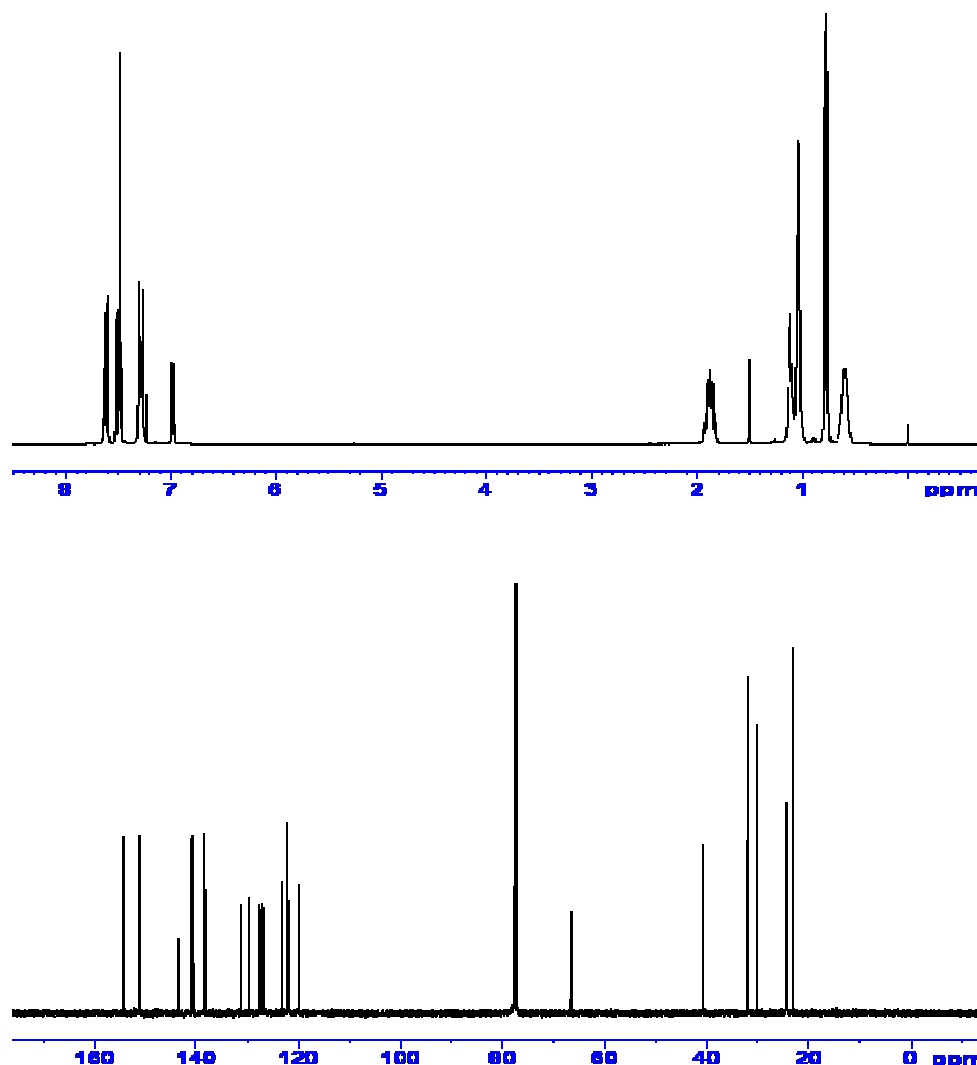


# Synthesis and Device Performances of Highly Efficient Fluorene-based Blue Emission Polymers Containing Bulky 9,9-Dialkylfluorene Substitutes

