A facile route for the preparation of nanoparticles of the spin-crossover complex $[Fe(Htrz)_2(trz)](BF_4)$ in xerogel transparent composite films

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Electronic Supplementary Information

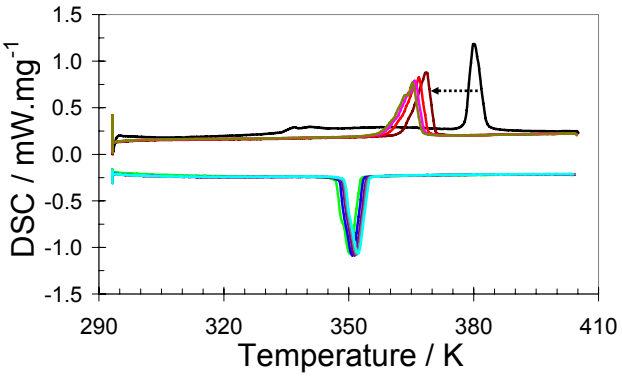

Fig. S1. DSC measurements of the bulk starting $[Fe(Htrz)_2(trz)](BF_4)$ **1b.** Arrow shows the shift of the position of the peak after repetitive heating-cooling cycles of temperature

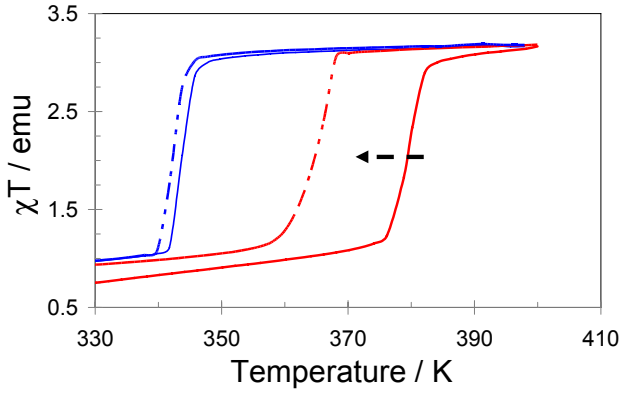

Fig. S3. χT as a function of the temperature for the bulk starting $[Fe(Htrz)_2(trz)](BF_4)$ **1b**. Arrow shows the decrease of the hysteresis loops width after one heating-cooling cycle of temperature

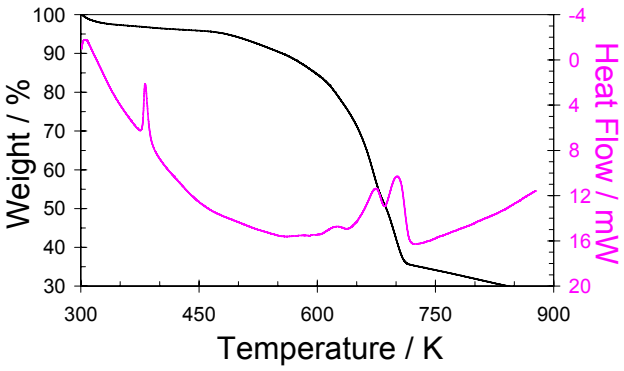

Fig. S2. TGA-TDA measurements for the bulk starting $[Fe(Htrz)_2(trz)](BF_4)$ **1b**

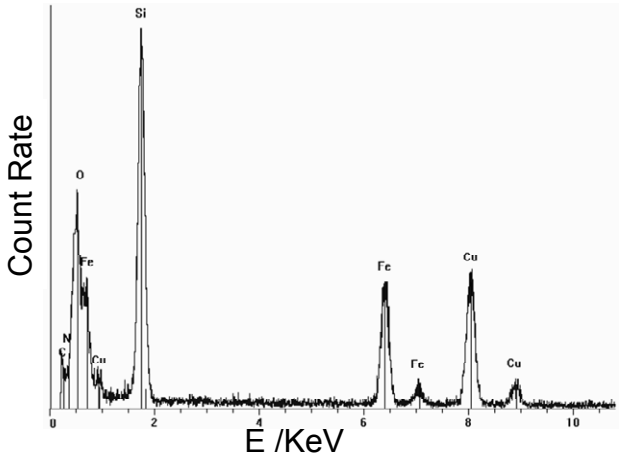

Fig. S4. EDX of an assembly of particles of **1b**@SiO_2 (in TMOS) observed by high resolution microscopy.

