

# Probing Mechanisms of Aryl–Aryl Bond Cleavages Under Flash Vacuum Pyrolysis Conditions

Edward A. Jackson, Xiang Xue, Hee Yeon Cho, Lawrence T. Scott\*

*Merkert Chemistry Center, Boston College, Chestnut Hill, Massachusetts 02467 USA*

*\*e-mail: lawrence.scott@bc.edu*

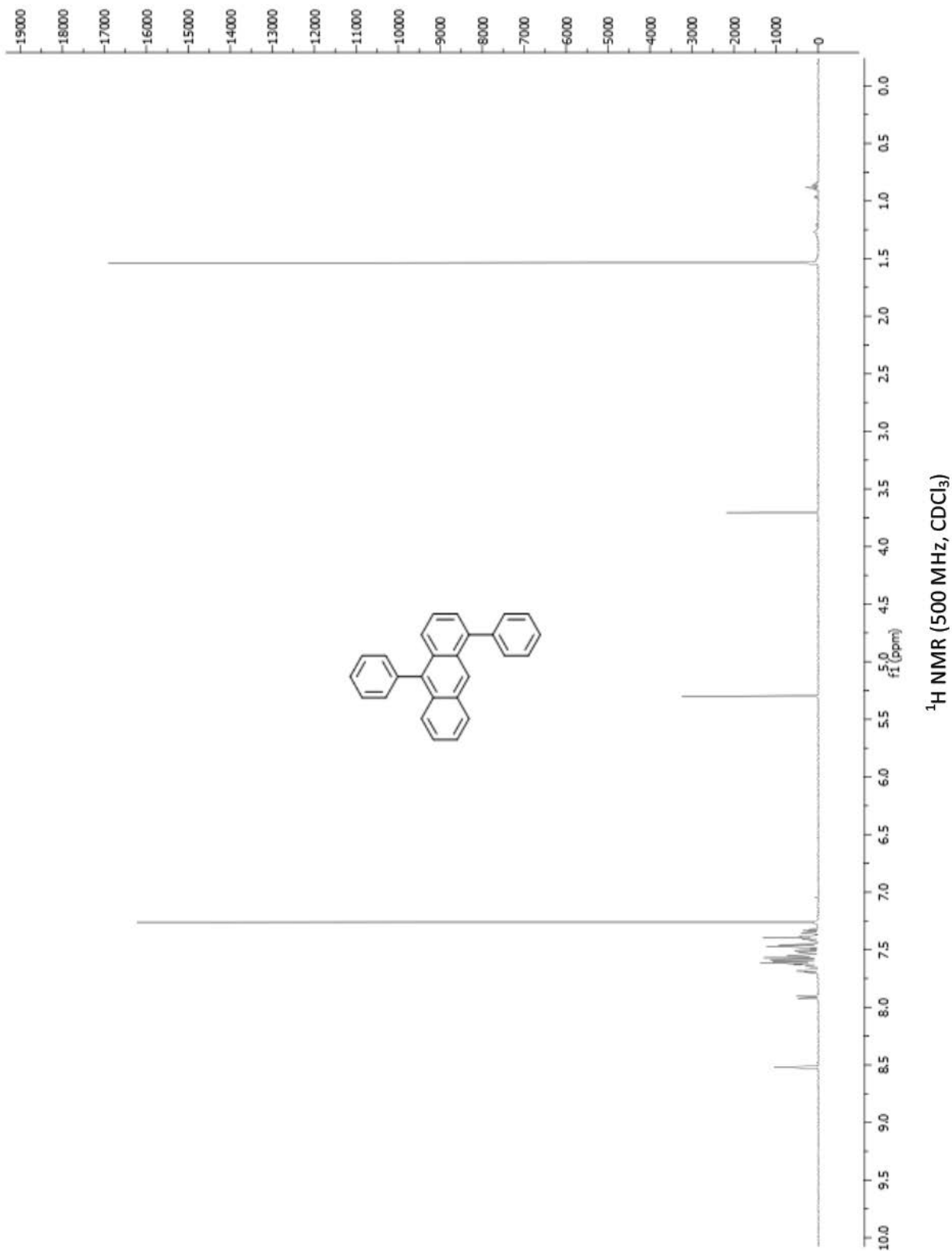
## Supplementary Material

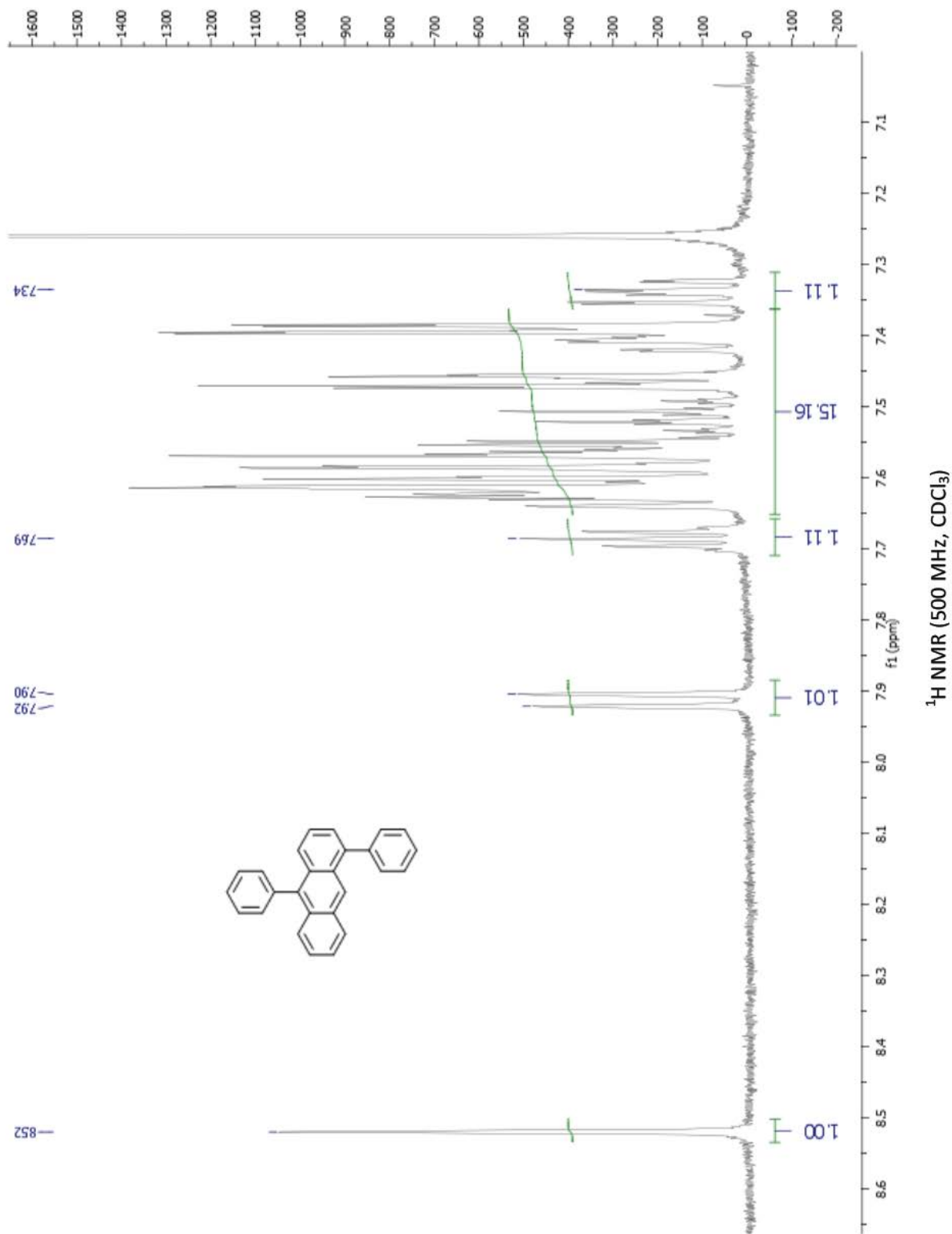
<sup>1</sup>H and <sup>13</sup>C NMR spectra for synthesized 1,10-diphenylanthracene (**12**).<sup>1</sup>

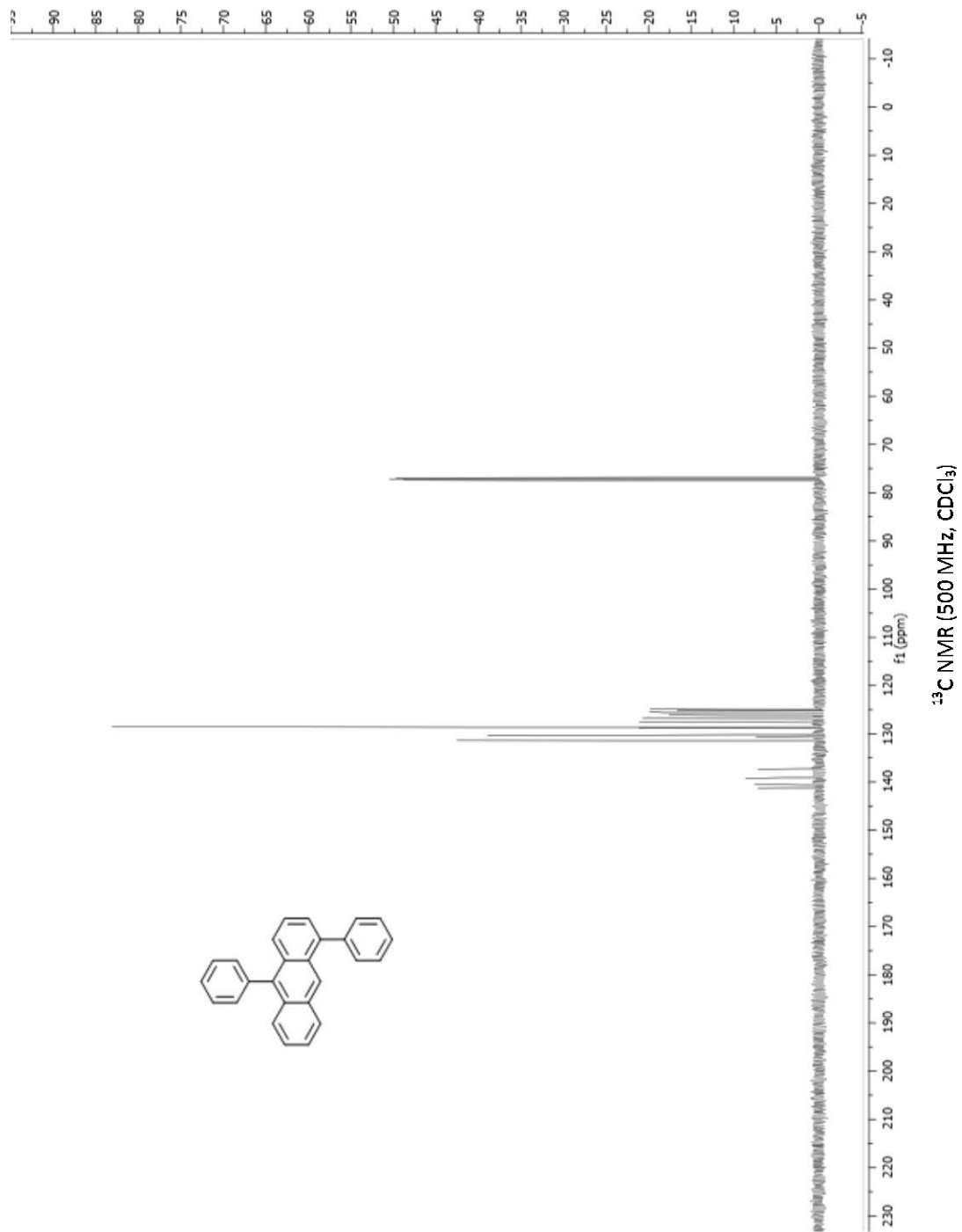
<sup>1</sup>H NMR spectra for synthesized 9-(2-naphthyl)anthracene (**17**)<sup>2</sup> and for authentic samples of FVP products **1**, **2**, **3**, **9**, **14**, and **20**.

