

# **Ligand-Controlled Switch of Regioselectivity in Ring-Opening Coupling of Diarylmethylenecyclopropa- [b]naphthalenes with Grignard Reagents**

Jian Cao <sup>†</sup>, Xian Huang <sup>†,‡,§</sup> and Luling Wu <sup>\*,†</sup>

wululing@zju.edu.cn

<sup>†</sup> Department of Chemistry, Zhejiang University, Hangzhou 310028, P. R. China

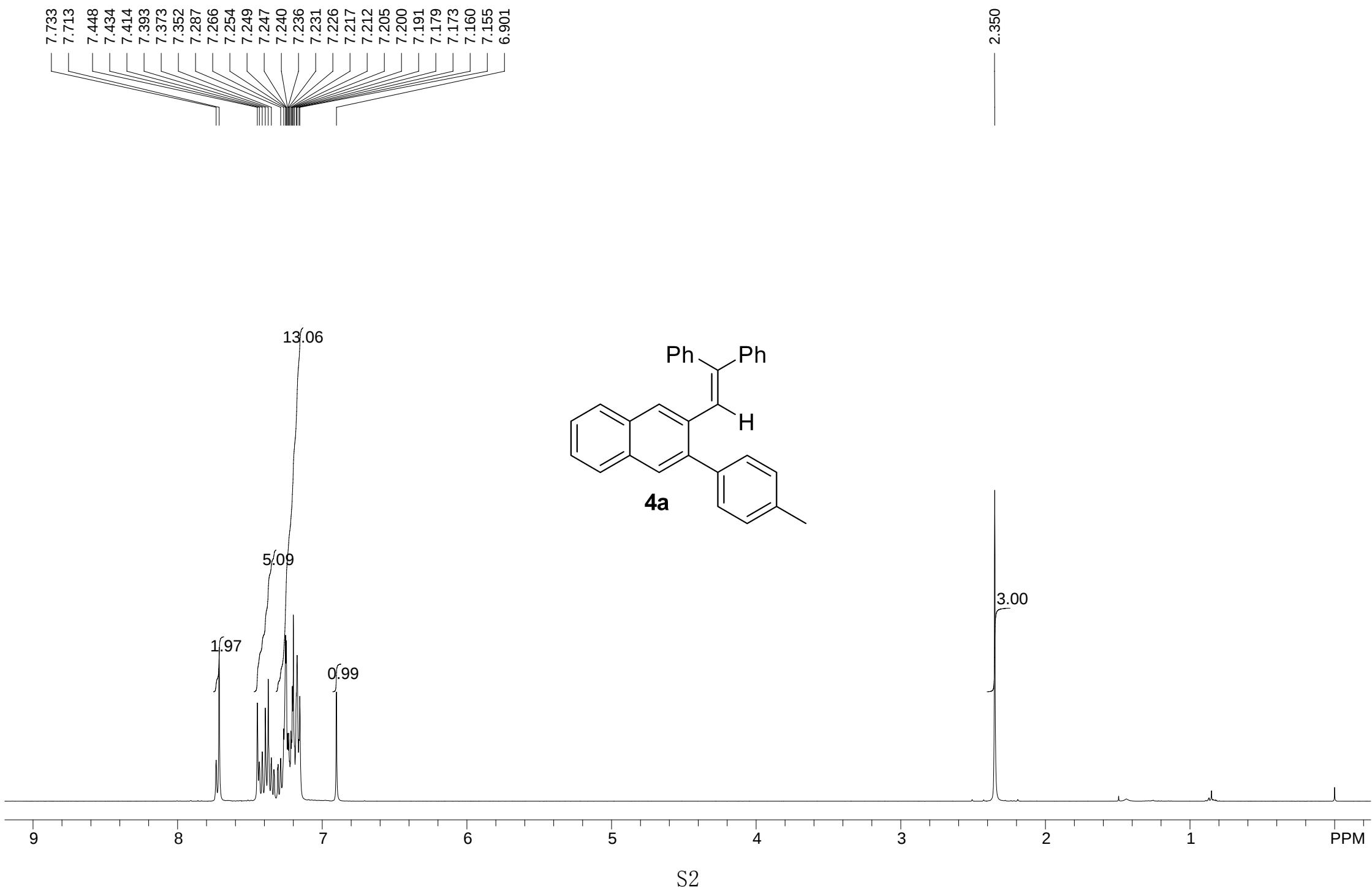
<sup>‡</sup> State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry,  
Chinese Academy of Sciences, Shanghai 200032, P. R. China

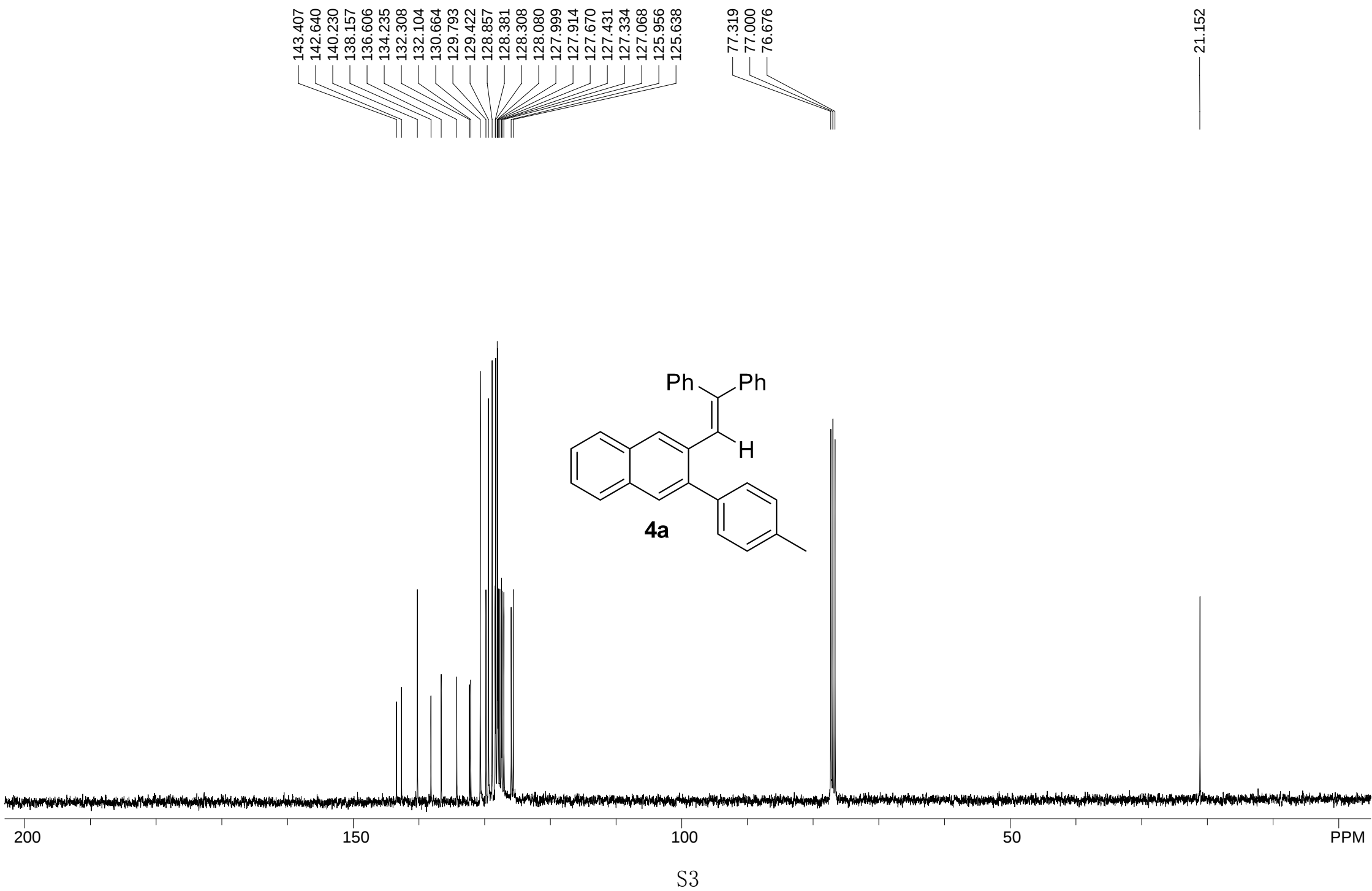
<sup>§</sup> Prof. Huang passed away on March 6, 2010. He had been fully in charge of this project. At this  
moment, Prof. Luling Wu is helping him to finish all the projects with the help from Prof.  
Shengming Ma

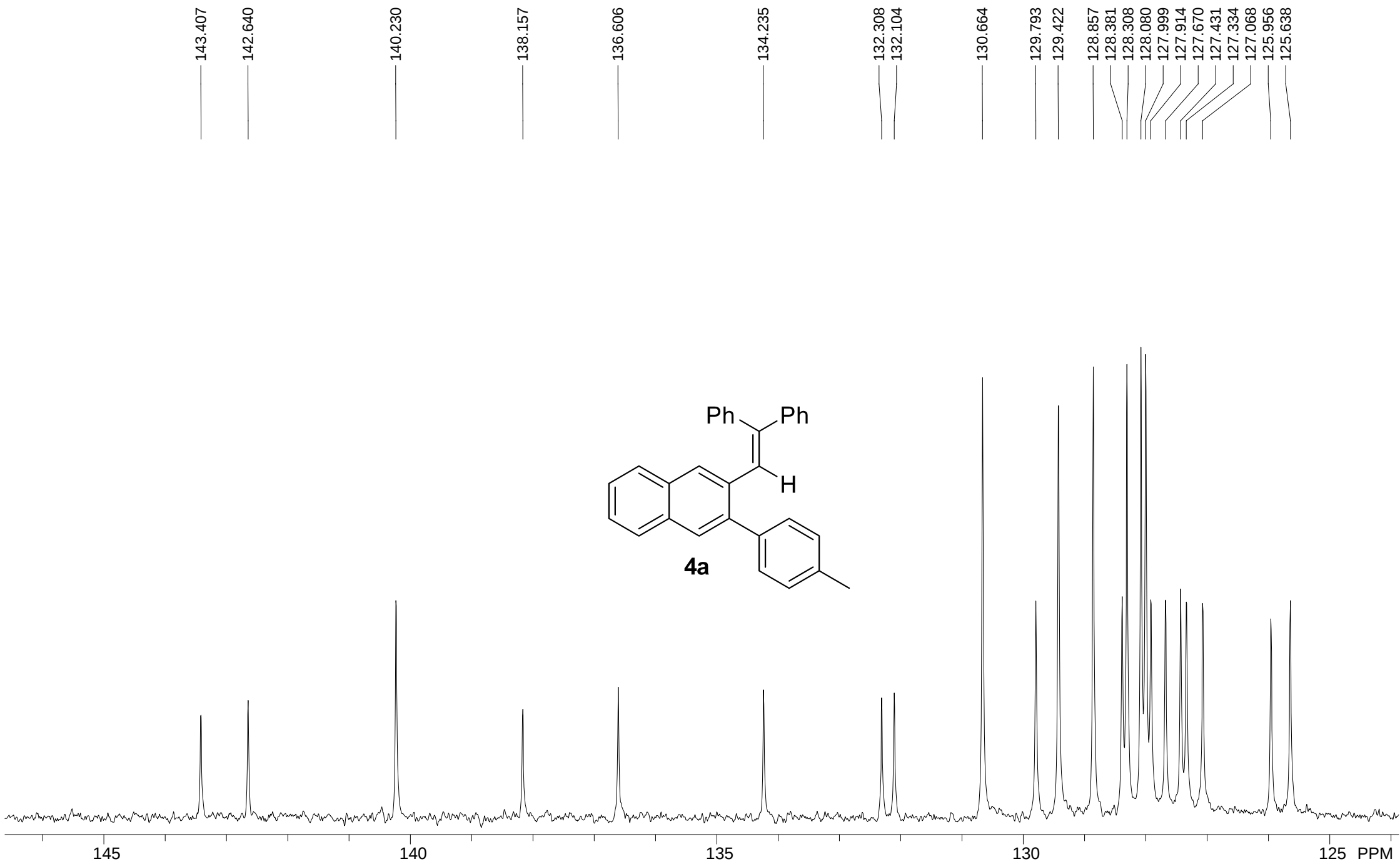
## **Supporting Information**

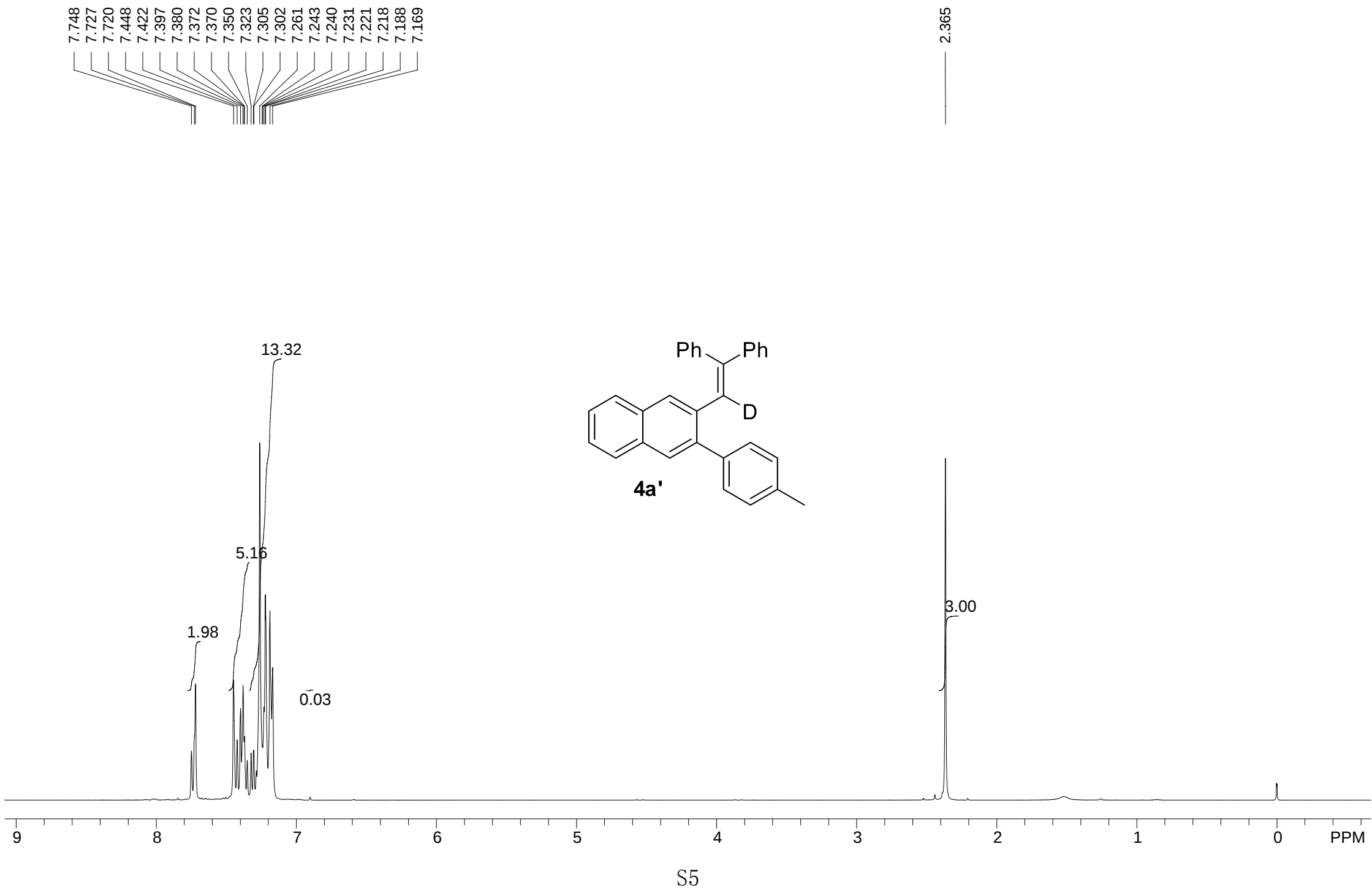
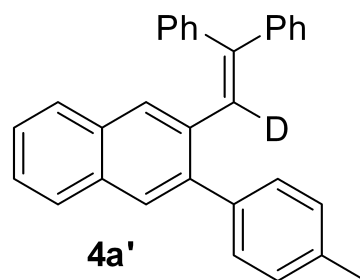
### **List of contents**

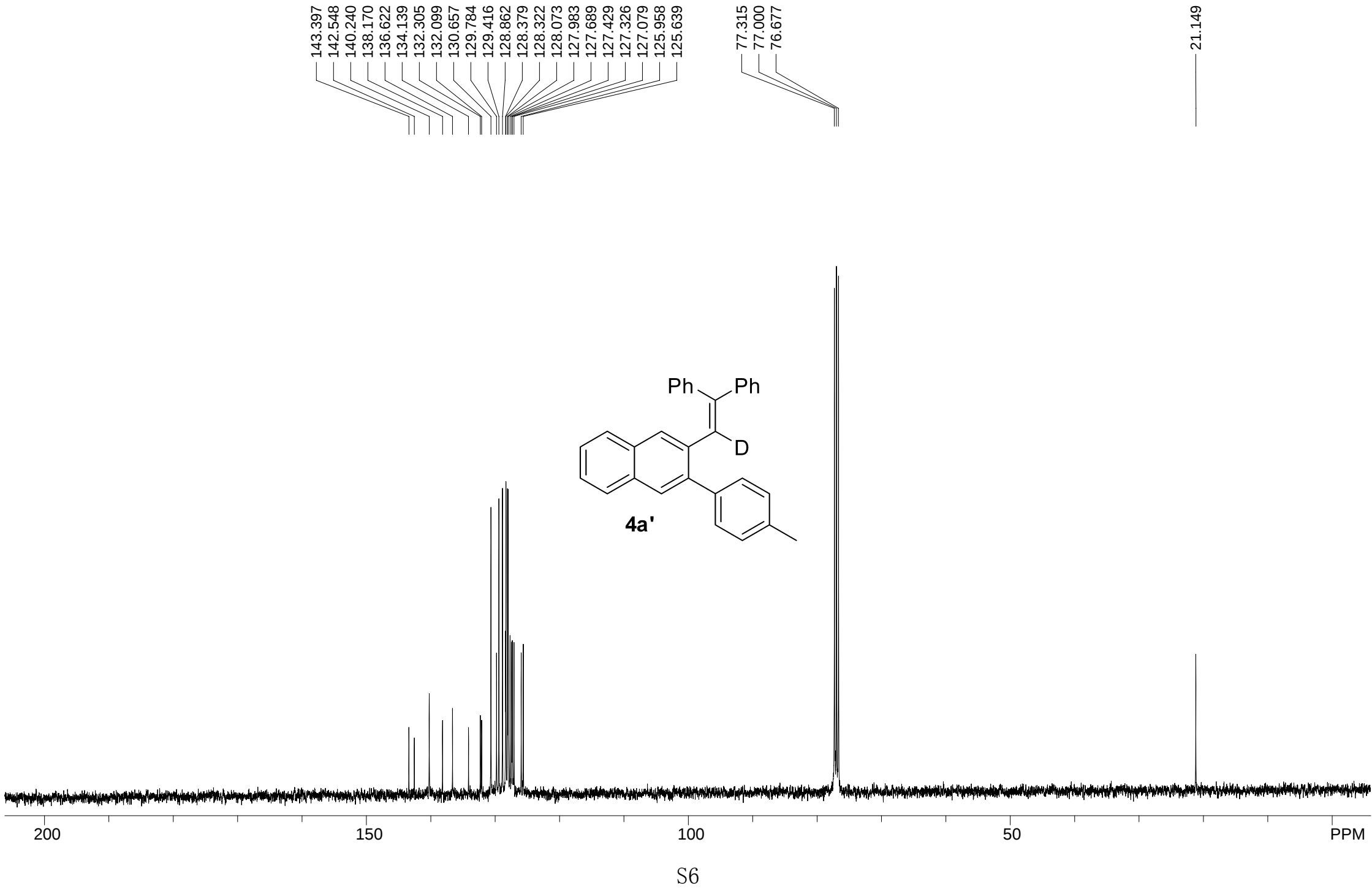
|                                                                          |    |
|--------------------------------------------------------------------------|----|
| 1. 2. <sup>1</sup> H NMR and <sup>13</sup> C NMR Spectra of <b>4a-4p</b> | S2 |
|--------------------------------------------------------------------------|----|

