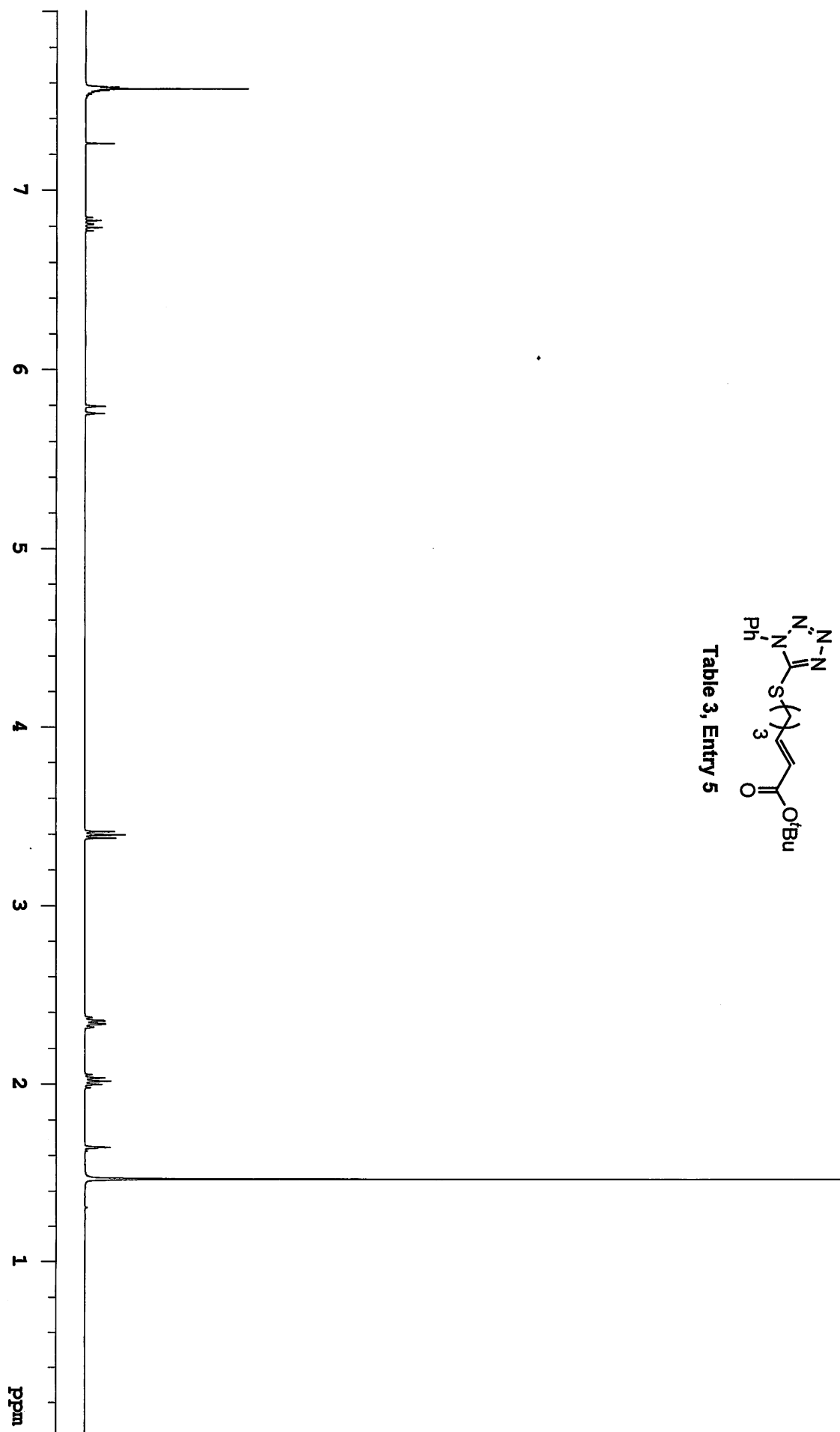
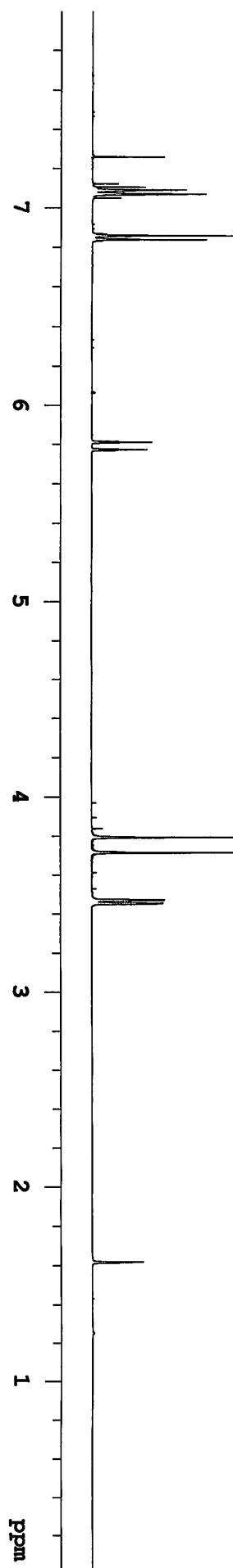
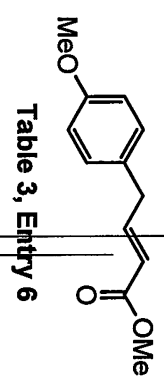