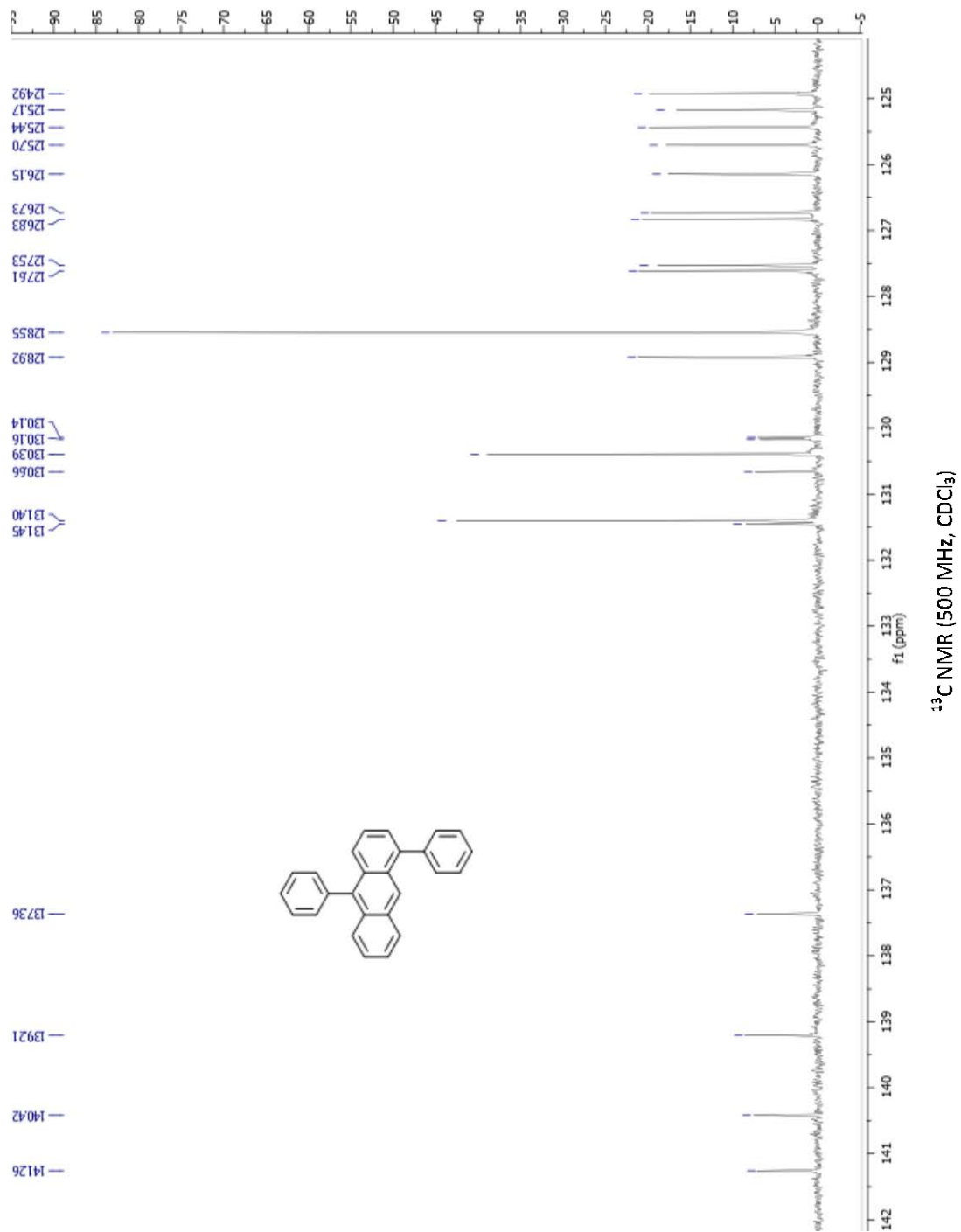
<sup>1</sup>H NMR spectra (full scale and zoom) of products from the FVP of **1**, **12**, **17**, and **20**.

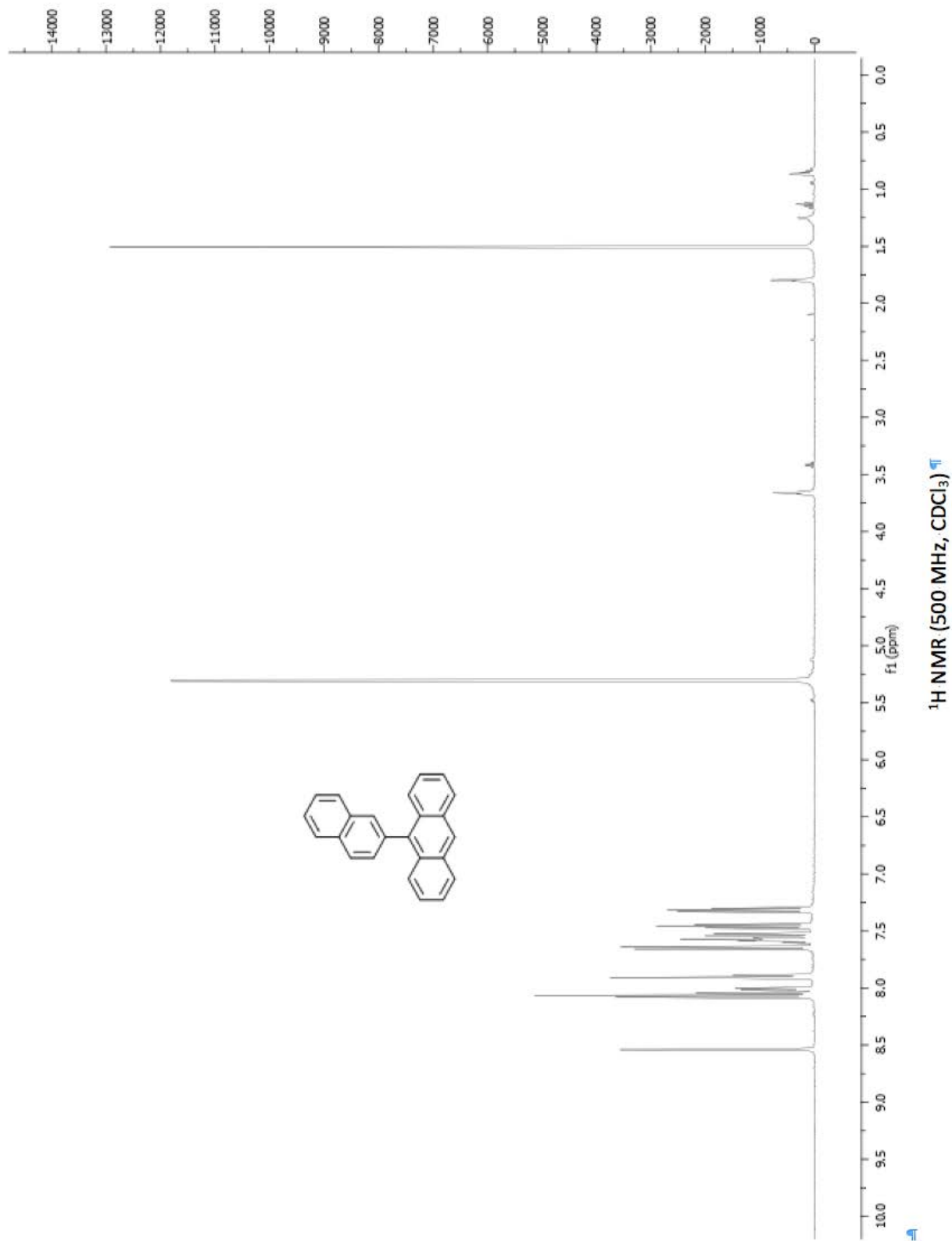
GC-mass spectra (full scale and zoom) of products from the FVP of **5**, **8**, and **12**.

