Electronic Supporting Information

Gels, Xerogels and Films of Polynuclear Iron(II)–Aminotriazole Spin-Crossover Polymeric Complexes†

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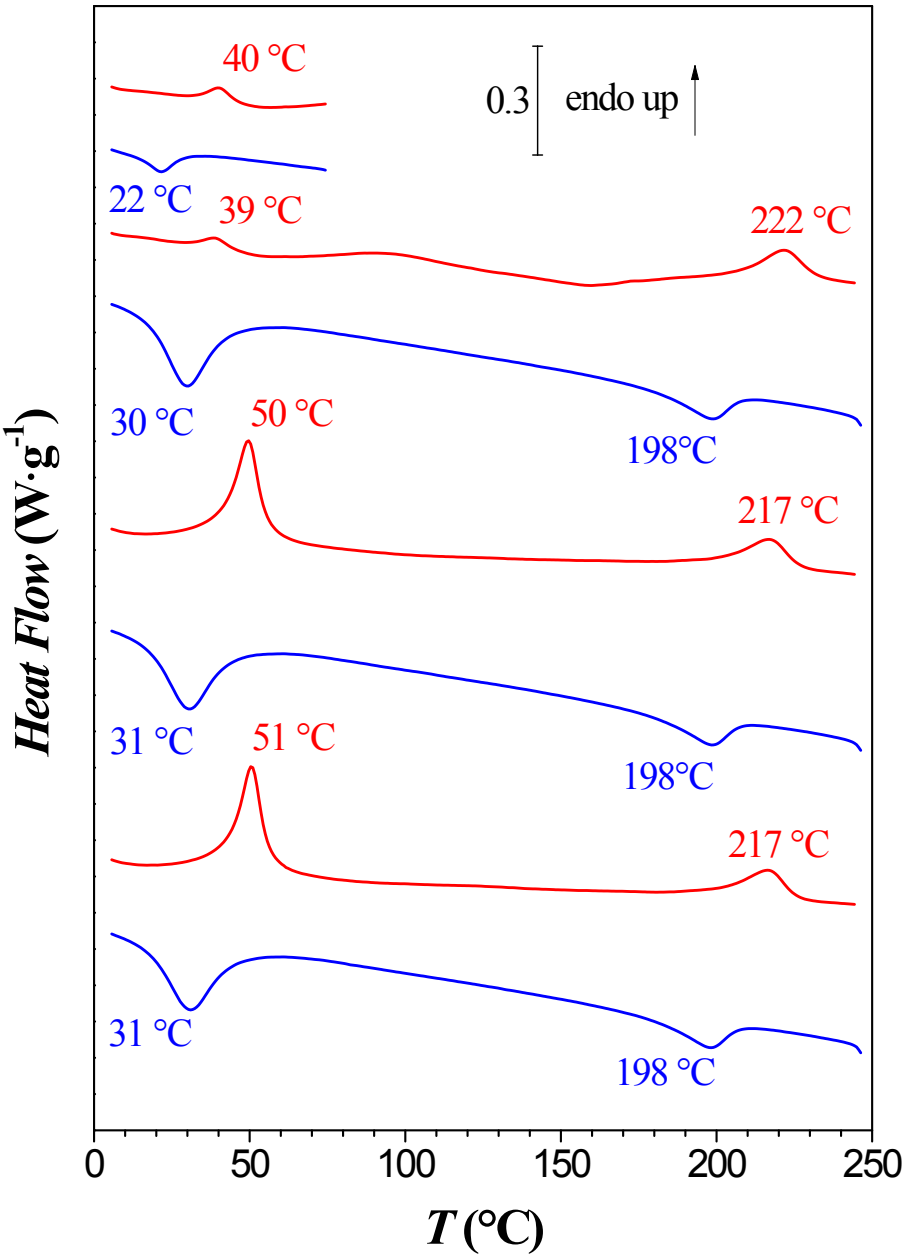


Figure ESI-1: Differential scanning calorimetry thermograms of $[Fe(NH_2trz)_3](2ns)_2$ during 4 heating and cooling cycles (from top to bottom) at heating and cooling rates of 10 °C·min^{-1}.