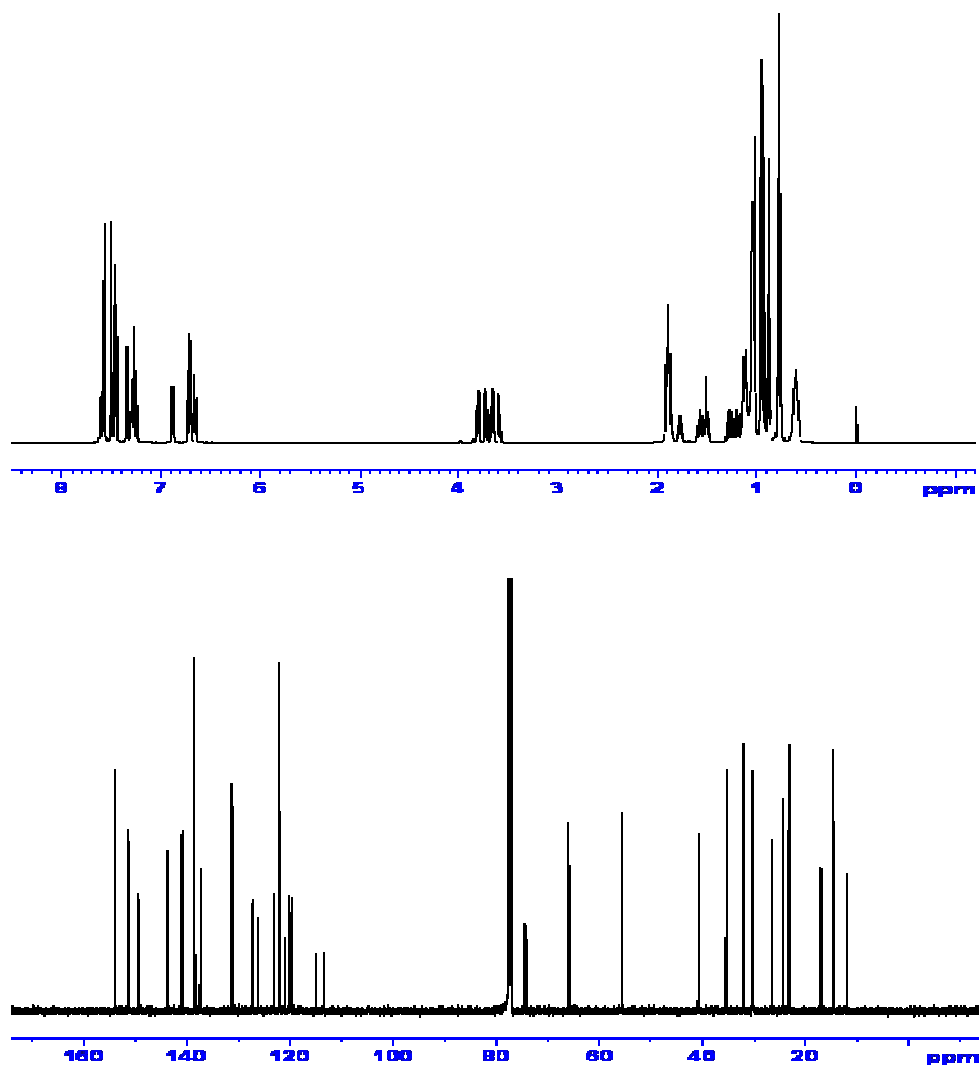
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## Supporting Information