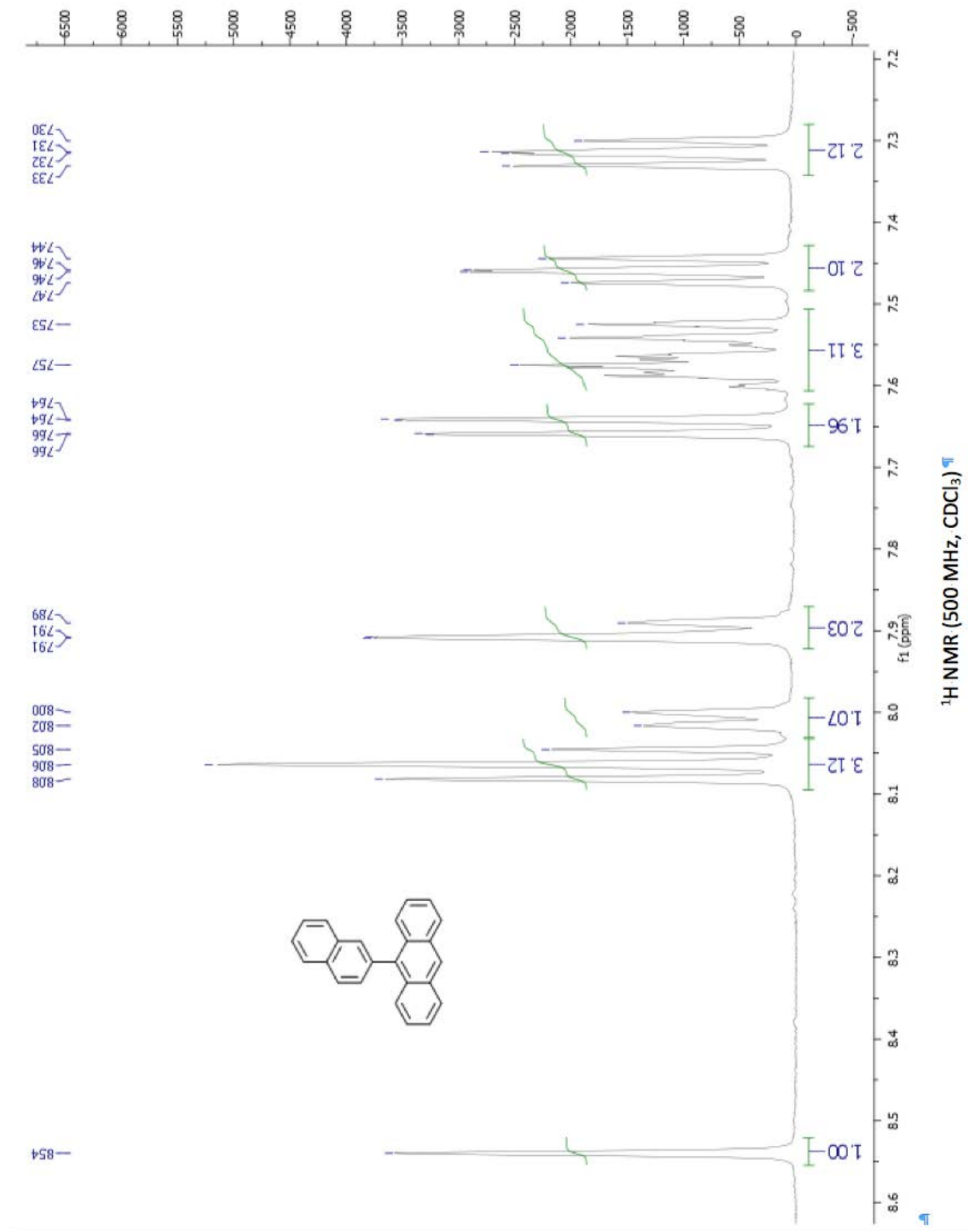


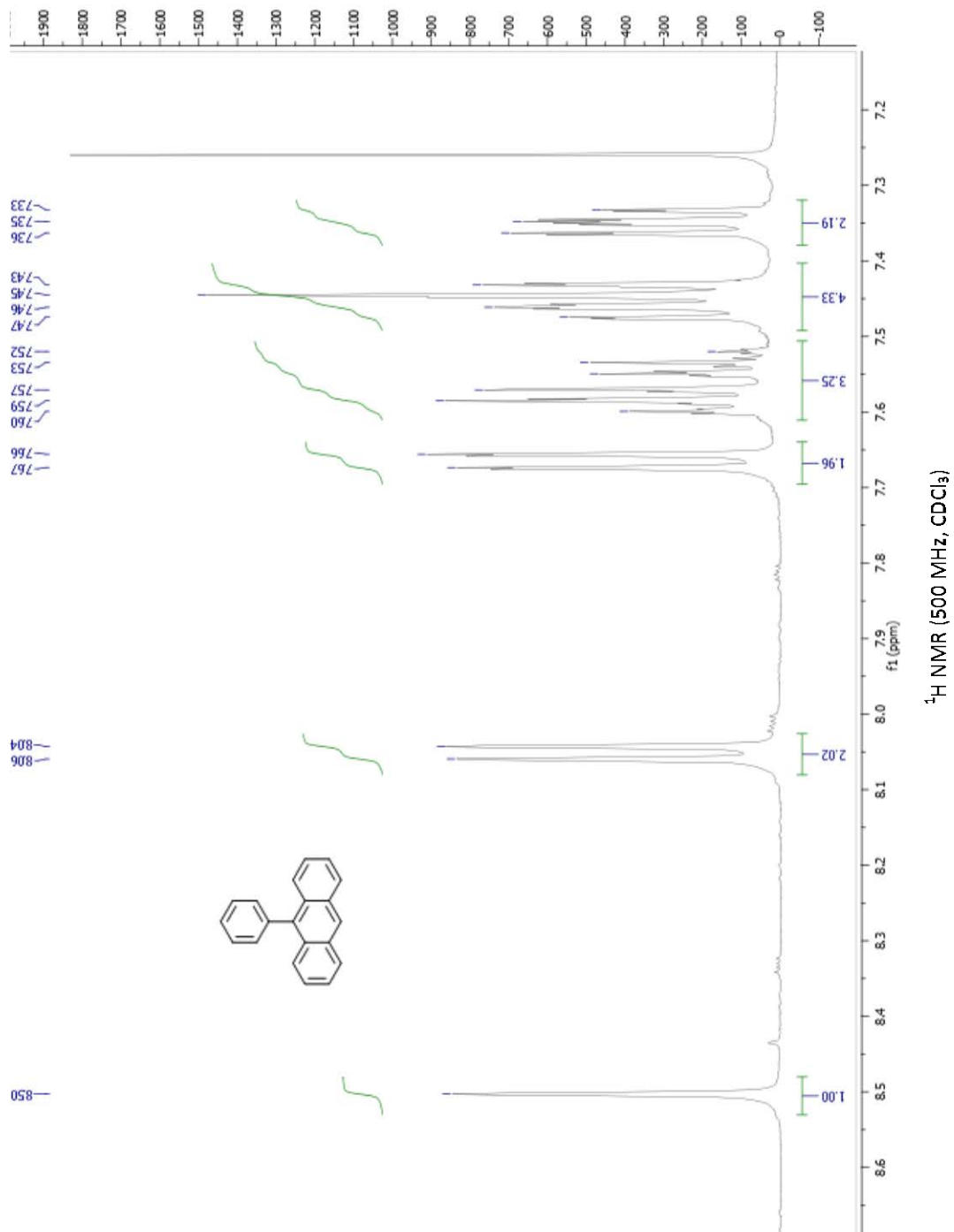




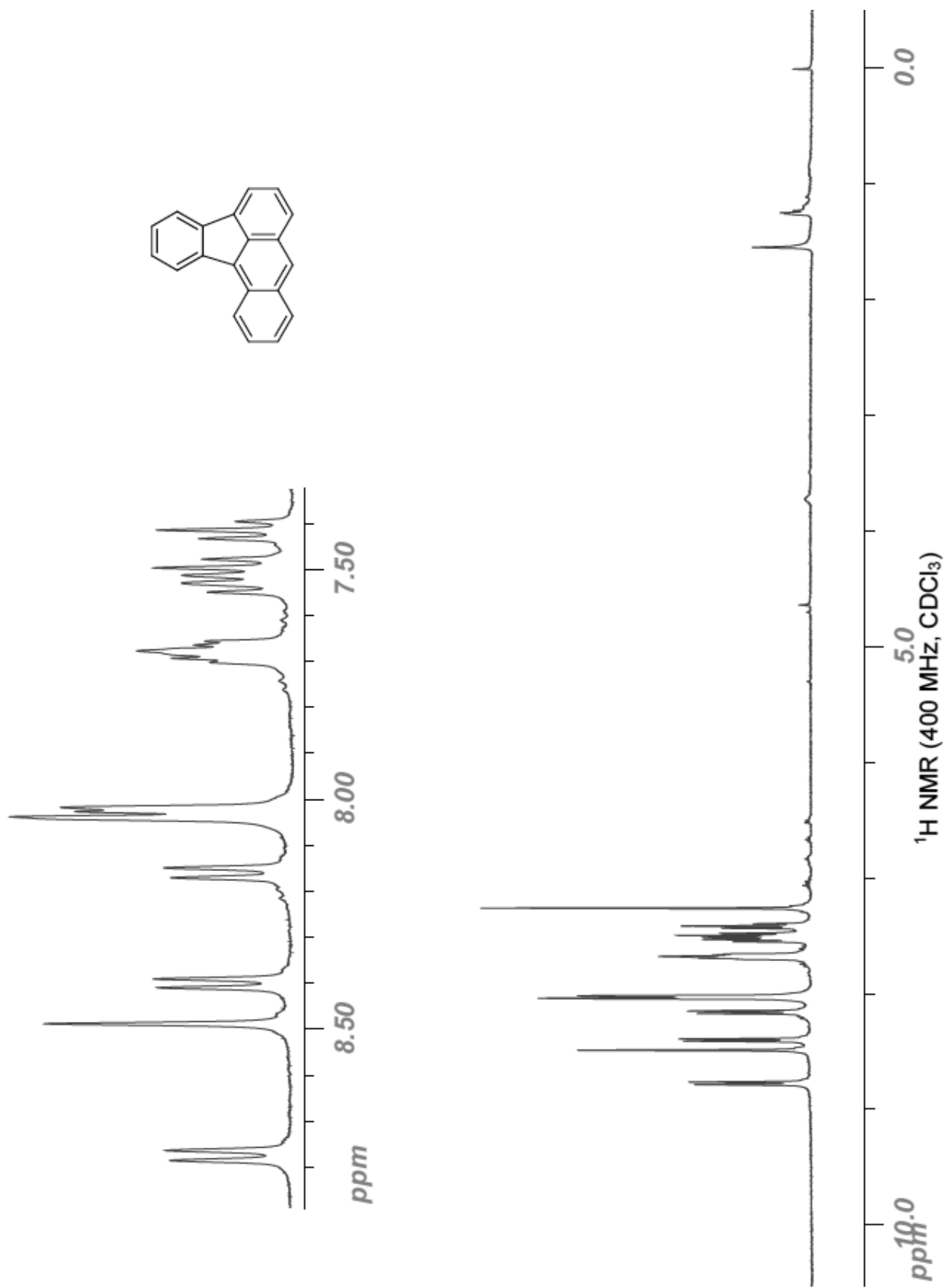


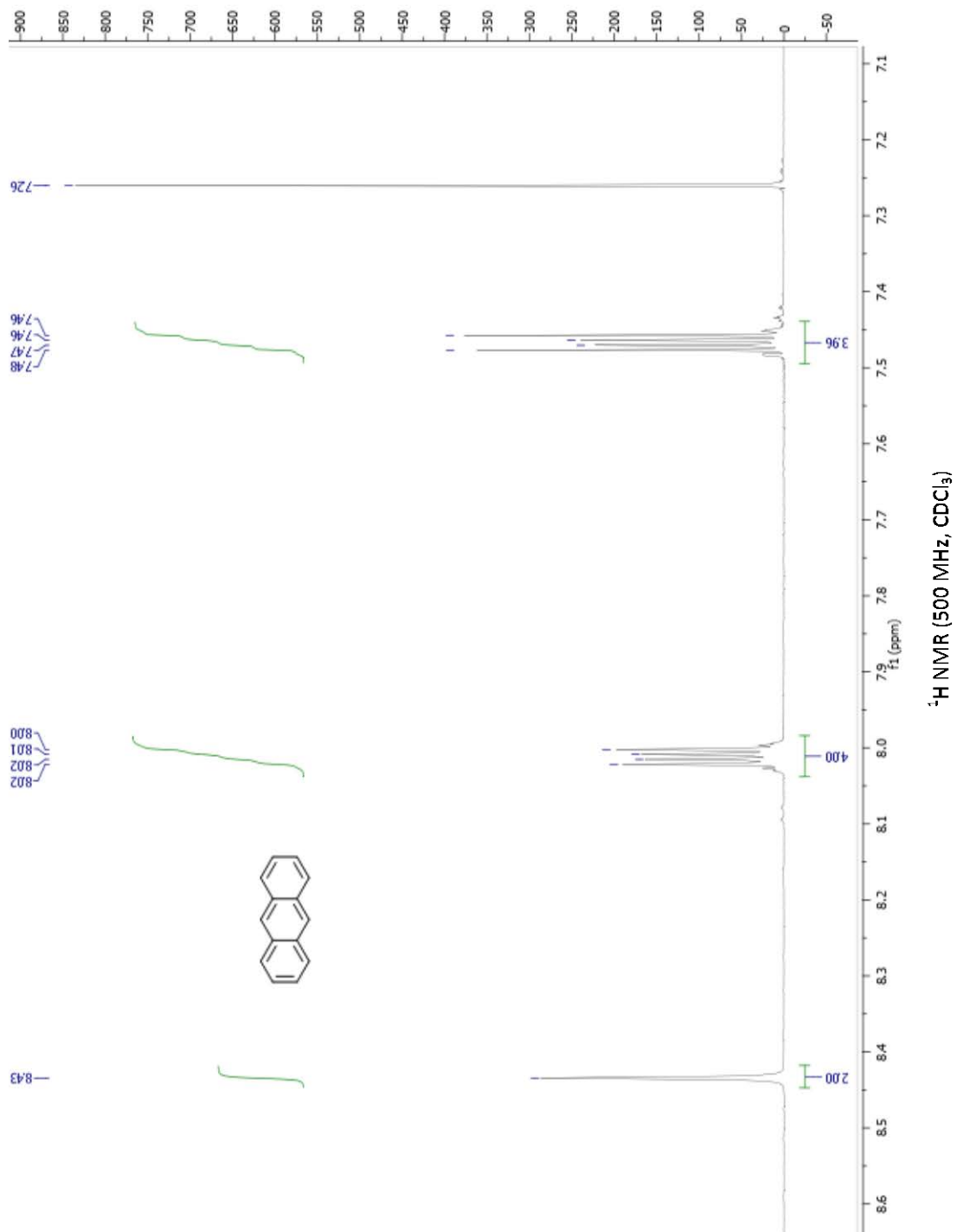


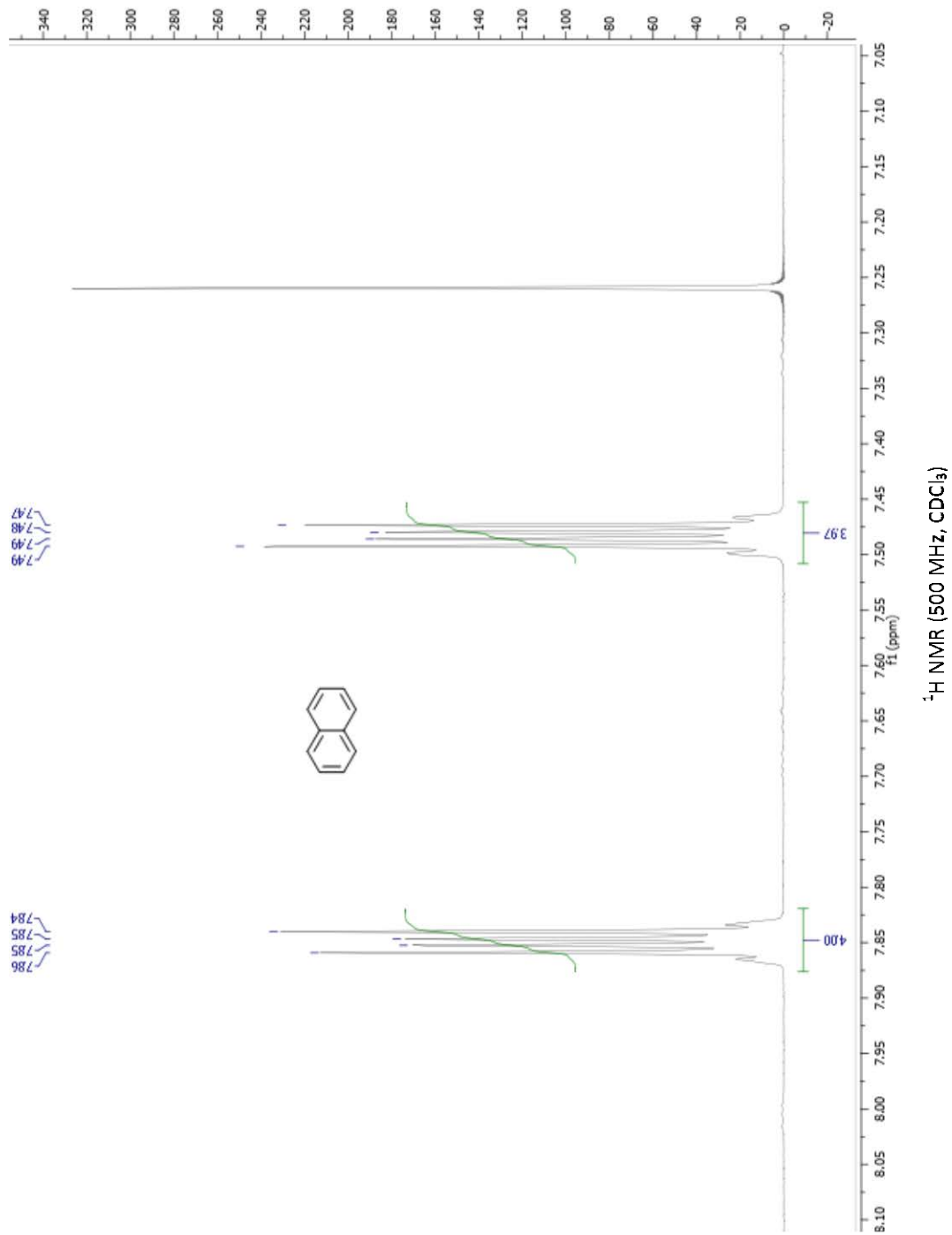