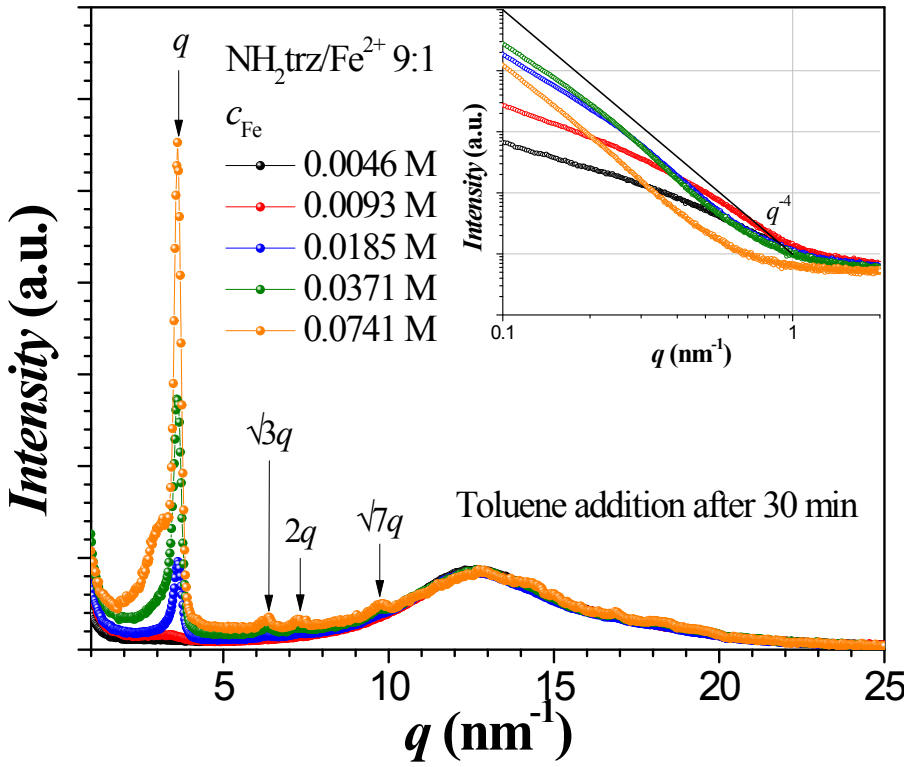


Figure ESI-2: WAXS 1D scattering profile for gels of *type B* at different iron concentration (c_{Fe} between 0.0046 M and 0.0741 M) and at constant stoichiometric ratio (NH_2trz/Fe^{2+} 9:1) by adding toluene after 30 min of sample preparation. The peaks show a columnar hexagonal packing of the rigid rods with a lattice parameter of a = 2.00 nm and correlation length of ξ = 25 nm. Inset is the SAXS 1D scattering profile for the gels of *type B* with slopes close to -4 for the well-from gels ($c_{Fe} \geq 0.0185$M).

