Electronic Supplementary Material (ESI) for Polymer Chemistry.

Supplementary Information

Supramolecular copolymer based on small molecule, used for multifunctional adhesive and rapid hemostasis

Junying Chen[a], Dawei Guo[c], Shihao Liang[d], Zuozhen Liu[a,b,*]

[a]Key Laboratory for Specially Functional Polymers and Related Technology of Ministry of Education, School of Materials Science and Engineering, East China University of Science and Technology, Shanghai 200237, China
[b]Shanghai Engineering Research Center of New anticorrosion Material, Sino Polymer Co., Ltd., Shanghai 200237, China
[c]Wuhan University of Science and Technology, Wuhan 430081, China
[d]Shengda University, Zhengzhou 451191, China

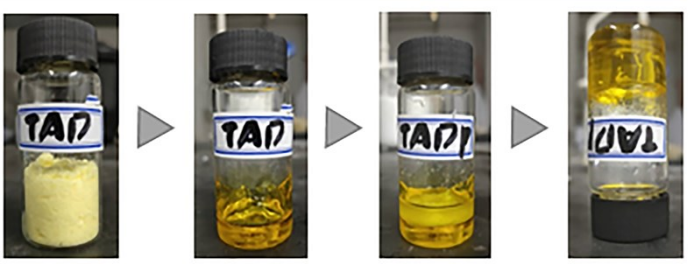

Figure S1. Powdery solid, heated liquid and gelled glue after cooling.

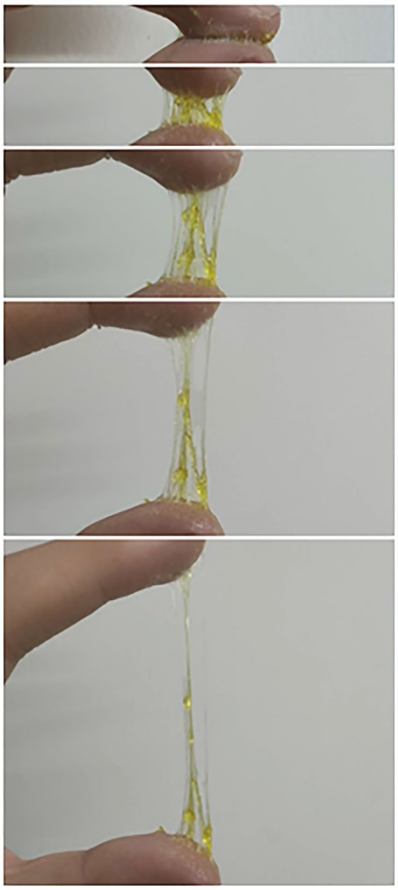

Figure S2. The copolymer can be drawn into filaments.

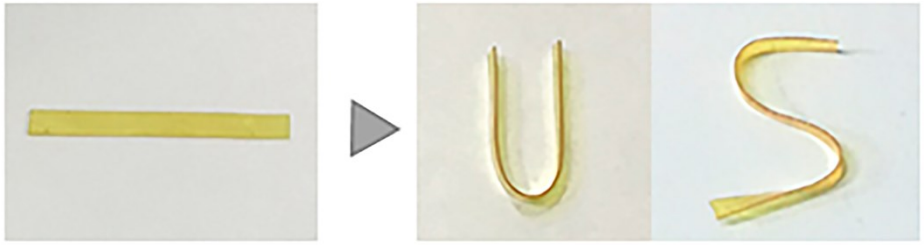

Figure S3. Strip copolymers can be used to construct objects of different shapes.