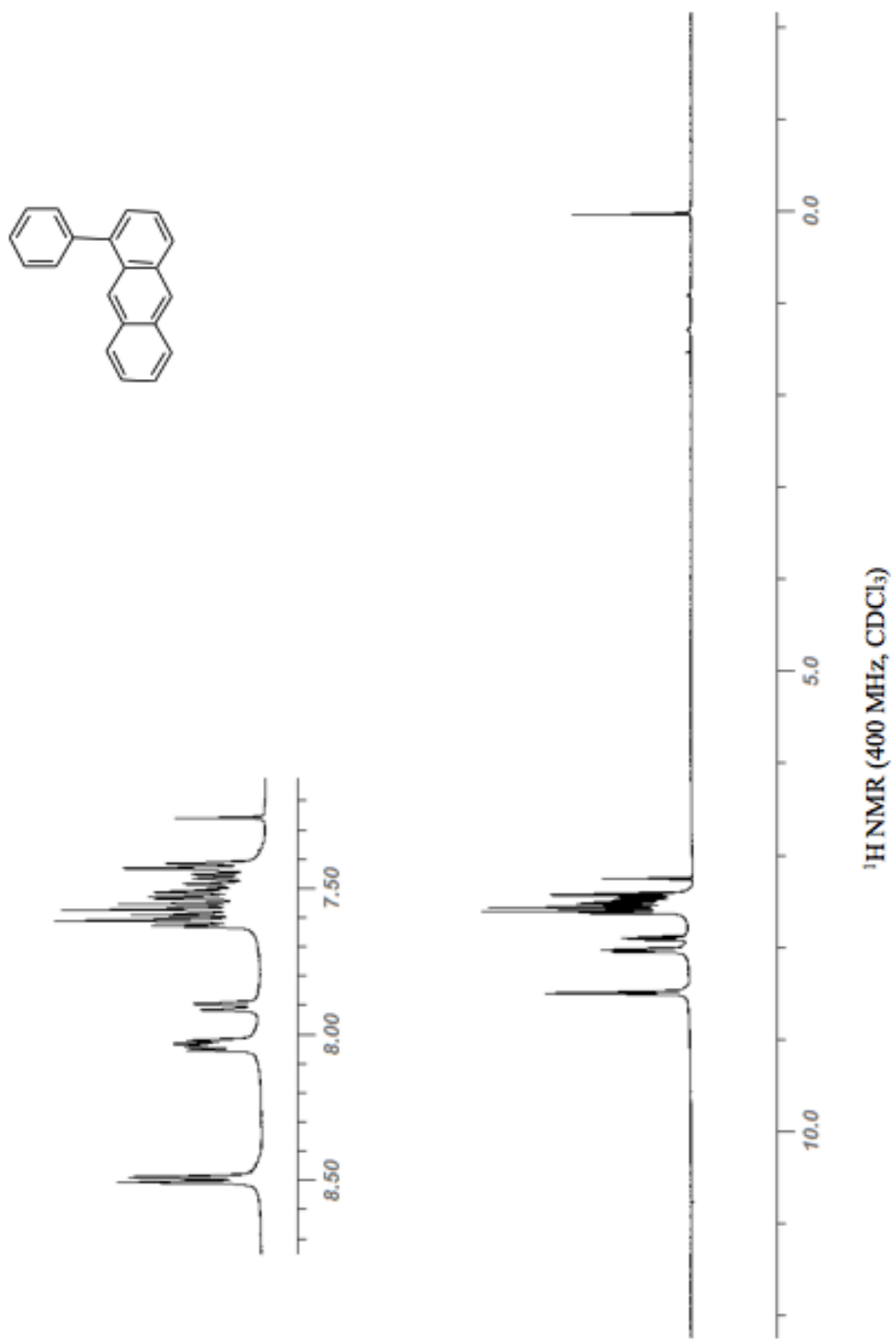


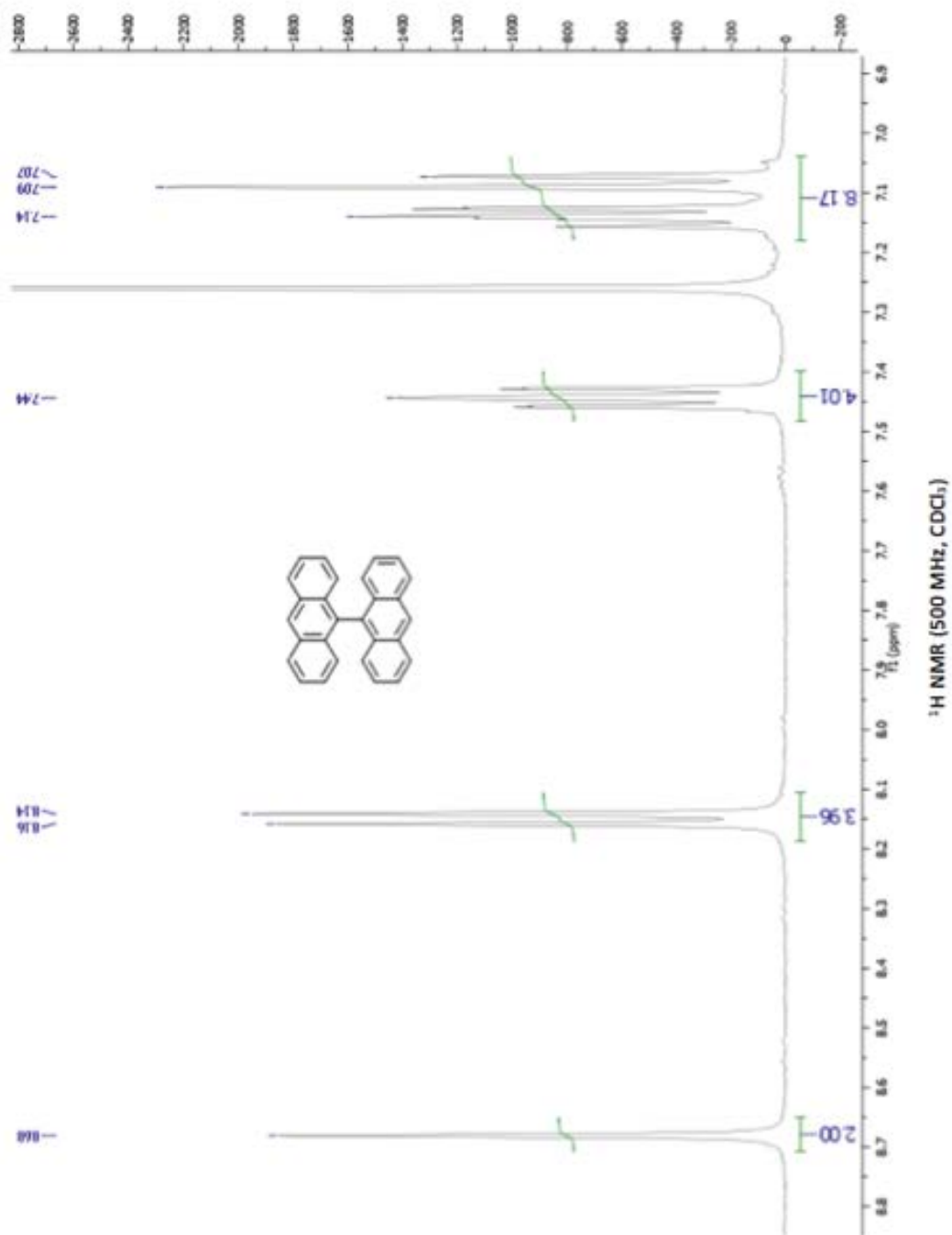


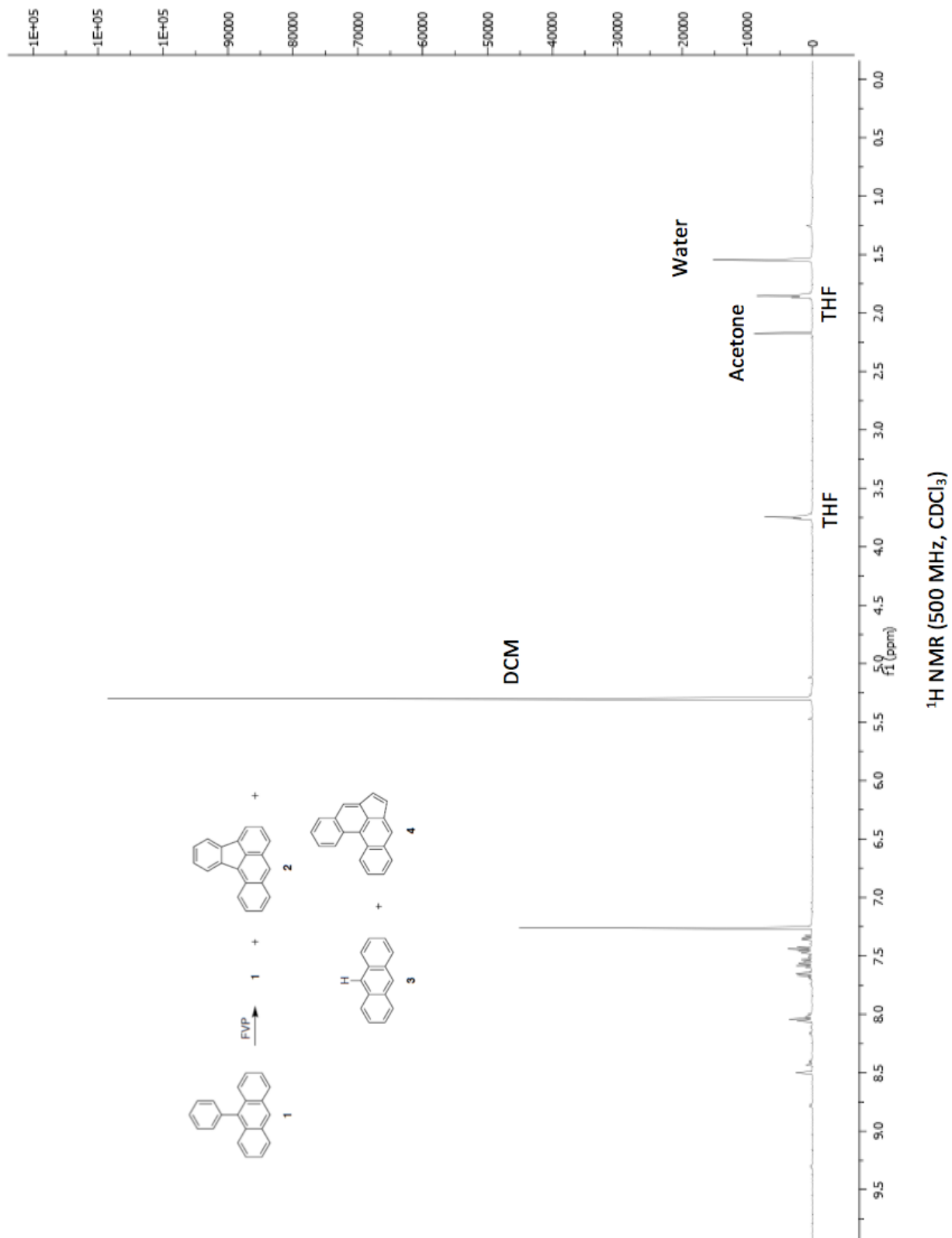


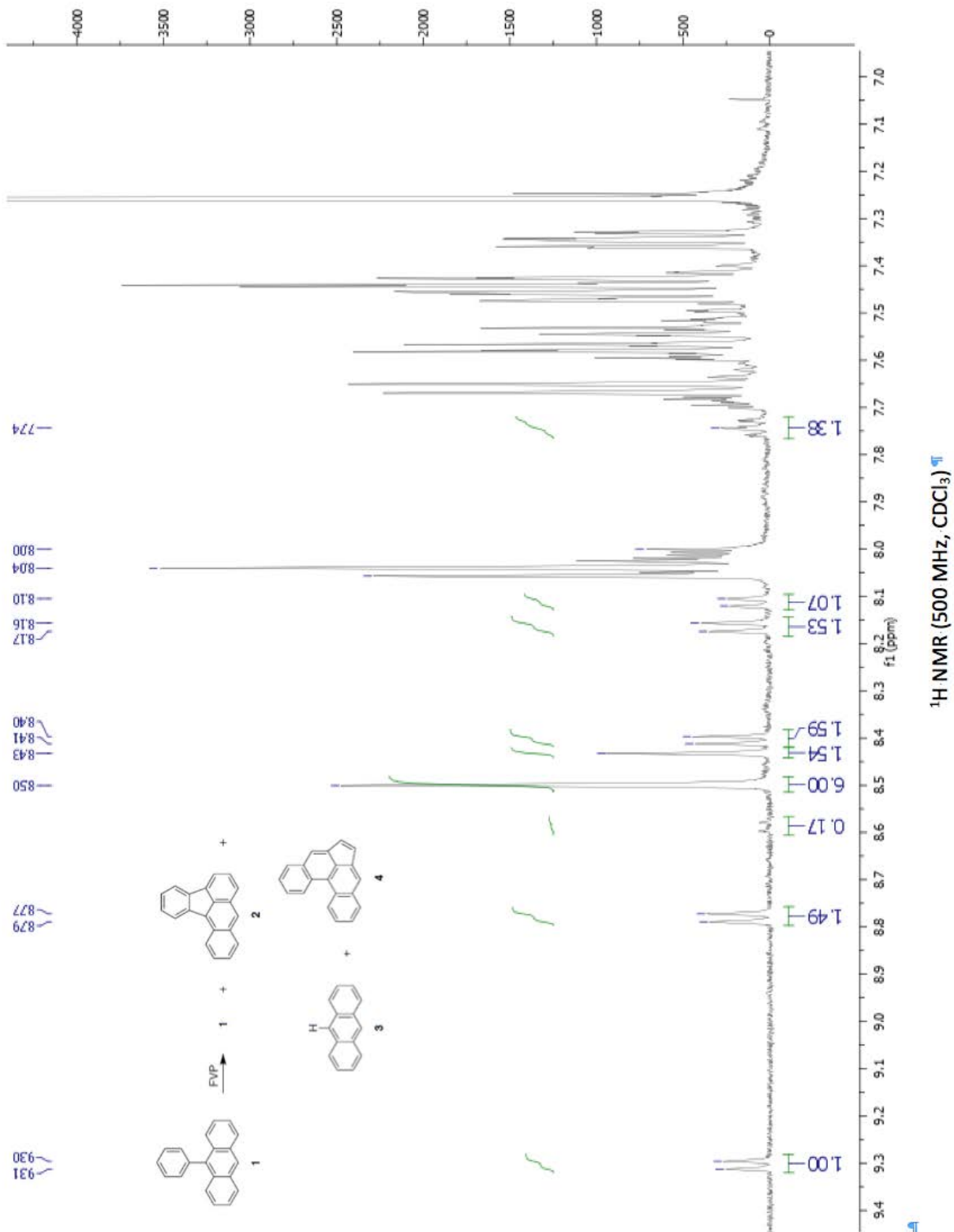


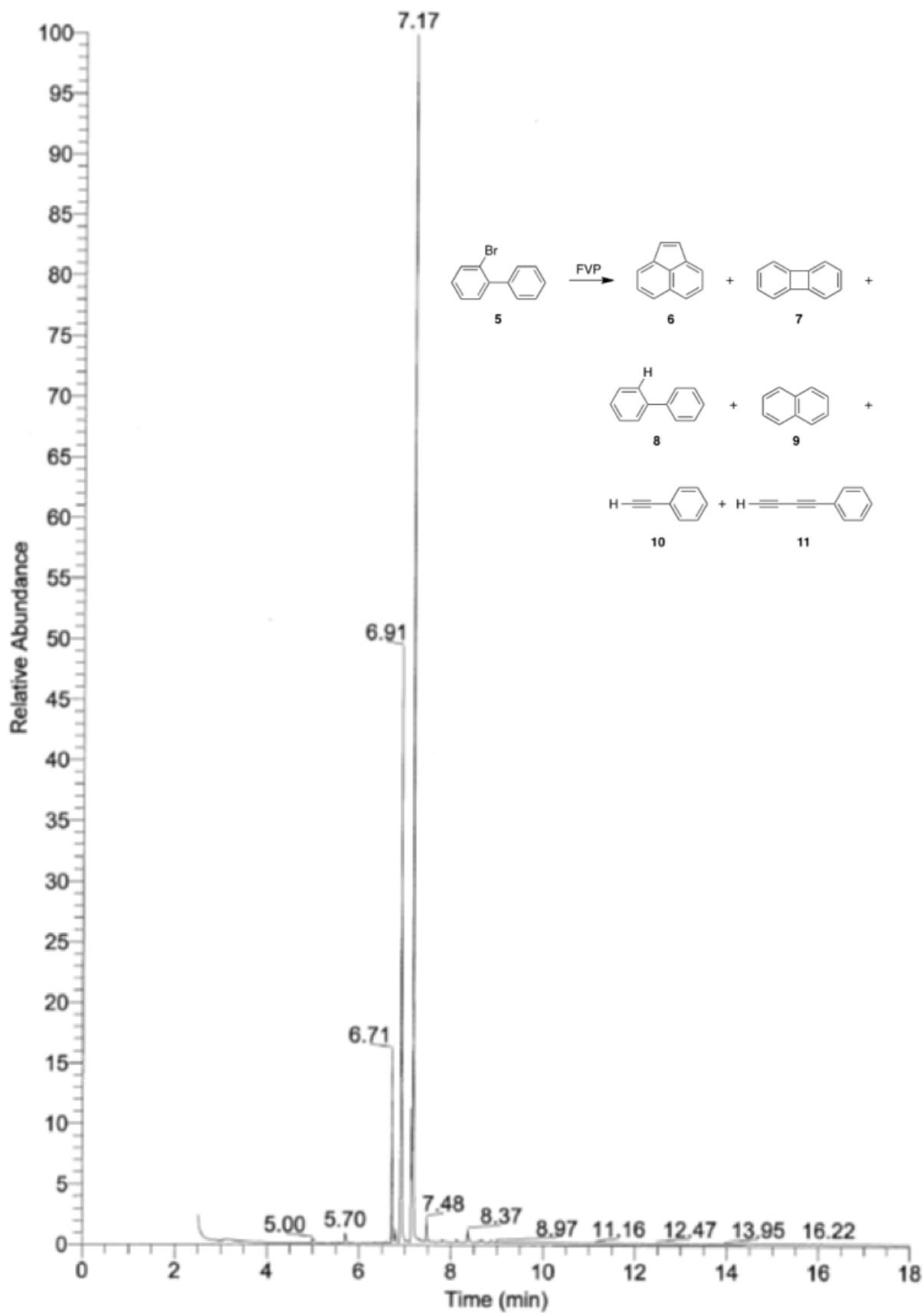




