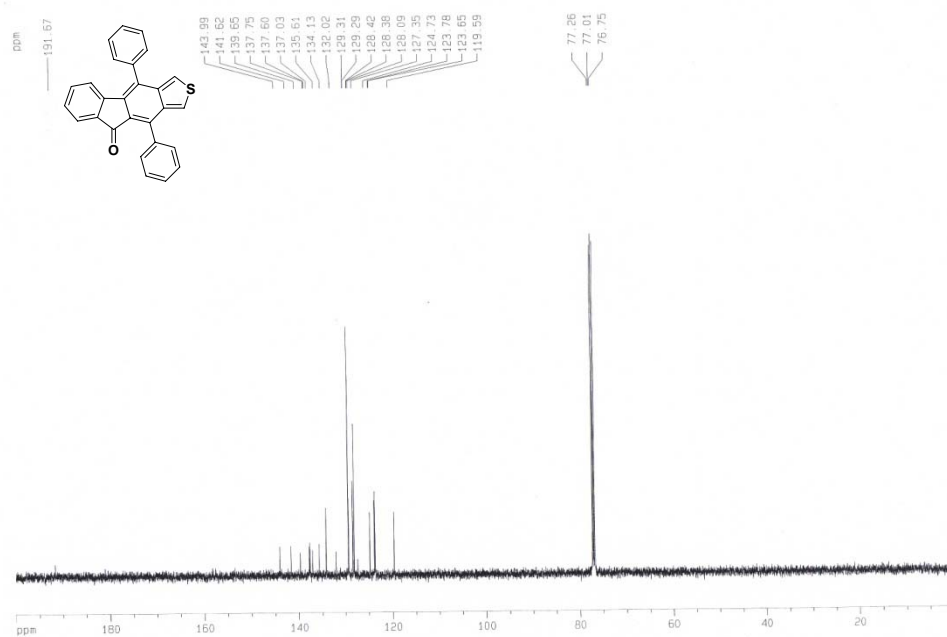
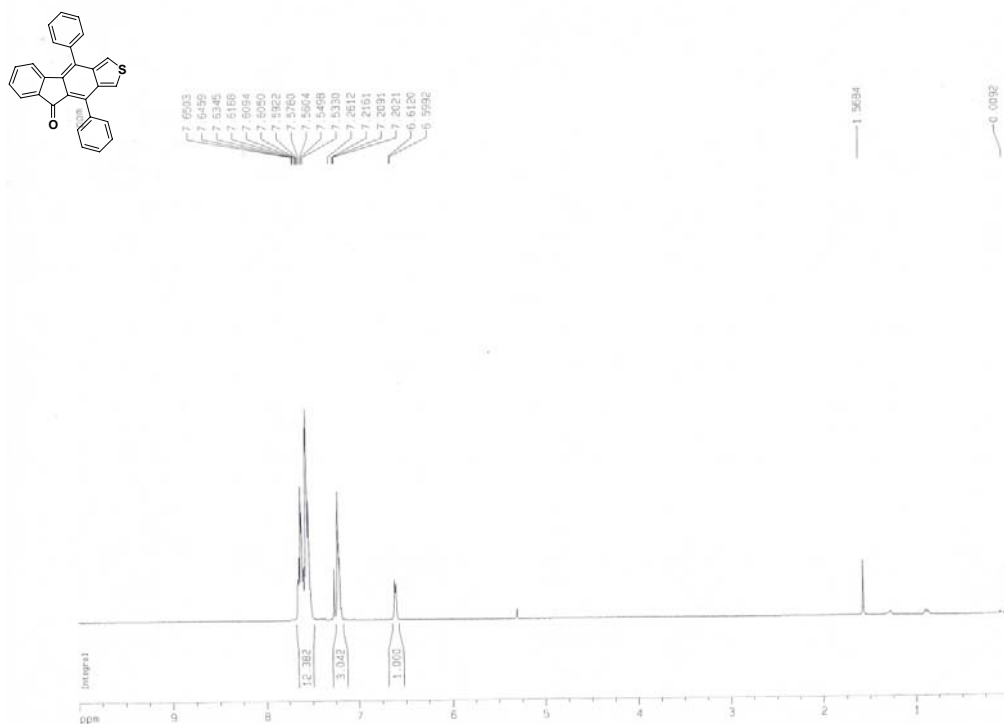


Supplmentary Materials for manuscript titled:  
