Supporting information
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Highly Efficient Light-Harvesting Ruthenium Sensitizer for Dye-Sensitized Solar Cells Featuring Triphenylamine Donor Antenna

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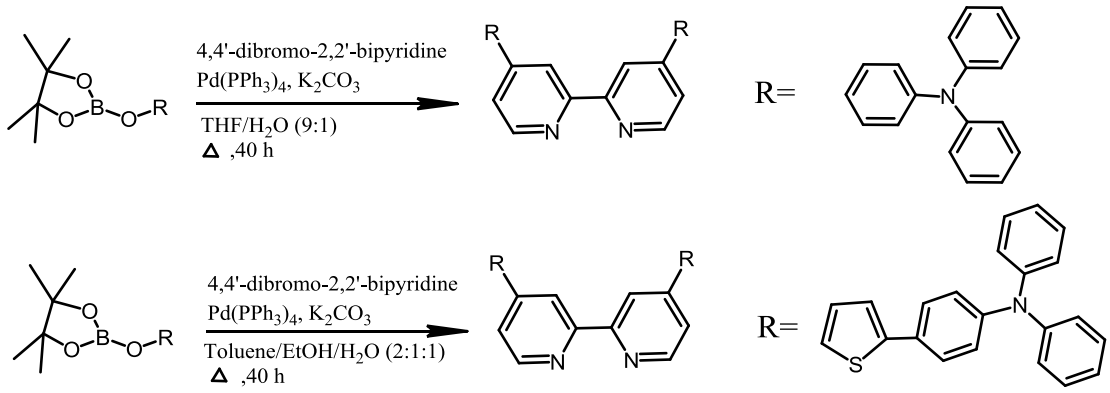
1. Synthesis routs of ancillary ligands KW-Ll and KW-L2



Scheme S1 Synthesis routs of ancillary ligands KW-Ll and KW-L2

2. NMR spectra and MS characterization of KW1 and KW2

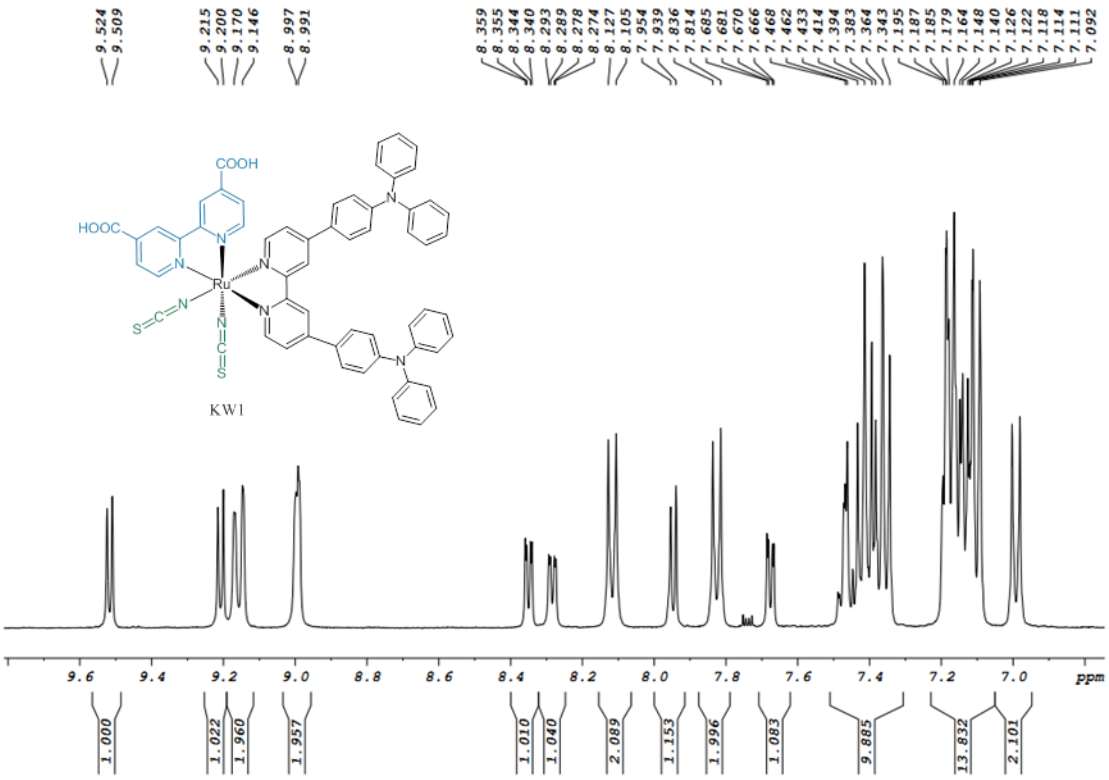


Figure S1 ^{1}H NMR spectrum of KW1 (400 MHz, DMSO-d_6, 298 K).

