

Supporting Information

for

**Photoinduced synthesis of unsymmetrical diaryl
selenides from triarylbiuthylenes and diaryl
diselenides**

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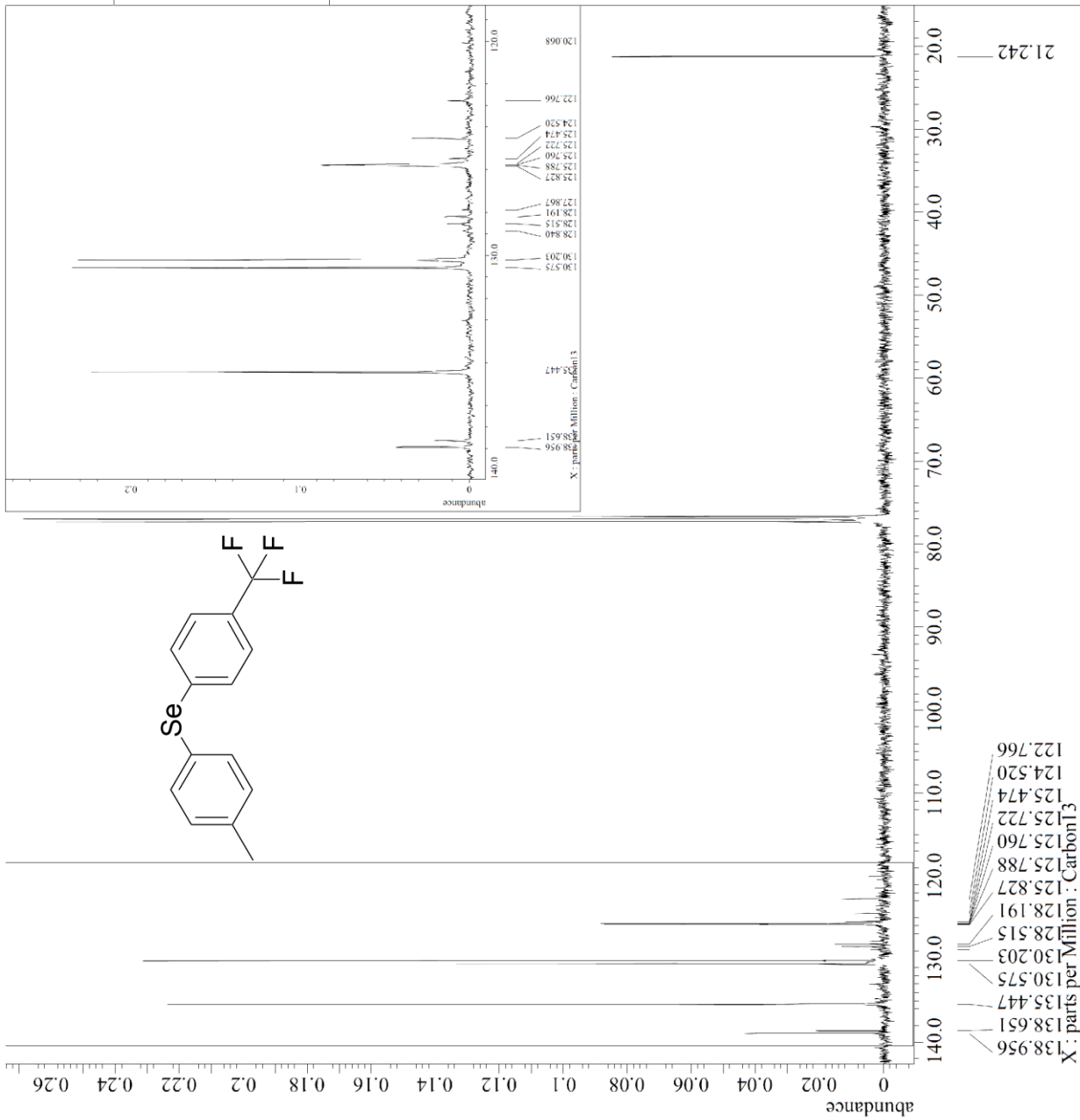
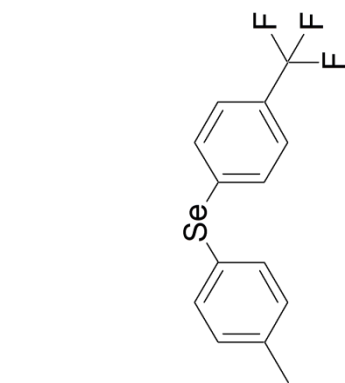
* Corresponding author

Spectral and analytical data of the new compound 3cb

4-Tolyl 4-(trifluoromethyl)phenyl selenide (3cb): white solid; mp 104–105 °C; ^1H NMR (400 MHz, CDCl_3) δ 2.37 (s, 3H), 7.17 (d, $J = 7.8$ Hz, 2H), 7.36 (d, $J = 8.2$ Hz, 2H), 7.42 (d, $J = 8.2$ Hz, 2H), 7.48 (d, $J = 7.8$ Hz, 2H); ^{13}C NMR (100 MHz, CDCl_3) δ 21.2, 124.1 (q, $J_{\text{C-F}} = 271.7$ Hz), 124.5, 125.5 (q, $J_{\text{C-F}} = 3.9$ Hz), 128.4 (q, $J_{\text{C-F}} = 32.6$ Hz), 130.2, 130.6, 135.4, 138.7, 139.0; ^{19}F NMR (376 MHz, CDCl_3) δ -62.4; ^{77}Se NMR (75 MHz, CDCl_3) δ 418; HRMS–FAB (m/z): $[\text{M} + \text{H}]^+$ calcd for $\text{C}_{14}\text{H}_{12}\text{F}_3\text{Se}$: 317.0056; found, 317.0077.

Copies of ^1H NMR, ^{13}C NMR, ^{19}F NMR, ^{77}Se NMR spectra of compound **3cb**.





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