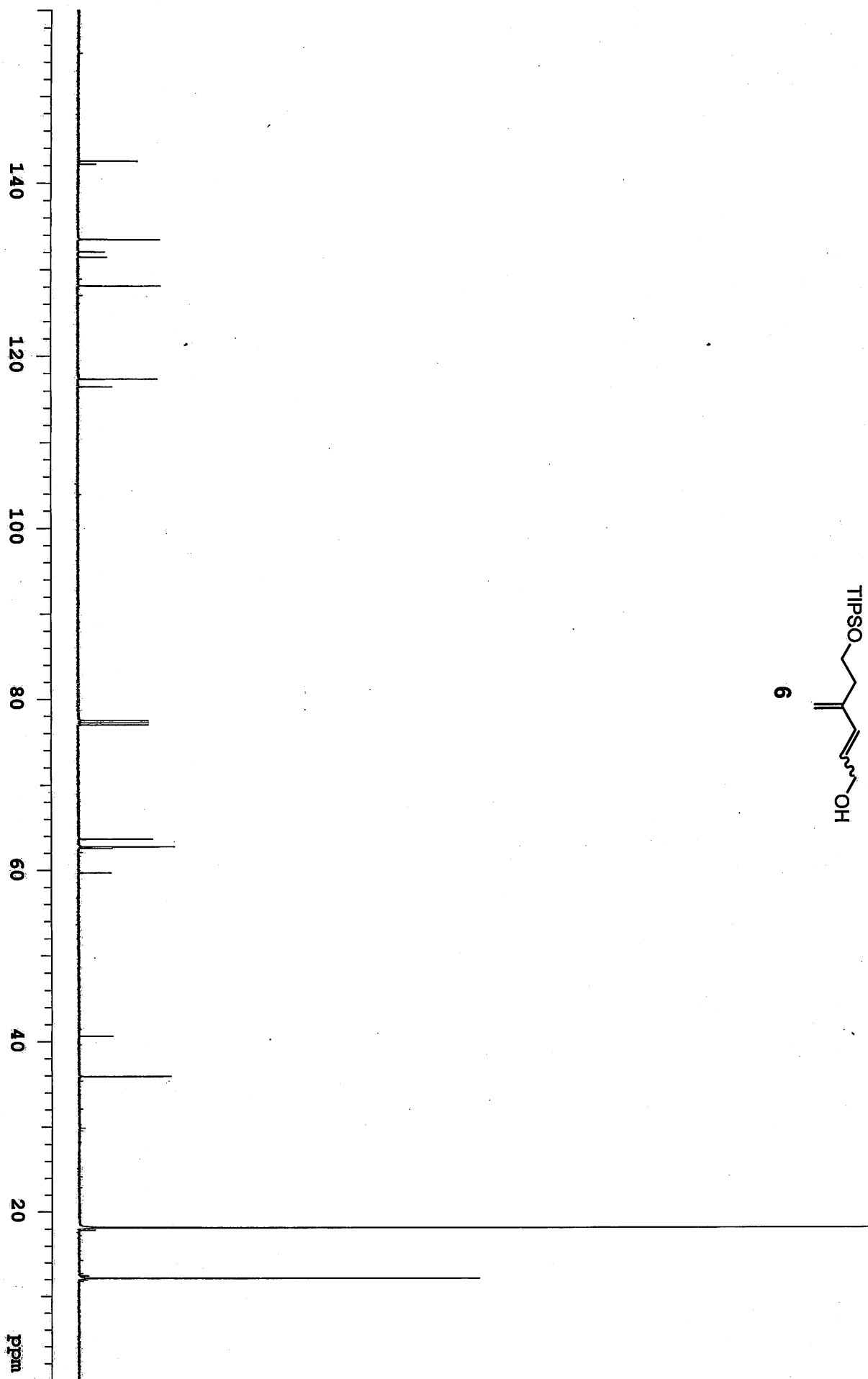
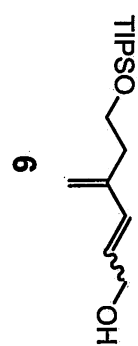