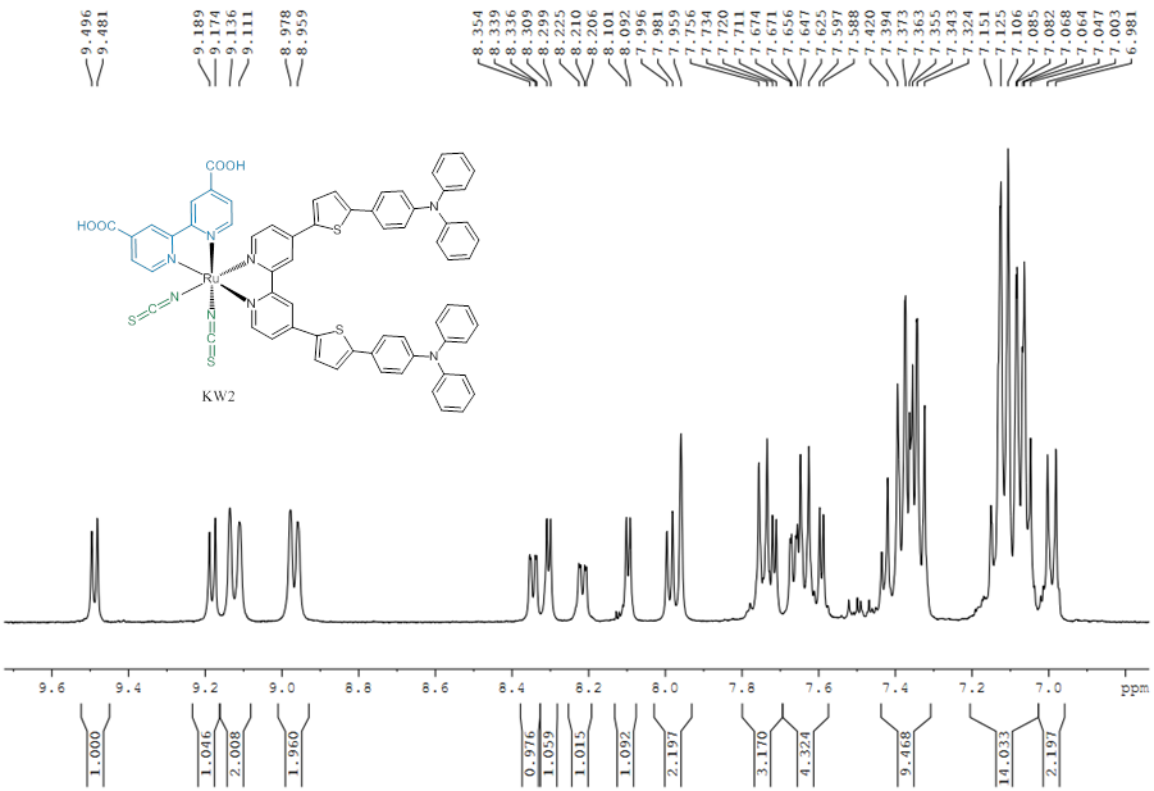


Figure S2 ^{1}H NMR spectrum of KW2 (400 MHz, DMSO-d_6, 298 K).

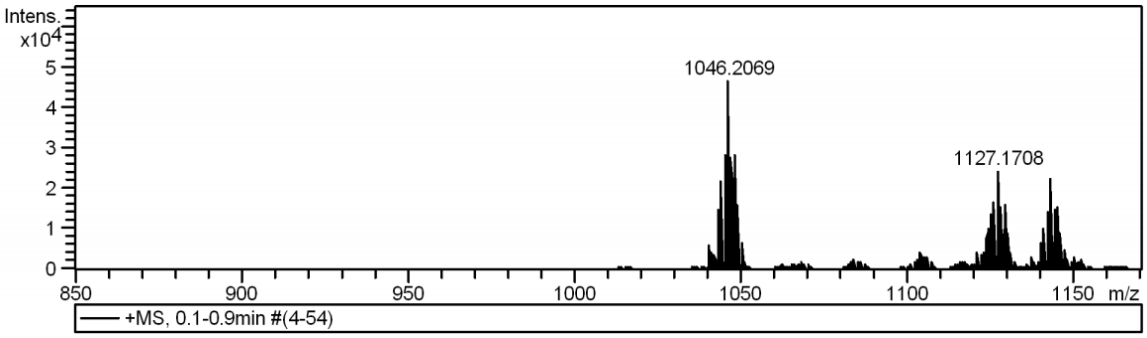


Figure S3 High resolution mass data of KW1.

