

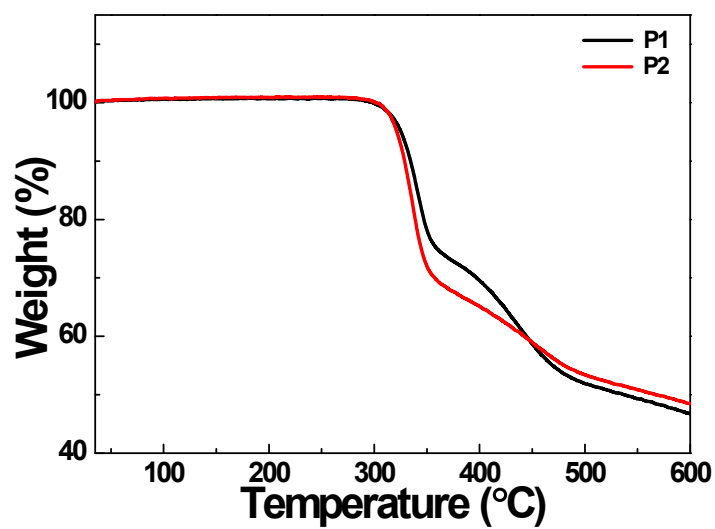
## Electronic Supplementary Information

### **A feasible random copolymer approach for high-efficiency polymeric photovoltaic cells**

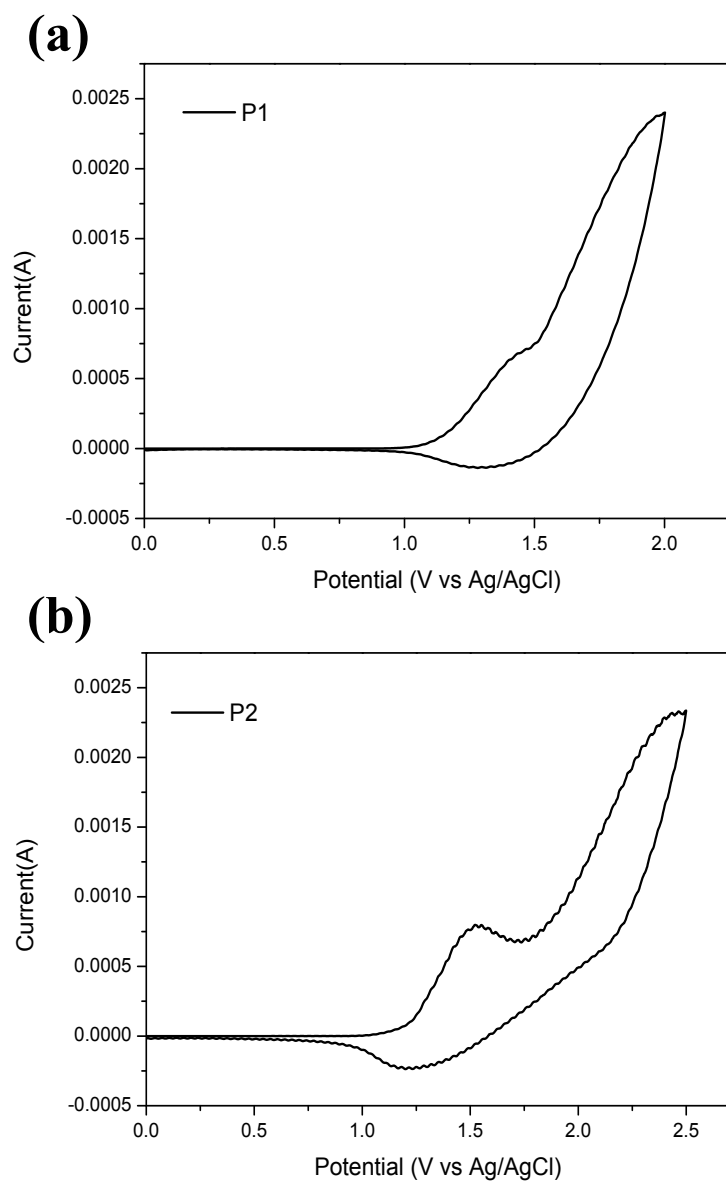
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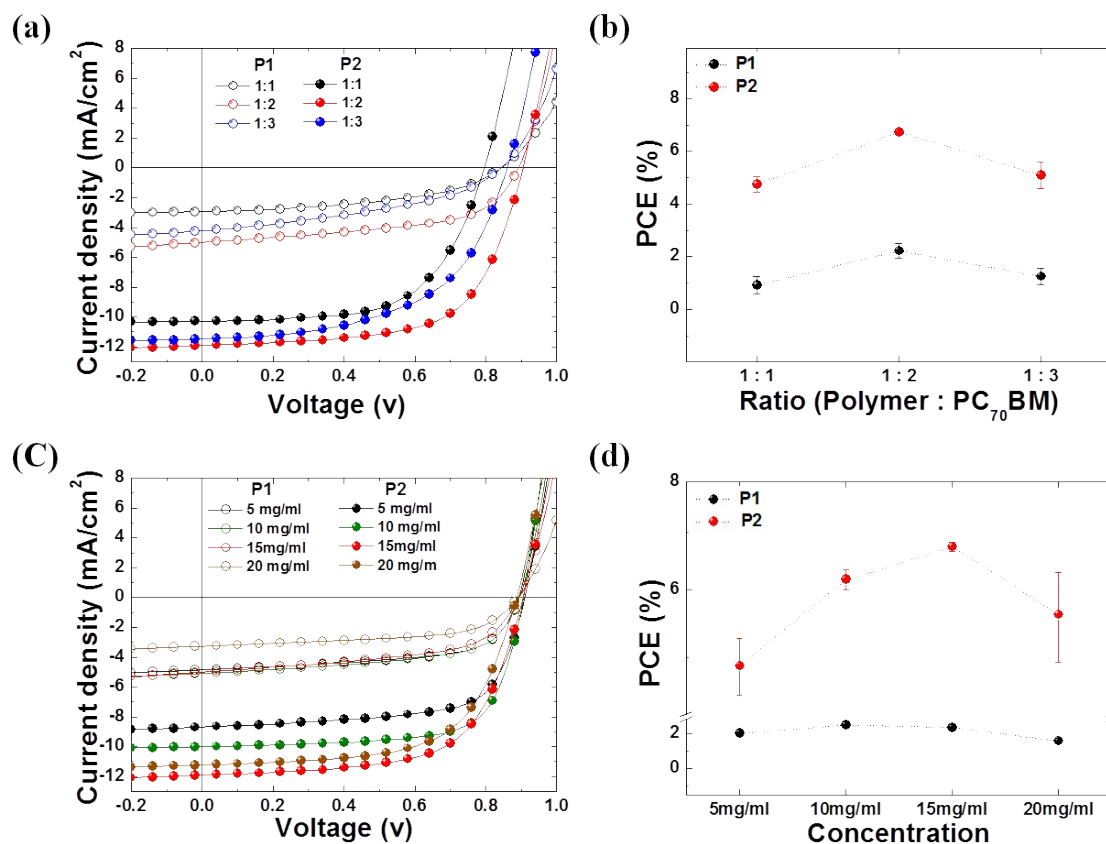
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**Figure S1.** Thermal gravimetric analysis (TGA) curves of P1 and P2.



**Figure S2.** Cyclic voltammogram of (a) P1 and (b) P2



**Figure S3.** (a) The representative J–V curves for OPVs with various blend ratios (polymer:PC<sub>70</sub>BM). (b) PCE changes with different polymer:PC<sub>70</sub>BM ratios for P1 and P2 based devices. (c) The representative J–V curves for OPVs with various concentrations. (d) PCE changes with different concentrations for P1 and P2 based devices.