Support information

Figure 1 shows the viscoelastic property of HSA organogel at 25 °C. Figure 1(a) shows that the elastic component, G' was dominant in gel state at low strain %. With increasing strain rate, however, the gel structure was collapsed to exhibit more liquid-like behavior (shear-thinning), evidenced by the dominant viscous component. The result confirmed the visual observations that the gel could be self-supported under the gravity. For the frequency sweep (Figure 1b), sample was subjected to small dynamic oscillatory stain amplitude of 0.005%. The result showed that the exciting frequency has little influence on the rheological properties.

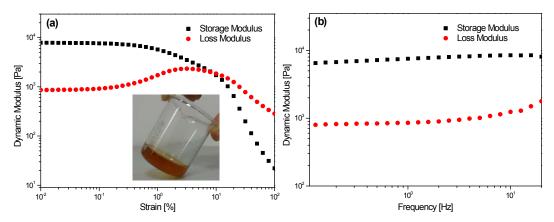


Figure 1. Amplitude sweep (a) using a fixed frequency (1 Hz) and frequency sweep (b) of 12 g/L HSA organogel.

Comment of the effect of organogel on the sedimentation of MR fluid

The typical consistency of the self-supporting gels is due to a network of entangled rod-like species. The effect on consistency is spectacular since an increase of viscosity by a factor 10 is a common feature of these systems. Therefore, the HSA organogel has the capability to dispersed particles in balance against gravity. And it deserves to be mentioned, the magnetic particles can be immobilized completely by the organogel system with the high gelator content, preventing the magnetic particles from setting.