

Supporting Information

for

A novel calix[4]arene-based dimeric-cholesteryl derivative: synthesis, gelation and unusual properties

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1. The unusual thermo-stability of the C₂N₂C/benzene gel

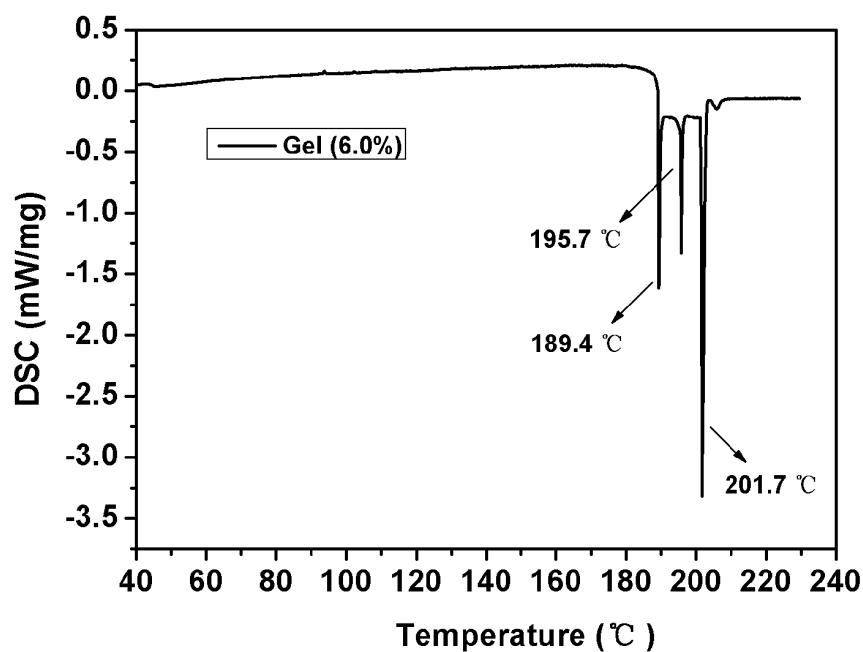


Fig. S1 DSC thermogram of the C₂N₂C/benzene gel recooded under a positive nitrogen atmosphere (1 MPa) at a heating speed of 2.0 K/min (6.0%, w/v).

2. Microscopy studies of the xerogels

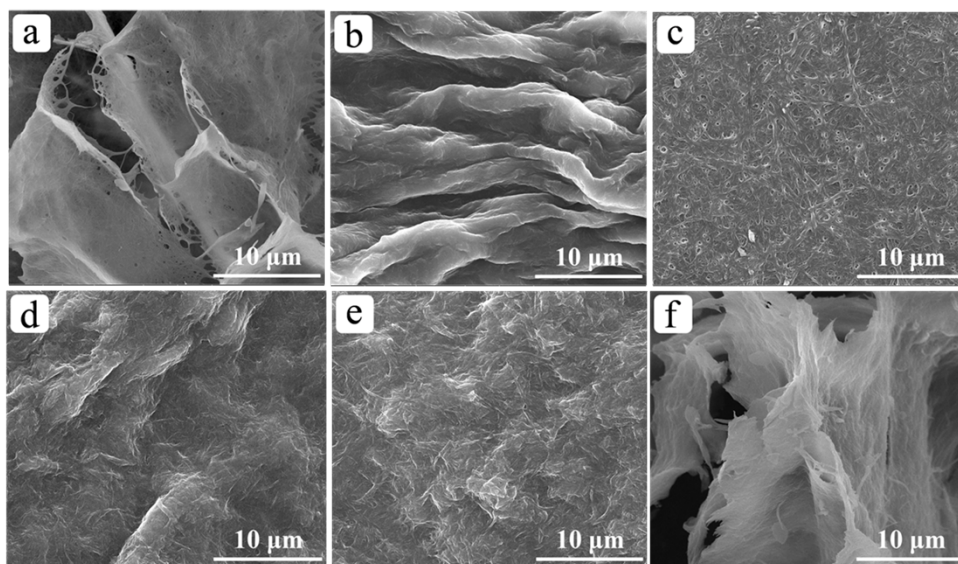


Fig. S2 SEM images of the xerogels of C₂N₂C from: a) benzene, b) toluene, c) *n*-pentanol, d) *o*-xylene, e) *m*-xylene, f) *p*-xylene (1.5%, w/v).