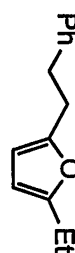
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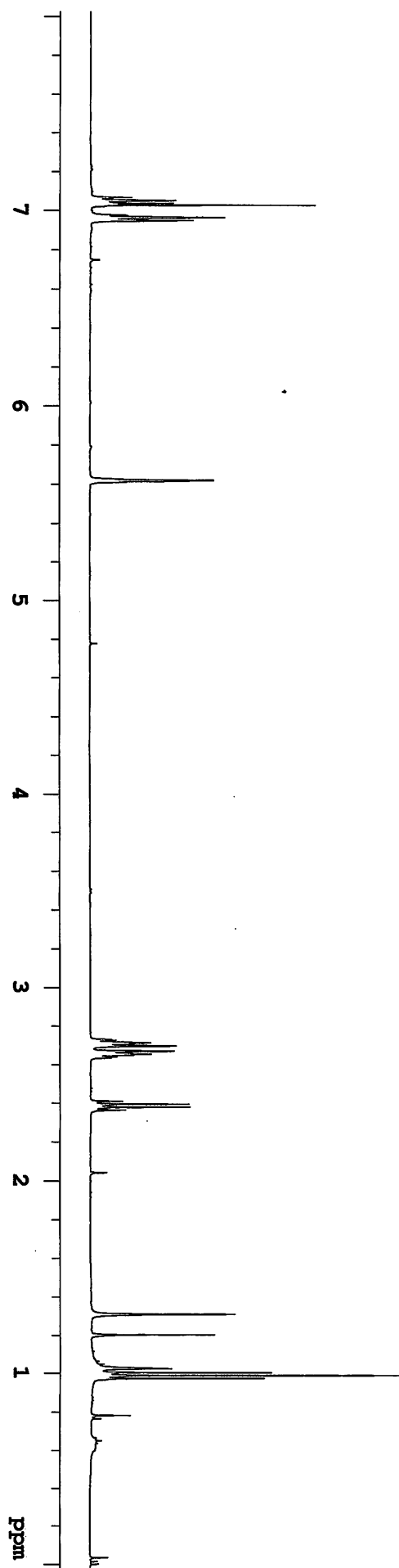