**Synthesis of fluorene- and spirobifluorene-fused thiophenes**

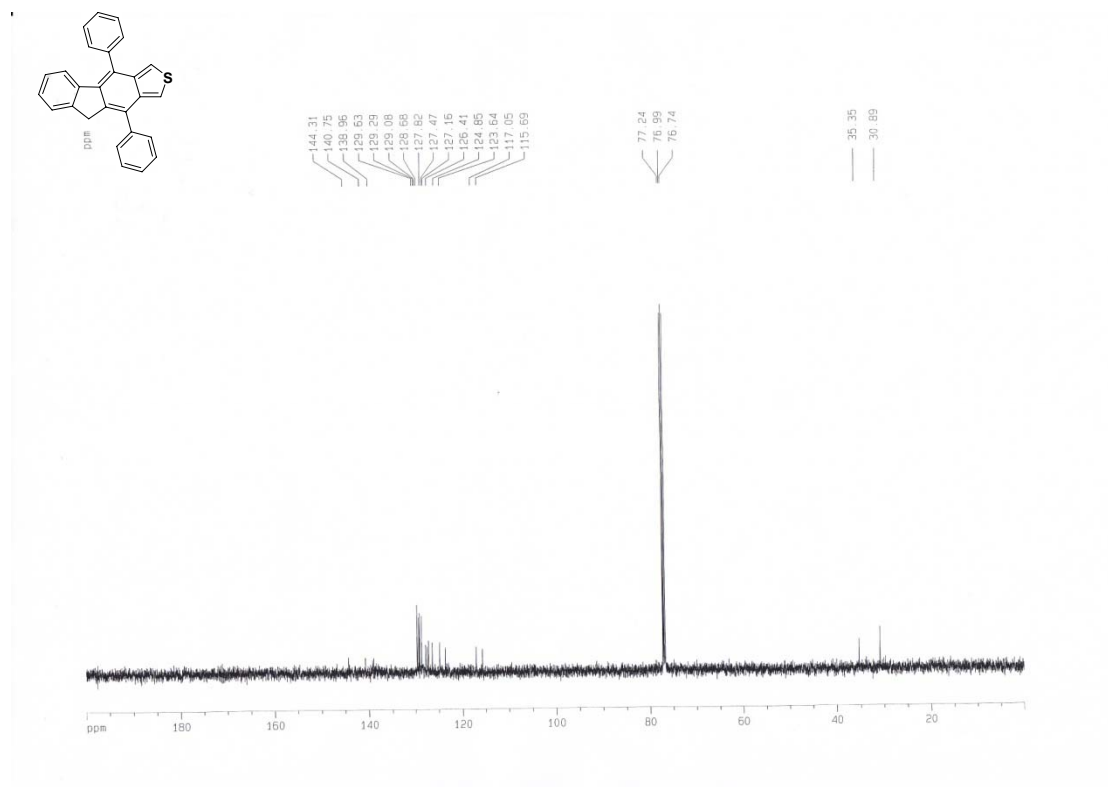