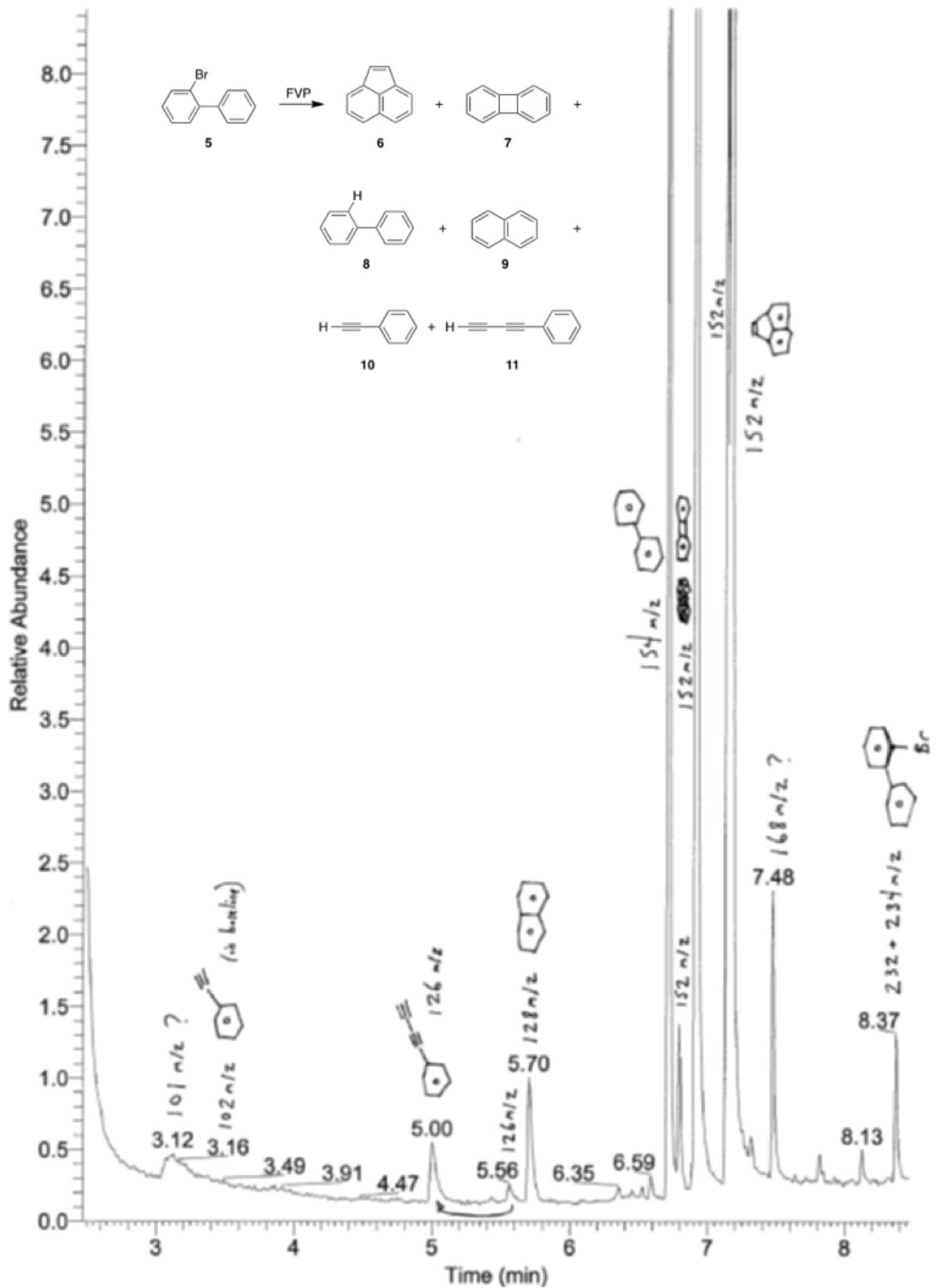


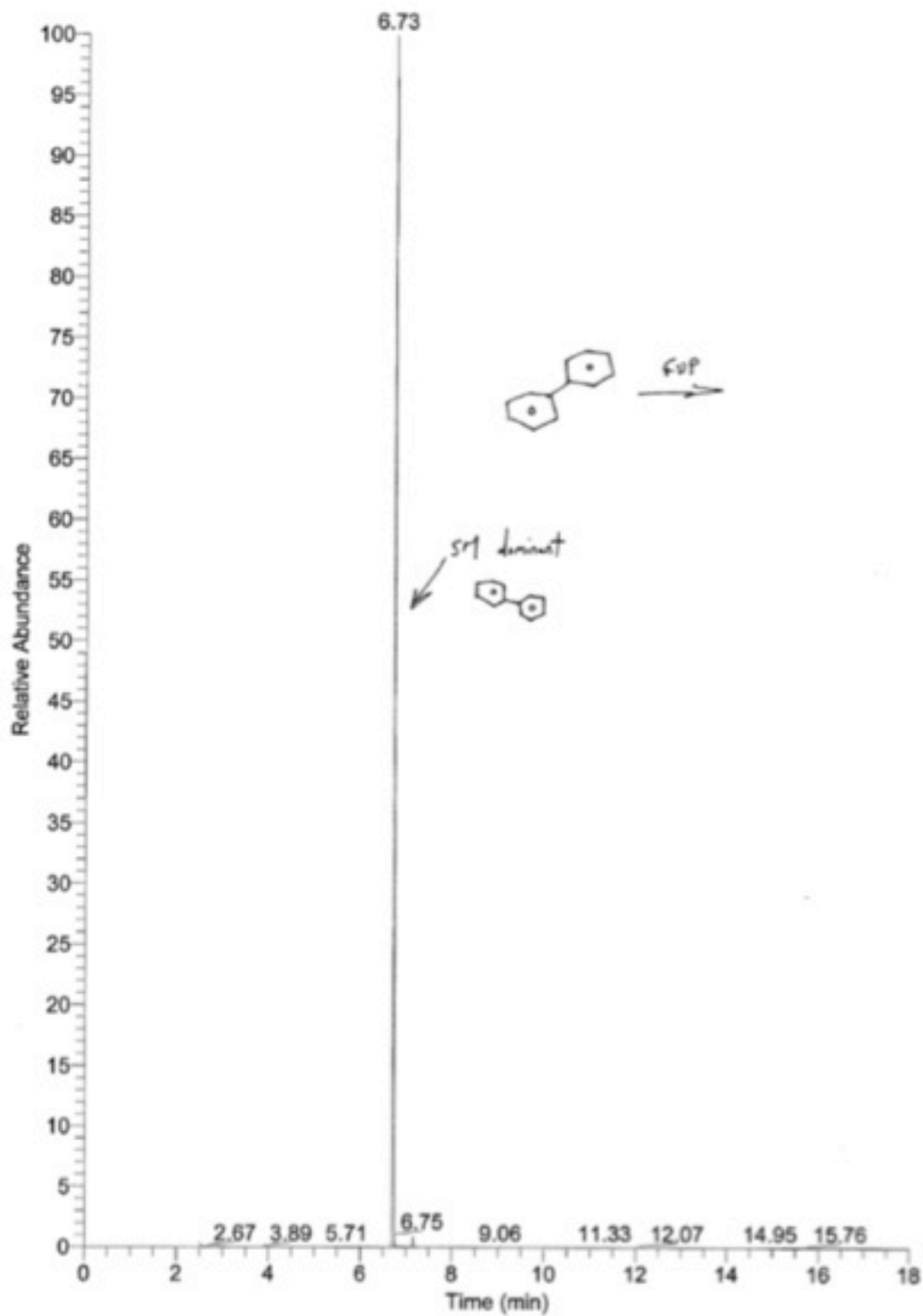


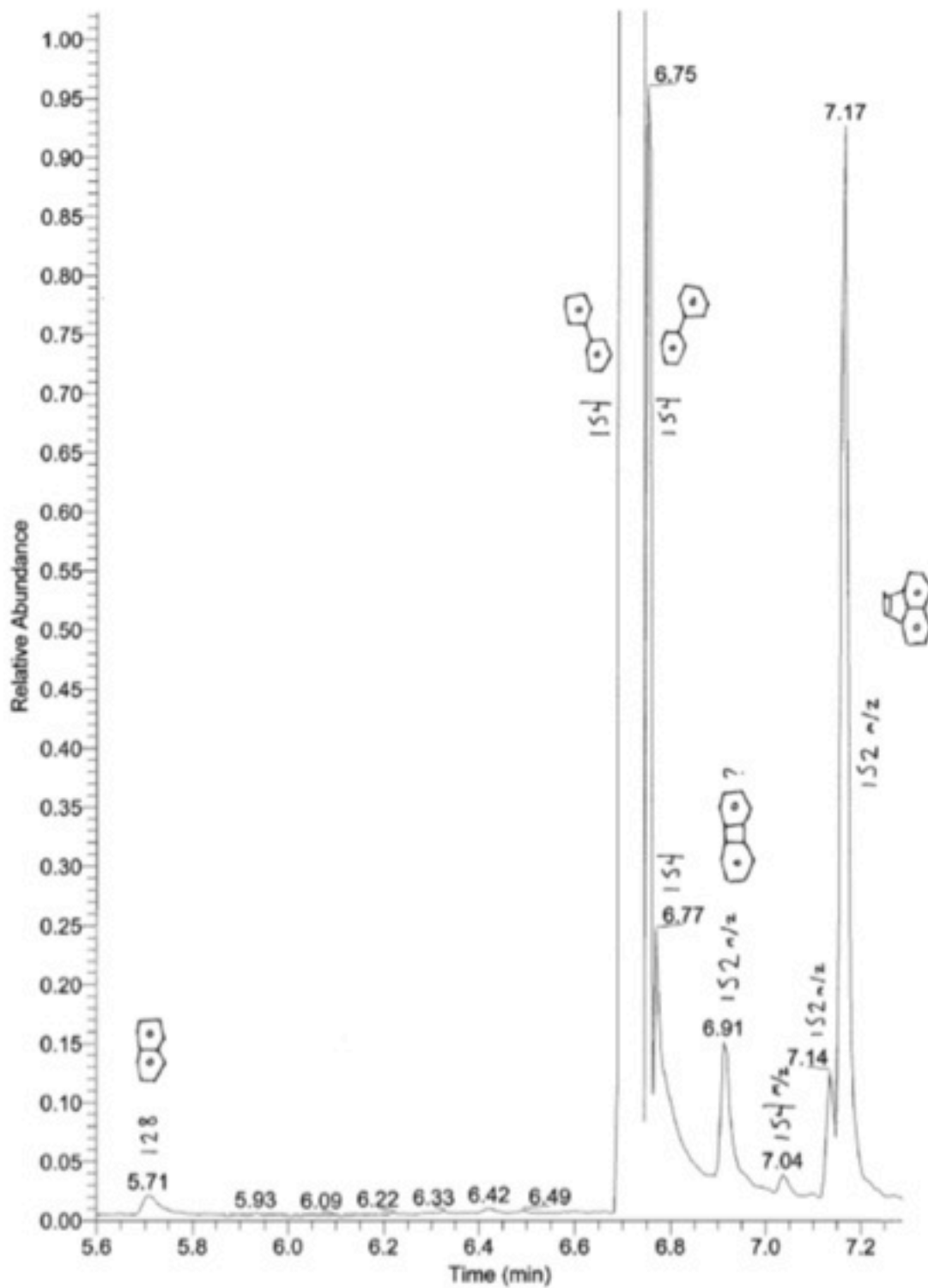


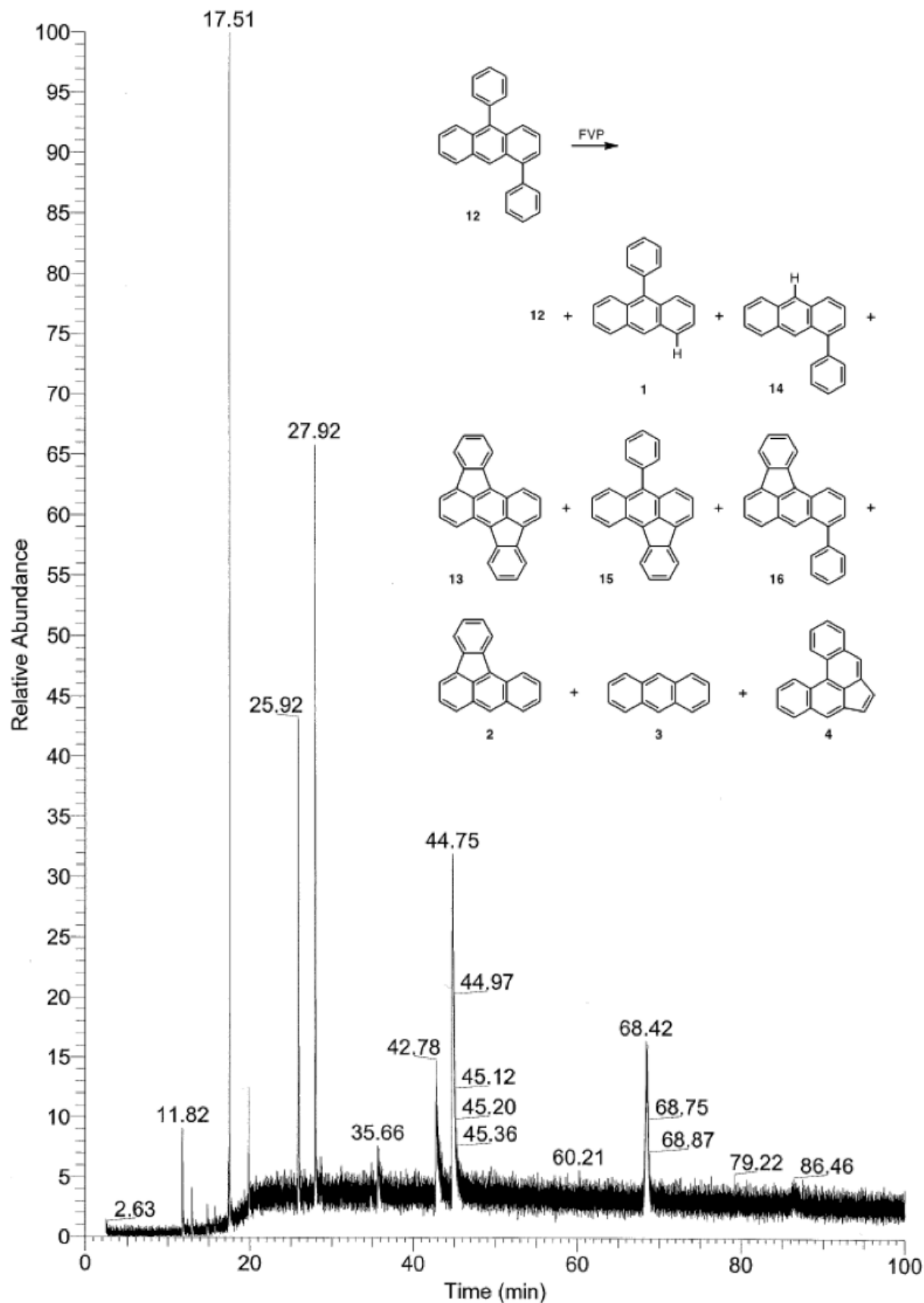


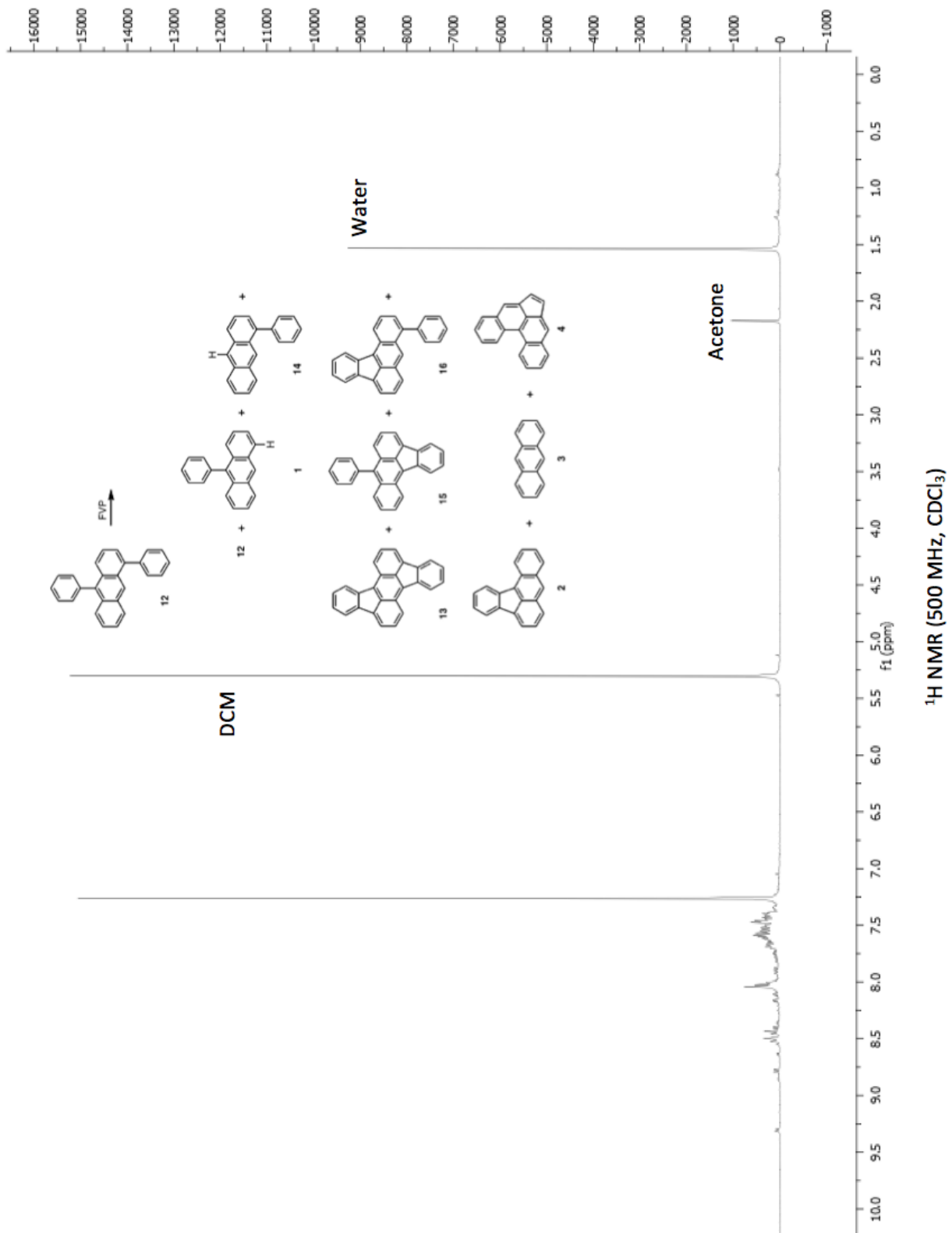