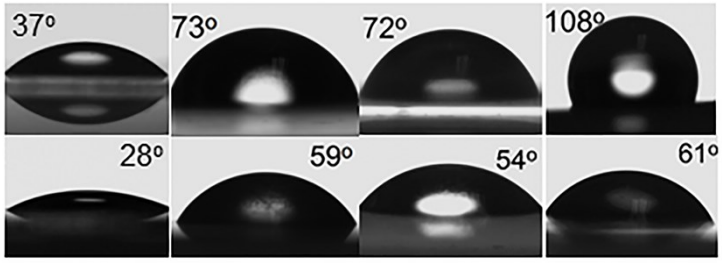

Figure S4. Contact angles of water (first row) and melted TADP adhesive (second row) on different substrates (the substrates are, respectively, glass, iron sheet, PMMA and PTFE from left to right).

Table S1. Characterization of different TADP polymers.

	TAD (g)	**PEGDA (g)**	**T_m[a] (℃)**
TADP10	10	1	69.3°C
TADP20	10	2	62.5°C
TADP30	10	3	53.7 ℃
TADP40	10	4	39.7°C

a) Melting temperature.

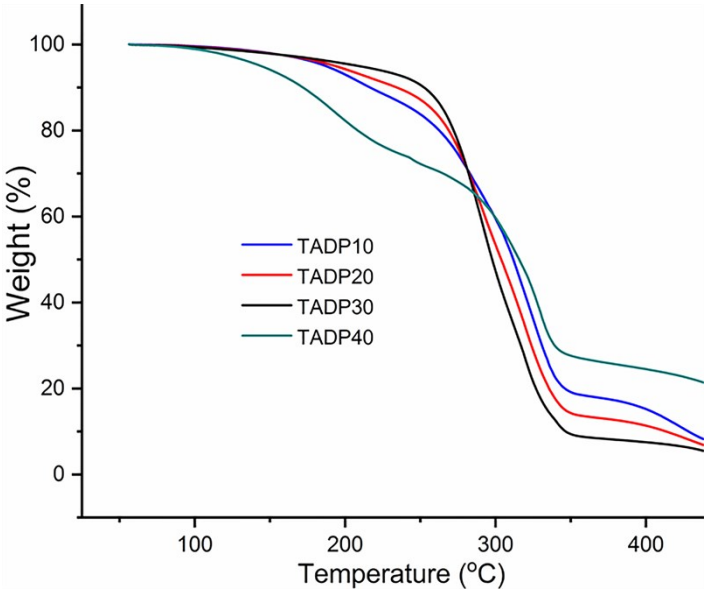

Figure S5. Thermal decomposition behavior of TA and TAN.