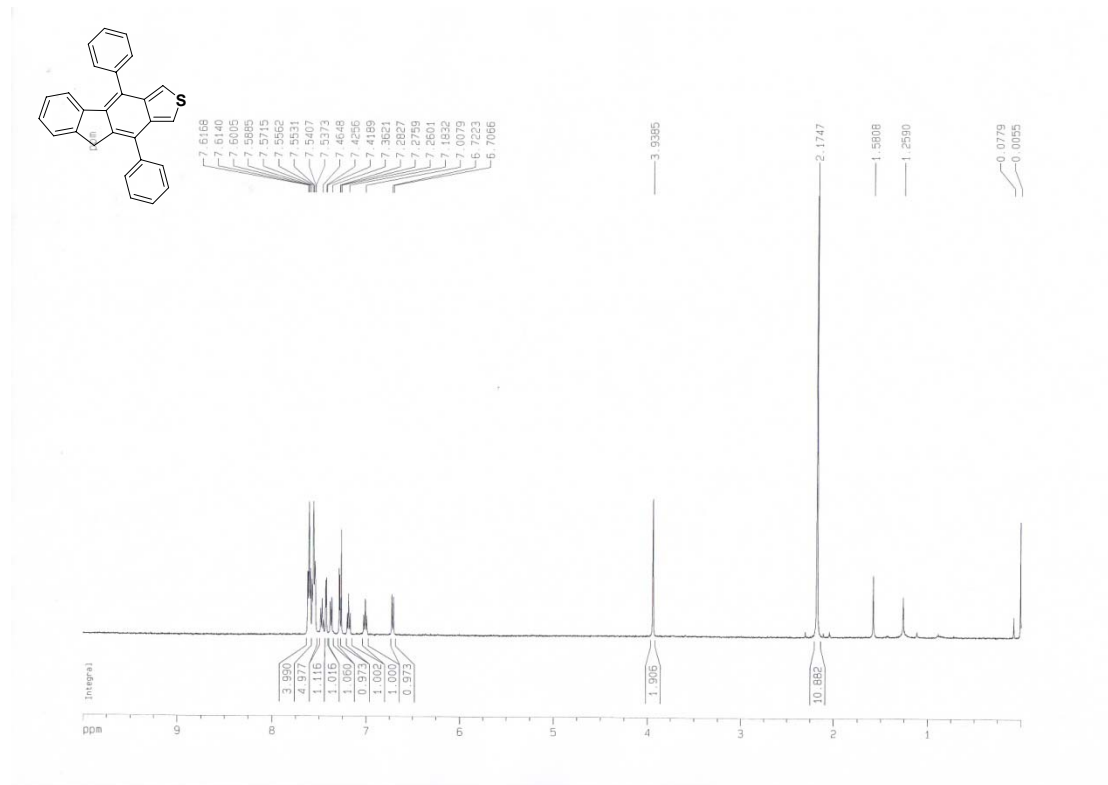
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