

## Electronic Supporting Information

### Effect of $\pi$ -spacers and anchoring groups on the photovoltaic performances of ullazine-based dyes

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#### $^1\text{H}$ NMR and $^{13}\text{C}$ NMR spectra

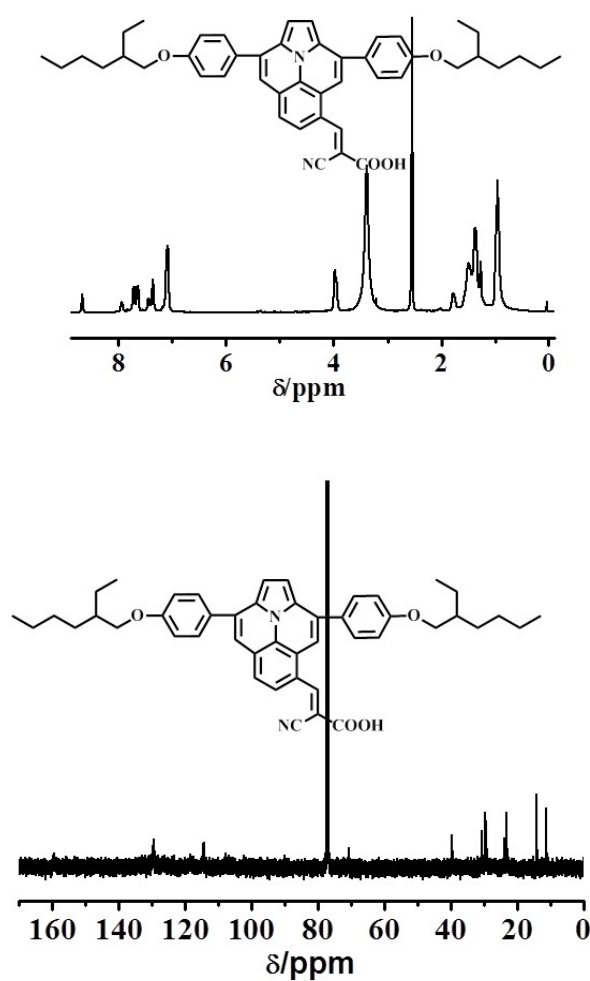


Figure S1  $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR spectra of QD1

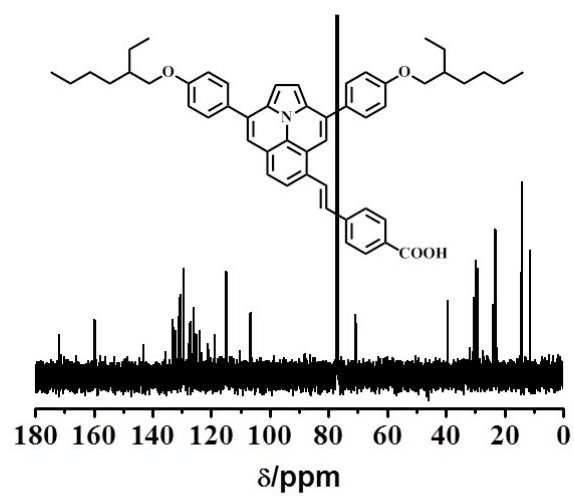
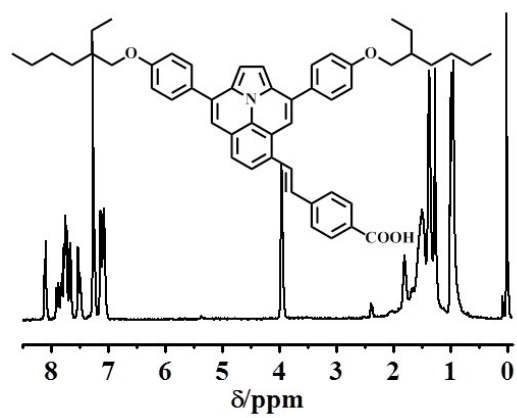
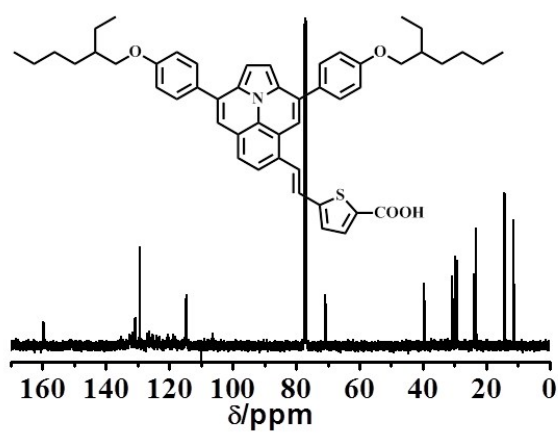
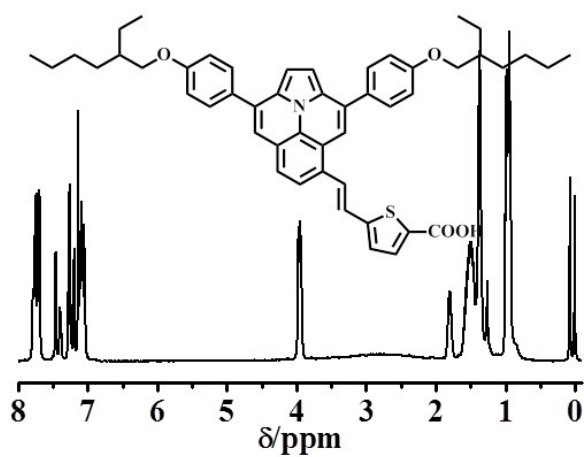


Figure S2 <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra of QD2



**Figure S3** <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra of QD3