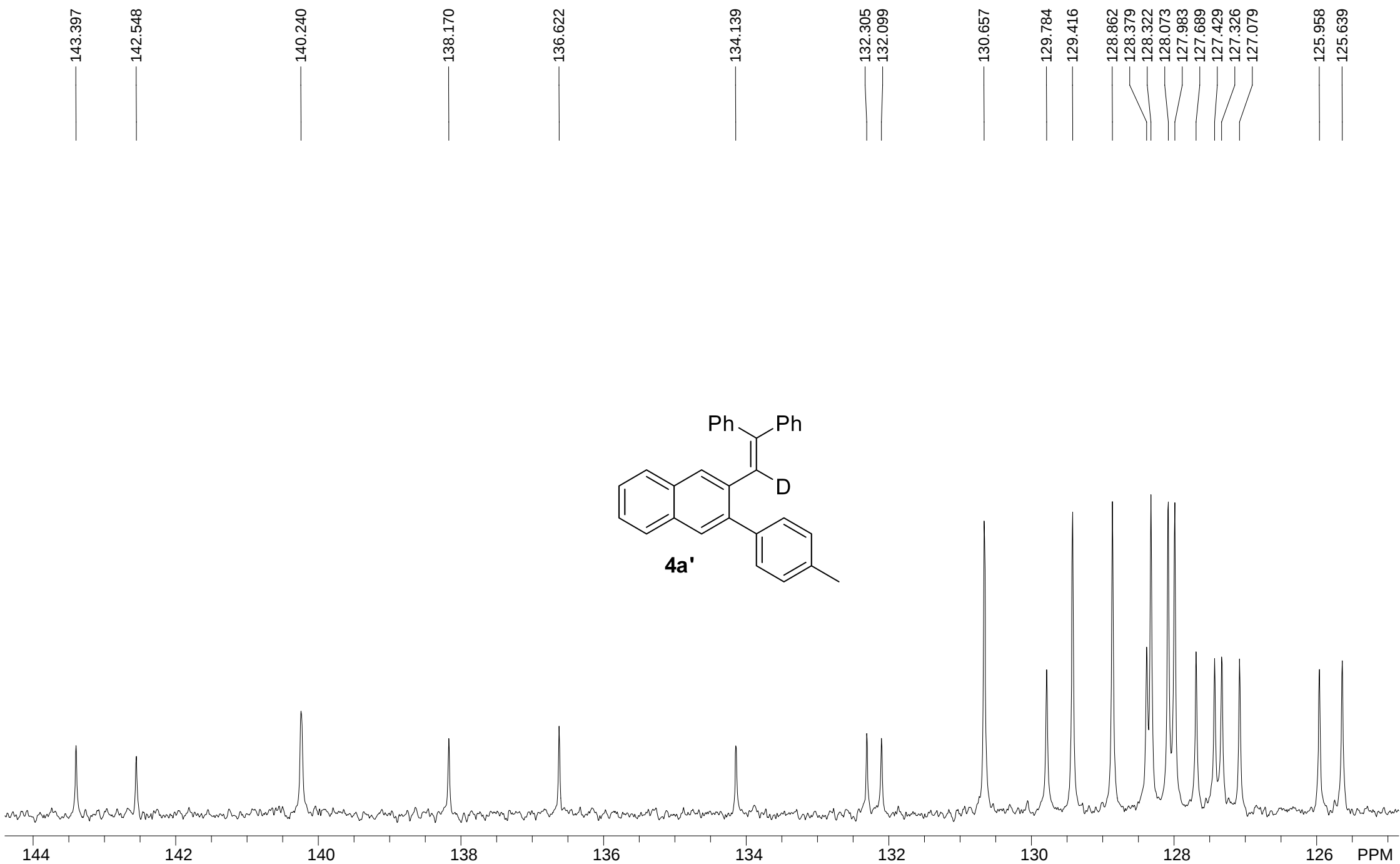


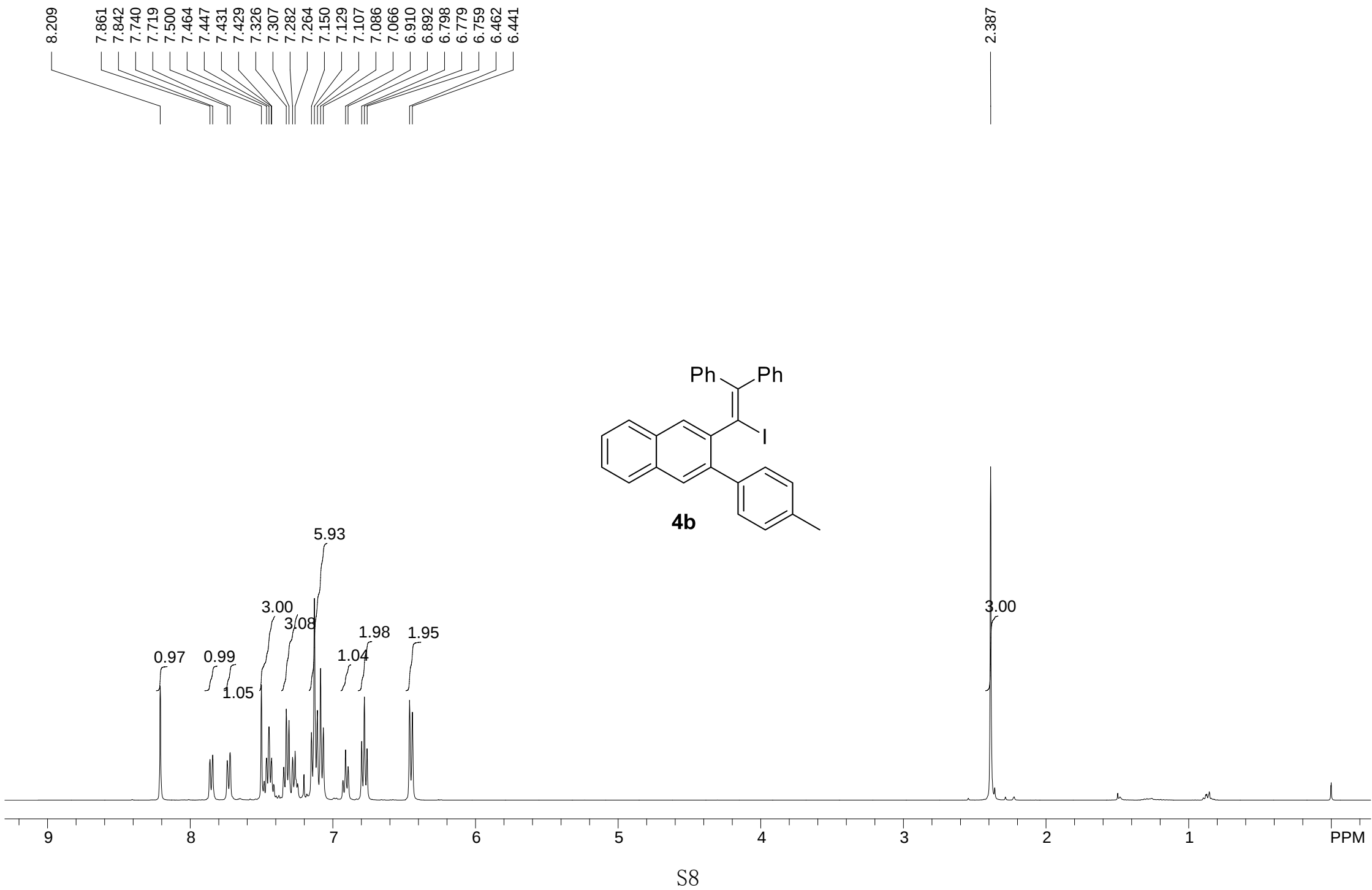


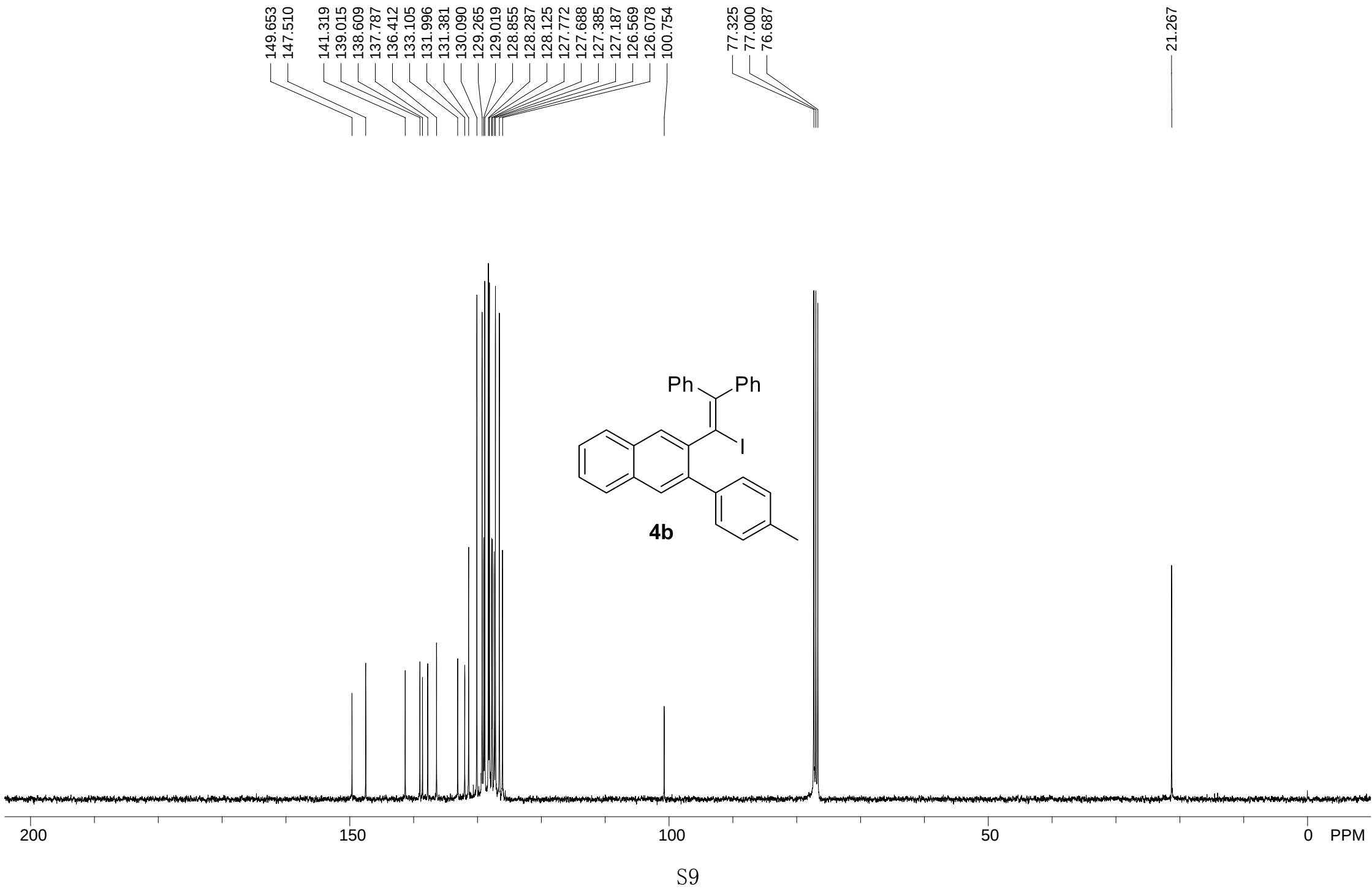


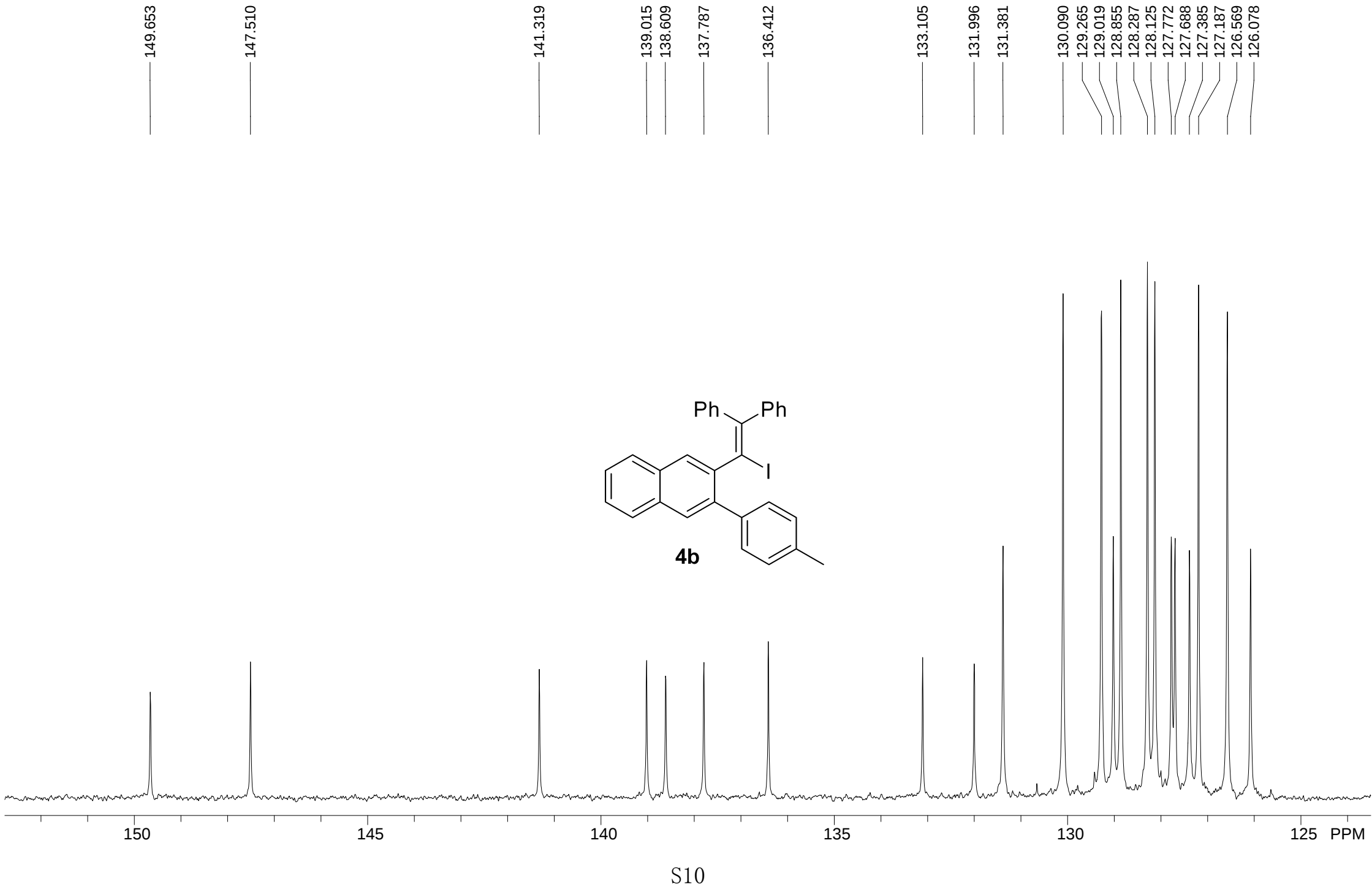






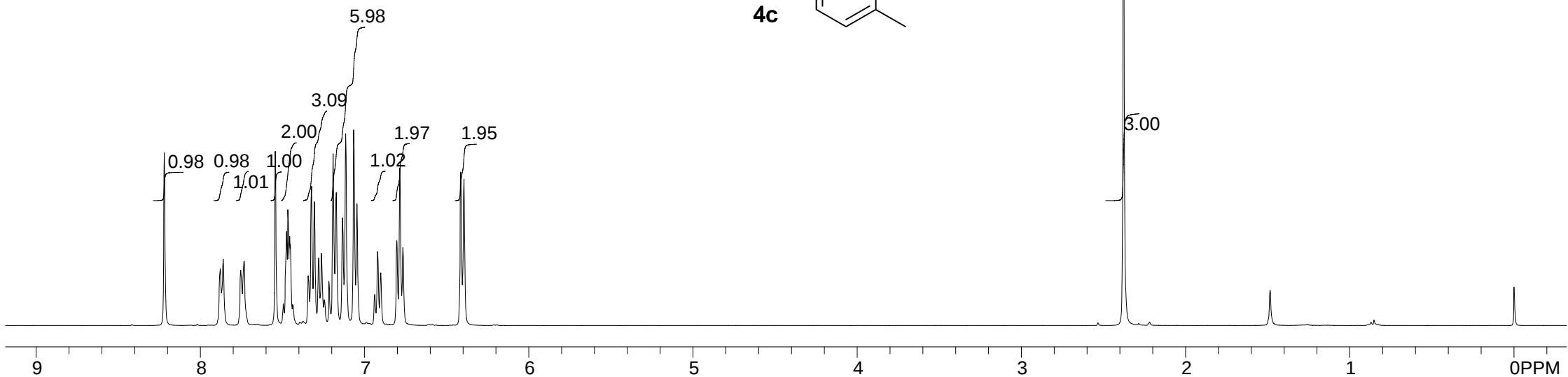
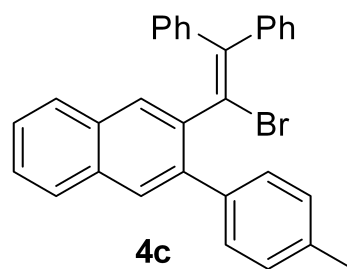