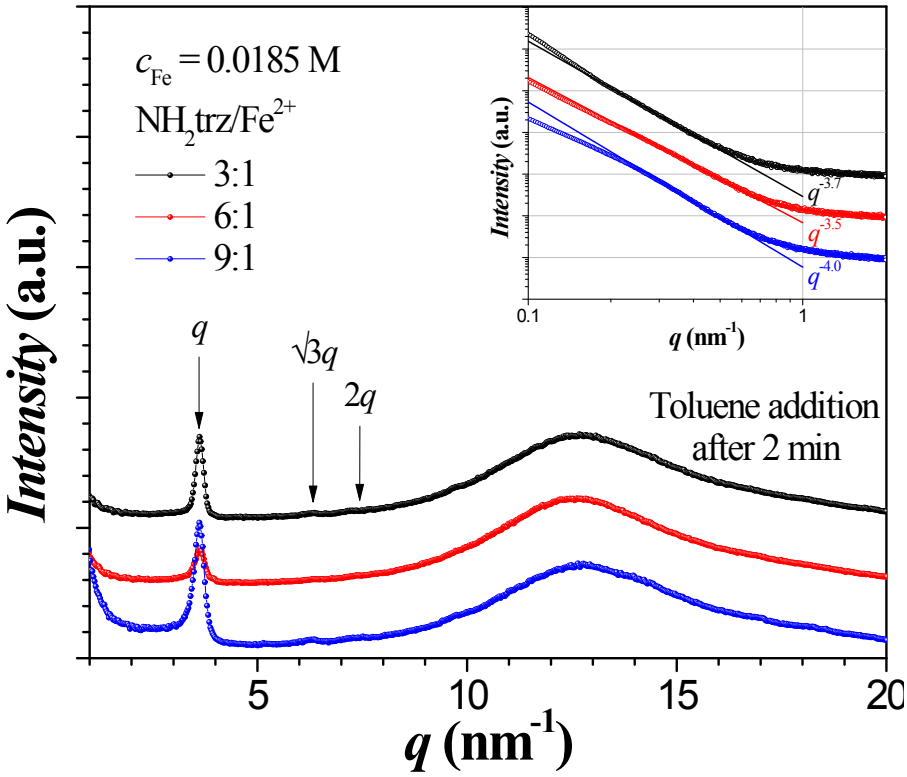


Figure ESI-3: WAXS 1D scattering profile for the gels of *type B* different stoichiometric ratio (NH_2trz/Fe^{2+} 3:1, 6:1 and 9:1) and at constant iron concentration (c_{Fe} = 0.0185 M) and by adding toluene after 2 min of sample preparation. The peaks show a columnar hexagonal packing of the rigid rods with a lattice parameter of a = 2.00 nm and correlation length of ξ = 29 nm. Inset is the SAXS 1D scattering profile for the gels *type B* with slopes close to -4.

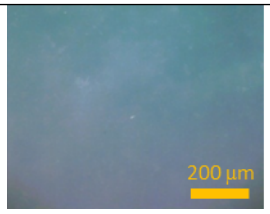
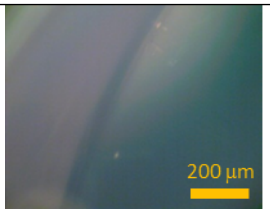
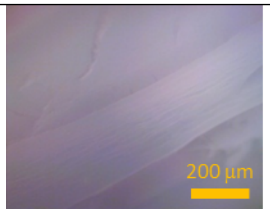
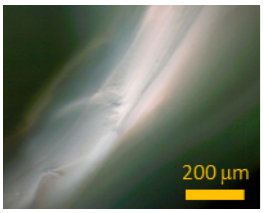
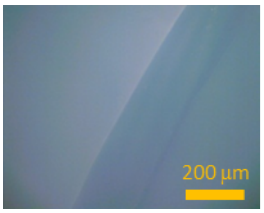
Addition time (min)	NH_2trz/Fe^{2+} stoichiometric ratio 3:1	6:1	9:1
2			
30			

Figure ESI-4: Polarized optical microscopy (POM) images taken with crossed polarizers of gels of *type B* at c_{Fe} = 0.0185 M and NH_2trz/Fe^{2+} 3:1, 6:1 and 9:1, and at different addition time of toluene after sample preparation.