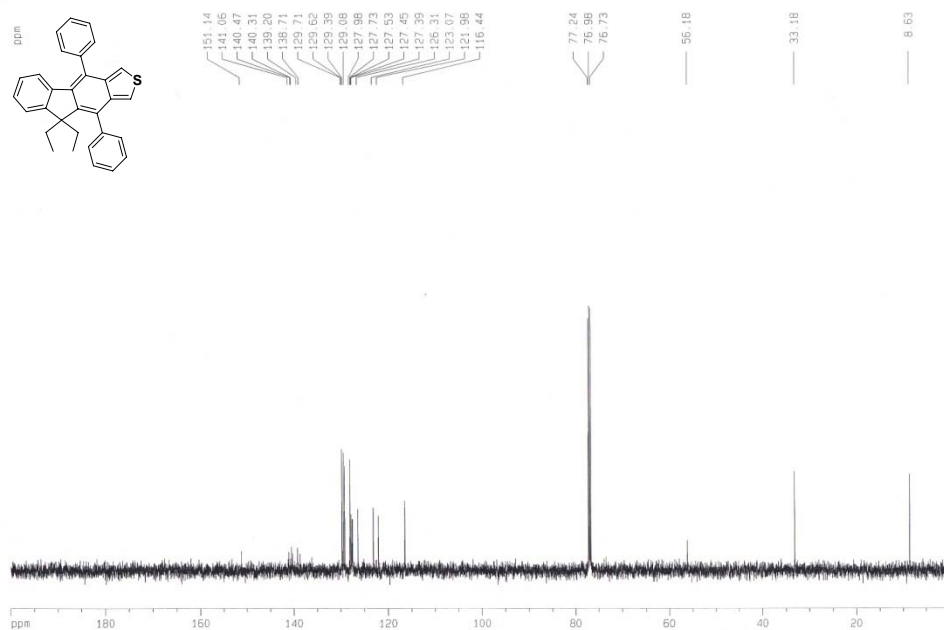
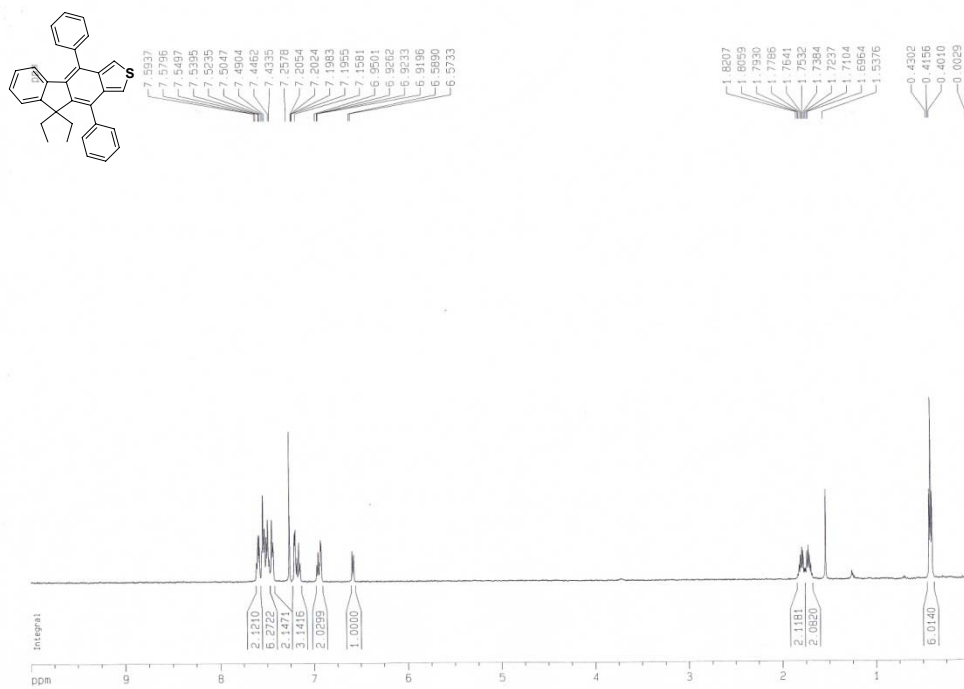
Proton NMR and carbon NMR for all final products.