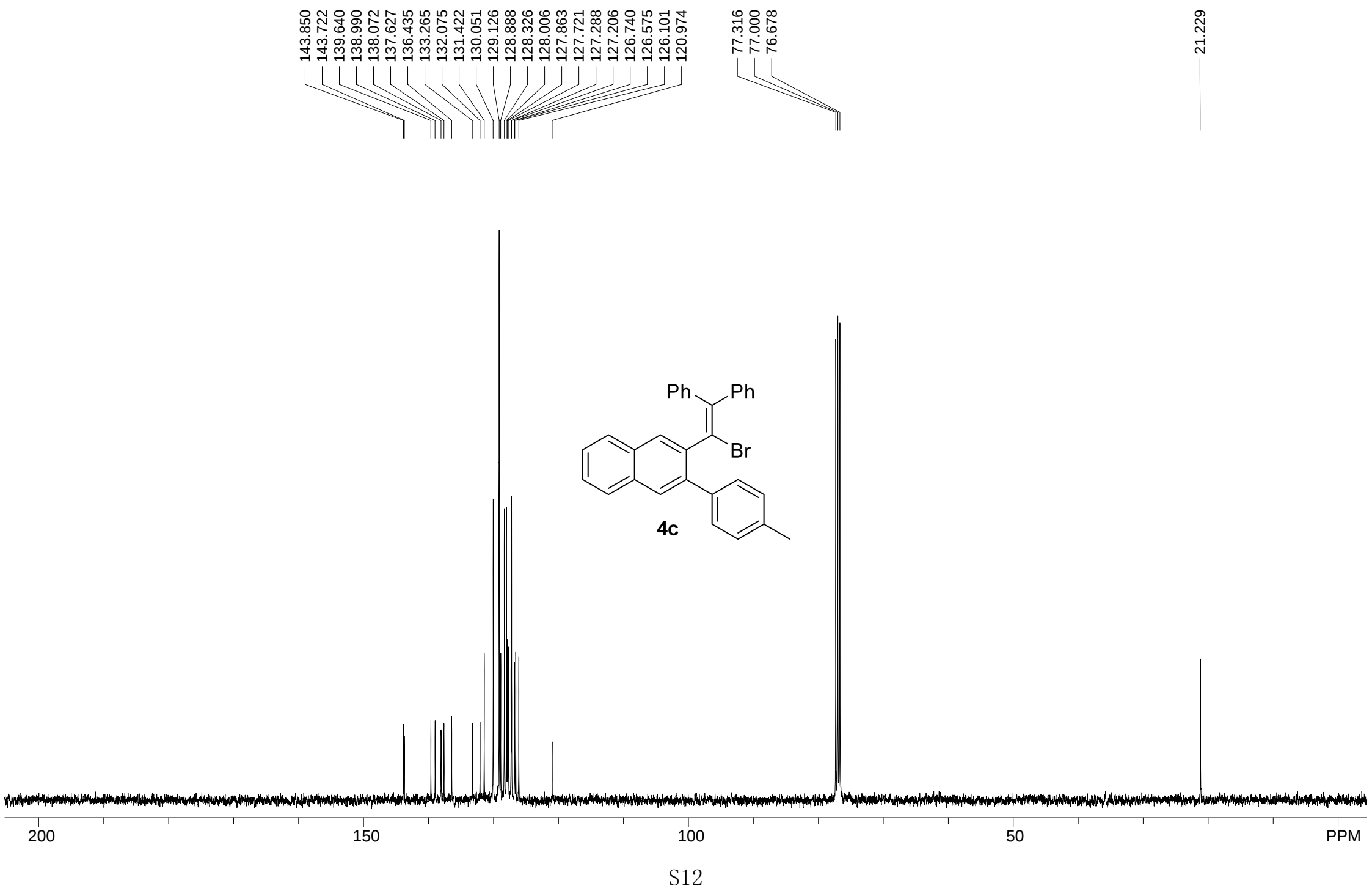


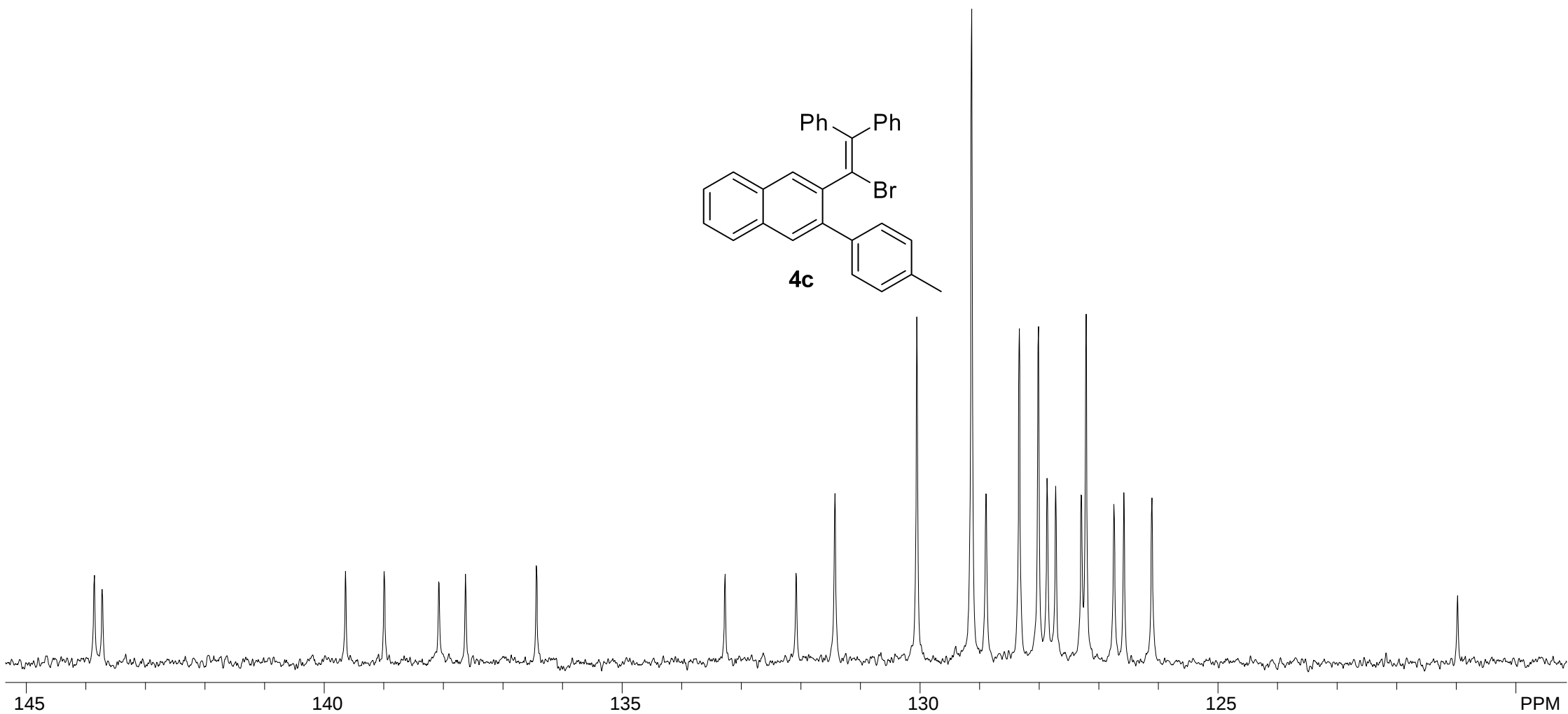
8.219  
7.879  
7.860  
7.754  
7.733  
7.544  
7.474  
7.467  
7.456  
7.451  
7.322  
7.306  
7.281  
7.278  
7.263  
7.192  
7.172  
7.134  
7.115  
7.066  
7.046  
6.920  
6.903  
6.901  
6.804  
6.784  
6.767  
6.415  
6.395

2.378

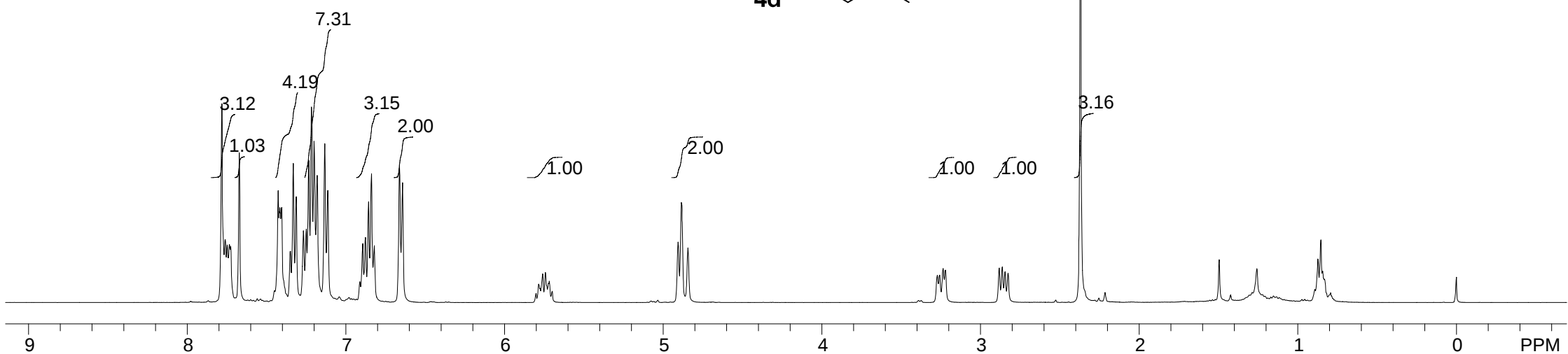
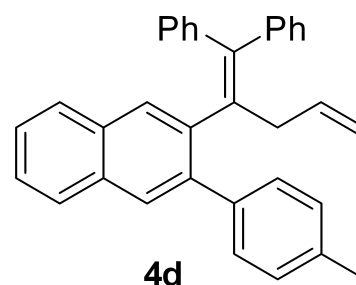
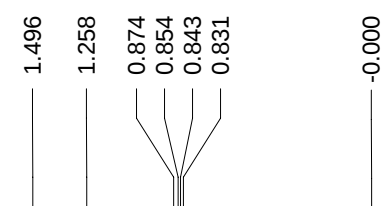
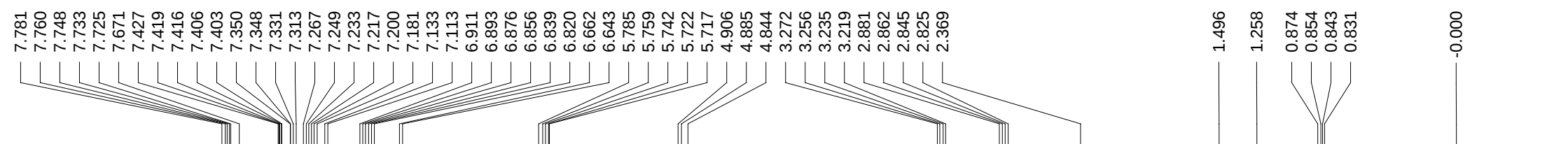


S11

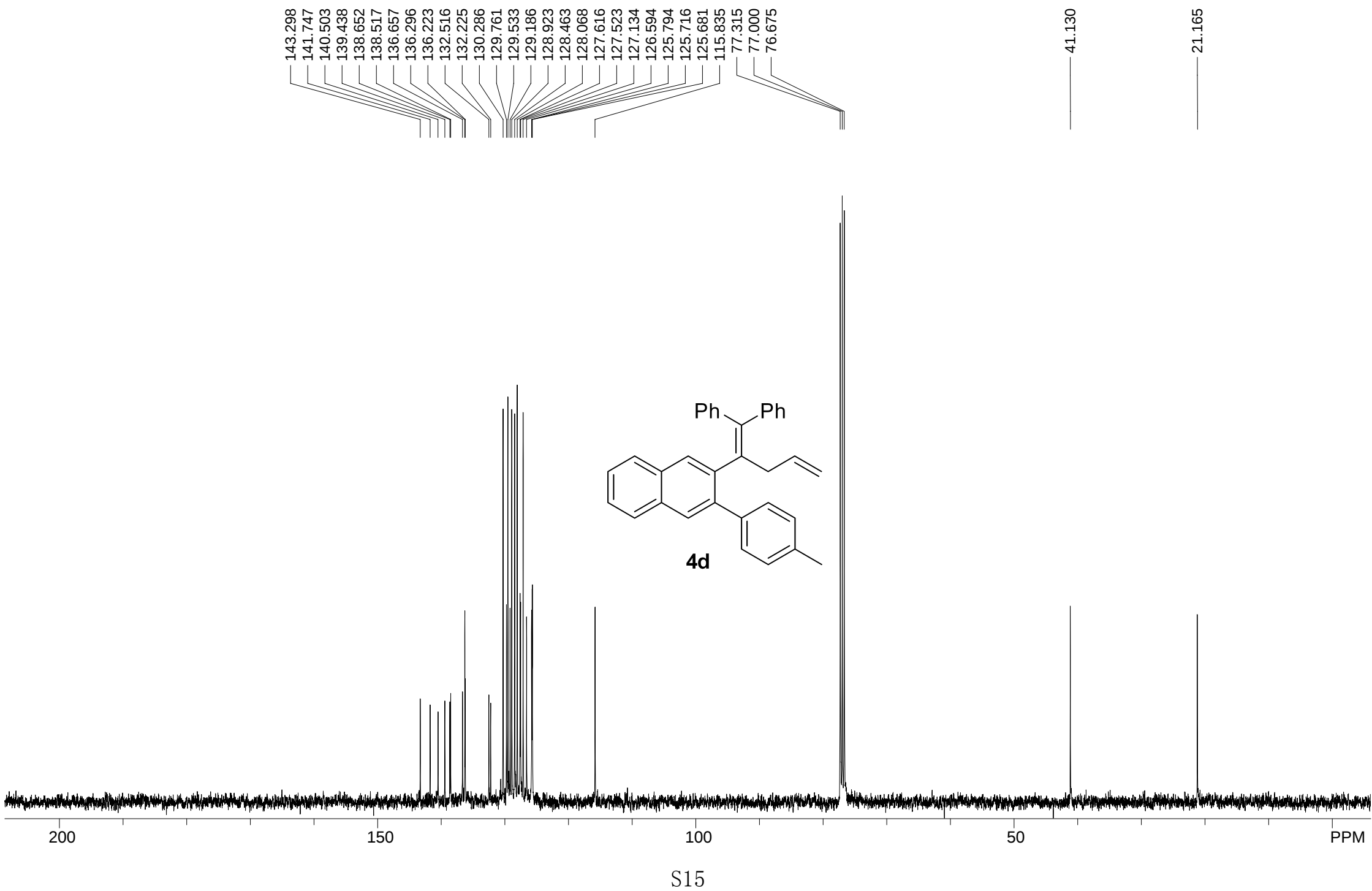


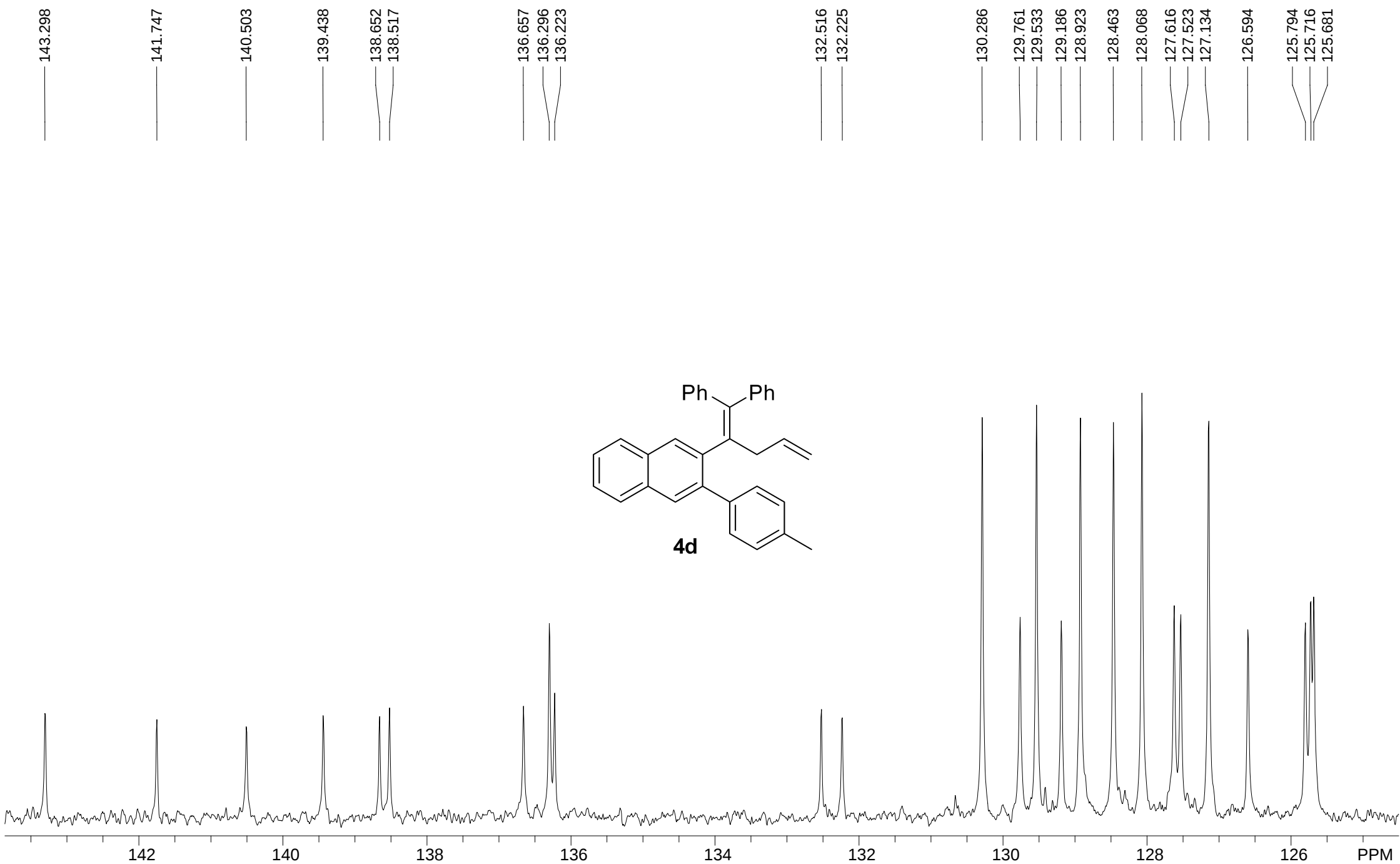


S13



S14





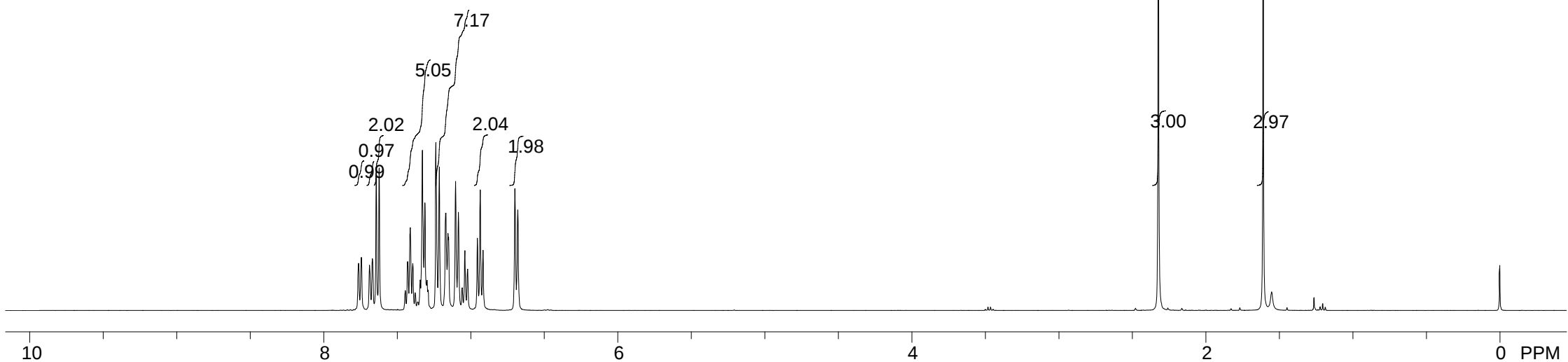
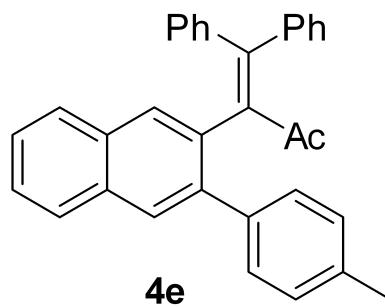
S16

7.762  
7.744  
7.689  
7.669  
7.643  
7.622  
7.430  
7.413  
7.411  
7.394  
7.329  
7.312  
7.238  
7.214  
7.171  
7.168  
7.155  
7.150  
7.103  
7.084  
7.040  
7.022  
7.020  
6.955  
6.936  
6.917  
6.700  
6.679

