Electronic Supplementary Material (ESI) for Organic Chemistry Frontiers.

Electronic Supplementary Information

New Anthracene-Based Organic Dyes: the Changeable Position of the Anthracene Moiety Bearing Isolation Groups in the Conjugated Bridge and the Adjustable Cell Performance

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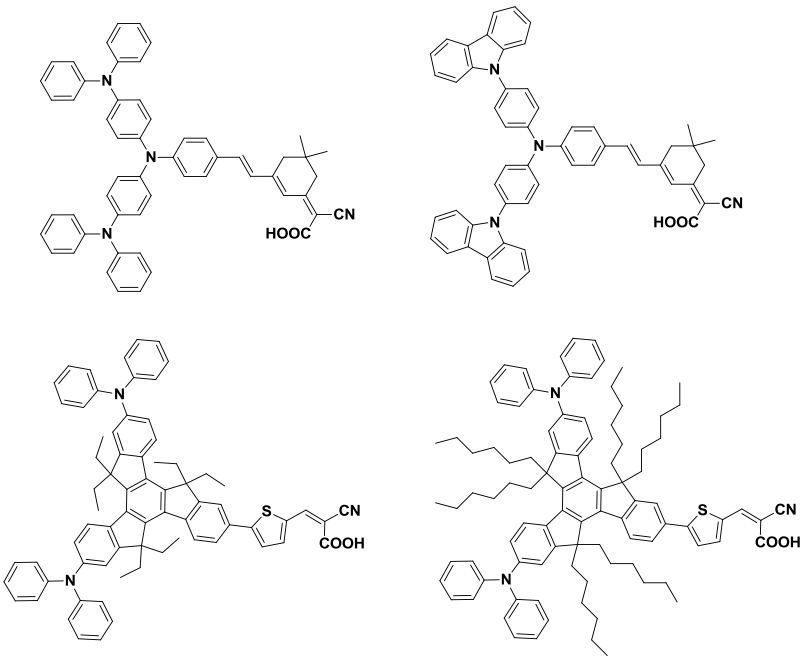

Fig. S1 The structures of starburst triarylamine-based sensitizers reported by Tian's group

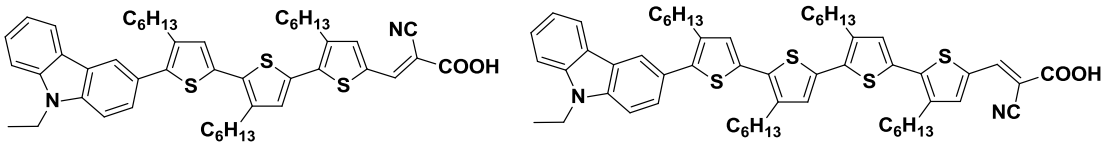

Fig. S2 The structures of alkyl-functionalized organic dyes reported by Hara's group