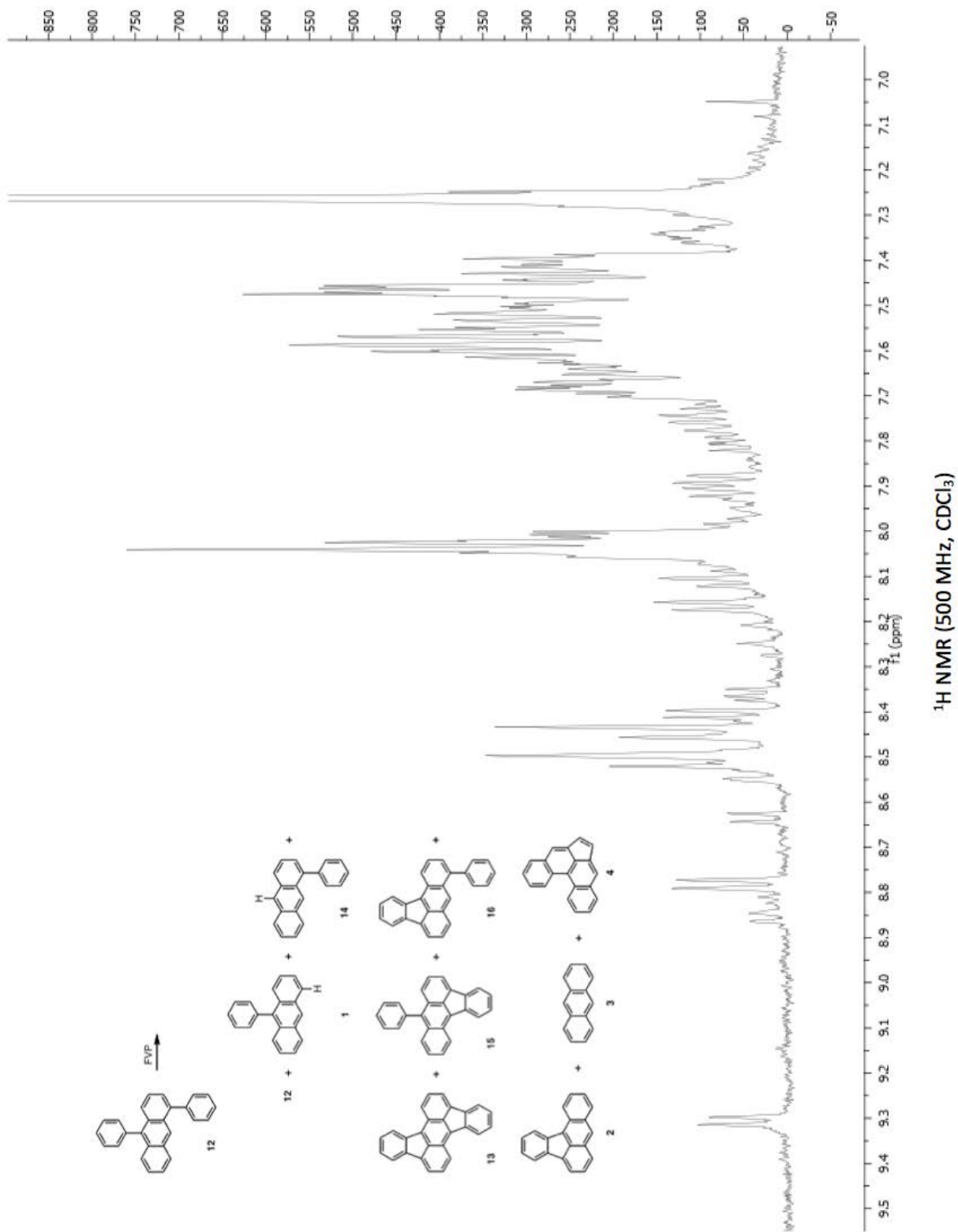


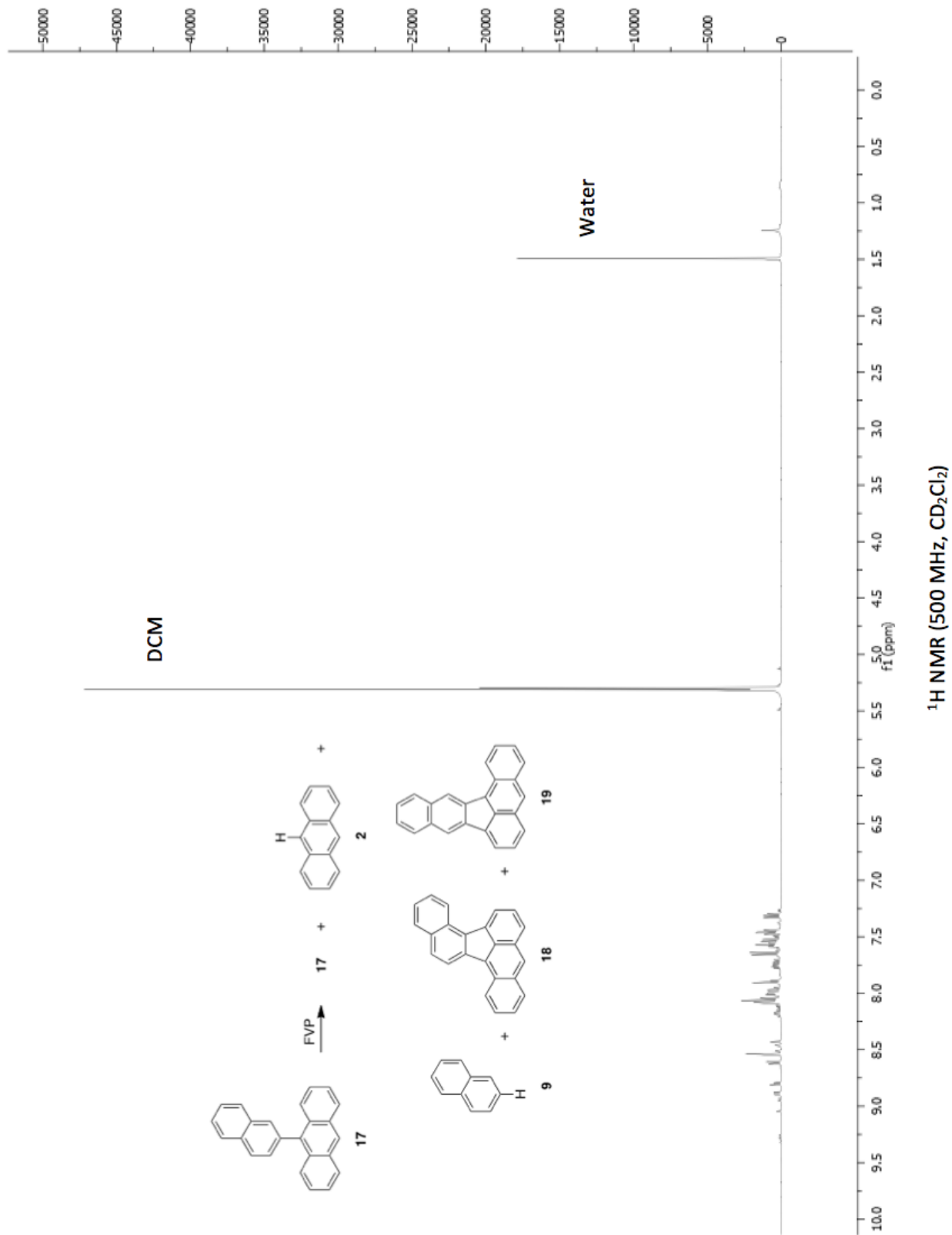


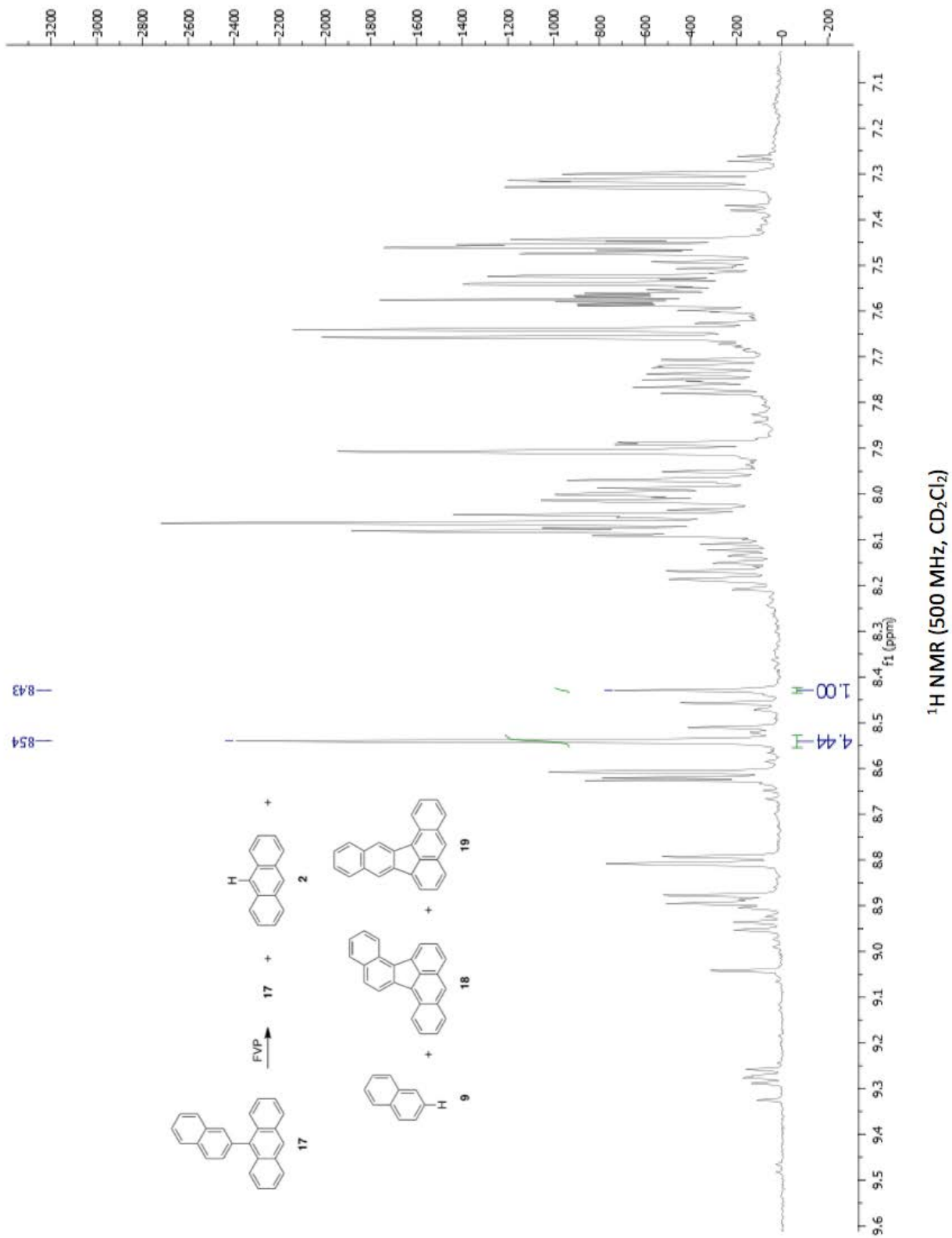




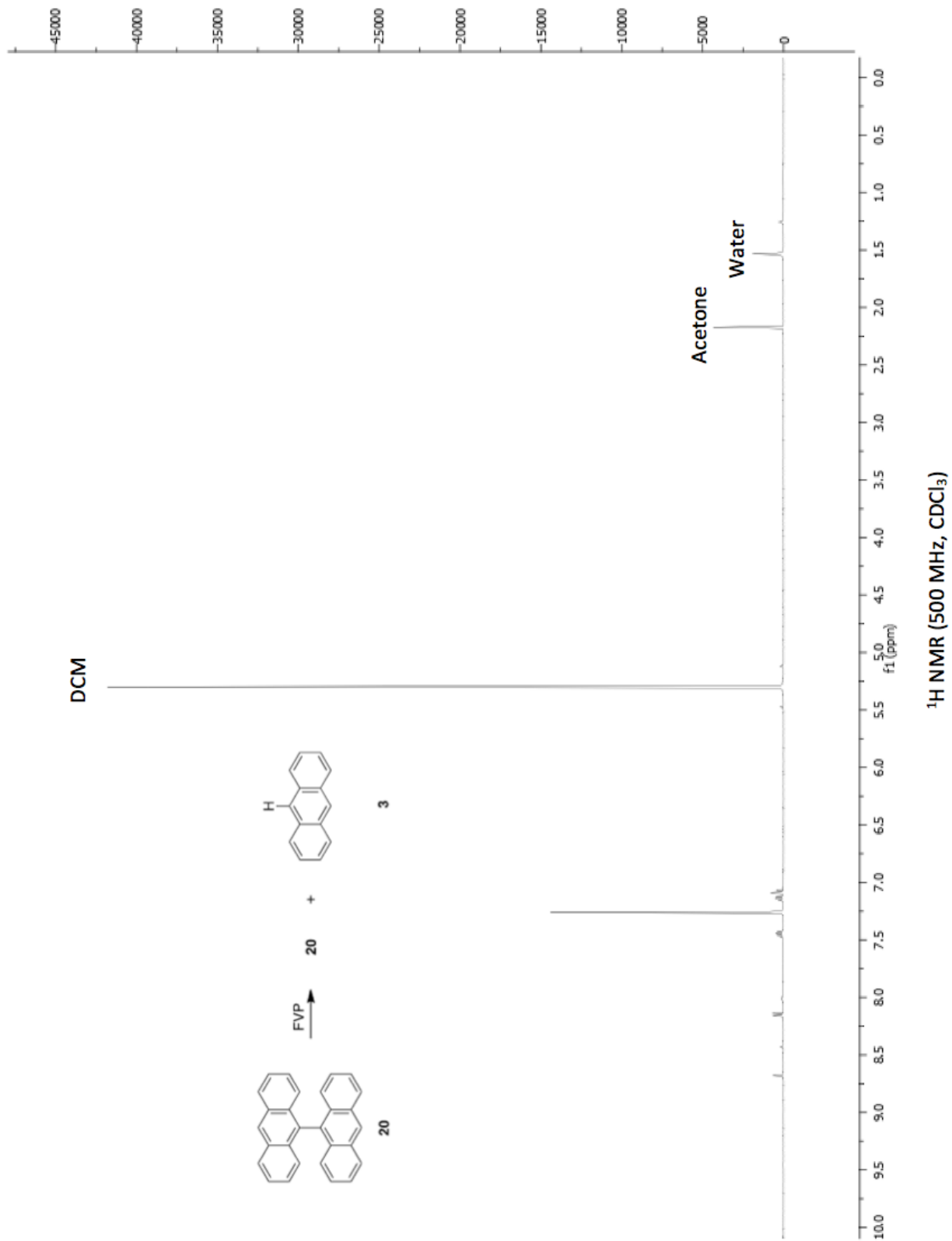