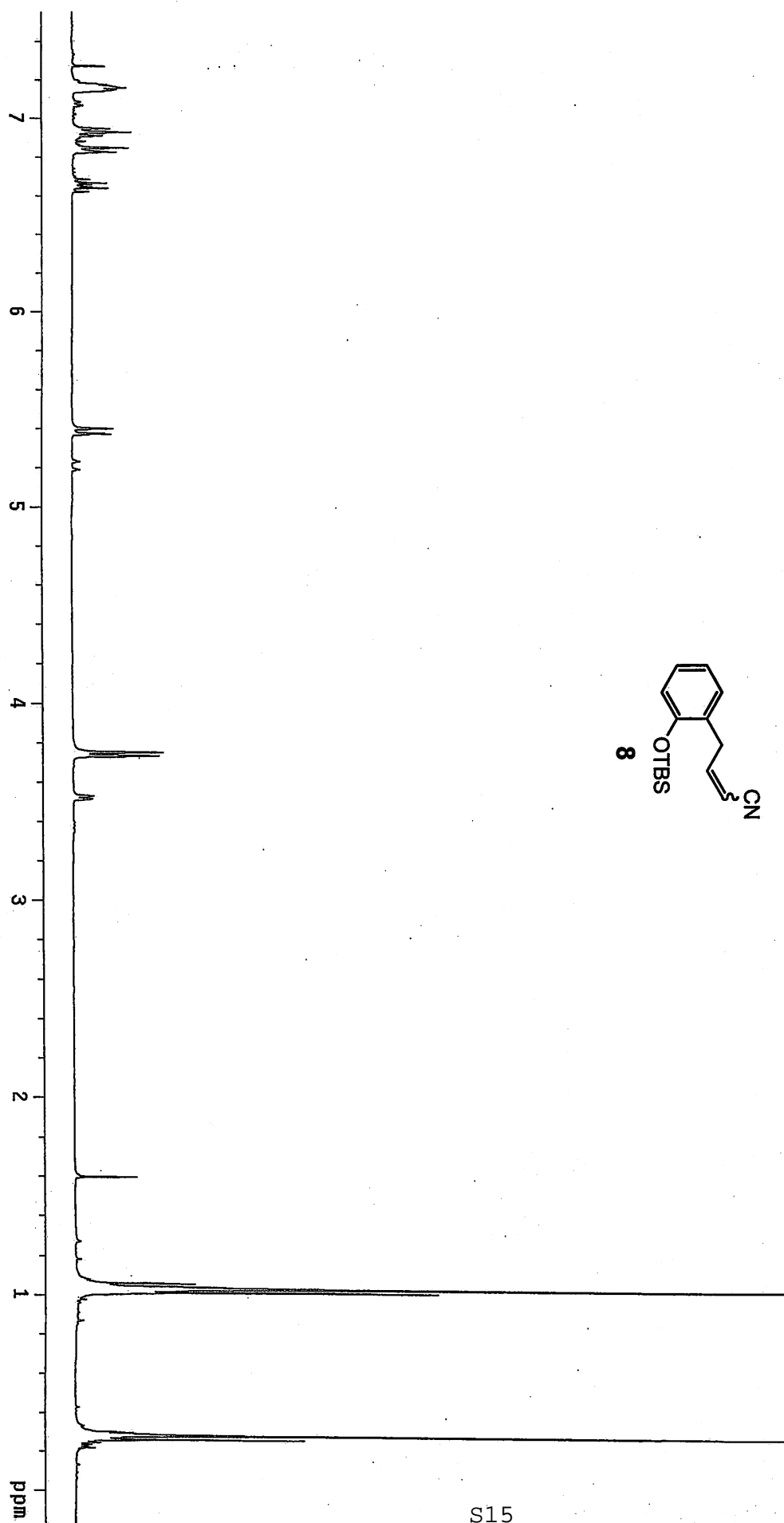
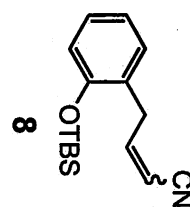