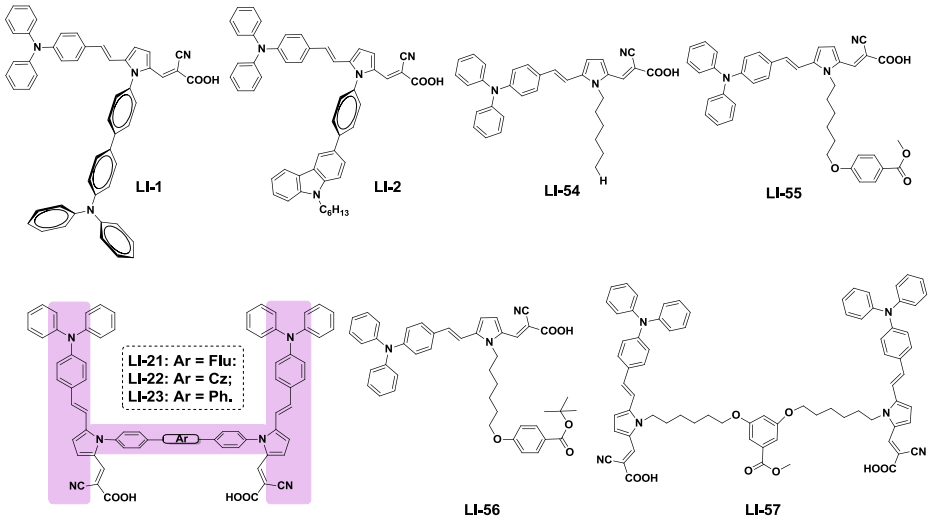

Fig. S3 The structures of pyrrole-based organic dyes with one isolation group

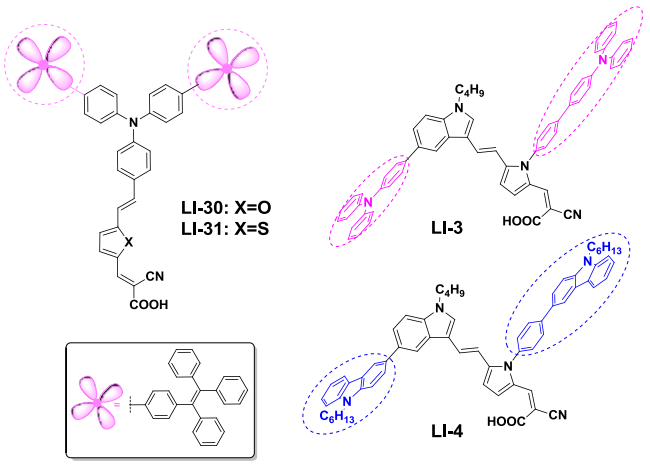

Fig. S4 The structures of organic dyes with two isolation groups

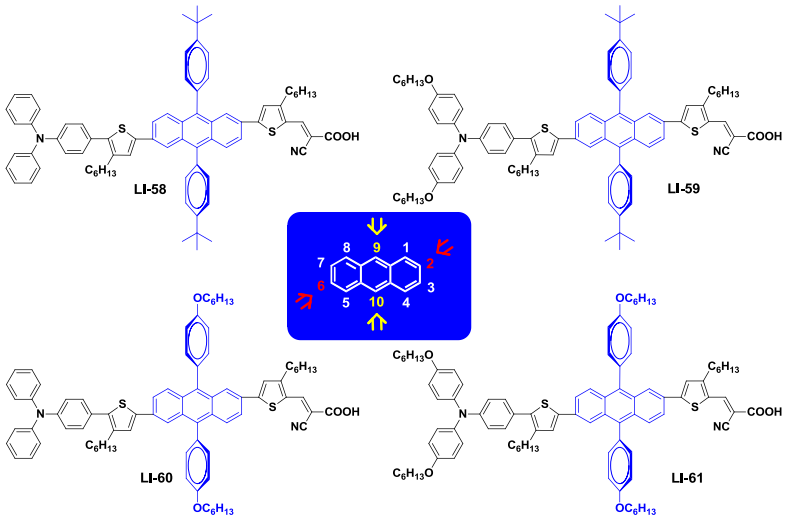

Fig. S5 The structures of anthracene-based organic dyes

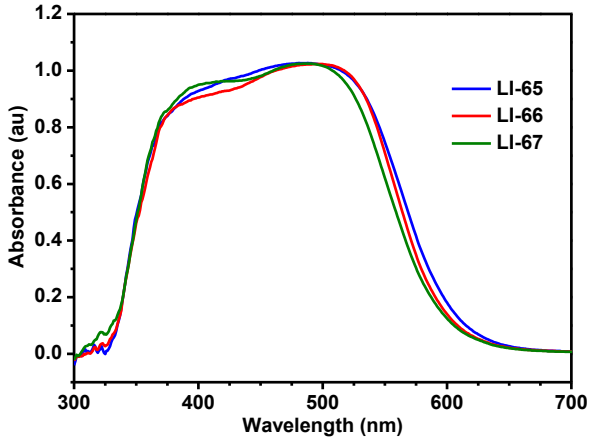

Fig. S6 UV-vis spectra of the sensitizers on TiO_2 films.

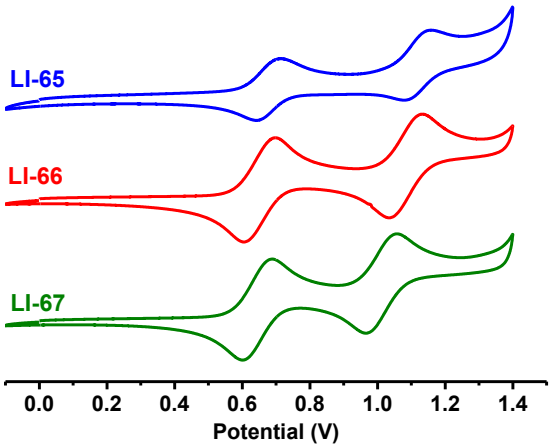

Fig. S7 Cyclic voltammograms of sensitizers in CH_2Cl_2

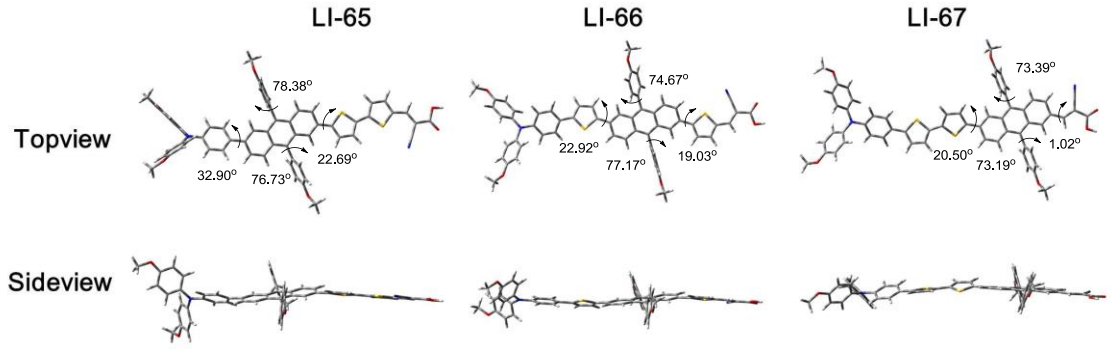

Fig. S8 The optimized structures of the sensitizers

Table S1 Dye-sensitized solar cell performance data of the sensitizers

Dye	CDCA (mM)	V_{oc} (V)	J_{sc} (mA cm^{-2})	*FF*	η (%)
LI-65	0	695	13.95	0.65	6.34
	10	703	12.22	0.67	5.72
LI-66	0	722	12.95	0.69	6.44
	10	728	13.06	0.65	6.22
LI-67	0	698	10.68	0.69	5.15
	10	682	10.35	0.62	4.38