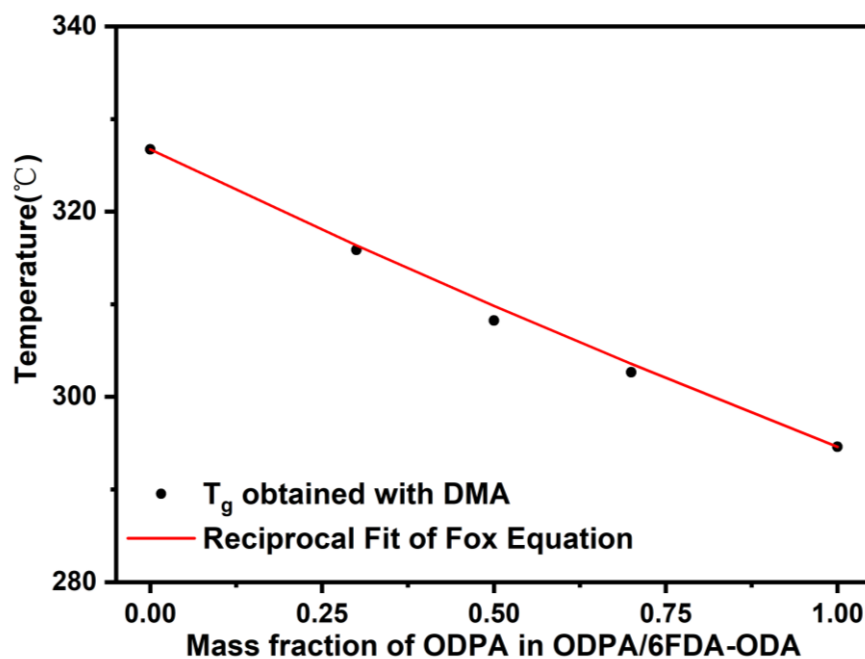


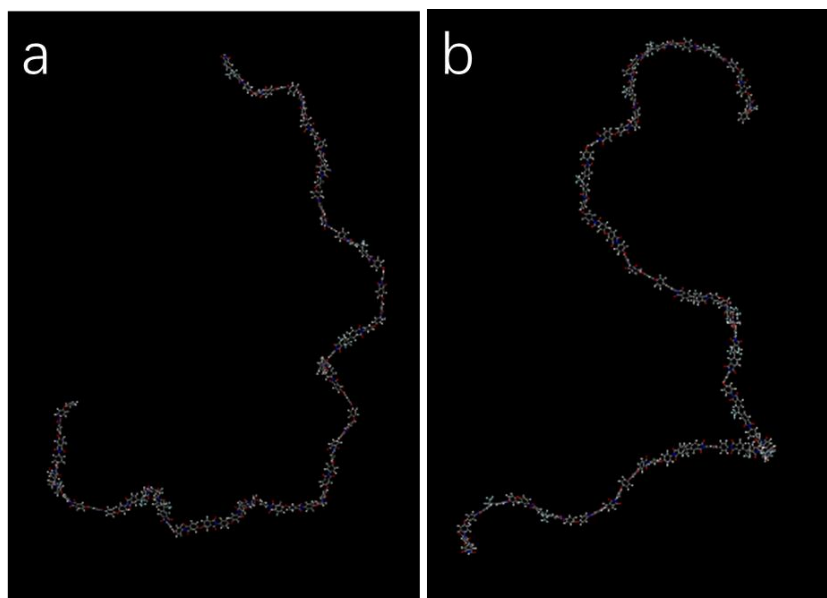
# Supplementary Information

High-temperature-induced Shape Memory  
Copolyimide

*Supplementary information*



**Figure S1.**  $T_g$  of PI films of different copolymerization systems. The red line is calculated according to the Fox equation. The points are tested by DMA.



**Figure S2** 3D illustration of molecular structures of shape memory polyimide (a) 6FDA/ODPA-ODA-55 (b) 6FDA/ODPA-ODA-73.

**Table S1** The  $R_f$  and  $R_r$  data in shape memory cycles (in Figure. 6)

Sample	Cycle	$R_f$ (%)	$R_r$ (%)
6FDA/ODPA-ODA-73	1st	97.91	93.55
	2nd	98.09	95.28
	3rd	98.17	96.51
	4th	98.19	97.21
6FDA/ODPA-ODA-55	1st	98.53	90.95
	2nd	98.73	95.23
	3rd	98.78	96.38
	4th	98.85	97.01
6FDA/ODPA-ODA-37	1st	98.71	93.68
	2nd	98.81	96.77
	3rd	98.85	97.52
	4th	98.88	98.04