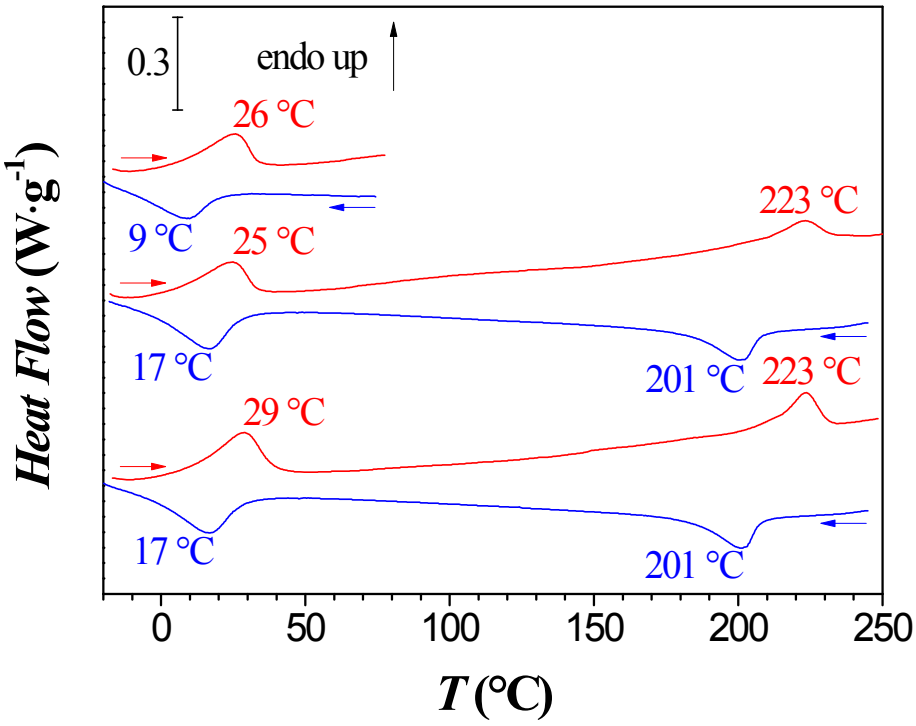


Figure ESI-5: Differential scanning calorimetry thermograms of the film during 3 heating and cooling cycles (from top to bottom) at heating and cooling rates of 10 °C·min^{-1}.

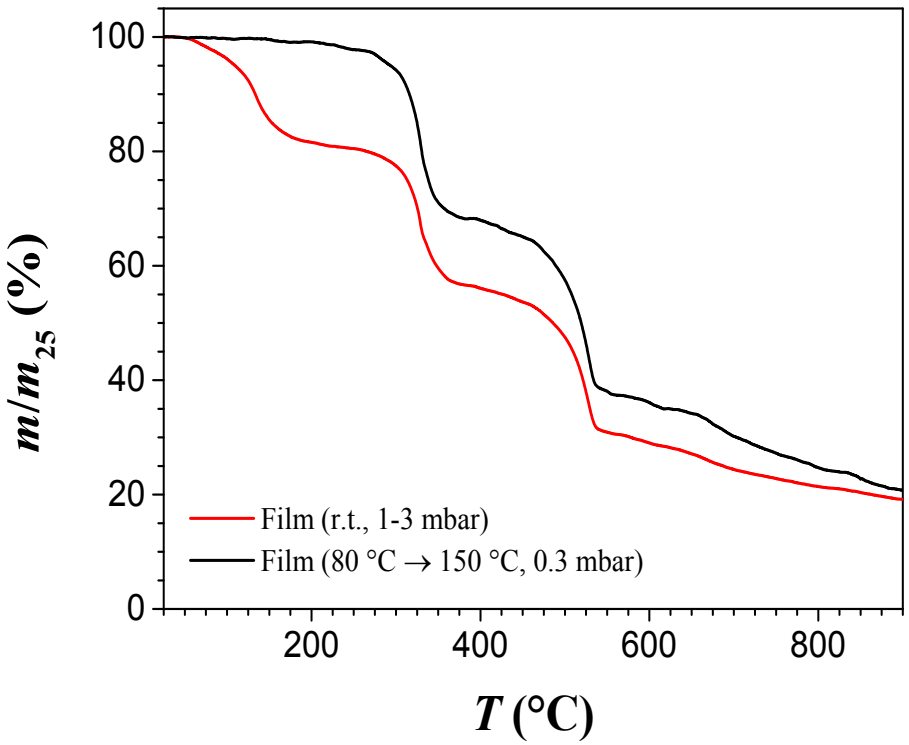


Figure ESI-6: Thermogravimetric analysis (TGA) of a film dried at 1-3 mbar at room temperature for 24 h (red), and after subsequent drying at 0.3 mbar at 80 °C for 8 h and 150 °C for 1 h (black). The curve of the sample dried at r.t., 1-3 mbar (red curve) shows a maximum mass loss around 150 °C which corresponds to the loss of residual DMF. Indeed, the solvent could be completely removed by drying the film at elevated temperature and reduced pressure (150 °C, 0.3 mbar), as shown in the corresponding TGA curve (black curve), in which the film does not show a significant loss of weight up to ca 250 °C.