

Supporting Information

Self-assembled toron-like structures in inverse nematic gels

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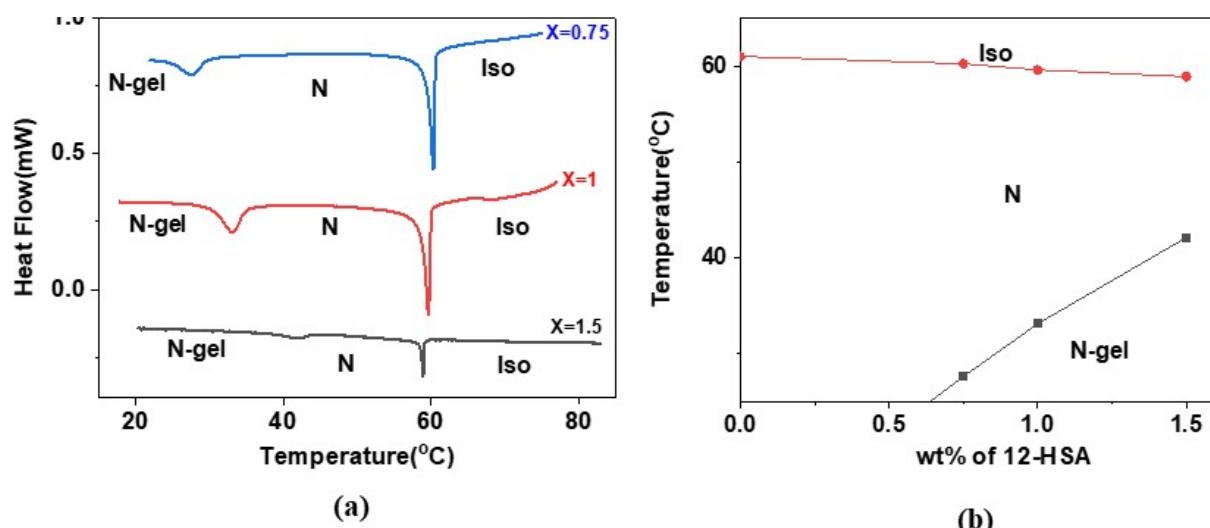


Fig S1. (a) DSC scans obtained for [CCN-mn (X)] and (b) corresponding temperature-concentration phase diagram.

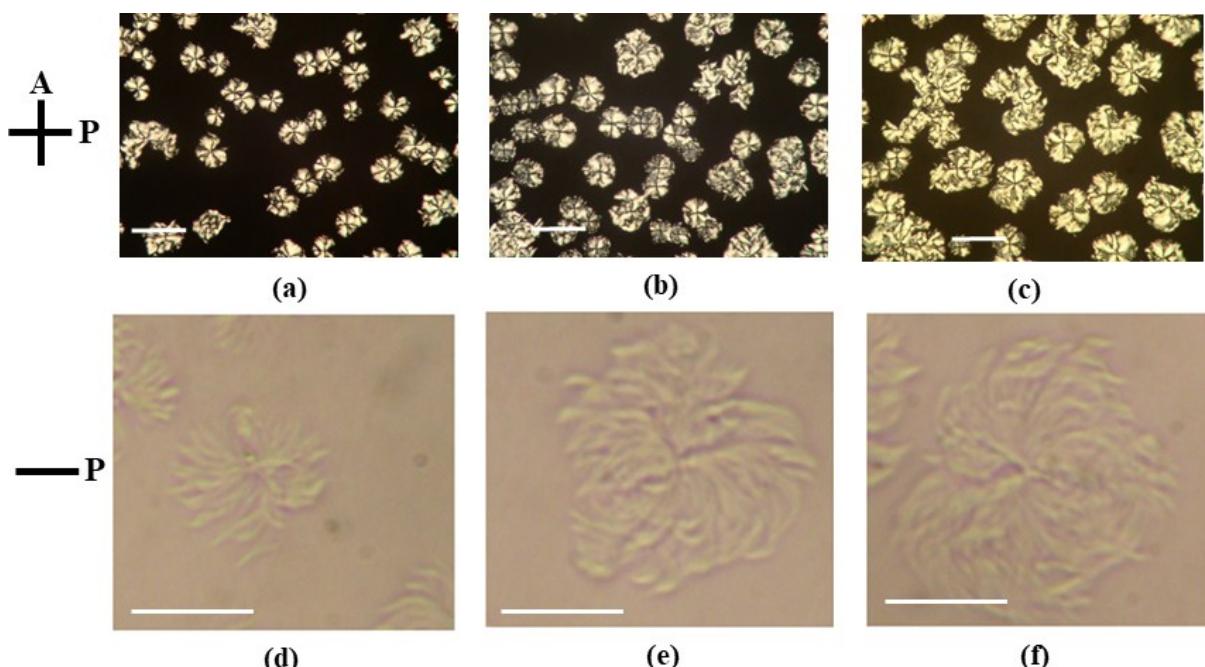


Fig S2. Dependence of the size of BFDs and the number of fibrous strands within them on the concentration of the gelator. (a),(d) X=0.75, (b),(e) X=1 and (c),(f) X=1.5. Scale bar corresponds to 100 μm in (a)-(c), 25 μm in (d)-(f).



