



Journal Name

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Electronic Supporting Information

A comparative study of the photovoltaic performances of terpolymers and ternary systems

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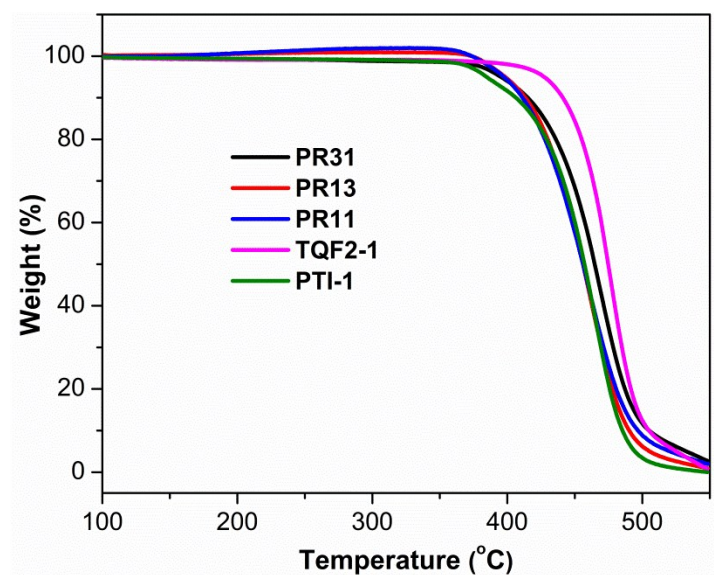


Fig. S1 TGA plots of **TQF2-1**, **PTI-1** and terpolymers at a heating rate of 10 °C min⁻¹ under N₂ atmosphere.