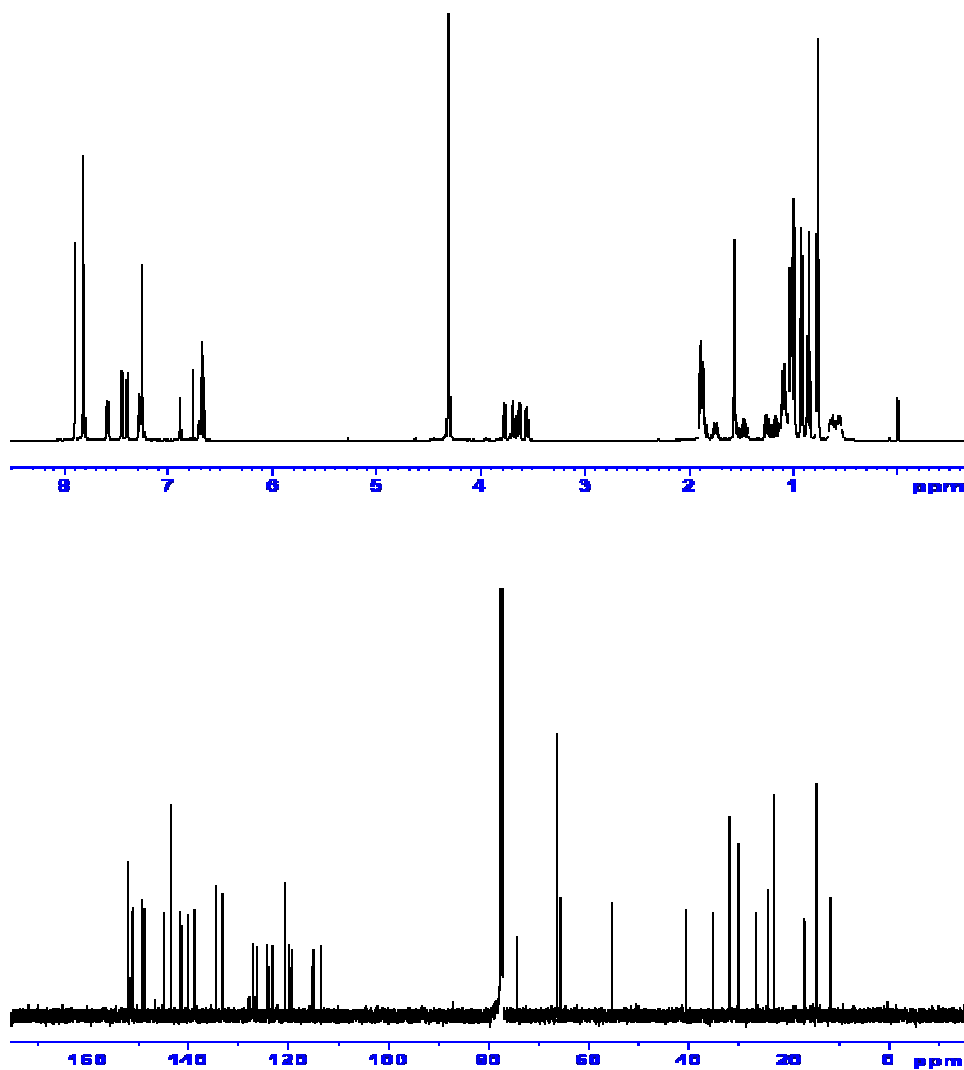
### <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Monomers and Polymers



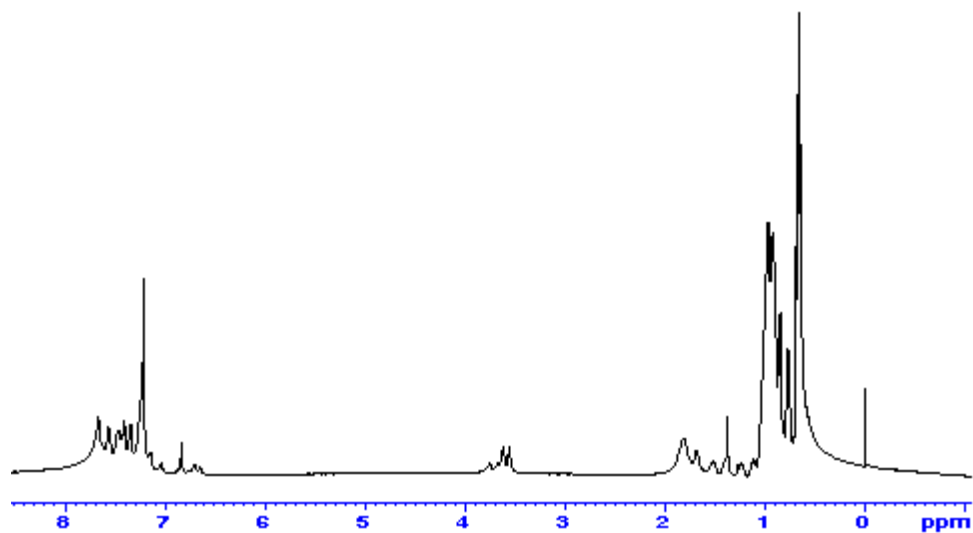
**Figure S1.** <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of 9,9-di(9,9-dihexylfluoren-2-yl)-2,7-dibromofluorene (MDFF). (The <sup>1</sup>H NMR peak at 7.2 ppm and 1.5 ppm correspond to chloroform and water, respectively and the <sup>13</sup>C NMR peak at 77.3 ppm correspond to chloroform.)