2.323

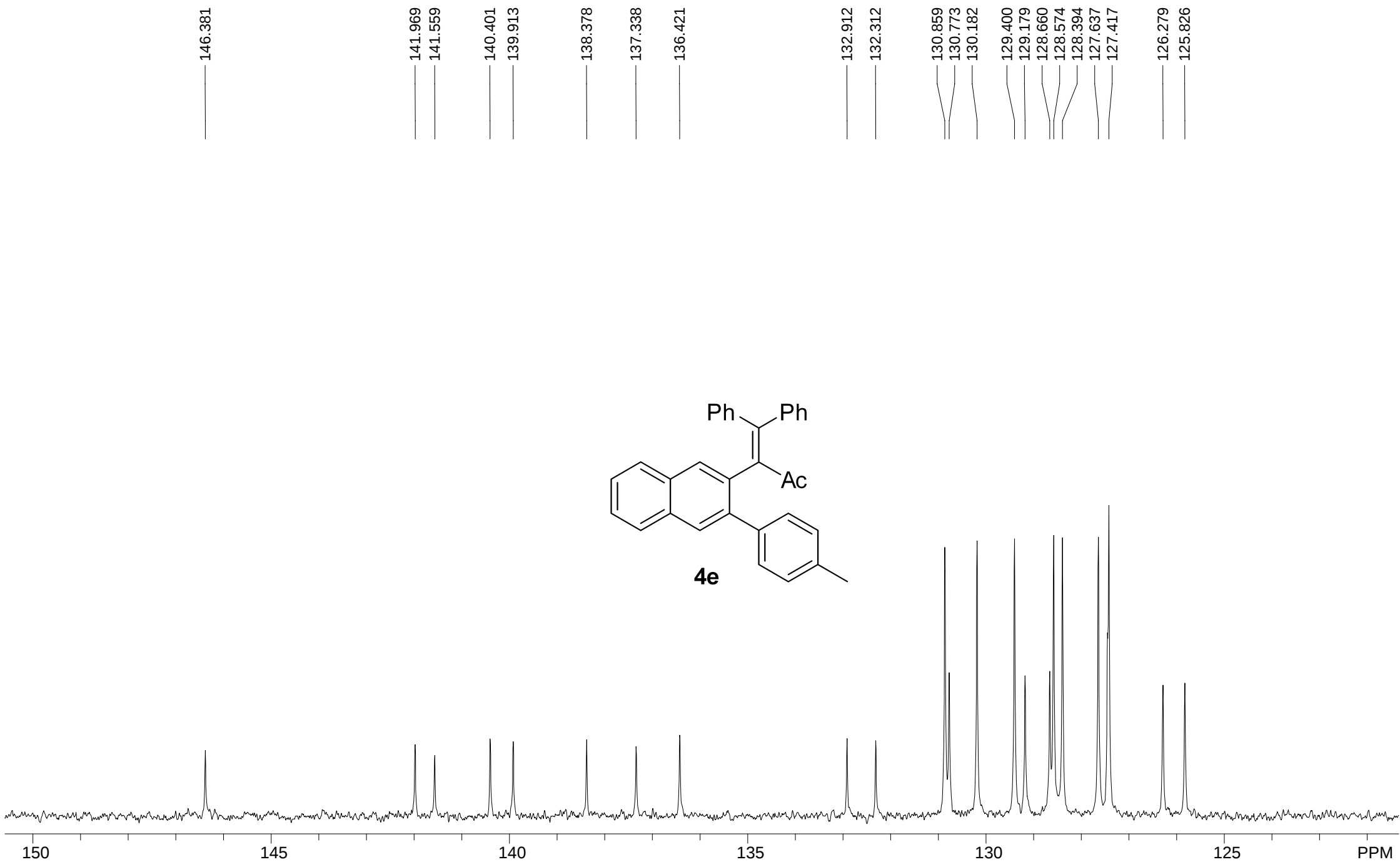
1.609

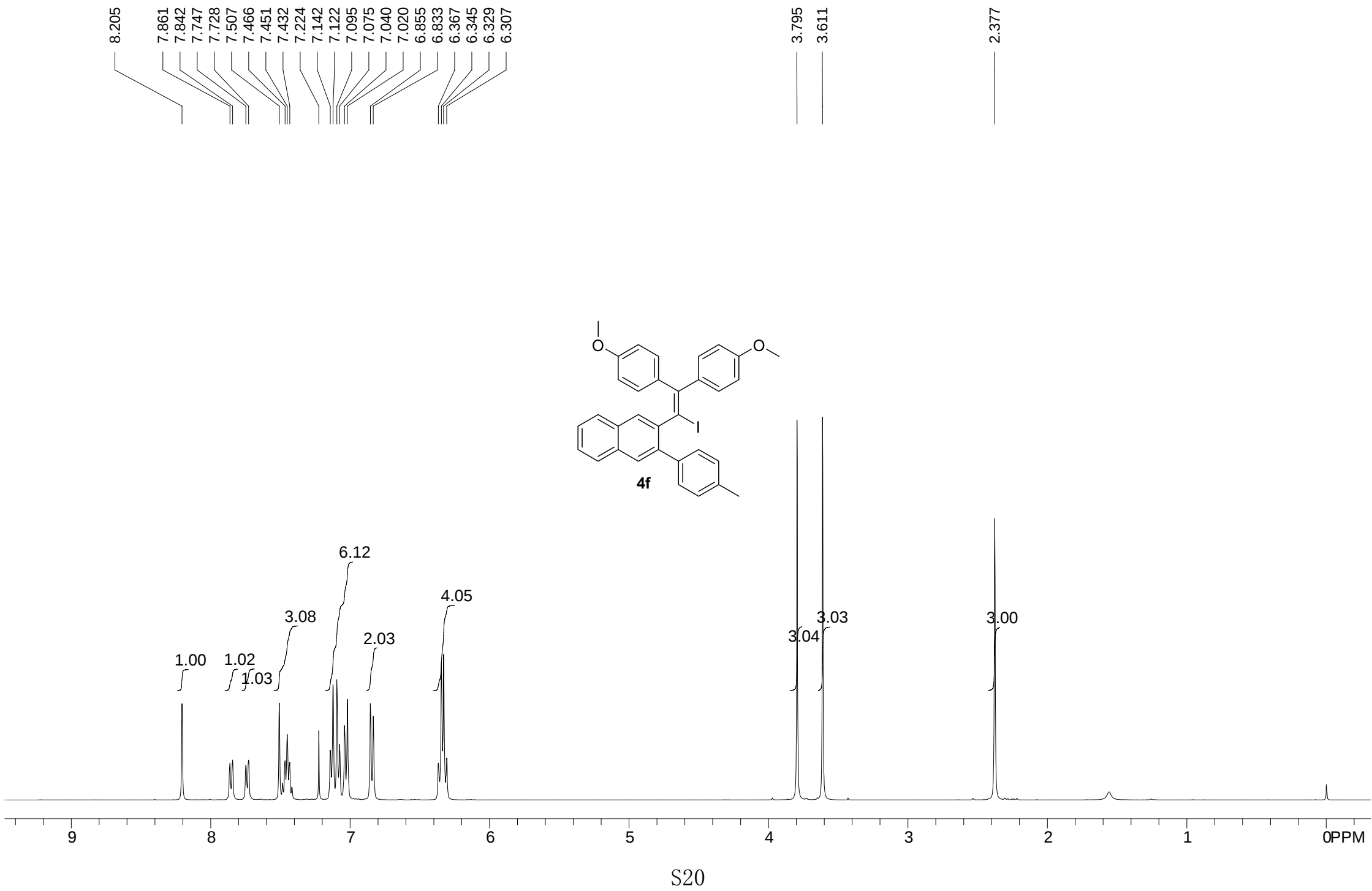
0.001  
0.000

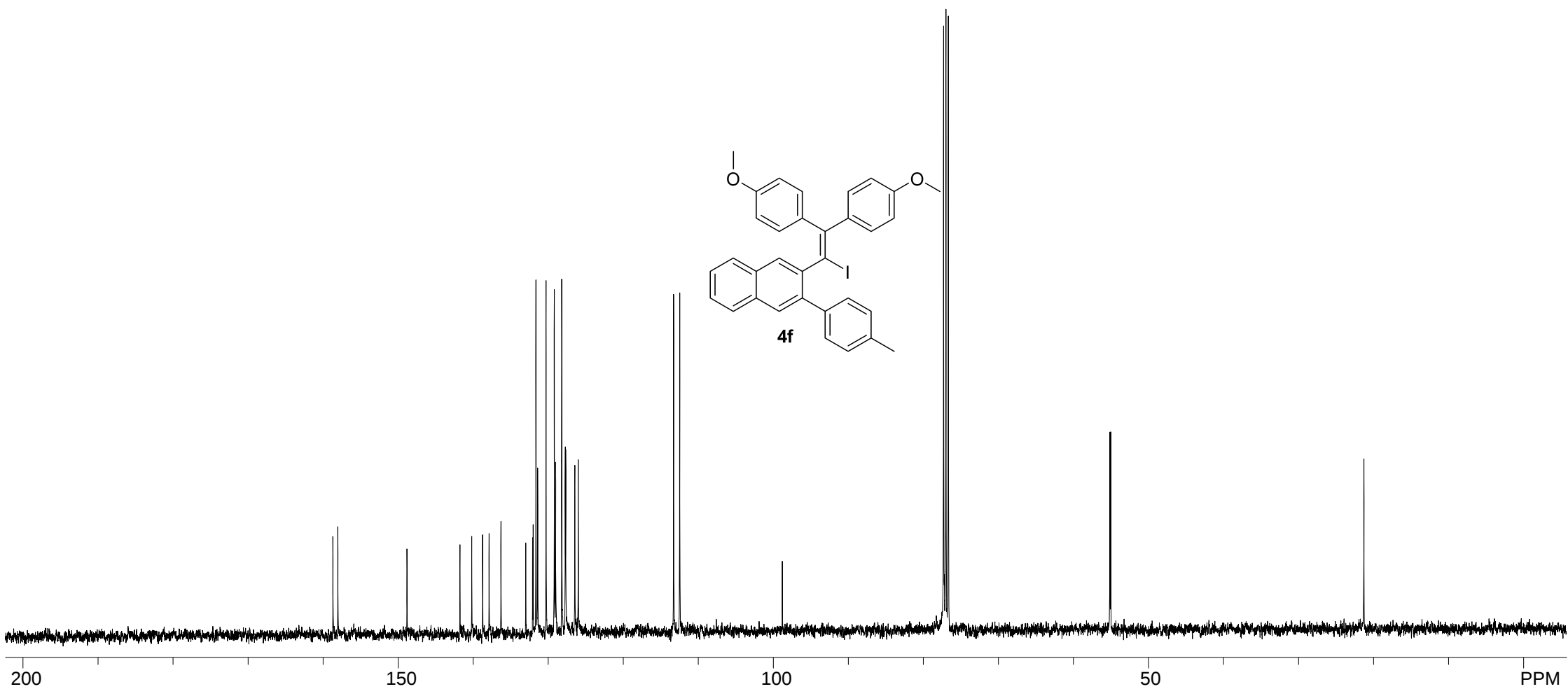


S17

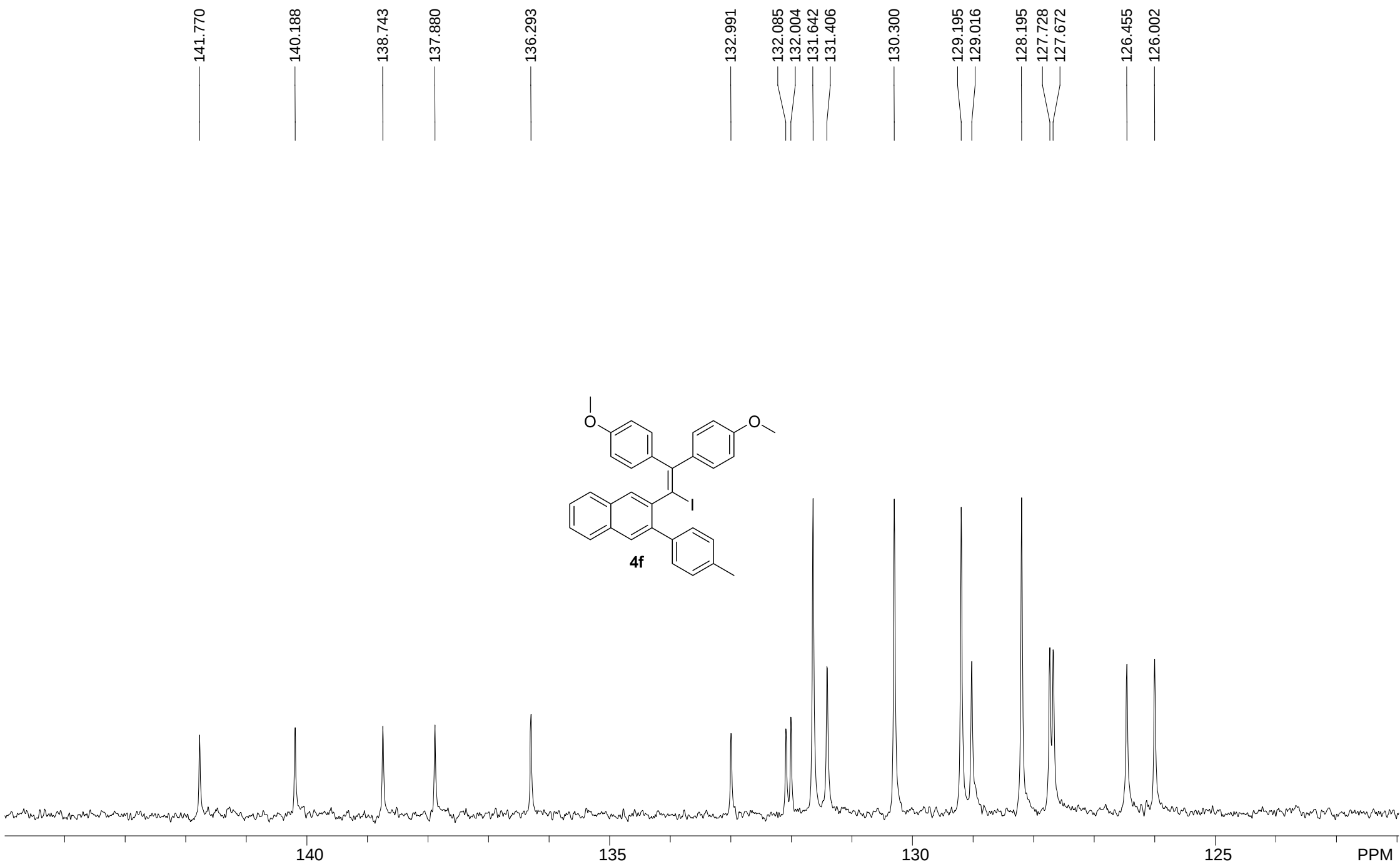




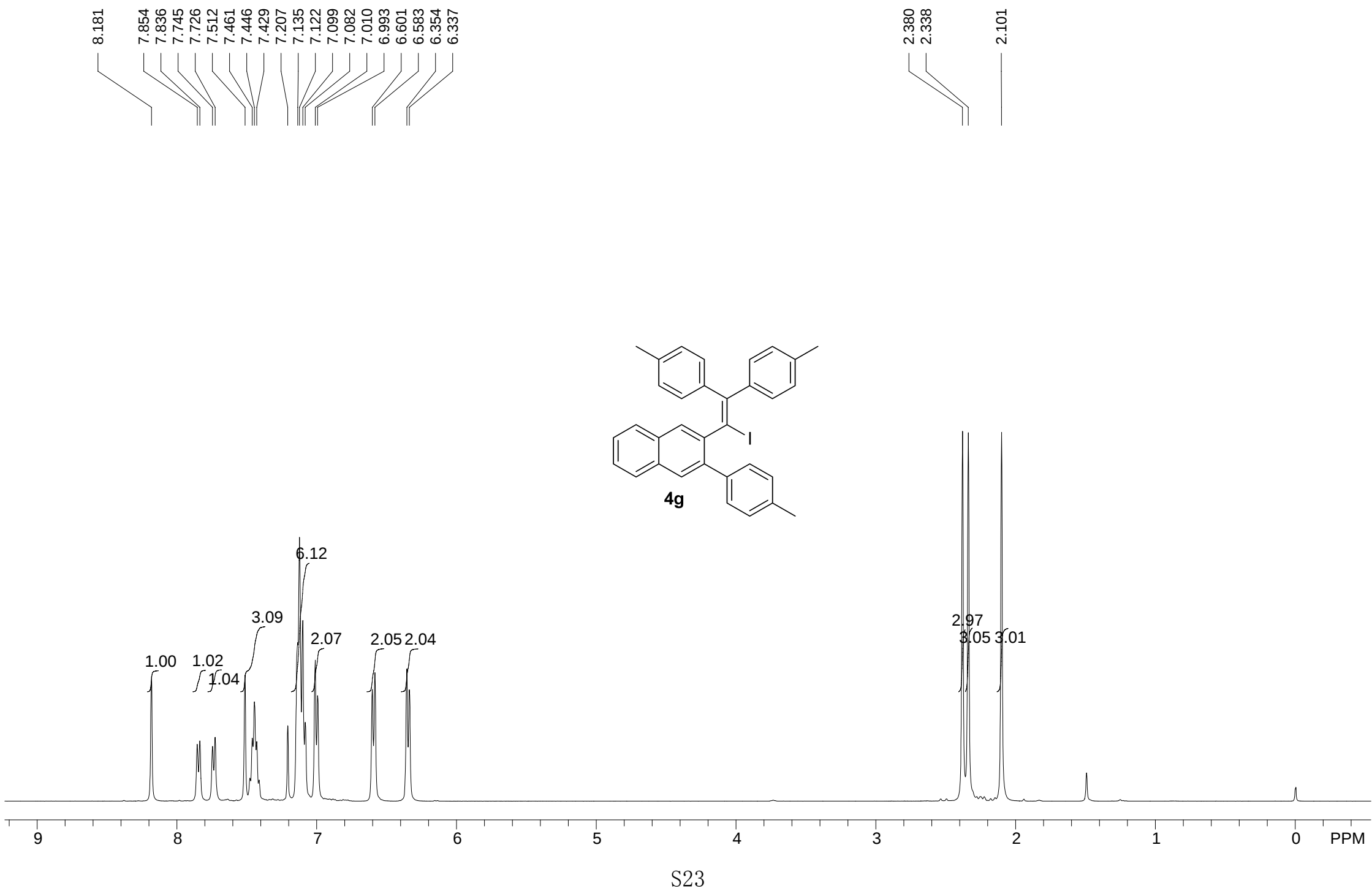


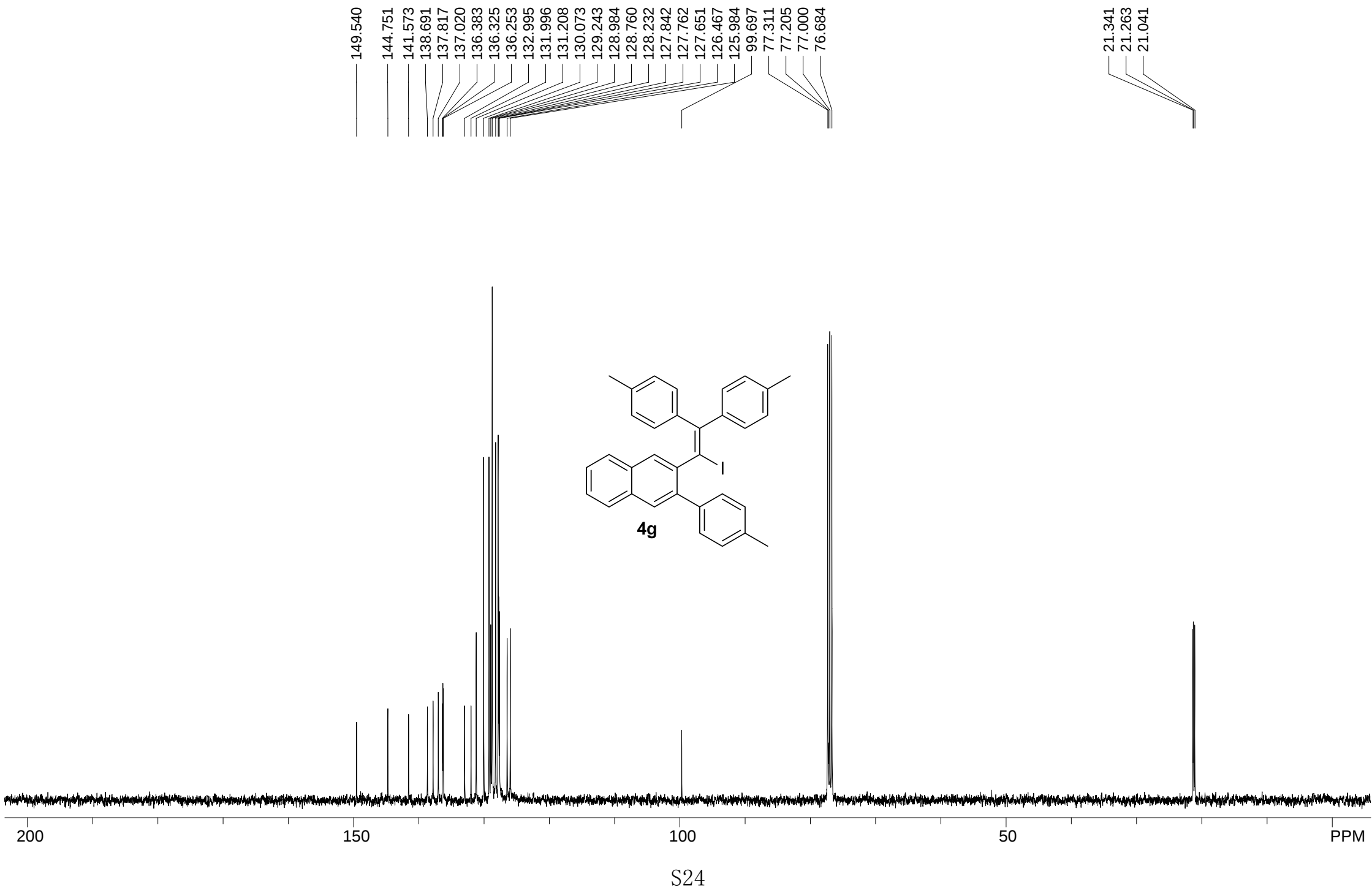