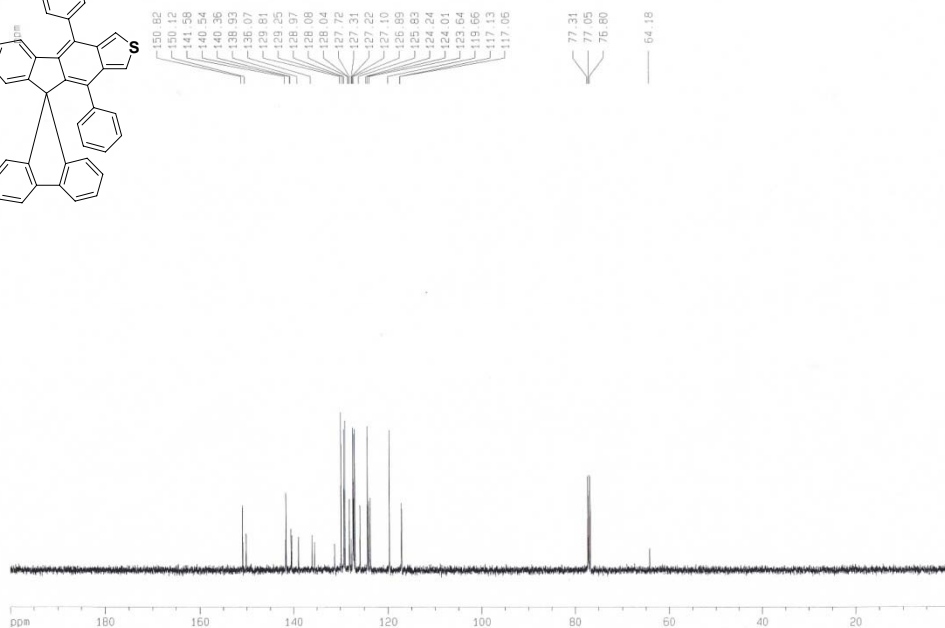
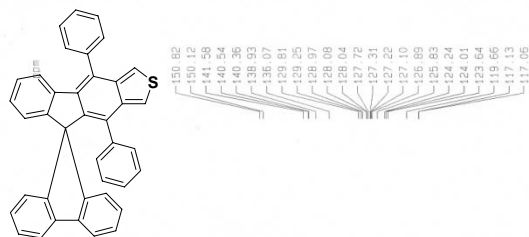
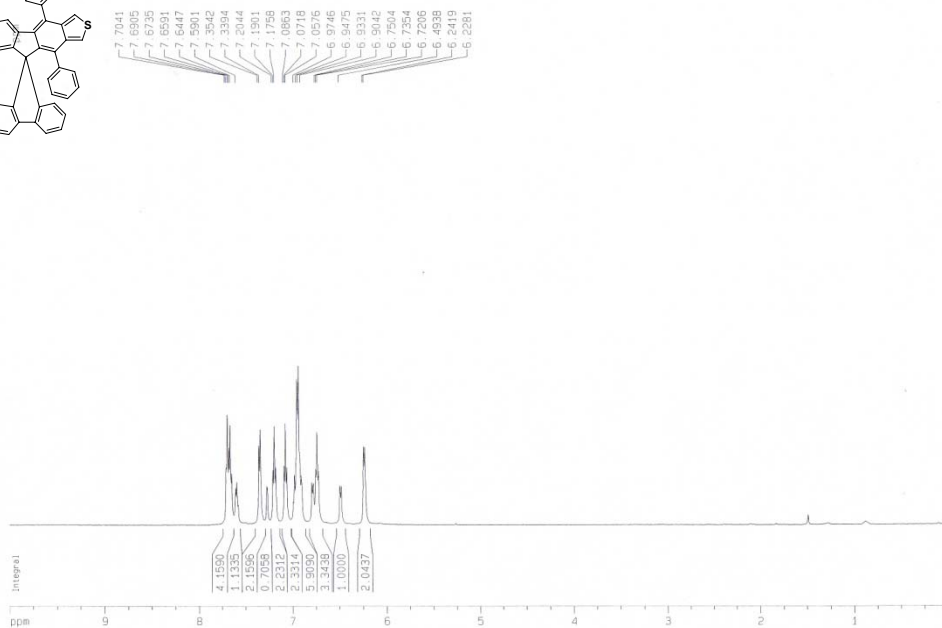
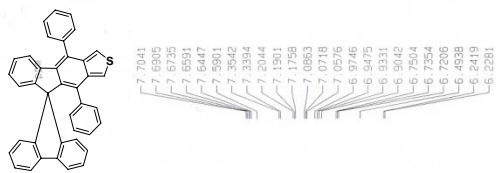
<sup>1</sup>H NMR and <sup>13</sup>C NMR for compound 11a



<sup>1</sup>H NMR and <sup>13</sup>C NMR for compound **11b**



<sup>1</sup>H NMR and <sup>13</sup>C NMR for compound 11c



<sup>1</sup>H NMR and <sup>13</sup>C NMR for compound **11d**