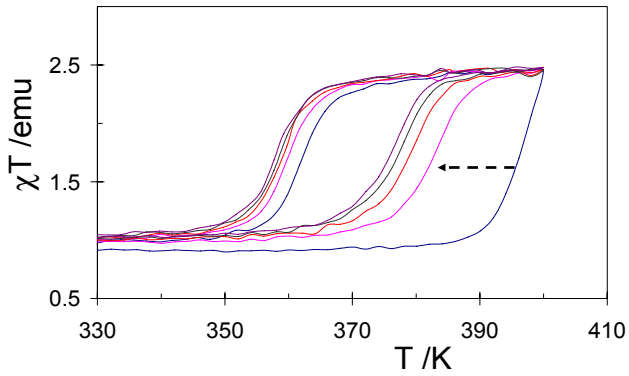

Fig. S5. χT as a function of the temperature for the films of 1b@SiO_2 (in TMOS). Arrow shows the decrease of the hysteresis loops width after repetitive heating-cooling cycles of temperature

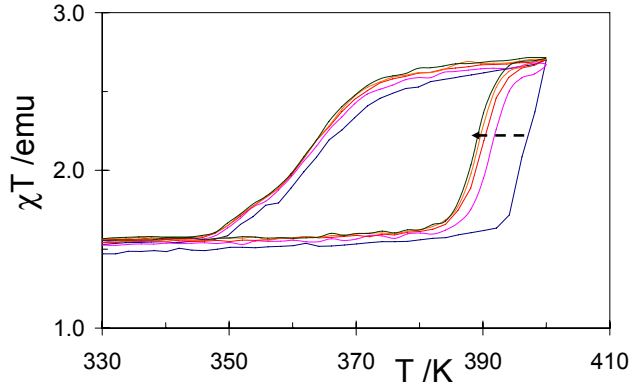

Fig. S6. χT as a function of the temperature for the monoliths of **1b**@SiO_2 (in TMOS). Arrow shows the decrease of the hysteresis loop width after repetitive one heating-cooling cycle of temperature

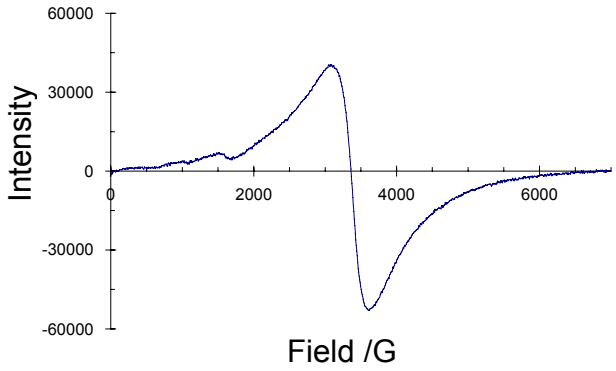

Fig. S7. EPR spectrum of **1b**@SiO_2 (in TMOS) at 293 K.

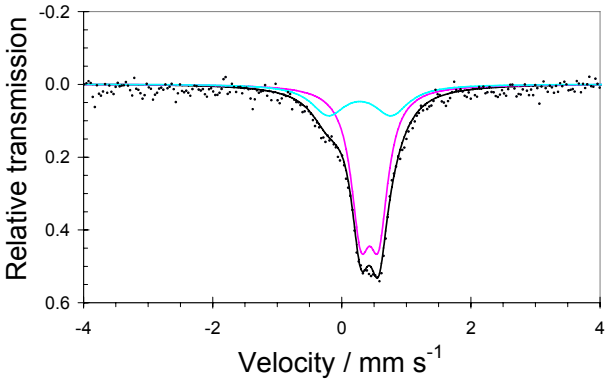

Fig. S8. Mössbauer spectra of **1b**@SiO_2 (in TMOS) at 293 K

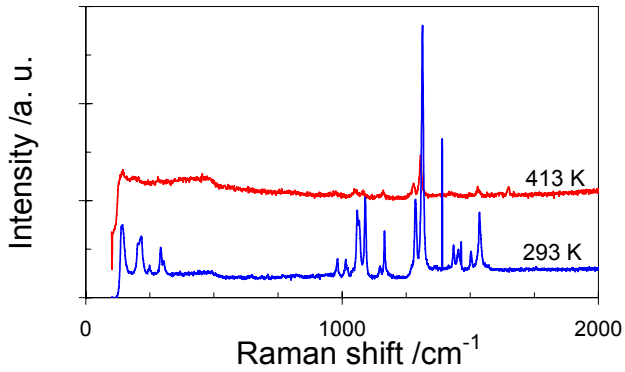

Fig. S9. Raman spectrum of films of **1b**@SiO_2 in TEOS at 293 and 413 K between 100 and 2000 cm^{-1}

