Electronic Supplementary Material (ESI) for Molecular Systems Design & Engineering.

Supporting Information

Bio-based Adenine-containing Copolyimides with High Switching Temperature and Storing High Strains

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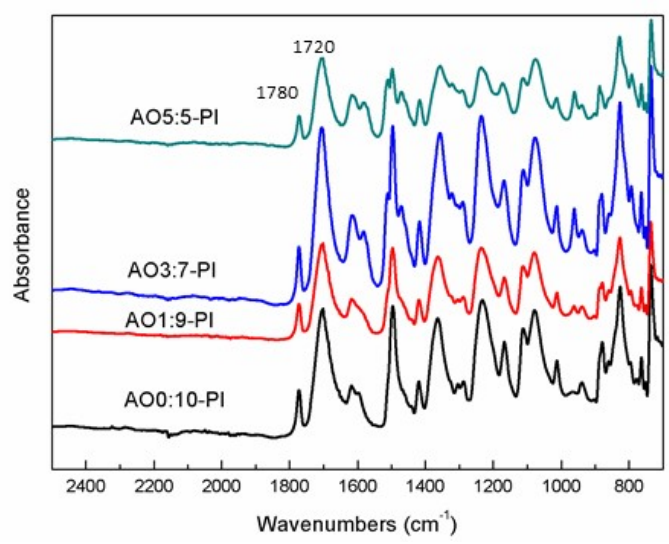