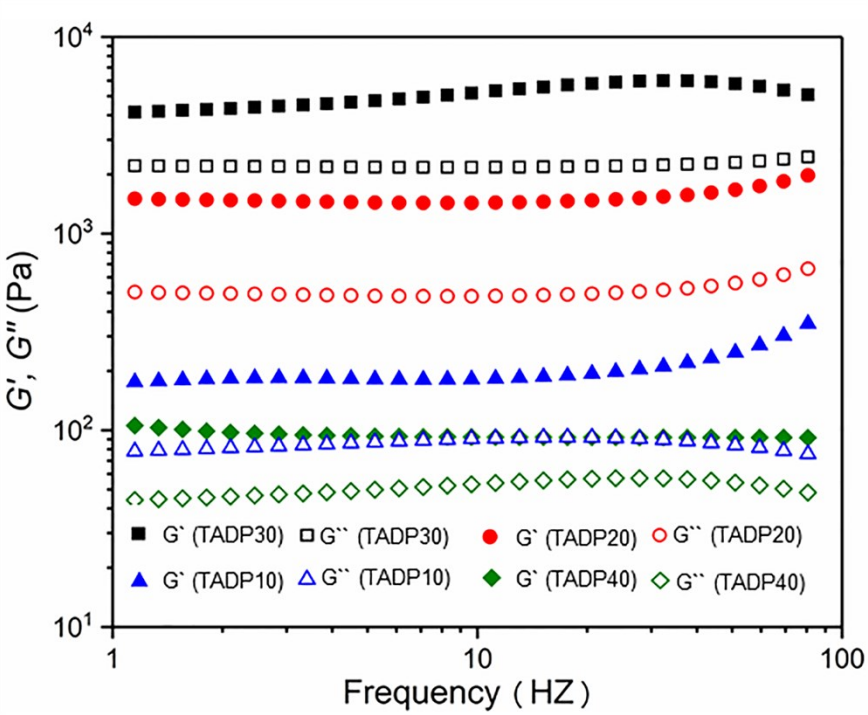

Figure S6. Frequency dependency of storage (solid dots, G′) and loss (hollow dots, G″) moduli of copolymer network.

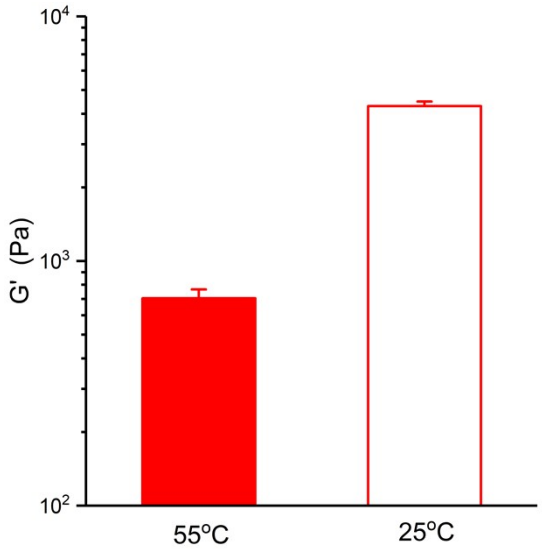

Fig. S7. Changes in storage modulus (G`) of the TADp30 at 55 or 25 ℃.

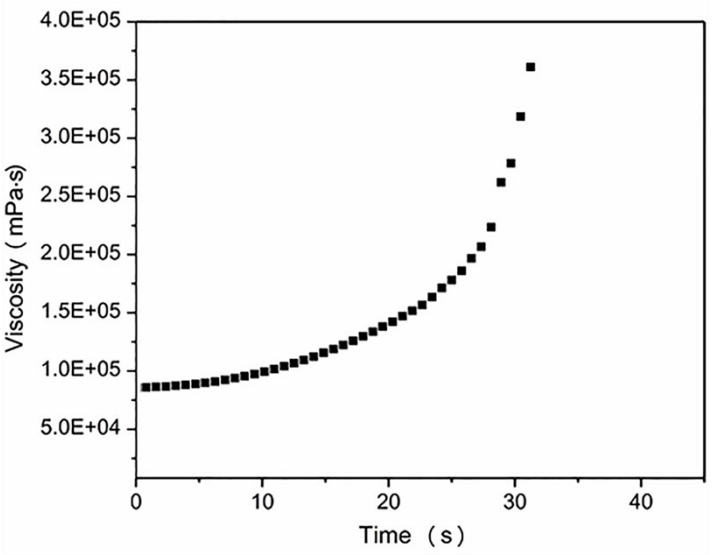

Figure S8. Time course of viscosity after dropping the temperature from 55 ℃ to 25 ℃ for TADP30.

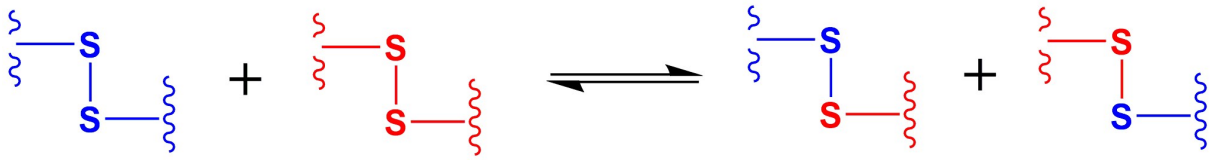

Figure S9. Exchange of disulfides in the polymer backbone.