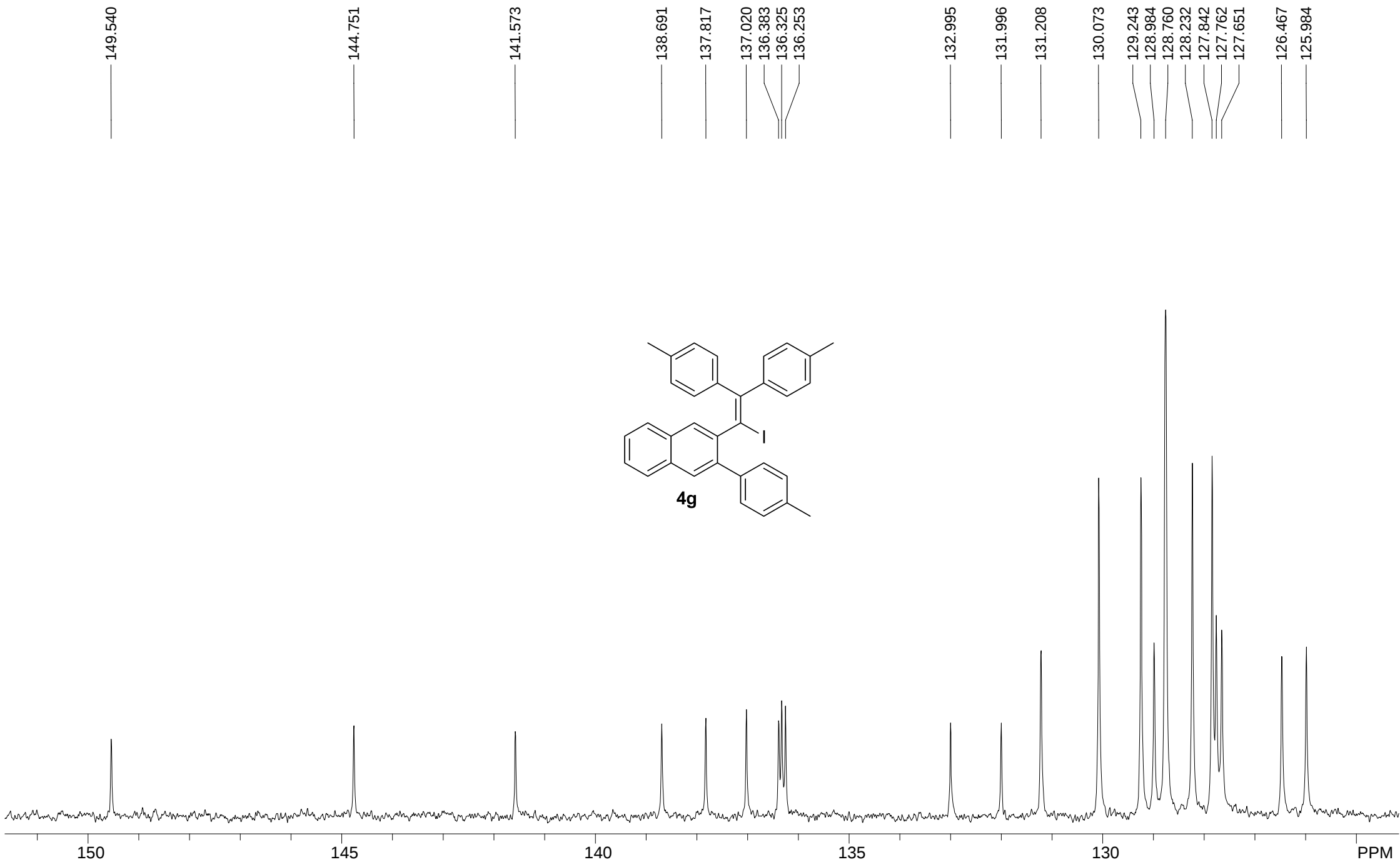
S21



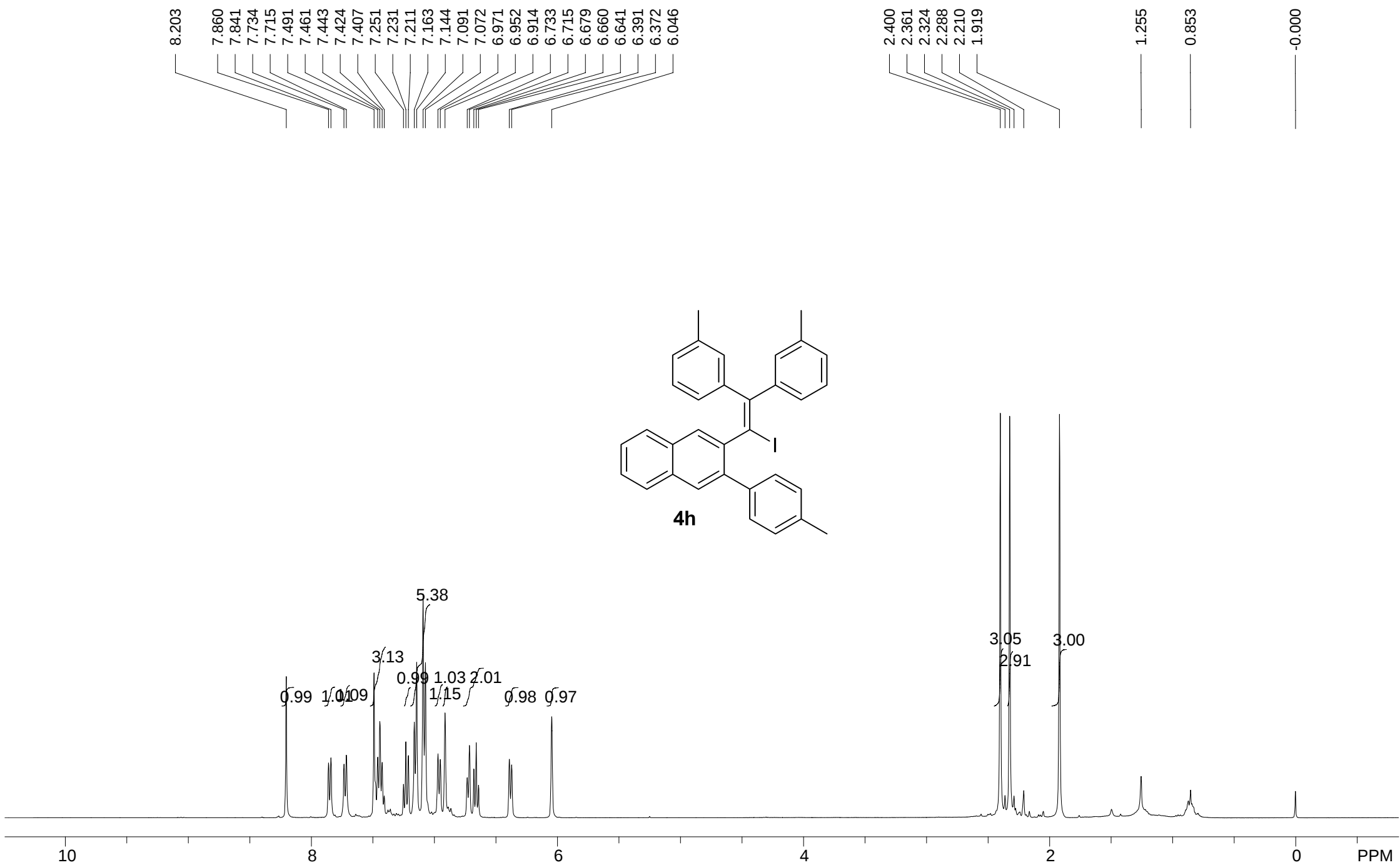
S22

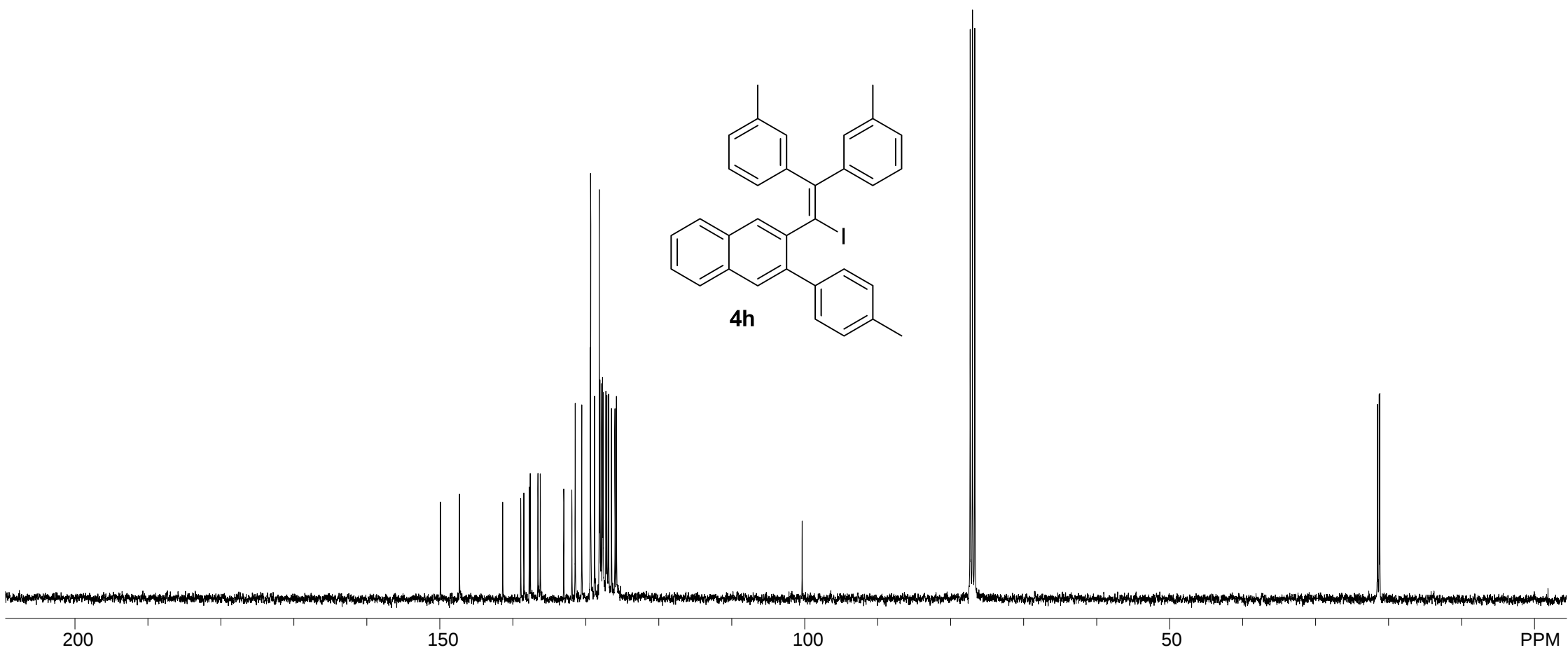




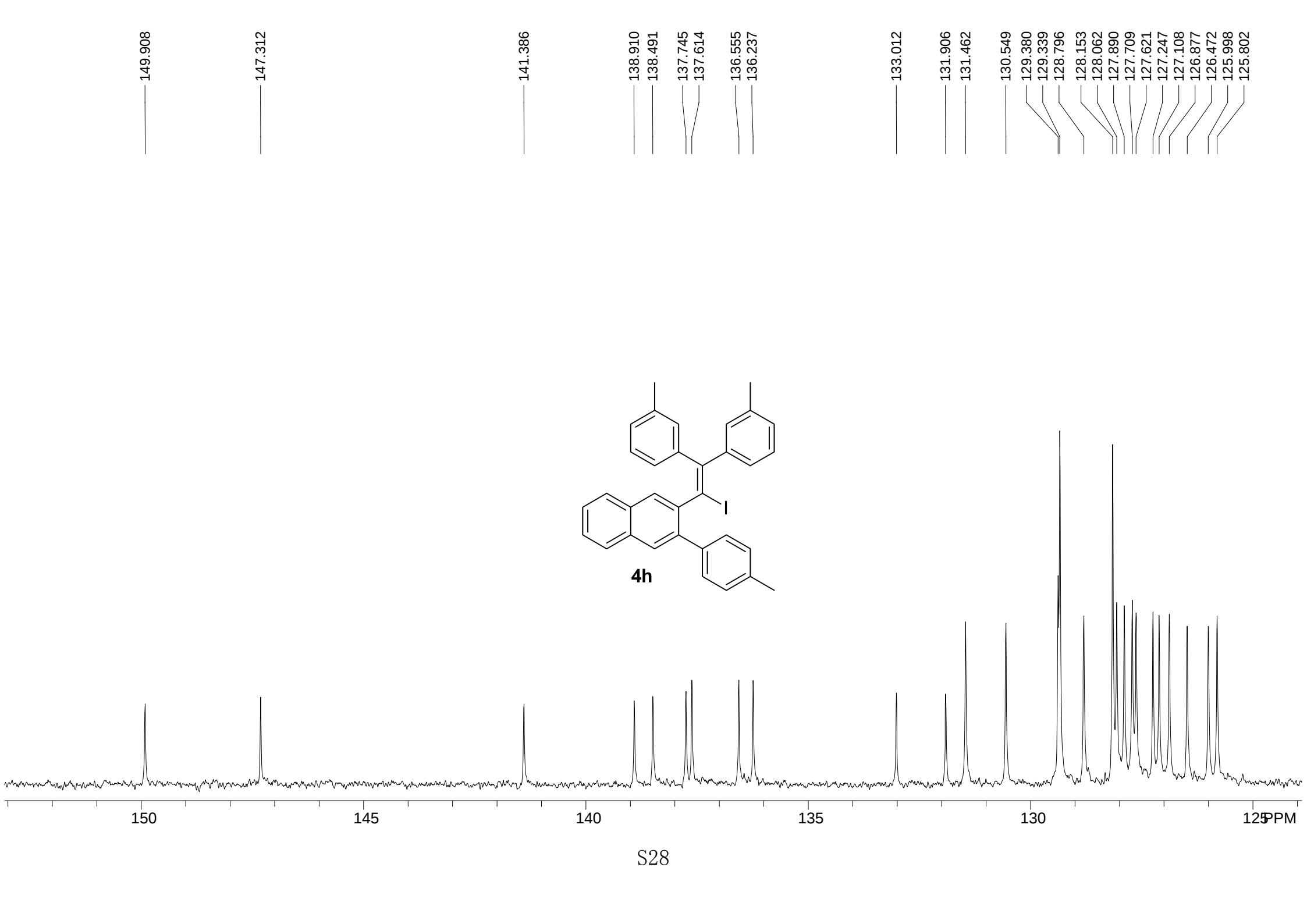


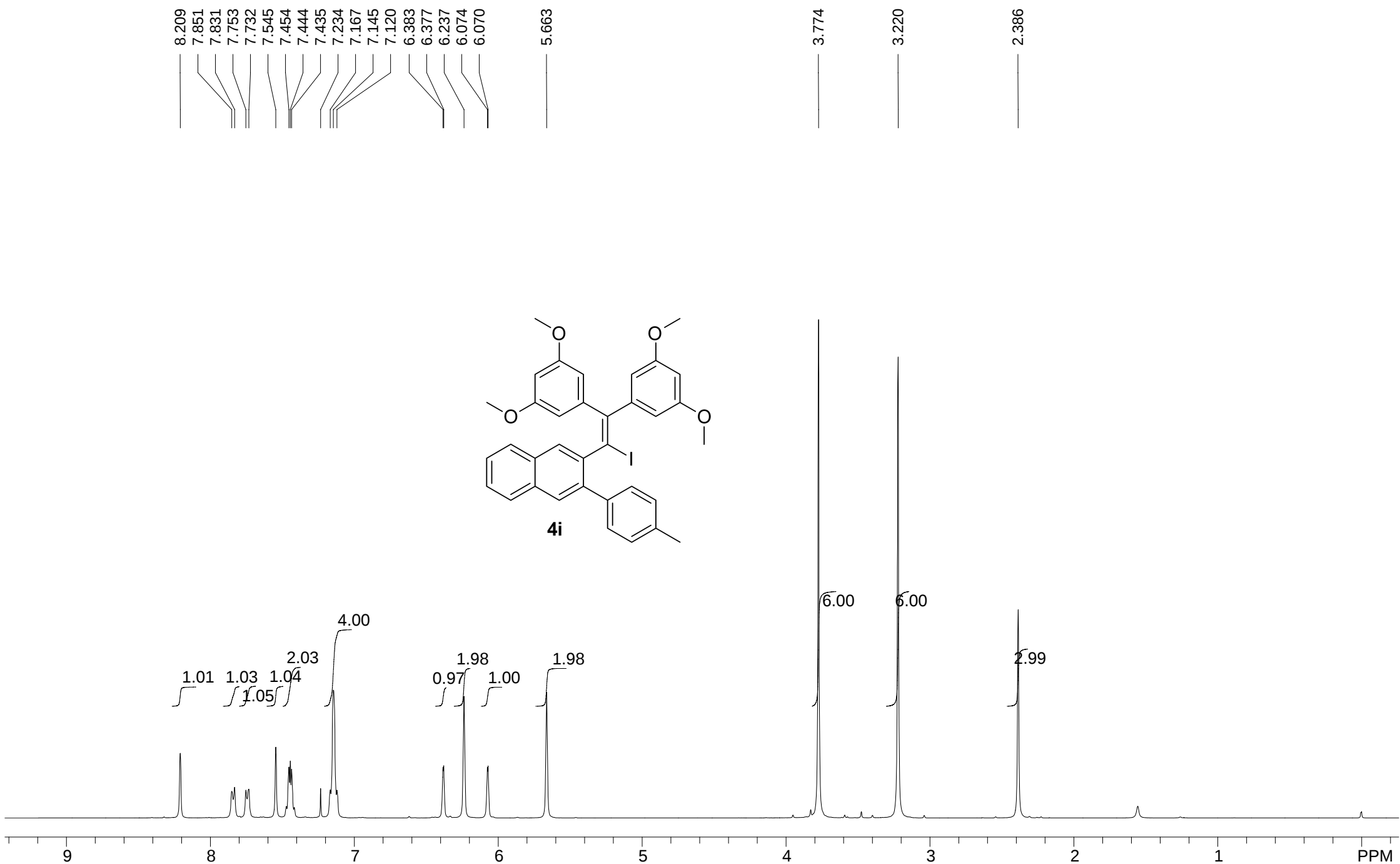
S25

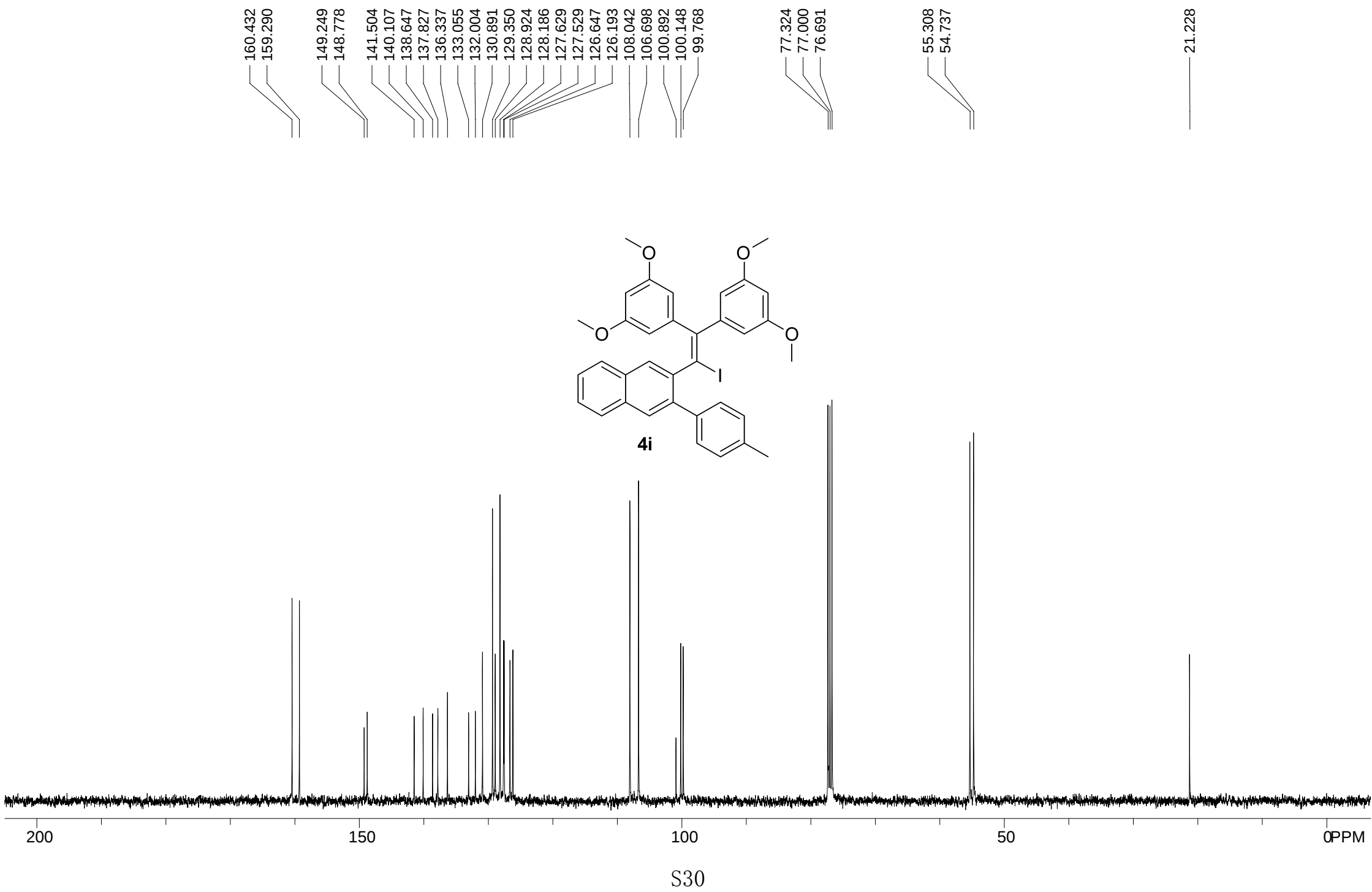


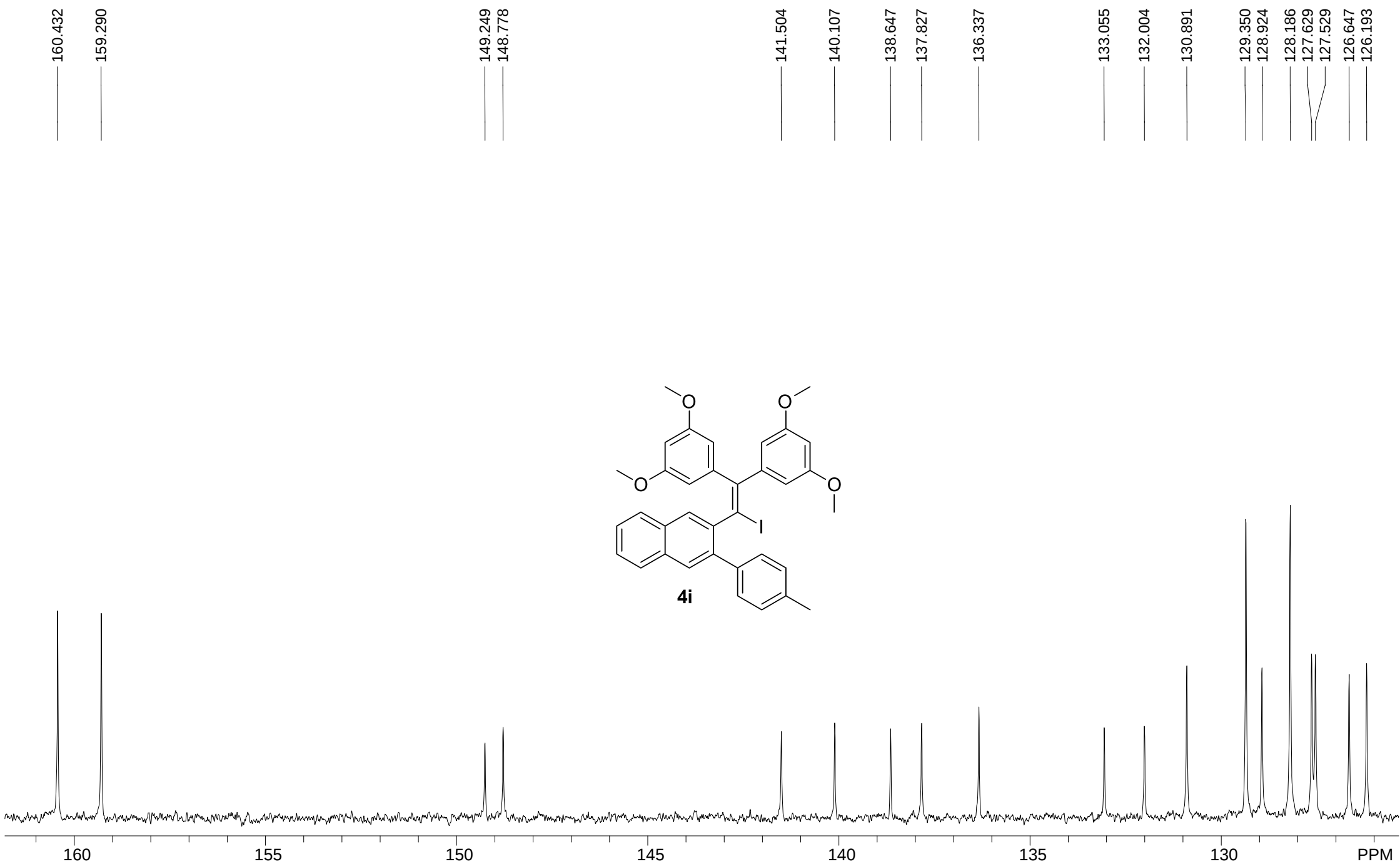


S27