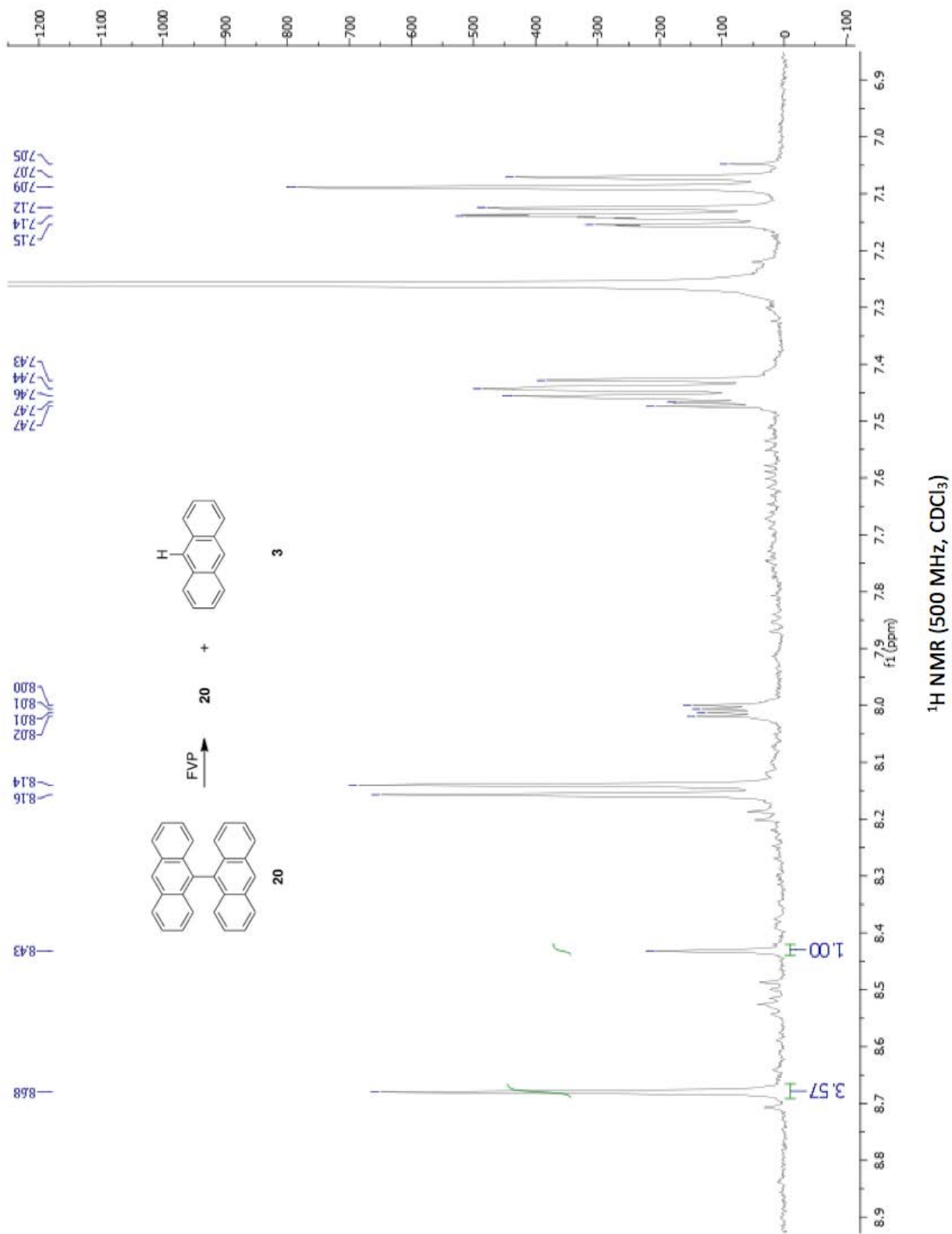












## References

- S1 For a previous synthesis of 1,10-diphenylanthracene (**12**), see S. C. Dickerman, D. De Souza, P. Wolf, *J. Org. Chem.* **1965**, *30*, 1981.
- S2 For a recent previous synthesis of 9-(2-naphthyl)anthracene (**17**) that reports both  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra, see M. Xu, X. Li, Z. Sun, T. Tu, *Chem. Commun.* **2013**, *49*, 11539.