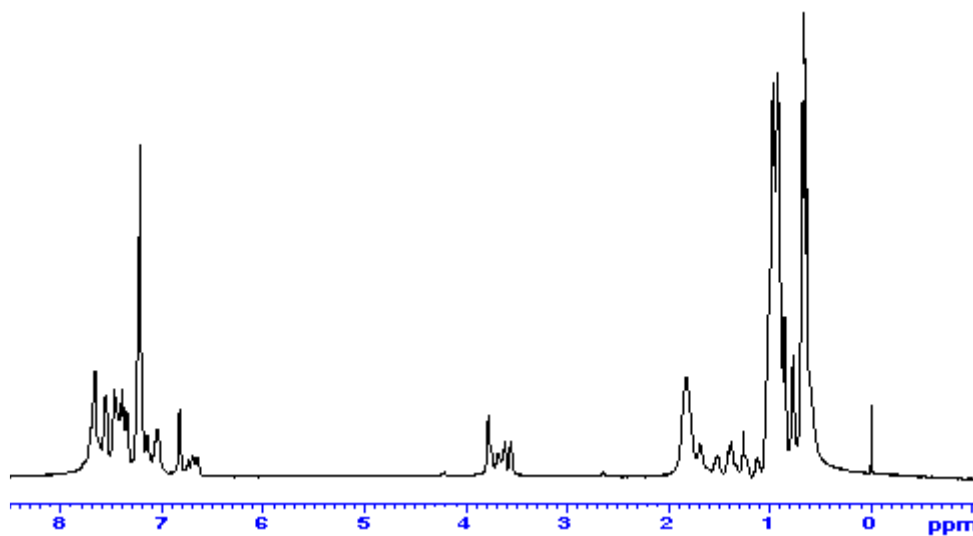
**Figure S2.**  $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR Spectra of 9-(9,9-dihexylfluoren-2-yl)-9-(3,4-di(2-methyl)butyloxyphenyl)-2,7-dibromofluorene (MFCF). (The  $^1\text{H}$  NMR peak at 7.2 ppm and 1.5 ppm correspond to chloroform and water, respectively and the  $^{13}\text{C}$  NMR peak at 77.3 ppm correspond to chloroform.)



**Figure S3.**  $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR Spectra of 9-(9,9-dihexylfluoren-2-yl)-9-(3,4-di(2-methyl)butyloxyphenyl)fluorene-2,7-bisboronic glycol ester (MFCFB). (The  $^1\text{H}$  NMR peak at 7.2 ppm and 1.5 ppm correspond to chloroform and water, respectively and the  $^{13}\text{C}$  NMR peak at 77.3 ppm correspond to chloroform.)



**Figure S4.**  $^1\text{H}$  NMR Spectra of DFF-FCF (The  $^1\text{H}$  NMR peak at 7.2 ppm and 1.5 ppm correspond to chloroform and water, respectively)



**Figure S5.**  $^1\text{H}$  NMR Spectra of DFF-FCF-TPD (The  $^1\text{H}$  NMR peak at 7.2 ppm and 1.5 ppm correspond to chloroform and water, respectively)