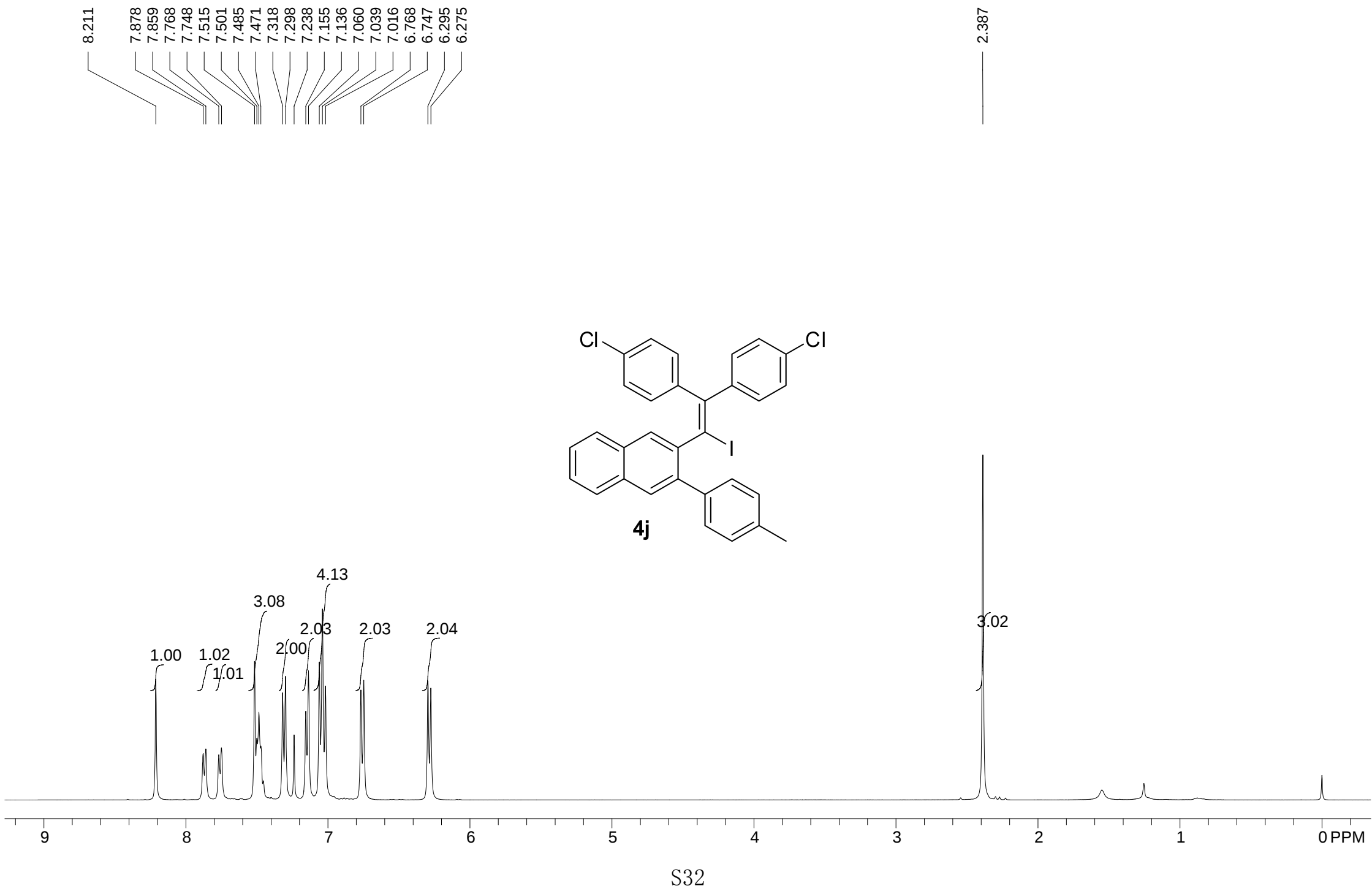


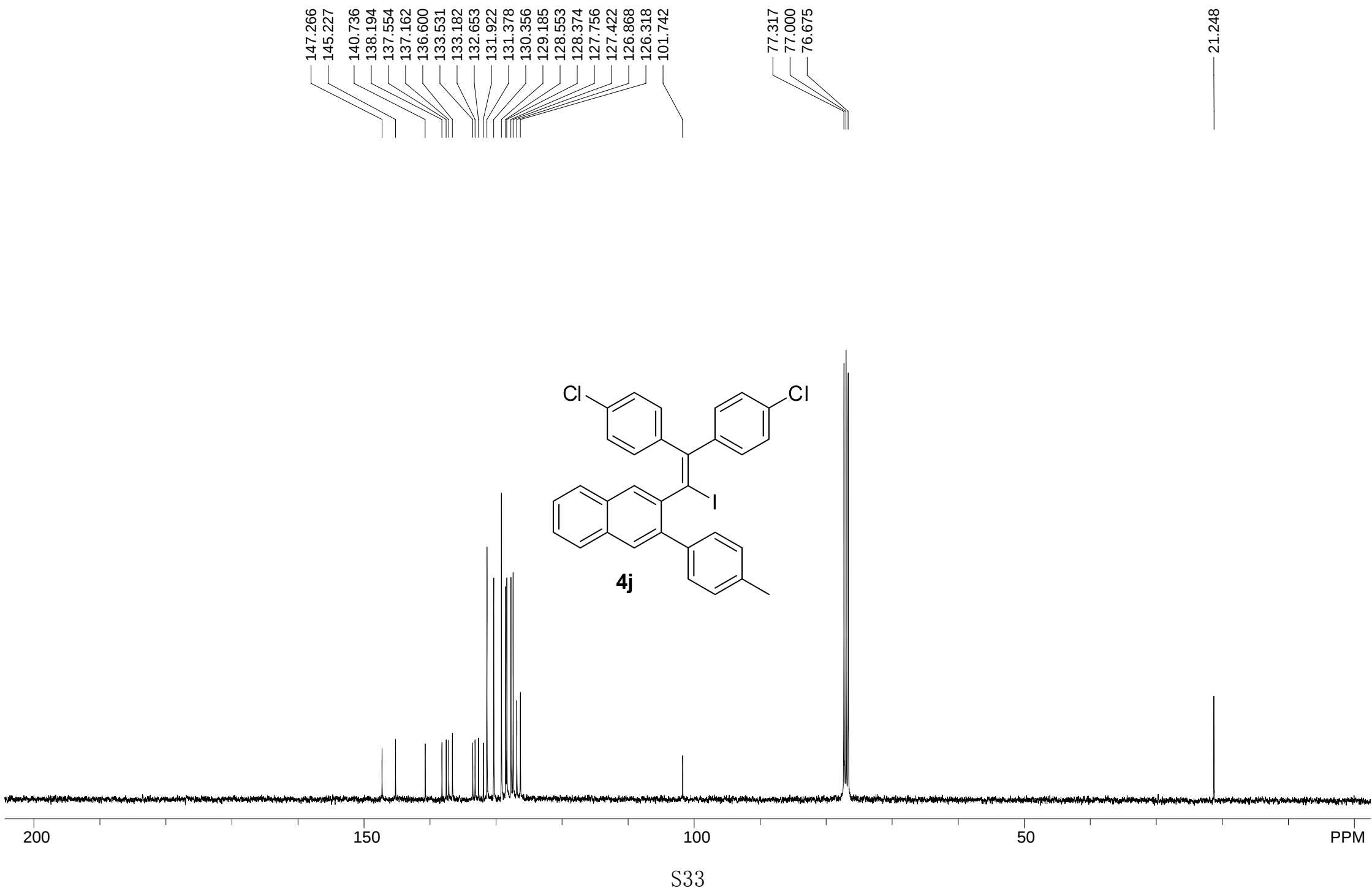






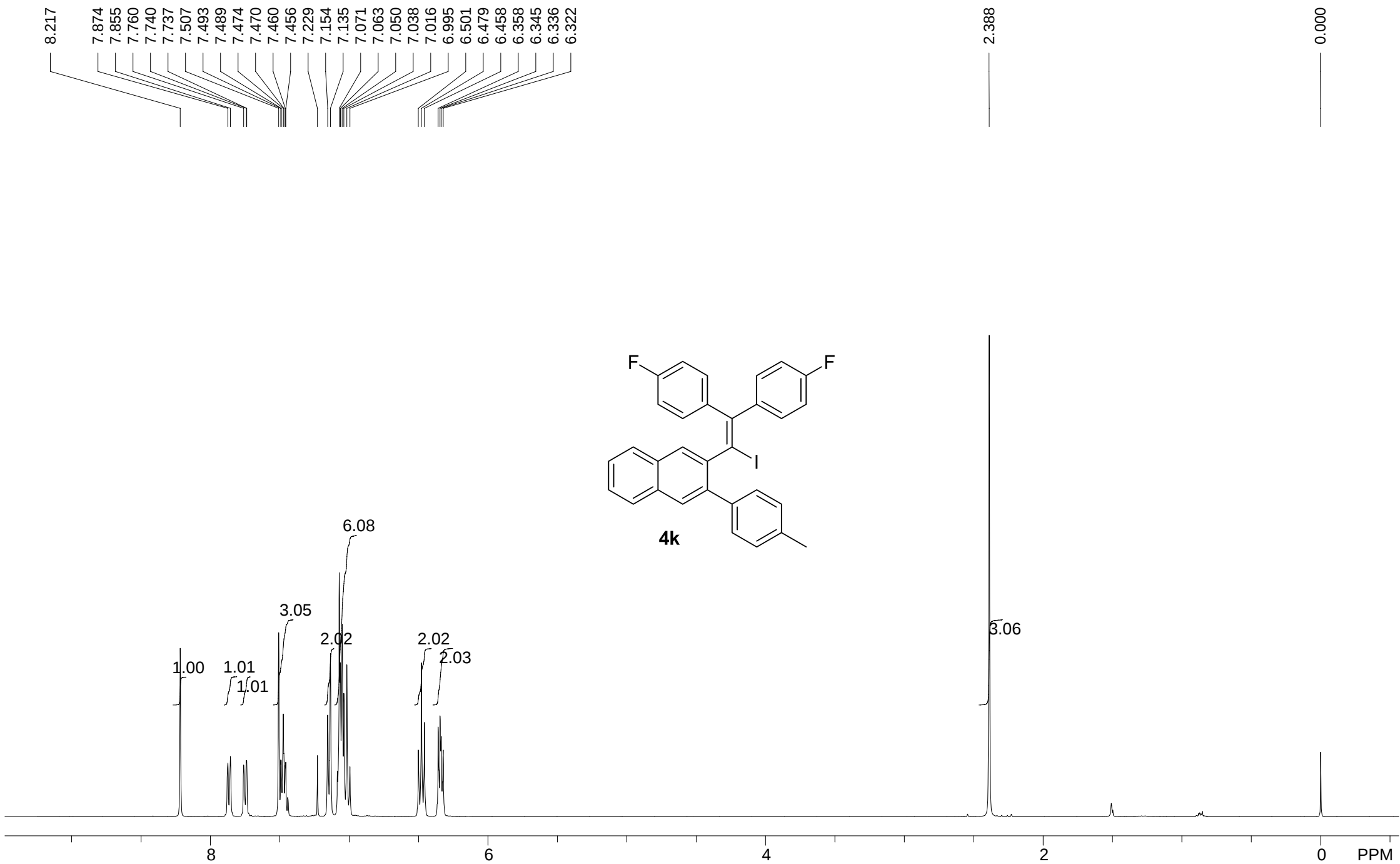
S31

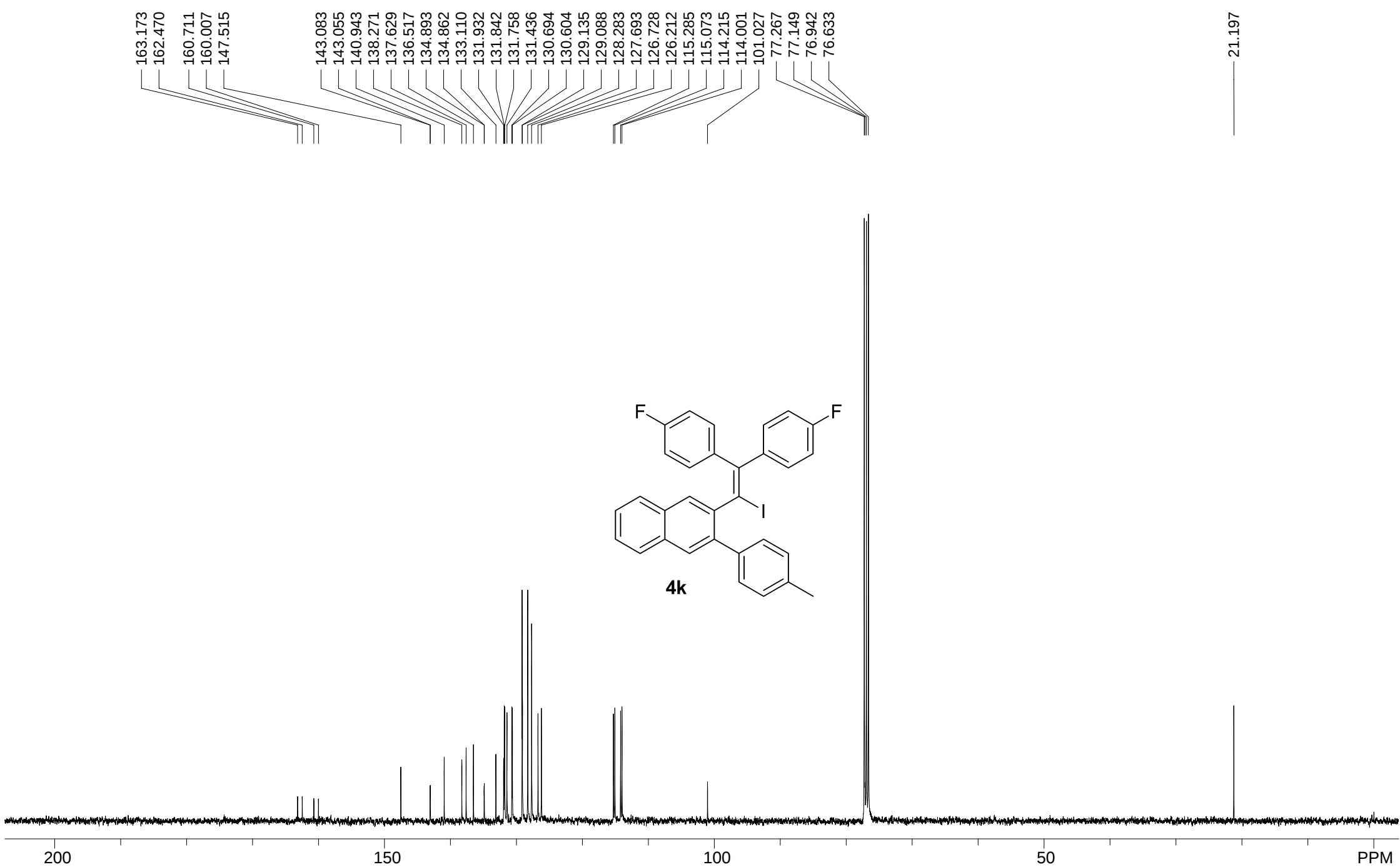




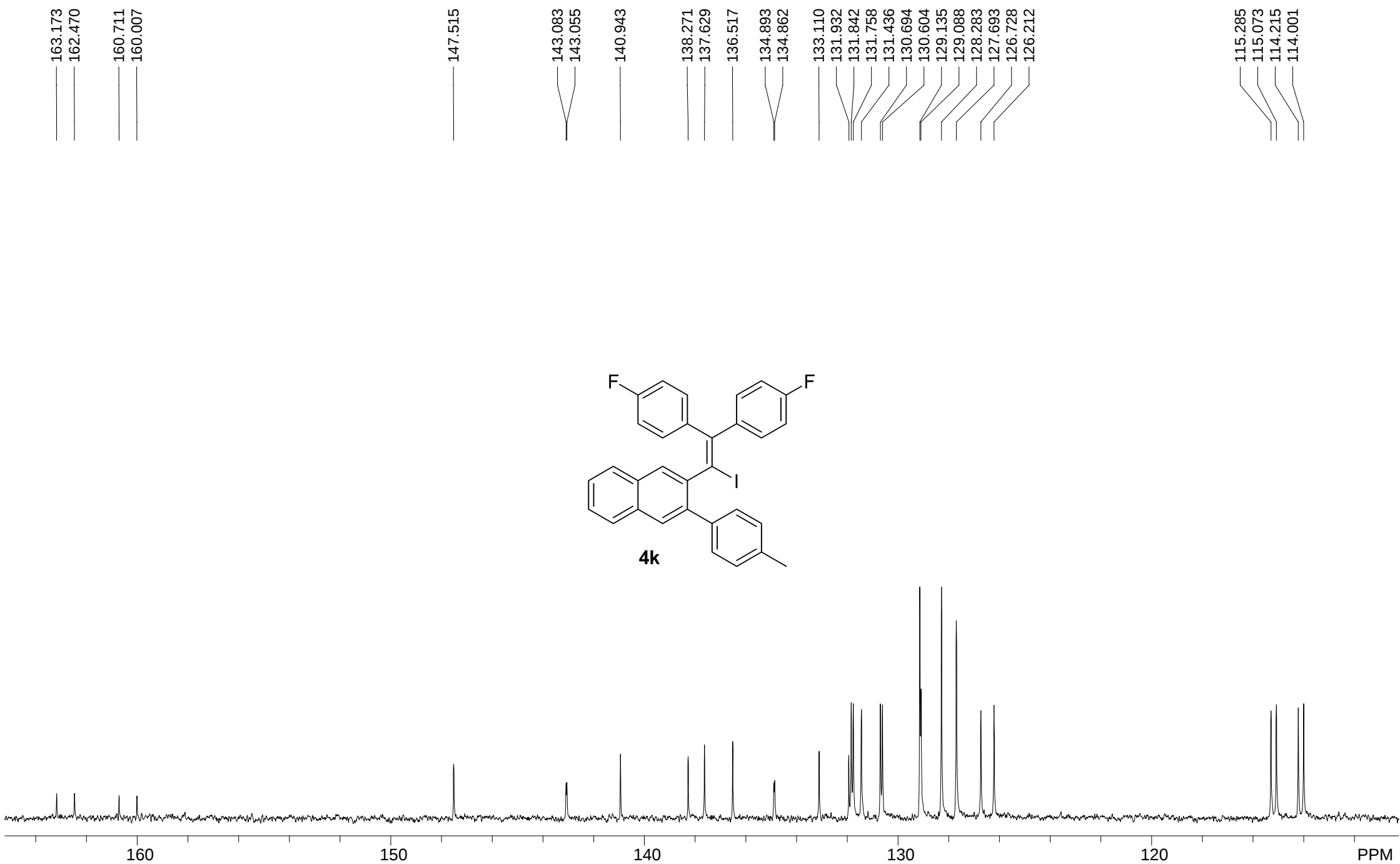


S34



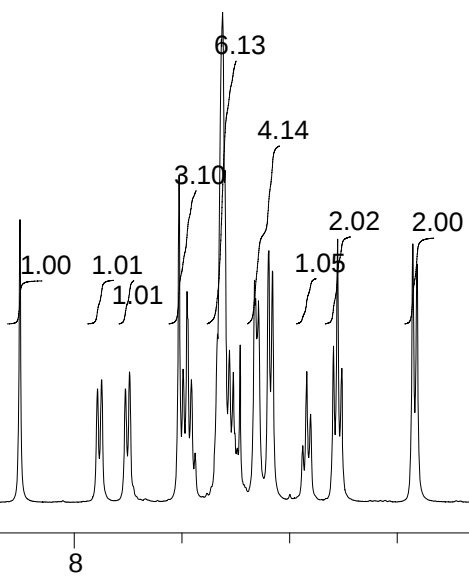
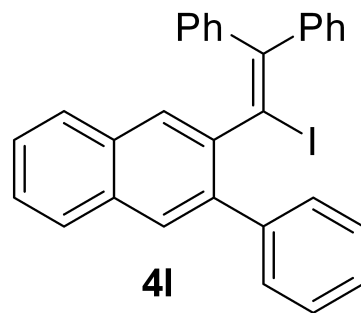