Fig. S1. ATR-FTIR of poly(adenine-co-imide)s films

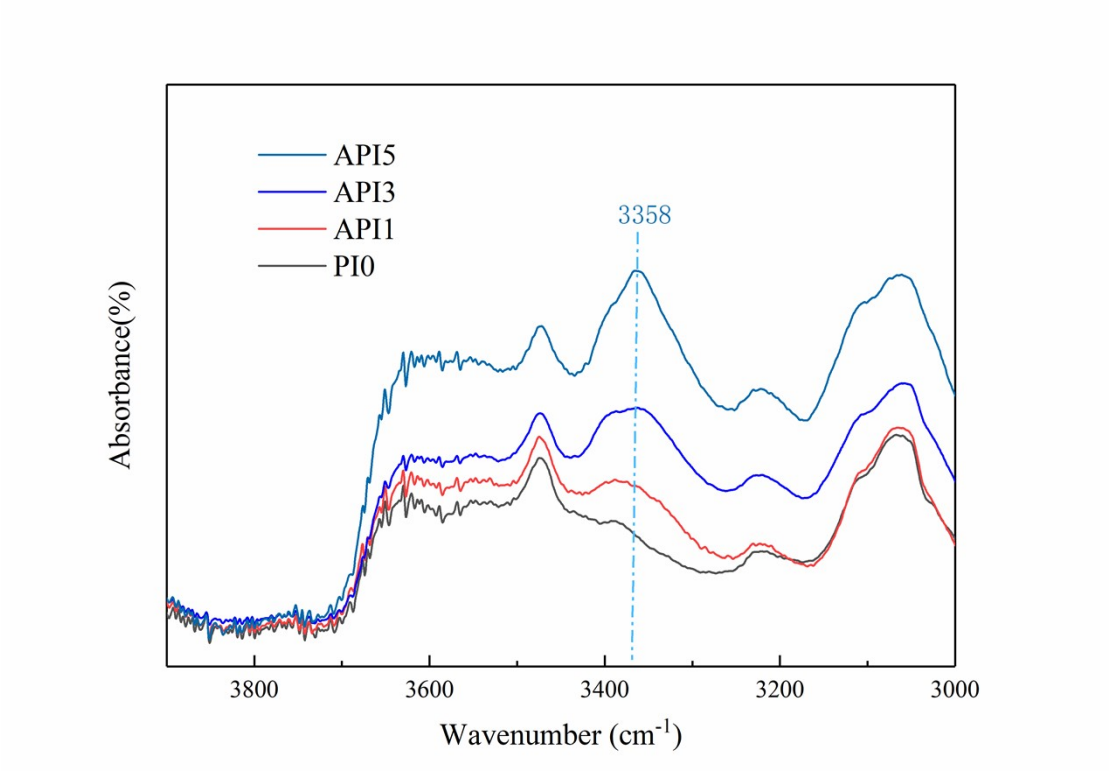

Fig. S2. The ATR-FTIR between 3000-3900cm^{-1} of poly(adenine-co-imide)s films

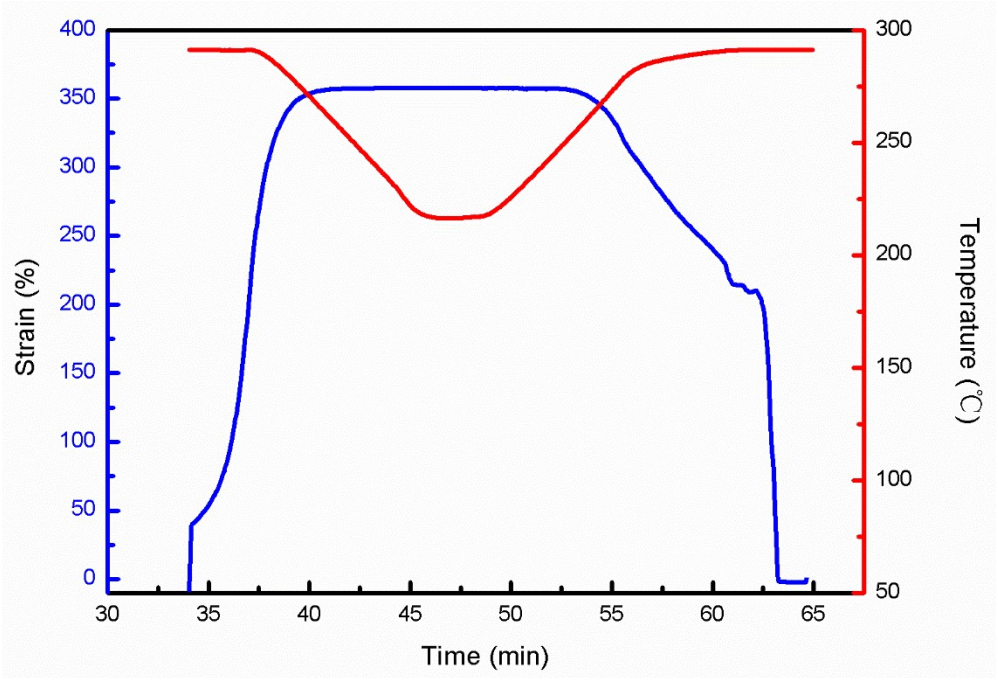

Fig. S3. Shape memory cycle for API3 of 2d plot corresponding to Figure 3C

Table S1. Tensile strain (ε), shape fixity (Rf), shape recovery (Rr) and trigger temperature of API3 over four consecutive shape memory cycles

		Cycle 1	Cycle 2	Cycle 3	Cycle 4
ε(%)		141	142	142	142
Rf(%)		99	99	99	99
Rr(%)		100	100	100	100
Trigger-temperature (°C)	Starting-	266	266	269	269
	Ending-	288	288	289	289
	Average-	277	277	279	279