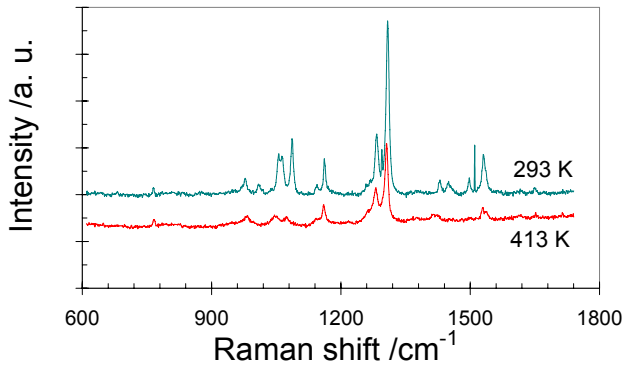

Fig. S10. Raman spectrum of films of **1b**@SiO_2 in TMOS at 293 and 413 K between 600 and 1700 cm^{-1}

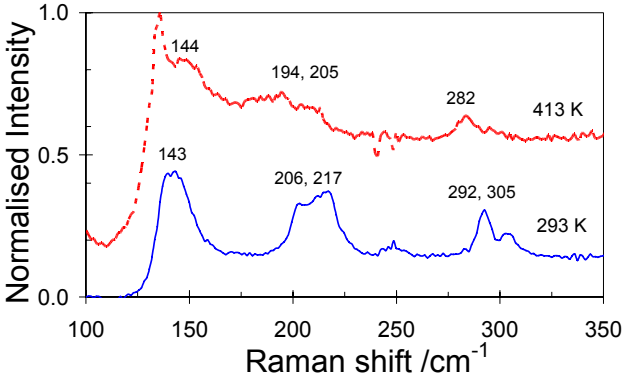

Fig. S11. Raman spectrum of films of **1b**@SiO_2 in TEOS at 293 and 413 K between 100 and 350 cm^{-1}

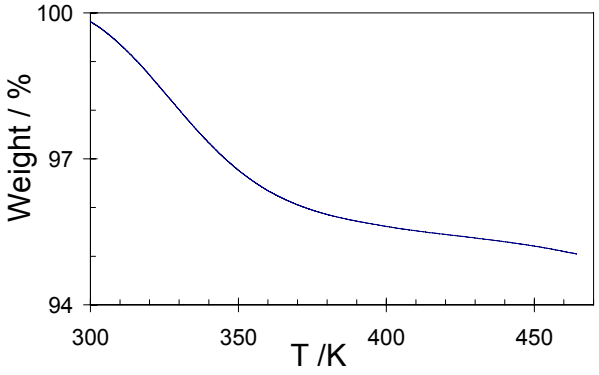

Fig. S14. TGA of film of **1b**@SiO_2 in TMOS

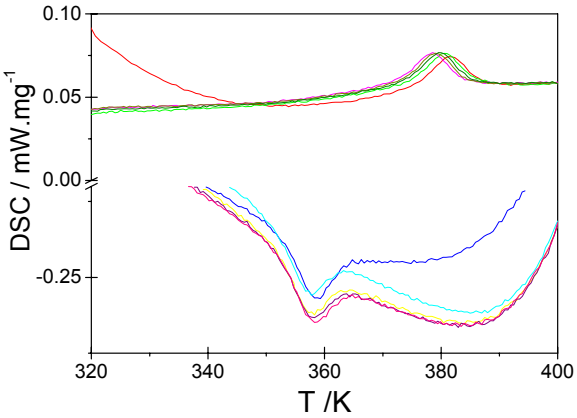

Fig. S12. DSC measurements of films of **1b**@SiO_2 in TMOS with repetitive heating-cooling cycles of temperature

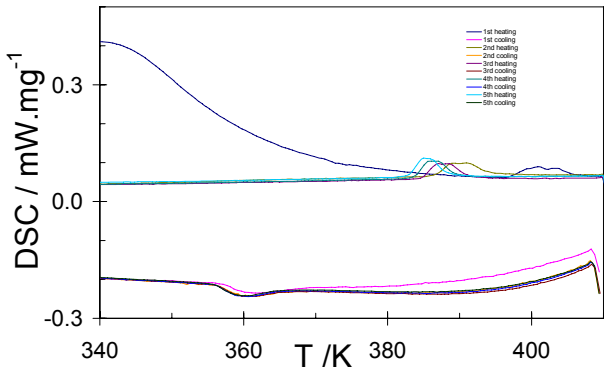

Fig. S13. DSC measurements of films of **1b**@SiO_2 in TEOS with repetitive heating-cooling cycles of temperature