S36

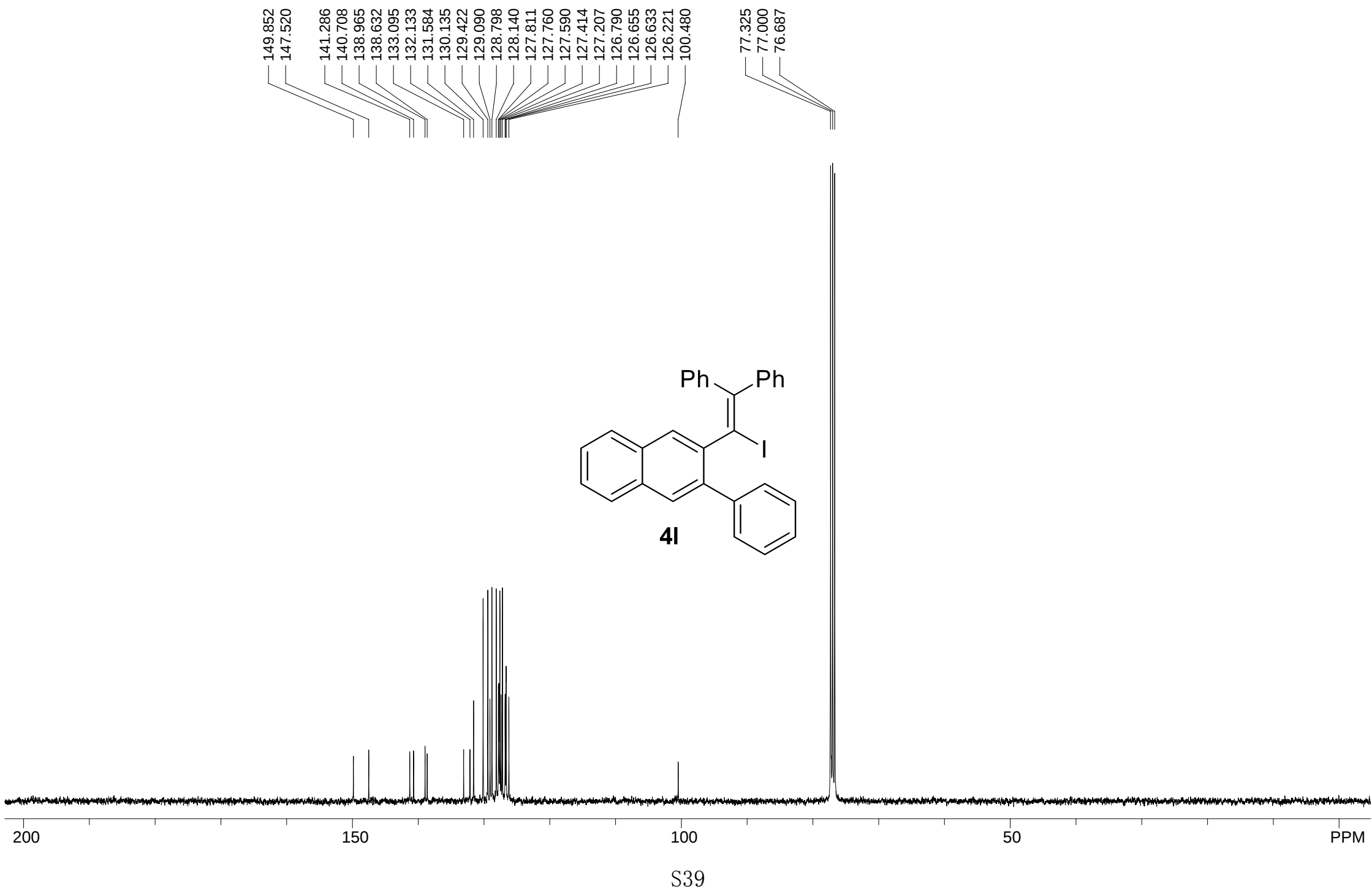


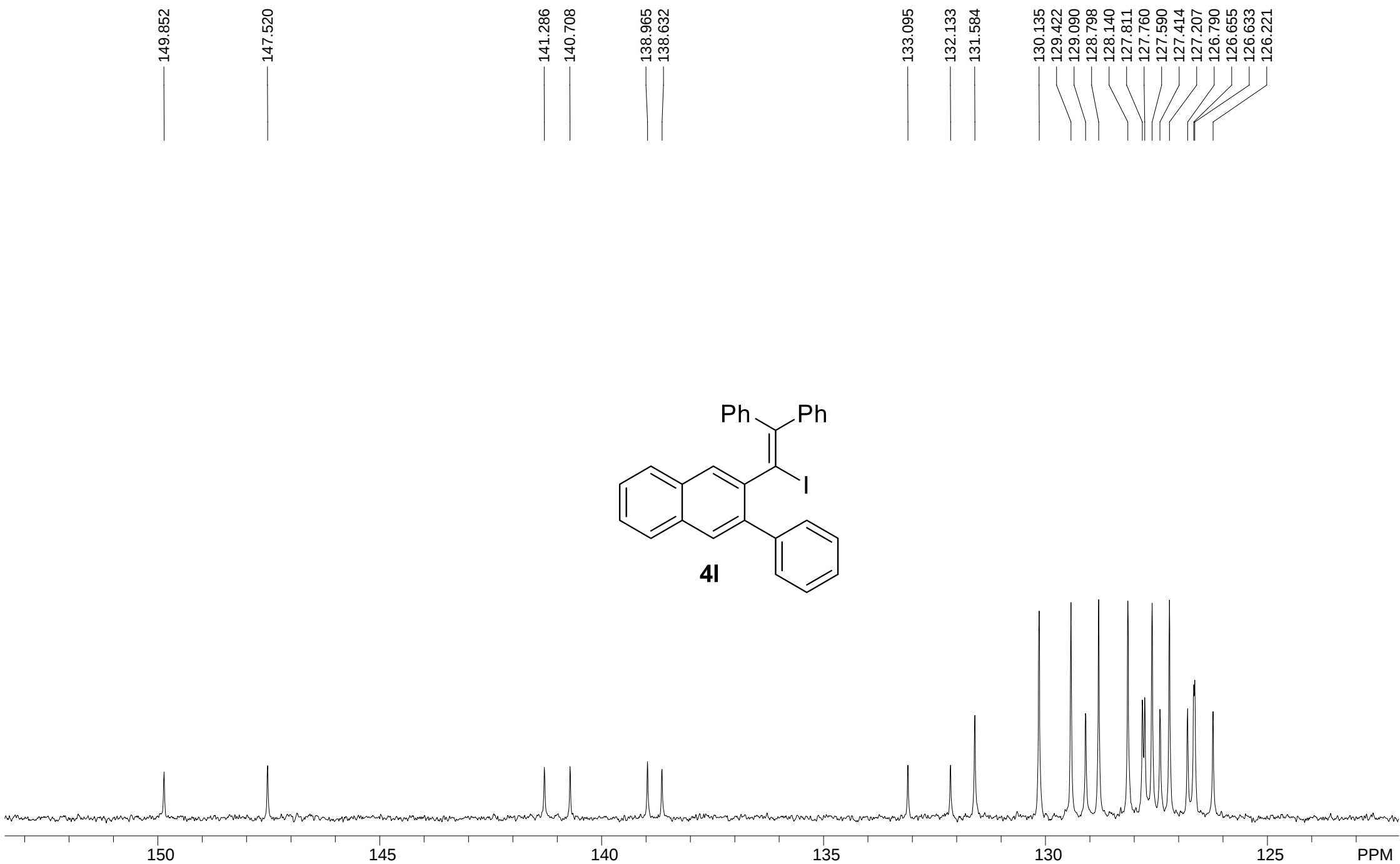
S37

8.252  
7.892  
7.872  
7.762  
7.743  
7.513  
7.495  
7.476  
7.456  
7.439  
7.334  
7.317  
7.311  
7.300  
7.279  
7.261  
7.254  
7.242  
7.229  
7.162  
7.158  
7.144  
7.099  
7.095  
7.079  
6.939  
6.920  
6.902  
6.796  
6.776  
6.757  
6.428  
6.408

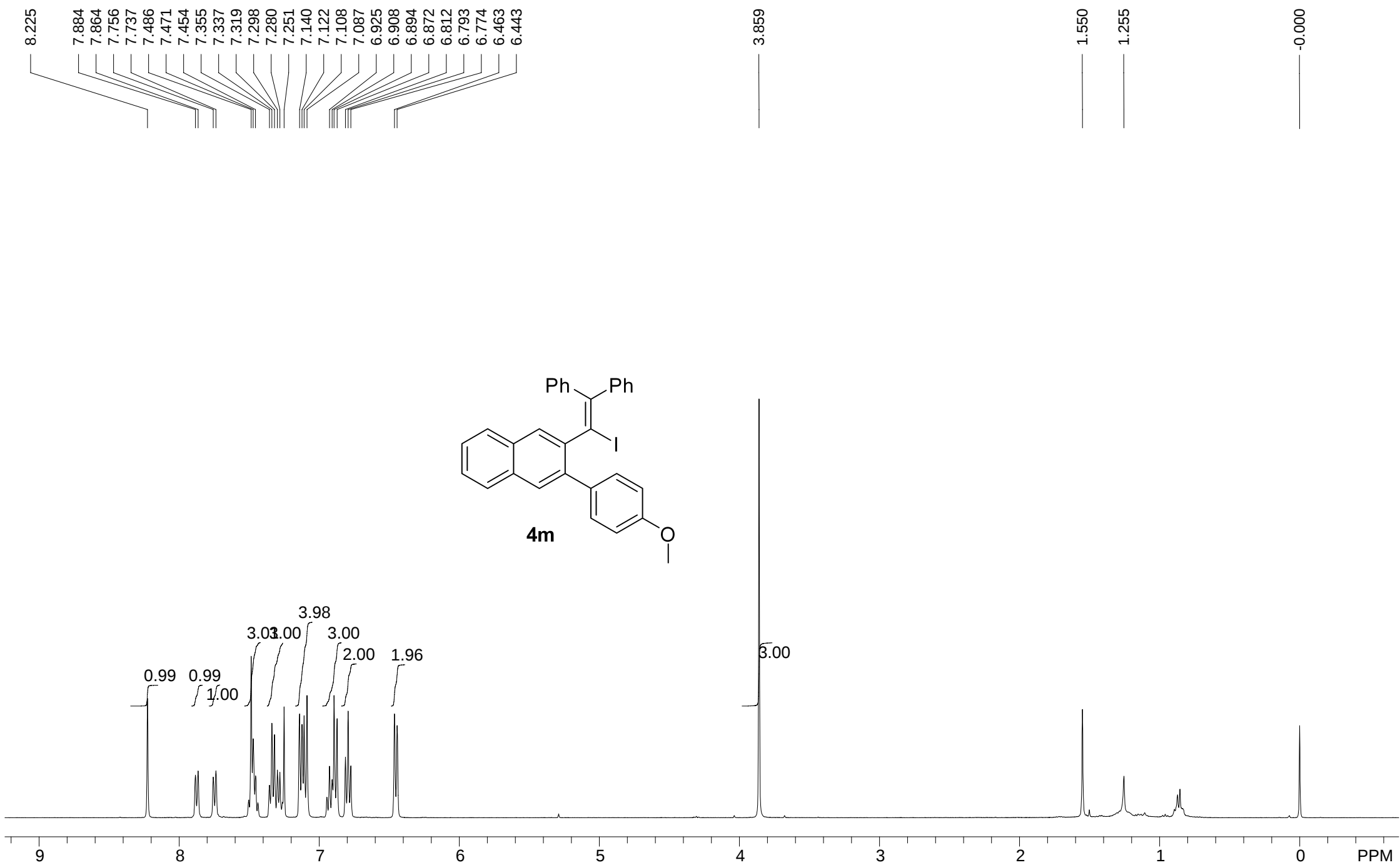


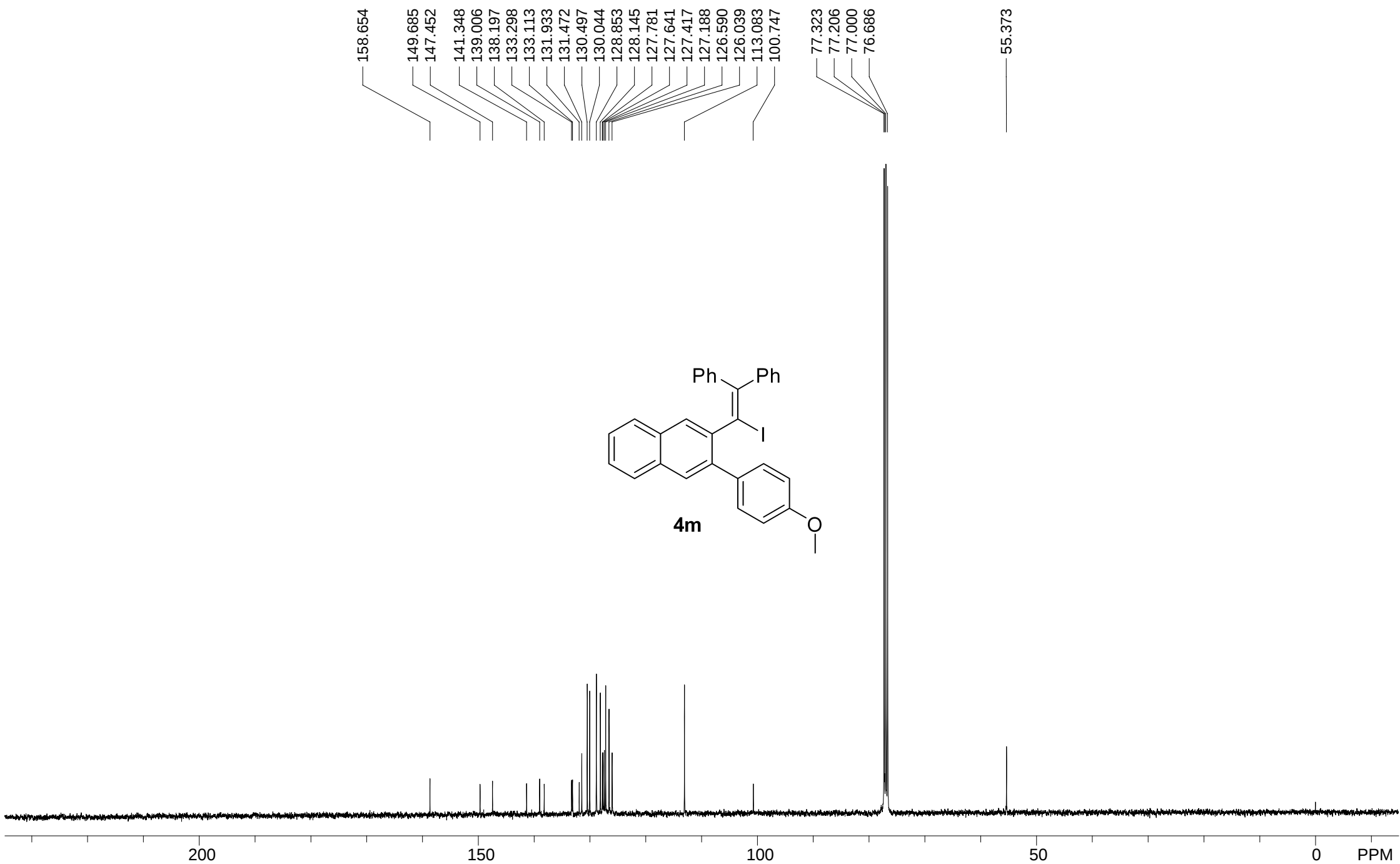
S38



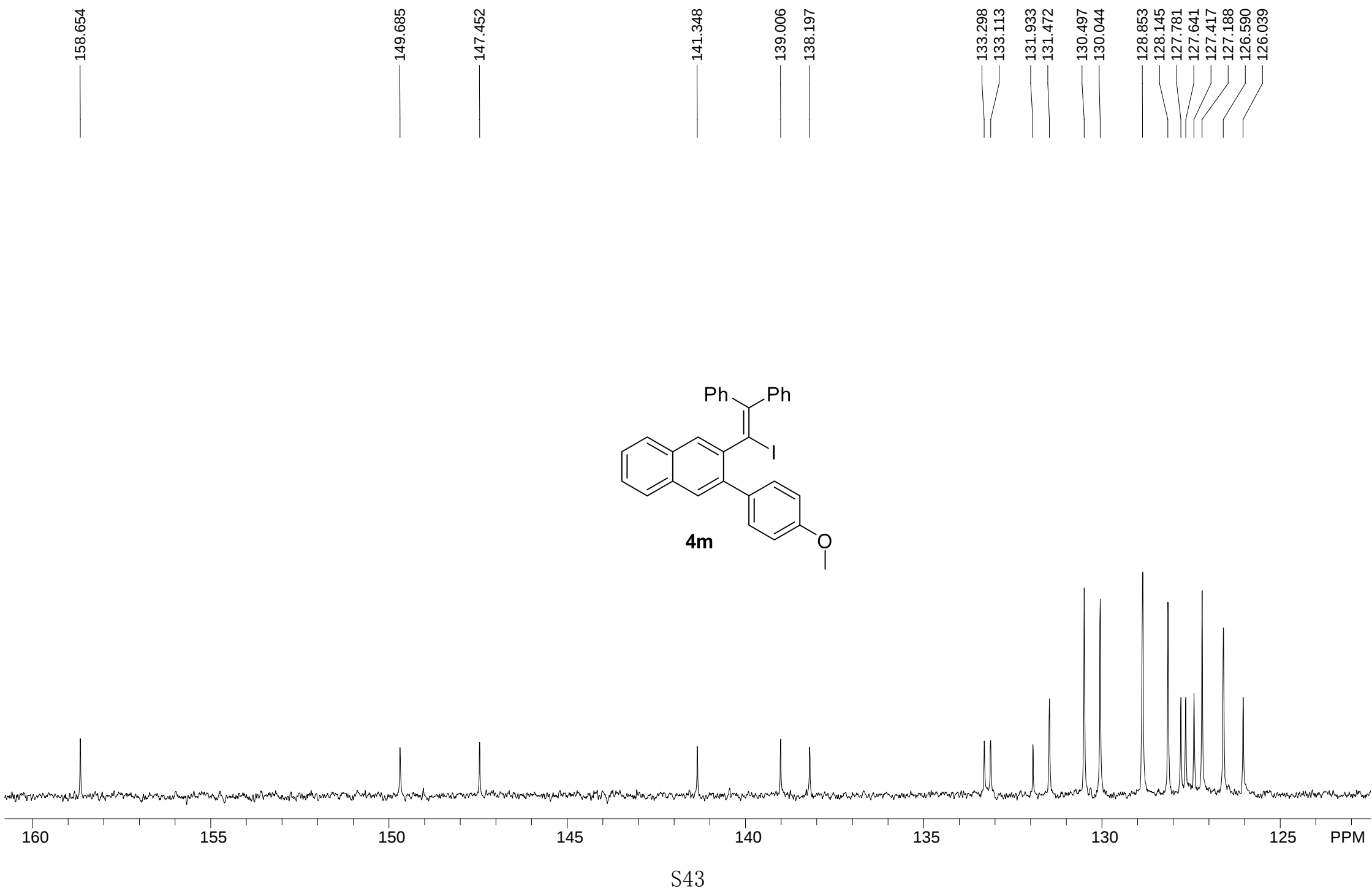


S40





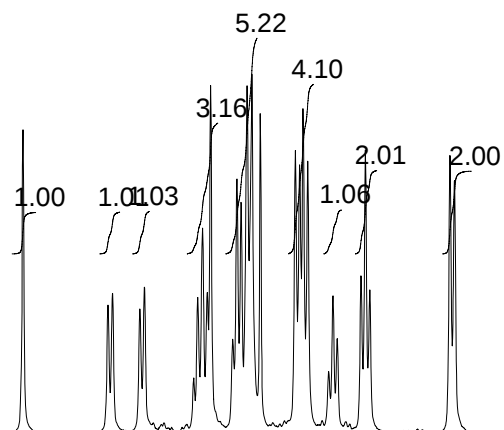
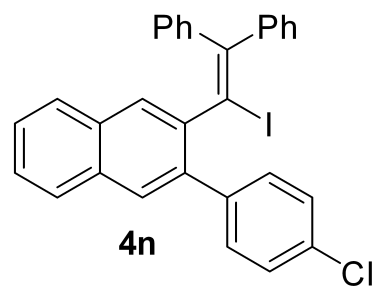
S42