Fig S3. Optical texture of [CCN-mn (0.75)] taken in a planar cell with only the analyzer when the fibrous strands within the BFDs are revealed. Scale bar corresponds to 50 μm .

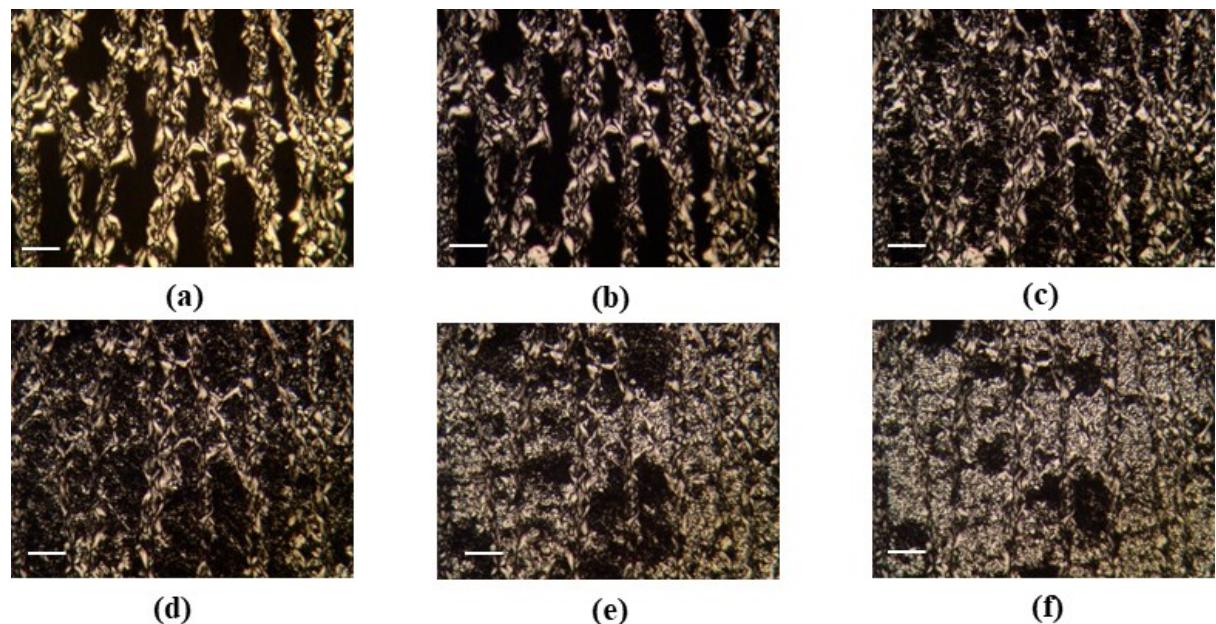
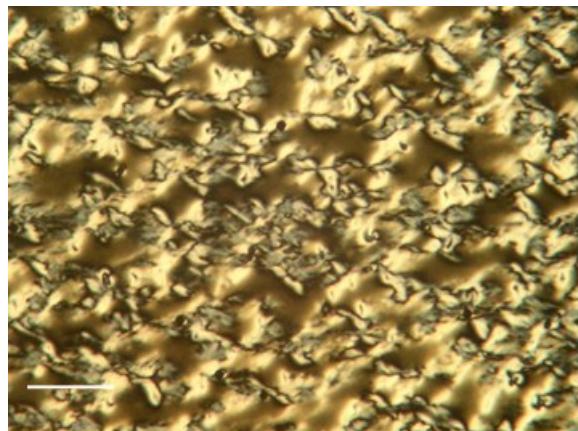
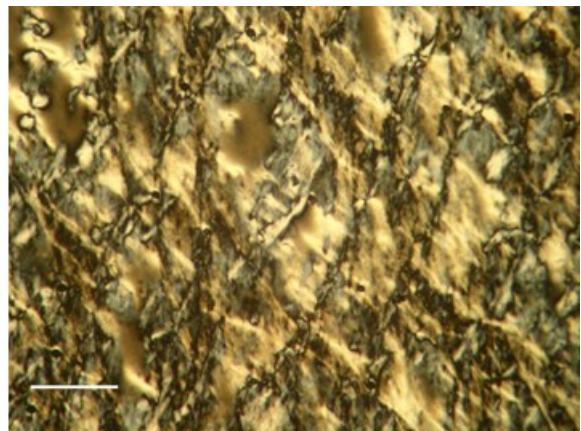


Fig. S4 EHD-like response observed in the region between the string of BFDs when an electric field (1 kHz sine wave) is applied to the sample [CCN-mn (0.75)] taken between glass plates treated for planar alignment when viewed between crossed polarizers. (a) $V=0.002V_{\text{rms}}/\mu\text{m}$, (b) $V=0.023V_{\text{rms}}/\mu\text{m}$, (c) $V=0.04V_{\text{rms}}/\mu\text{m}$, (d) $V=0.05V_{\text{rms}}/\mu\text{m}$, (e) $V=0.06V_{\text{rms}}/\mu\text{m}$, Scale bar corresponds to 100 μm .



(a)



(b)

Fig.S5 Random orientation of fibres and LC director in the N-gels [CCN-mn (1.0)] and (b) [CCN-mn (1.5)] taken in a cell treated for planar alignment. Scale bar corresponds to 100 μ m.