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

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Supplementary Material

1H and 13C NMR spectra for synthesized 1,10-diphenylanthracene (12).1

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

1H 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.
Aryl–Aryl Bond Cleavages in FVP

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![Chemical Reaction Diagram]

5(2-Bromobenzofuran) + PVP → Products
6 + 7 + 8 + 9 + 10 + 11

![Mass Spectrum Graph]

Relative Abundance vs. Time (min)

151 m/z, 152 m/z, 168 m/z, 7.48, 8.37, 8.13

1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0
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$^1$H NMR (500 MHz, CDCl$_3$)
References


S2 For a recent previous synthesis of 9-(2-naphthyl)anthracene (17) that reports both $^1$H and $^{13}$C NMR spectra, see M. Xu, X. Li, Z. Sun, T. Tu, *Chem. Commun.* **2013**, *49*, 11539.