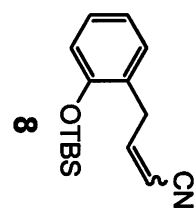




7







140

120

100

80

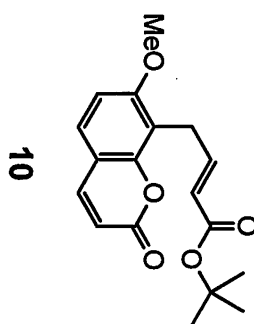
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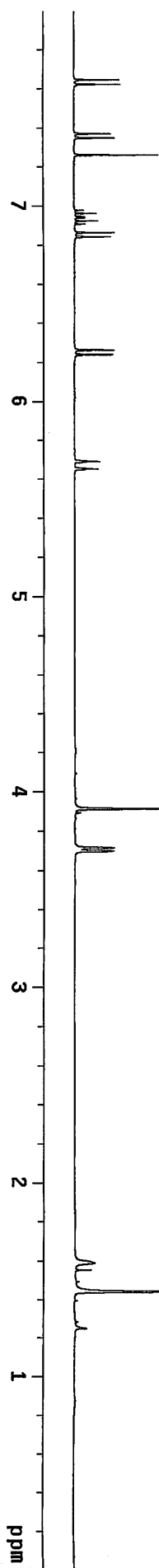
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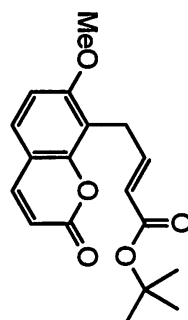
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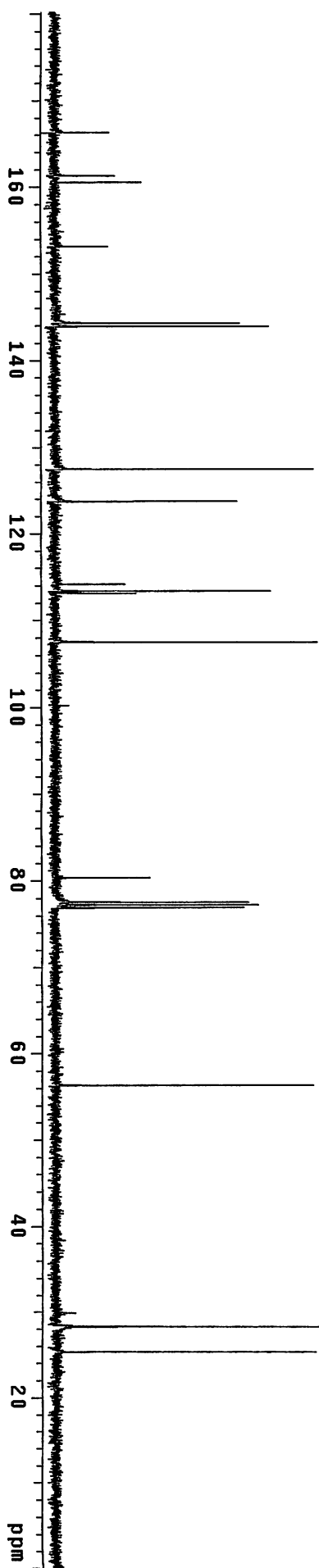


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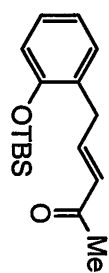