3. Frequency sweep of the C2N2C gels in different liquids

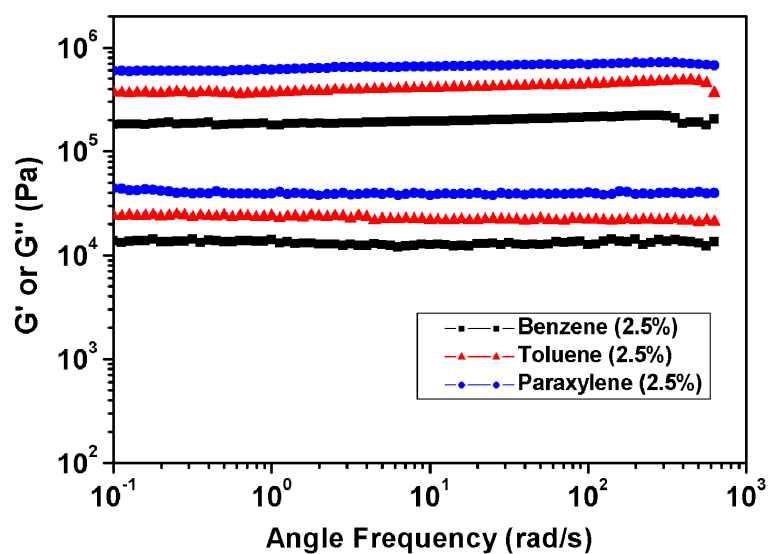


Fig. S3 Evolution of G' and G'' of the C2N2C gels as functions of the angle frequency in different liquids (2.5%, w/v).

4. Thixotropic behaviors of C2N2C/toluene gel system

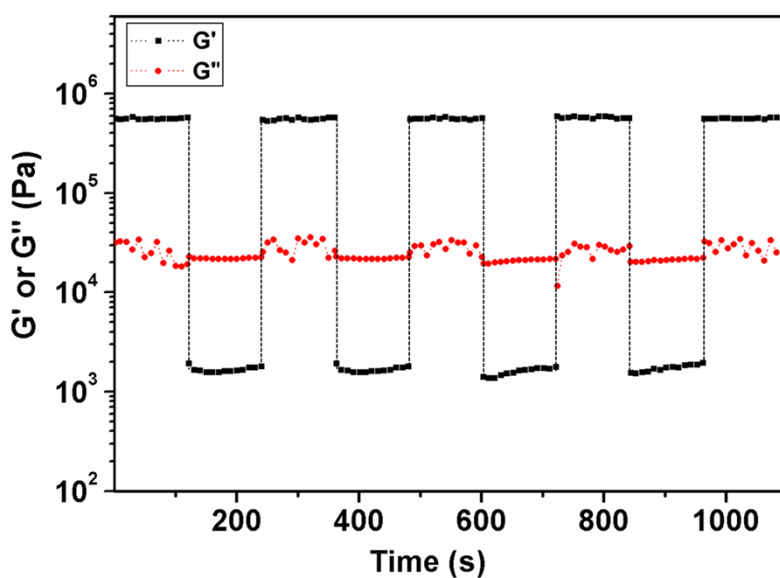


Fig. S4 Thixotropic behaviors of C2N2C/toluene gel system (Formation: 10 Pa, Deformation: 1500 Pa; 2.5%, w/v).

