Supplementary Material (ESI) for Journal of Materials Chemistry
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Electronic Supplementary Information (ESI) for

An Efficient Light-Scattering Functionalized TiO_2 Photoanodes Modified with Cyanobiphenyl-based Benzimidazole for Dye-Sensitized Solar Cells with Additive-Free Electrolytes

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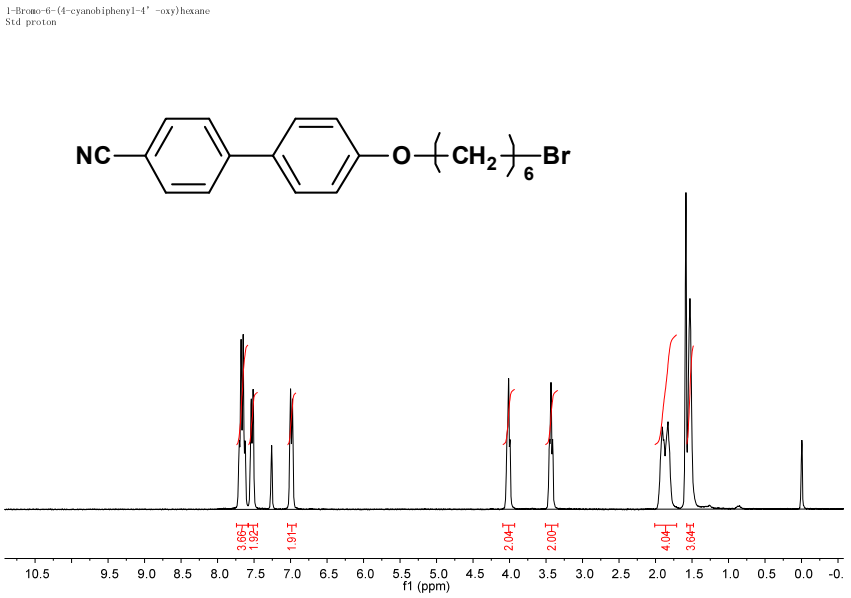

Fig. S1 ^{1}H NMR spectrum of 1-bromo-6-(4-cyanobiphenyl-4'-oxy)hexane (BrCH).

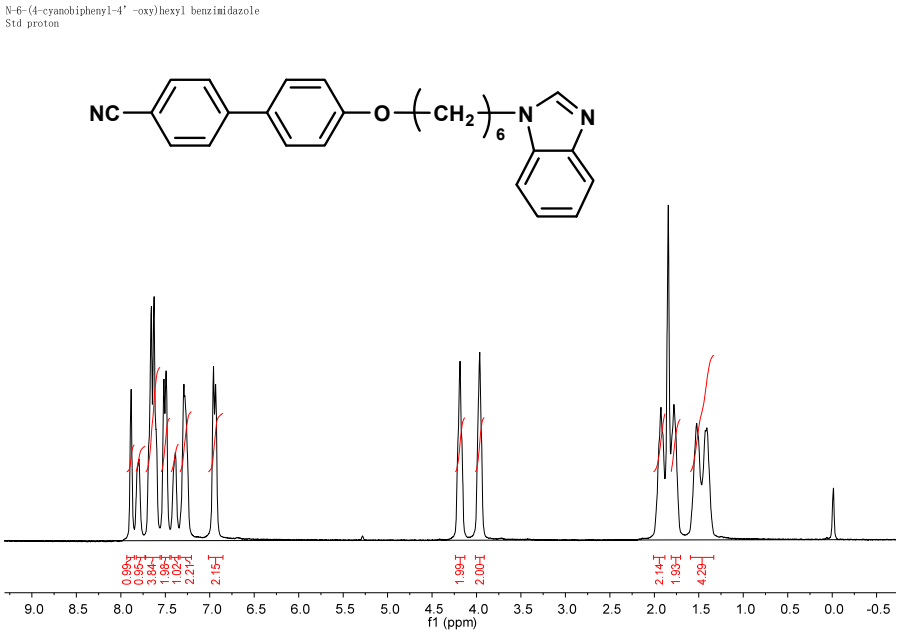

Fig. S2 ^{1}H NMR spectrum of N-6-(4-cyanobiphenyl-4'-oxy)hexyl benzimidazole (NCHB).

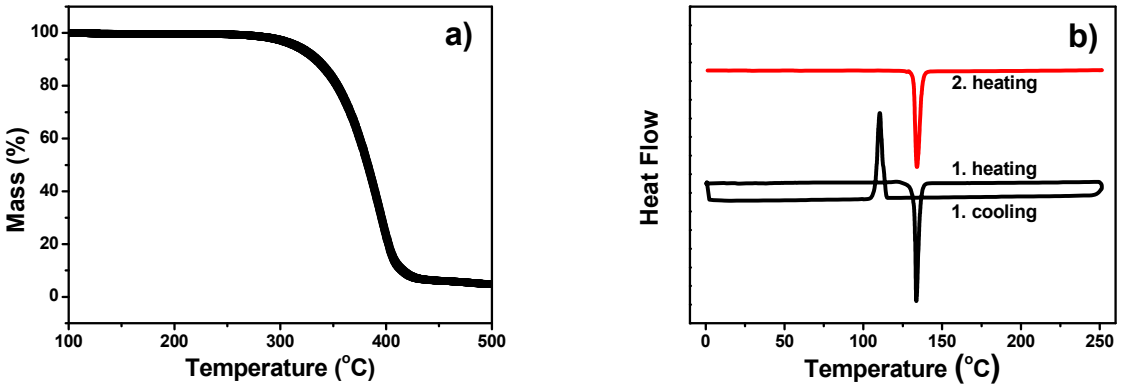

Fig. S3 TGA and DSC curves of NCHB.

In the TGA curve of NCHB, no obvious weight loss below 300 °C showed a good thermostability of NCHB. In addition, the relatively high melting point (133 °C) also indicated that NCHB could offer a high thermal transformation property, far beyond the operating temperature (50-80 °C) of the DSSCs.

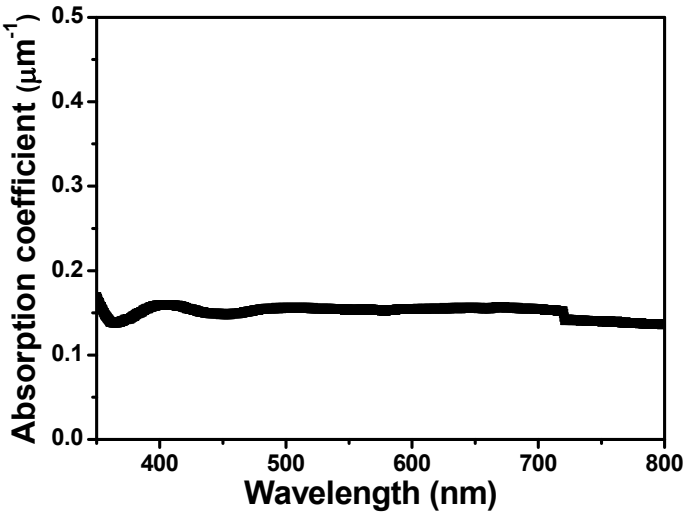

Fig. S4 UV absorption spectrum of NCHB film on FTO glass (FTO glass substrate as a baseline).