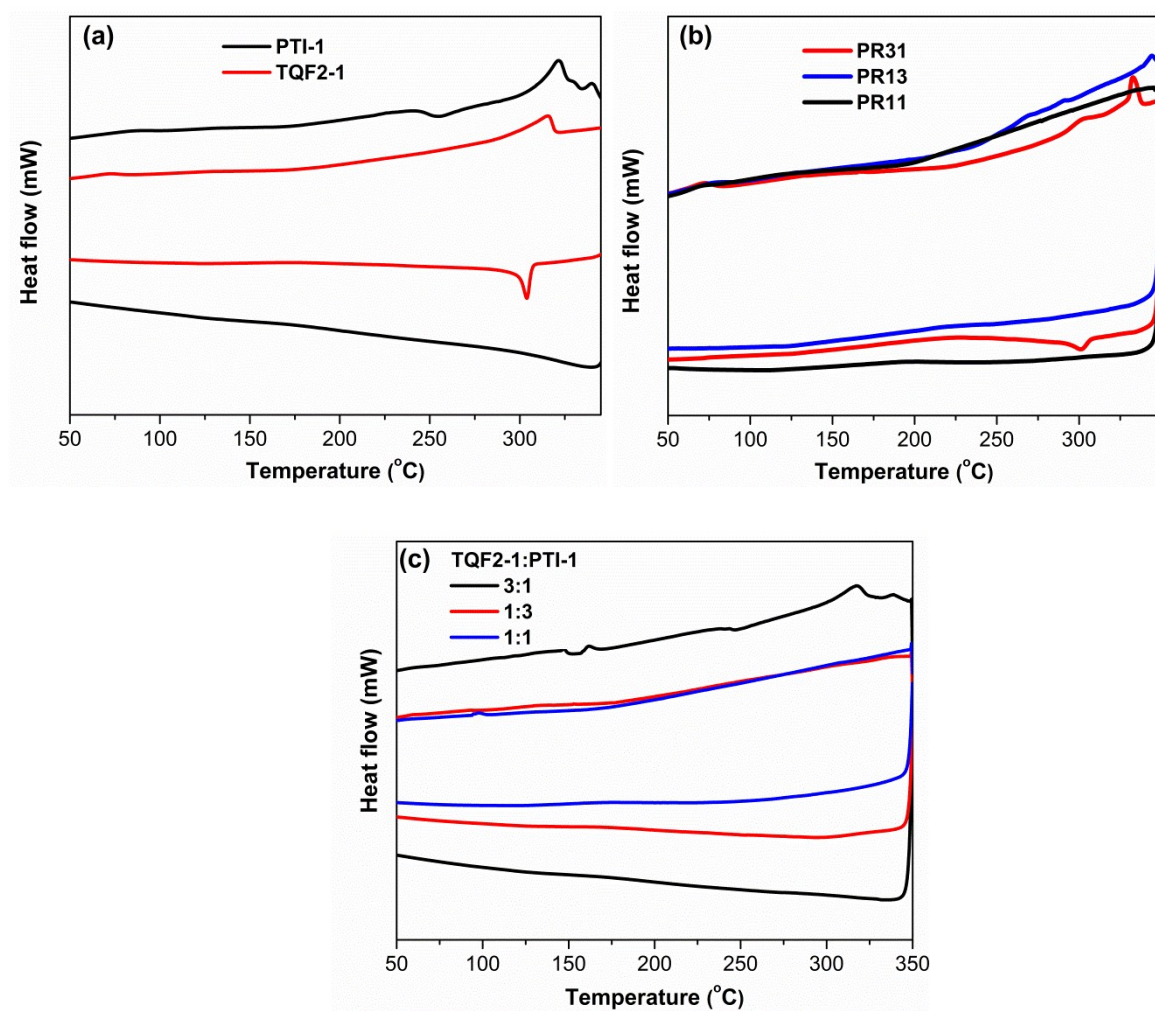


Fig. S2 DSC curves of **TQF2-1**, and **PTI-1** (a), random terpolymers (b) and **TQF2-1: PTI-1** blends (c)

Table S1 (a) Photovoltaic performance of **TQF2-1**:PC₆₁BM PSCs with different D:A ratios

TQF2-1 :PC ₆₁ BM	V_{oc} (V)	J_{sc} (mA/cm ²)	FF	PCE (%)
1:1	0.91	6.2	0.48	2.7
1:2	0.95	4.2	0.46	1.8
1:3	1.00	3.6	0.53	1.9
1:1 ^a	0.93	8.5	0.58	4.6

^a with DIO 2.5%

(b) Photovoltaic performance of **PR31**:PC₆₁BM PSCs with different D:A ratios

D:A ratio	V_{oc} (V)	J_{sc} (mA cm ⁻²)	FF	PCE (%)
1:1	0.99	7.2	0.43	3.1
1:2	0.96	6.2	0.55	3.3
1:3	0.98	3.7	0.60	2.2
1:2 ^a	0.92	8.6	0.66	5.2
1:1 ^a	0.94	9.4	0.62	5.5

^a with 2% DIO

(c) Photovoltaic performance of **PR13**: PC₆₁BM PSCs with different D:A ratios

D:A ratio	V_{oc} (V)	J_{sc} (mA cm ⁻²)	FF	PCE (%)
1:1	0.97	4.6	0.40	1.8
1:2	0.98	5.1	0.63	3.1
1:3	0.96	3.4	0.65	2.1
1:2 ^a	0.94	8.2	0.68	5.2
1:1 ^a	0.95	10.8	0.57	5.8

^a with 2% DIO

(d) Photovoltaic performance of **PR11**:PC₆₁BM PSCs with different D:A ratios

D:A ratio	V_{oc} (V)	J_{sc} (mA cm ⁻²)	FF	PCE (%)
1:1	0.96	3.8	0.35	1.3
1:2	0.97	4.5	0.59	2.6
1:3	0.96	3.4	0.49	1.6
1:2 ^a	0.95	4.6	0.65	2.8
1:1 ^a	0.92	7.6	0.57	4.0

^a with 2% DIO