Micro- and nanocrystals of the iron(III) spin-transition material \([\text{Fe}^{\text{III}}(3\text{-CH}_3\text{O-SalEen})_2]\text{PF}_6\).

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Figures

Figure S1: Room temperature powder X-ray diffractogram of \([\text{Fe}^{\text{III}}(3\text{-MeO-SalEen})_2]\text{PF}_6\) in the 8-35° range (bulk) and diffractogram calculated from the structure at 293 K determined by single crystal X-Ray diffraction (in reference 20).
Figure S2: Temperature dependence of the $\chi_MT$ product ($\chi_M$ = molar magnetic susceptibility, $T$ = temperature) for the powdered sample of $[\text{Fe}^{\text{III}}(3\text{-MeO-SalEen})_2]\text{PF}_6$. (From reference 20)

Figure S3: Variable temperature Raman spectra of $[\text{Fe}^{\text{III}}(3\text{-MeO-SalEen})_2]\text{PF}_6$ in the form of a microcrystalline powder (bulk). Expansion of the Raman spectra in the 500-700 cm$^{-1}$ range.
Figure S4: Variable temperature Raman spectra of the composites containing 7.5 μm (a), 3 μm (b), 1 μm (c) and 18 nm (d) long particles of [Fe^{II}(3-MeO-SalEen)]PF$_6$. 
Figure S5: SEM images of the 1 μm long microparticles (sample b) embedded in the PEG polymer.

Figure S6: (left) The X-band EPR signal registered as a function of temperature for the 7.5 μm microcomposites (sample a, T= 100, 120, 130, 135, 140 K and then every 2 K up to 160 K). (right) The HS fraction vs. temperature plot corresponding to spin-transition species analyzed from the LS EPR signal (□) and magnetic data (—).