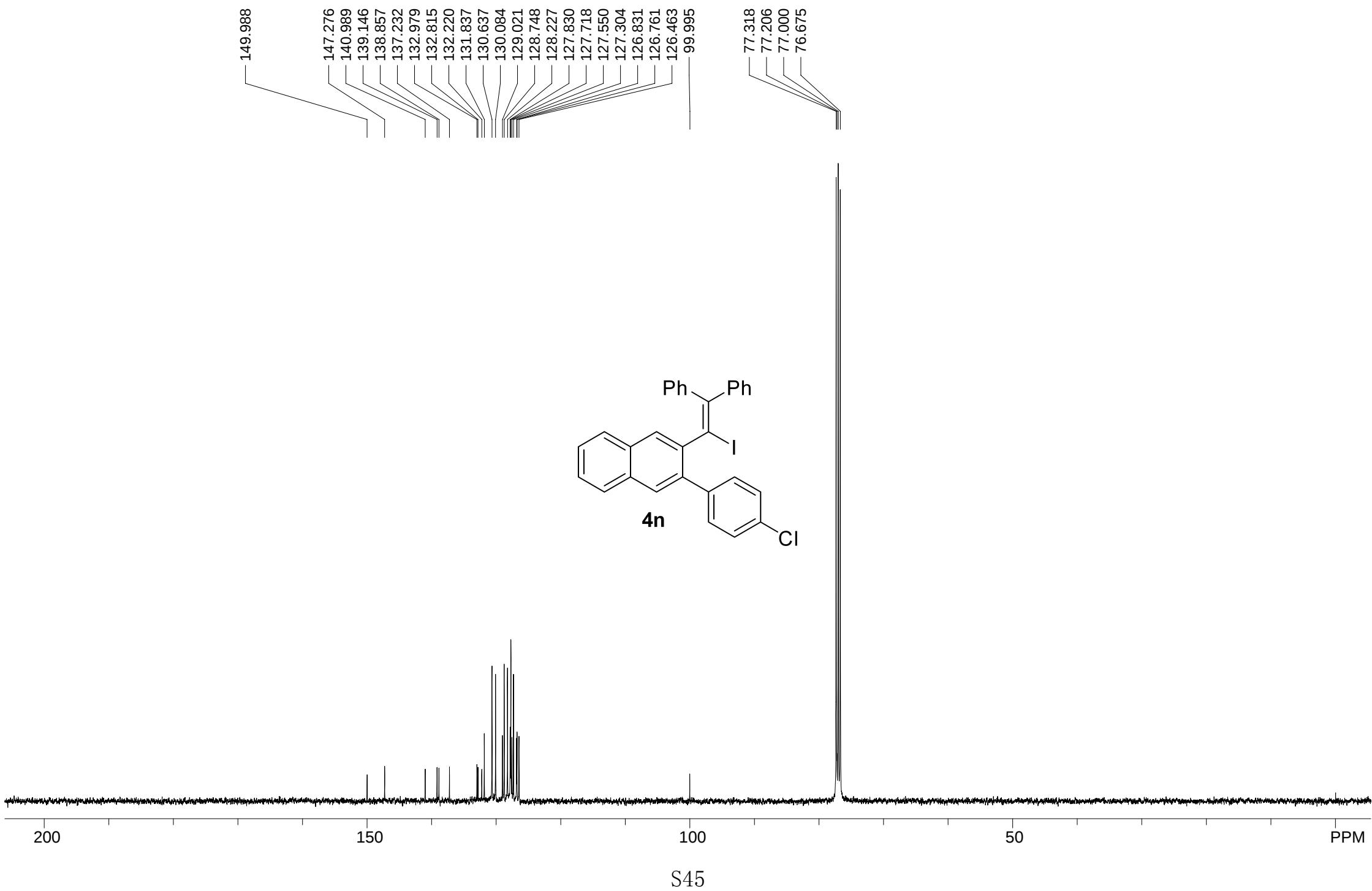


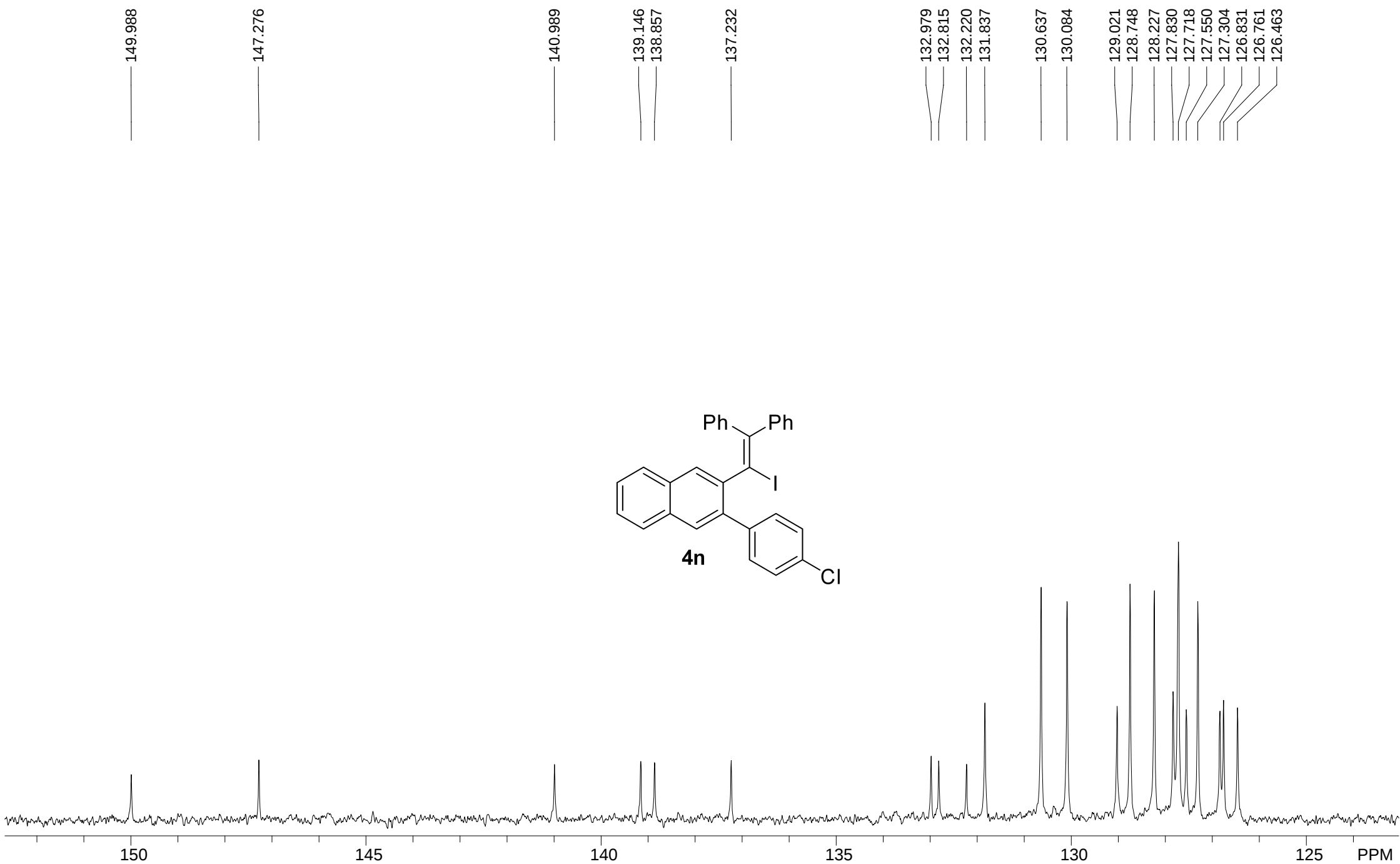
8.271  
7.906  
7.886  
7.769  
7.749  
7.537  
7.520  
7.500  
7.479  
7.465  
7.370  
7.351  
7.334  
7.309  
7.288  
7.252  
7.101  
7.083  
7.068  
7.048  
6.957  
6.939  
6.921  
6.819  
6.800  
6.781  
6.437  
6.417

1.564

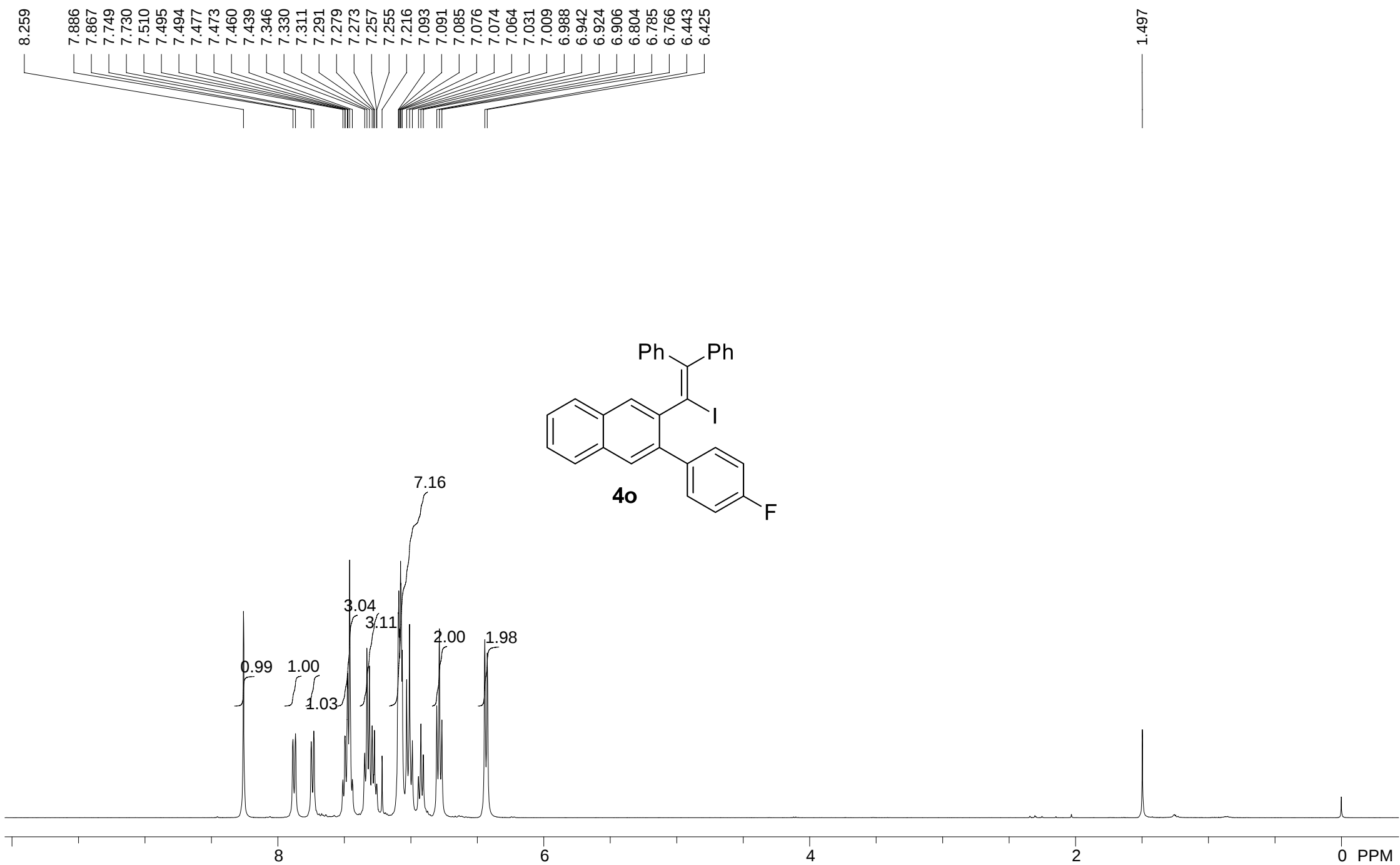
-0.000

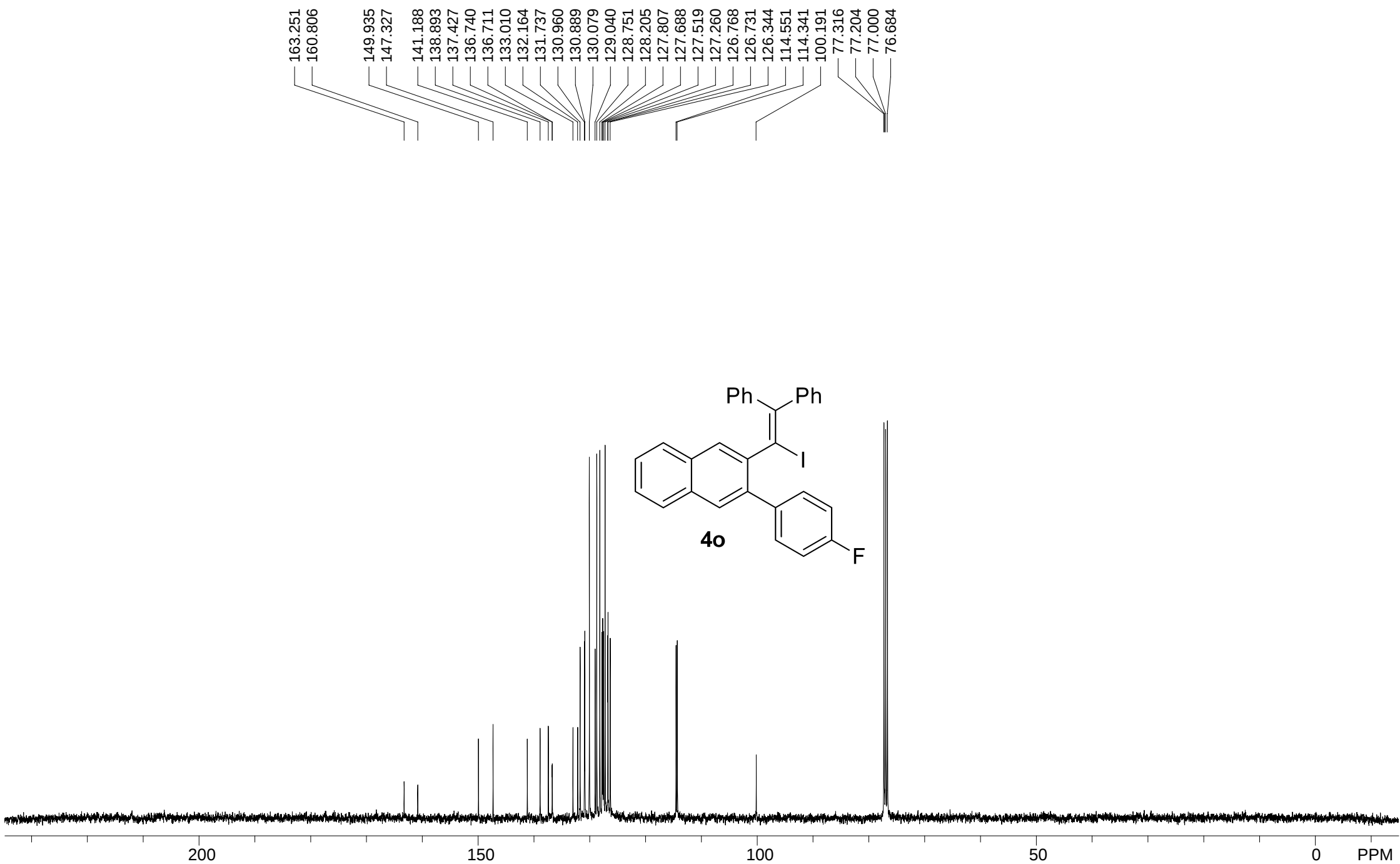




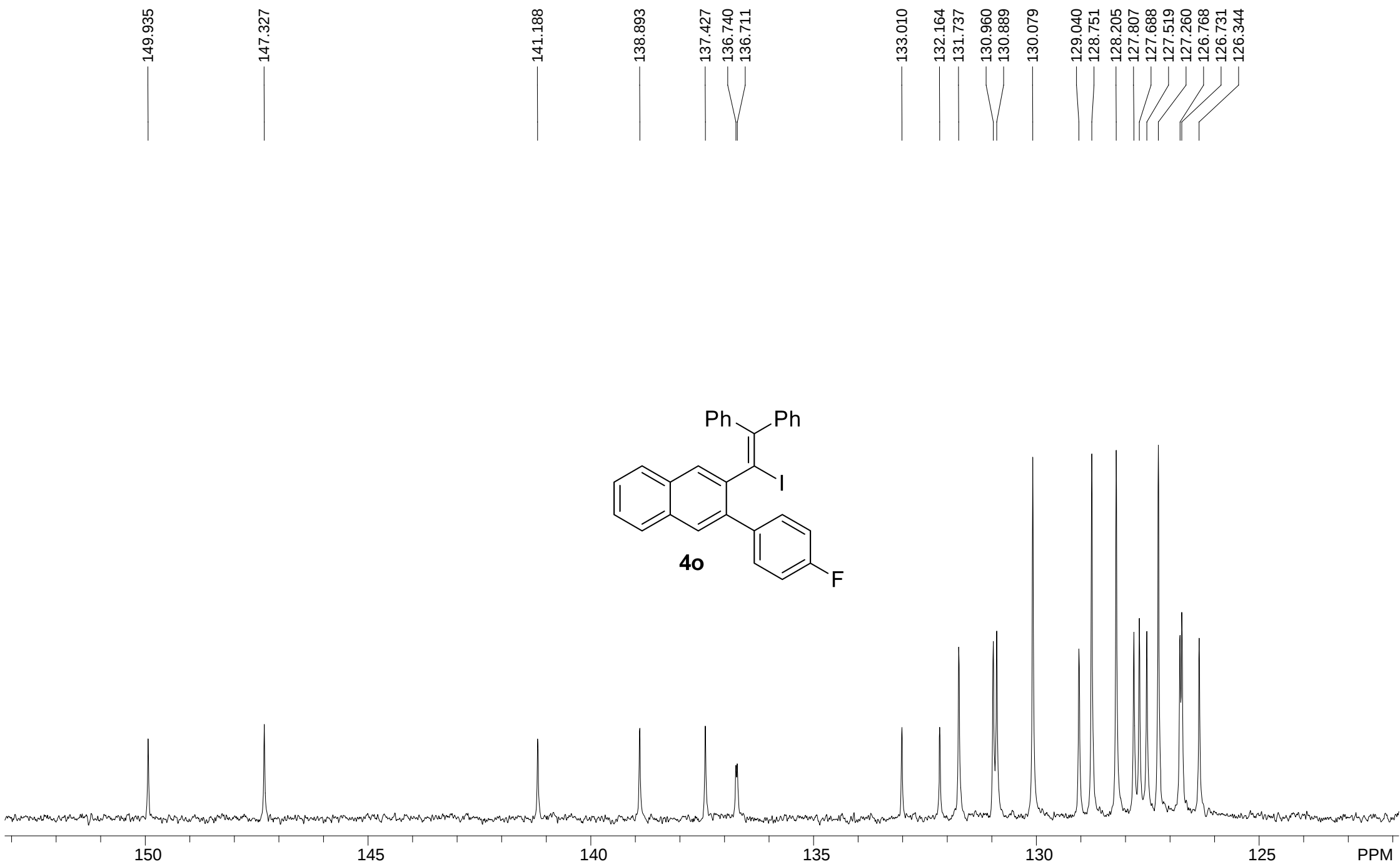


S46





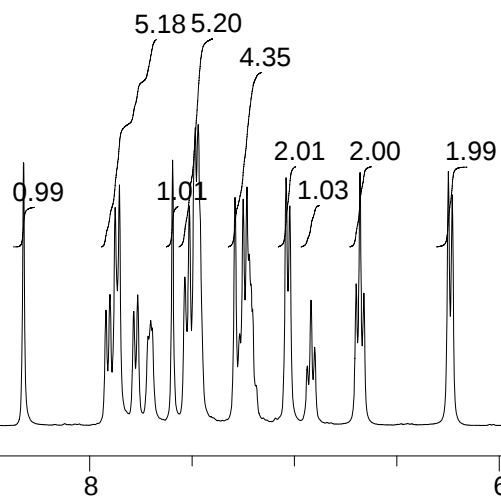
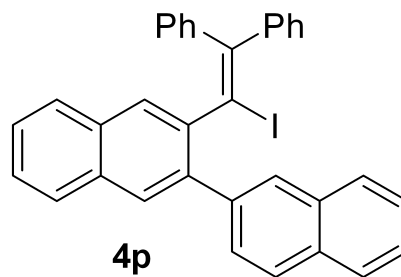
S48



S49

8.322  
7.920  
7.900  
7.875  
7.855  
7.783  
7.764  
7.715  
7.701  
7.694  
7.595  
7.535  
7.512  
7.484  
7.469  
7.290  
7.267  
7.249  
7.231  
7.220  
7.212  
7.204  
7.187  
7.041  
7.022  
6.937  
6.919  
6.900  
6.699  
6.679  
6.661  
6.248  
6.229

-0.000



S50

PPM