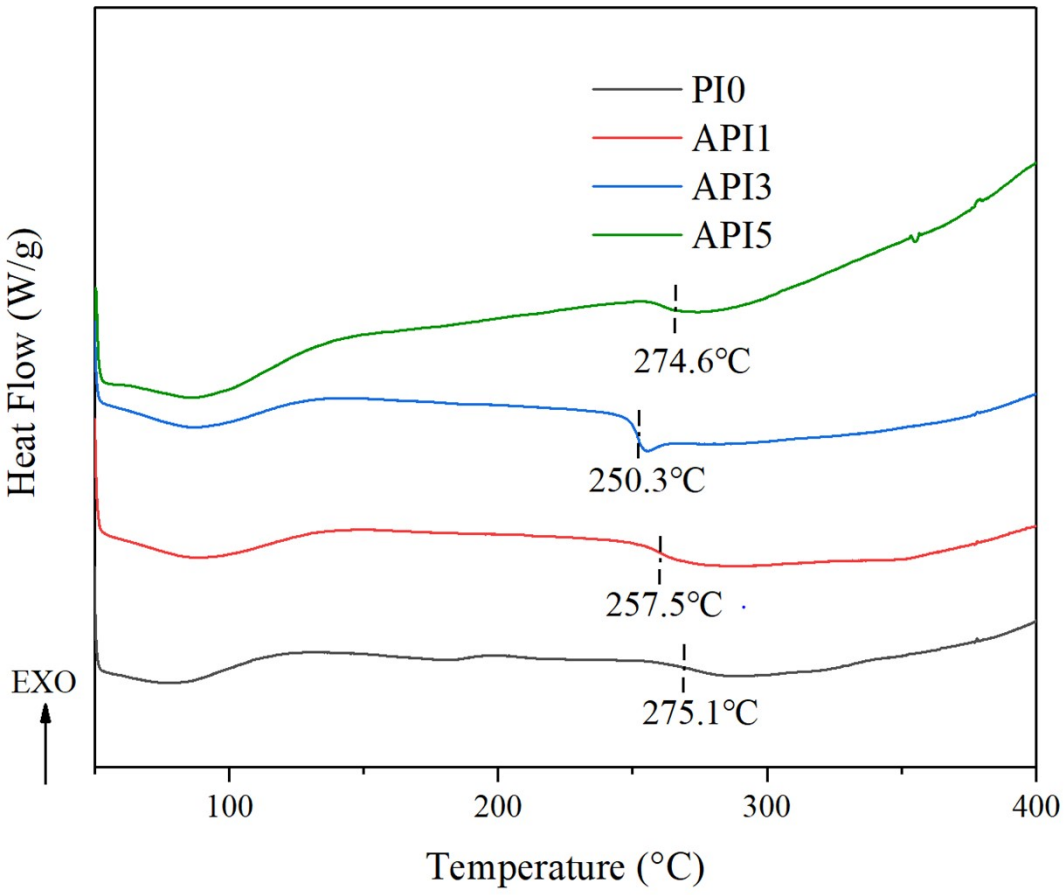

Fig. S4. DSC of the copolyimides (10°C/min, N_2)