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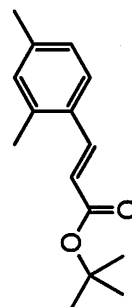
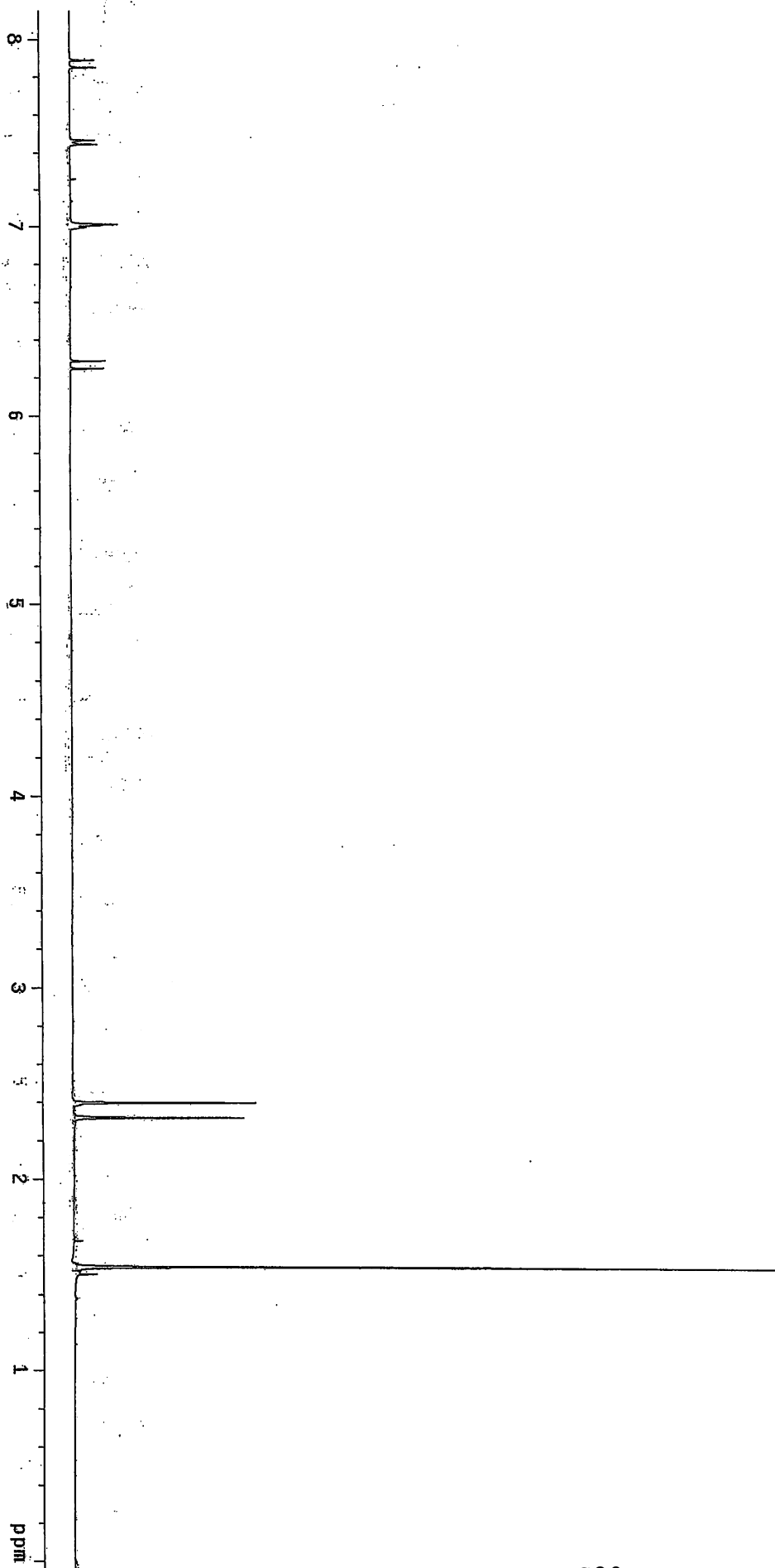