5. Thixotropic behaviors of C2N2C/*p*-xylene gel system

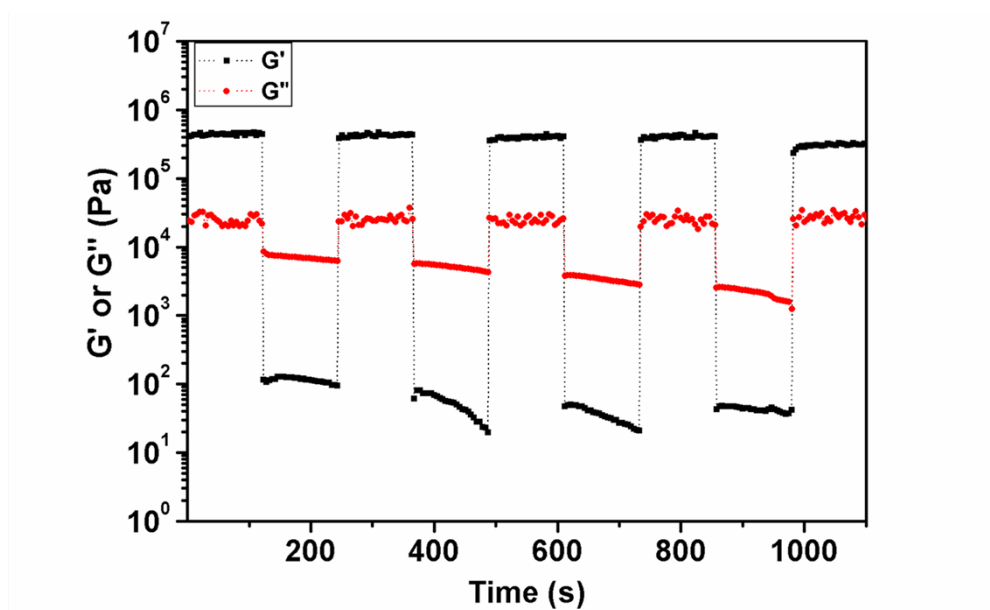


Fig. S5 Thixotropic behaviors of C2N2C/*p*-xylene gel system (Formation: 10 Pa, Deformation: 1500 Pa; 2.5%, w/v).

6. UV-vis absorption spectra of C2N2C in benzene

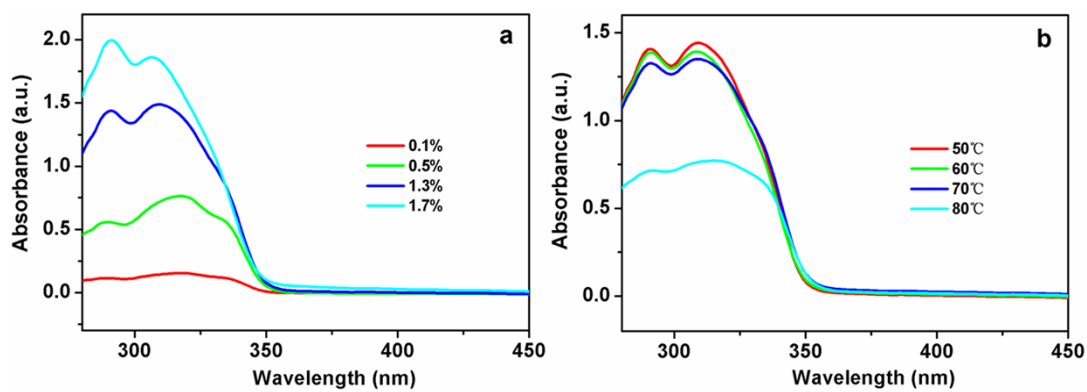


Fig. S6 (a) Concentration-dependent UV-vis spectra of C2N2C in benzene; (b) Temperature-dependent UV-vis spectra of C2N2C in benzene (1.3%, w/v).

7. XRD study of the C2N2C/benzene xerogel

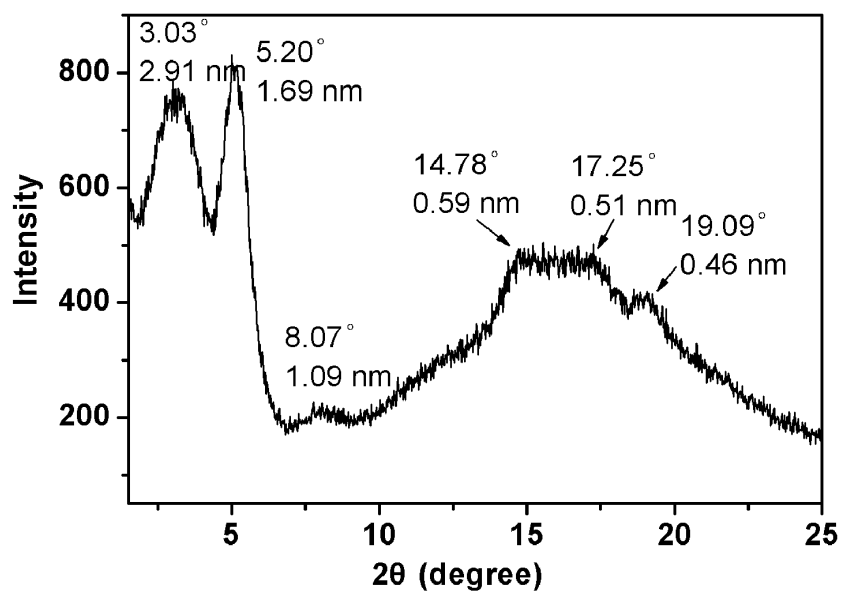


Fig. S7 XRD trace of the xerogel from C2N2C/benzene gel (1.0%, w/v).