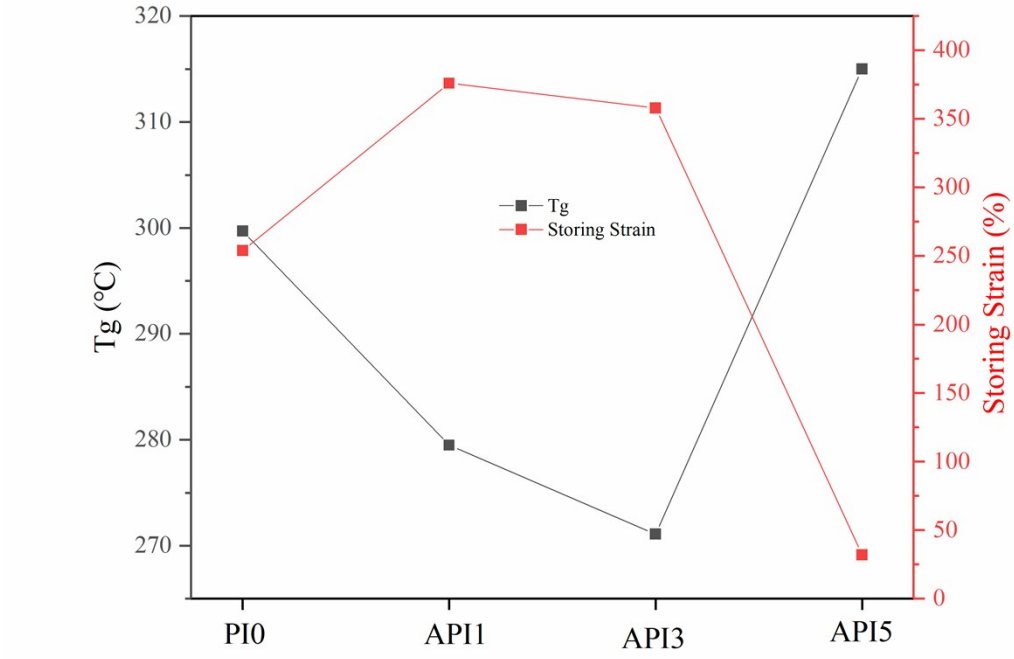

Fig. S5. Glass transition temperature (Tg) and storing strain of PI0, API1, API3, API5.

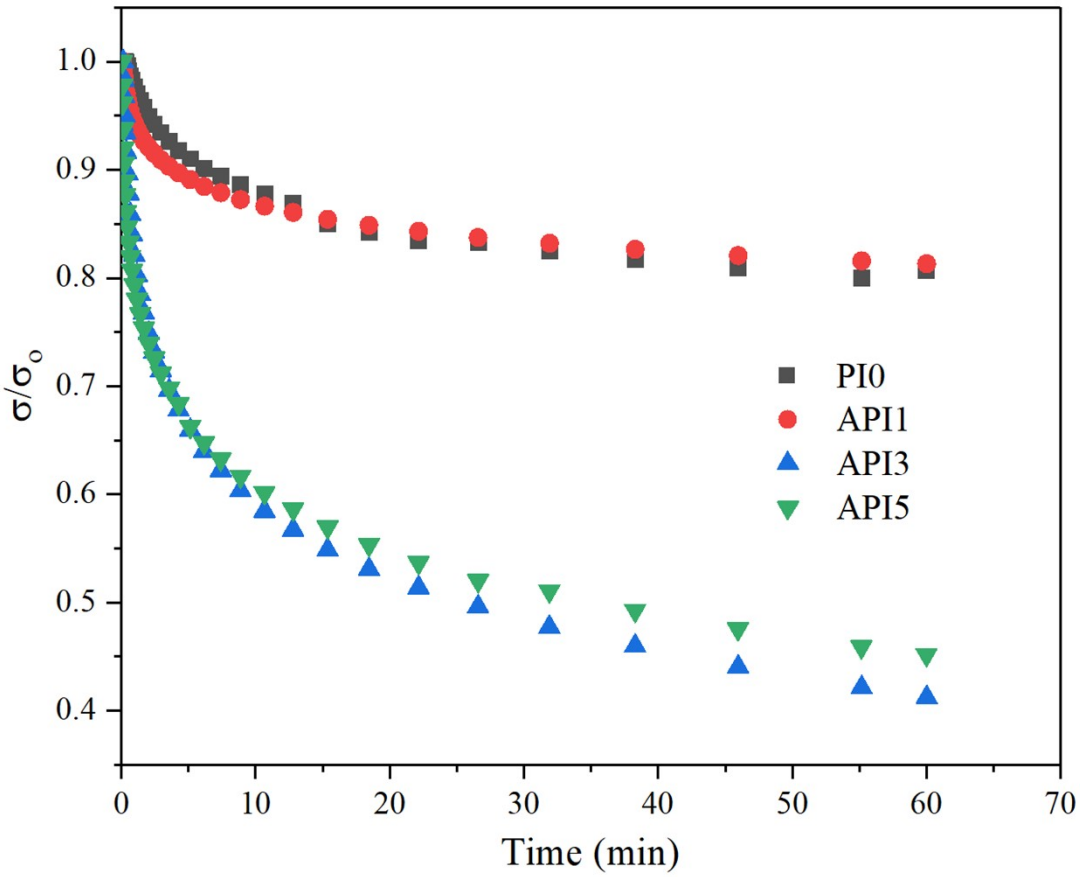

Fig. S6. Stress relaxation of copolyimides in Tg+20°C.