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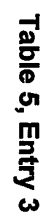
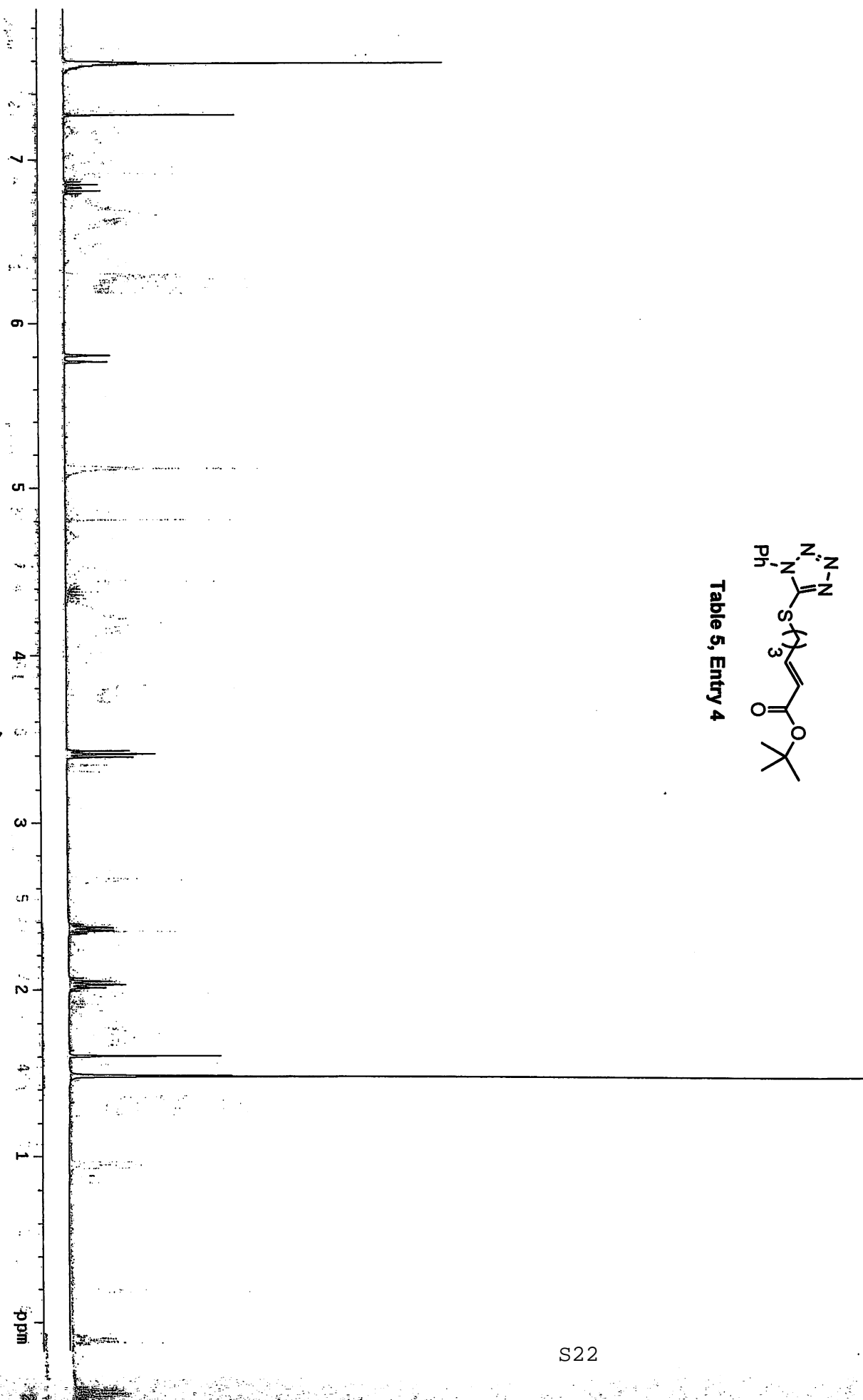




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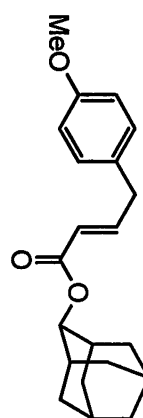


Table 5, Entry 5