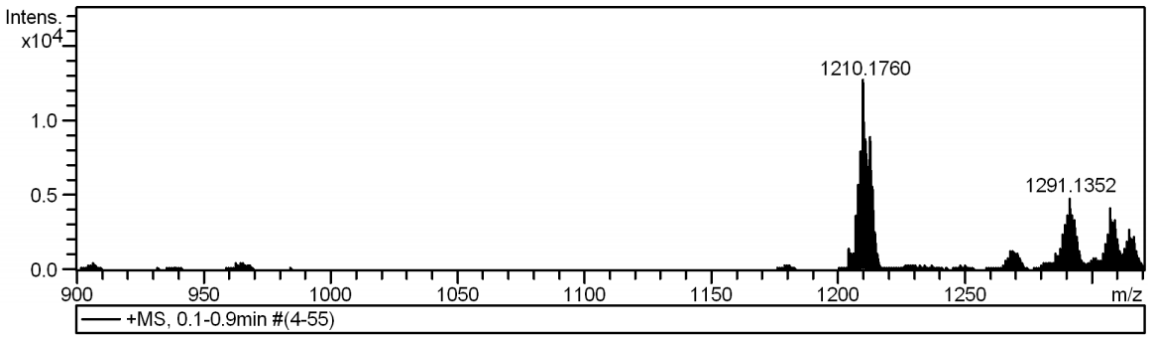


Figure S4 High resolution mass data of KW2.

3. IPCE spectra of KW1 and KW2-sensitized devices with thin film thickness.

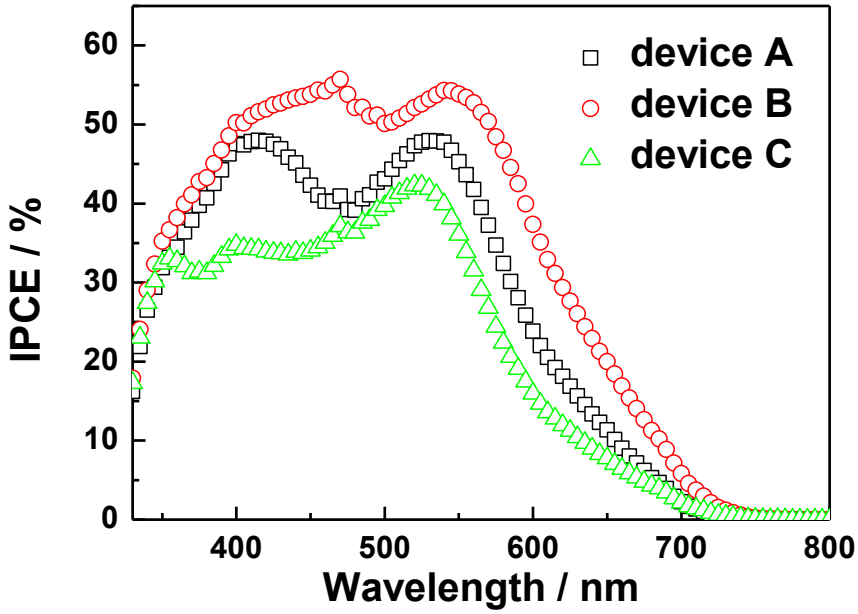


Figure S5 IPCE spectra of KW1 and KW2-sensitized devices with thin film thickness

4. Dark current measurement

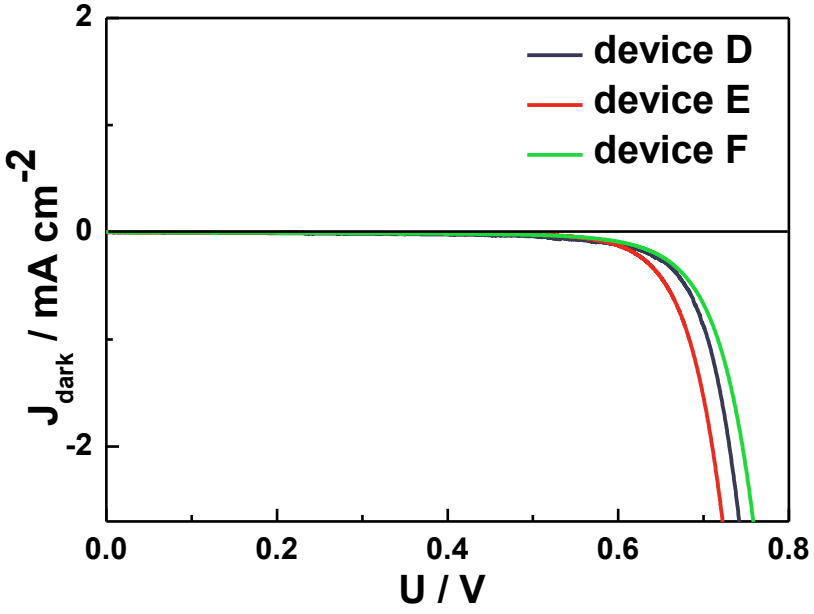


Figure S6 Dark-current data for devices D, E and F