

Supplementary Information
for

A Steep Single [HS-HS] to [LS-LS] Spin Transition in a 4,4'-
Bipyridine Linked One-Dimensional Coordination Polymer
Constructed from a Pyrazolato Bridged Fe(II) Dimer

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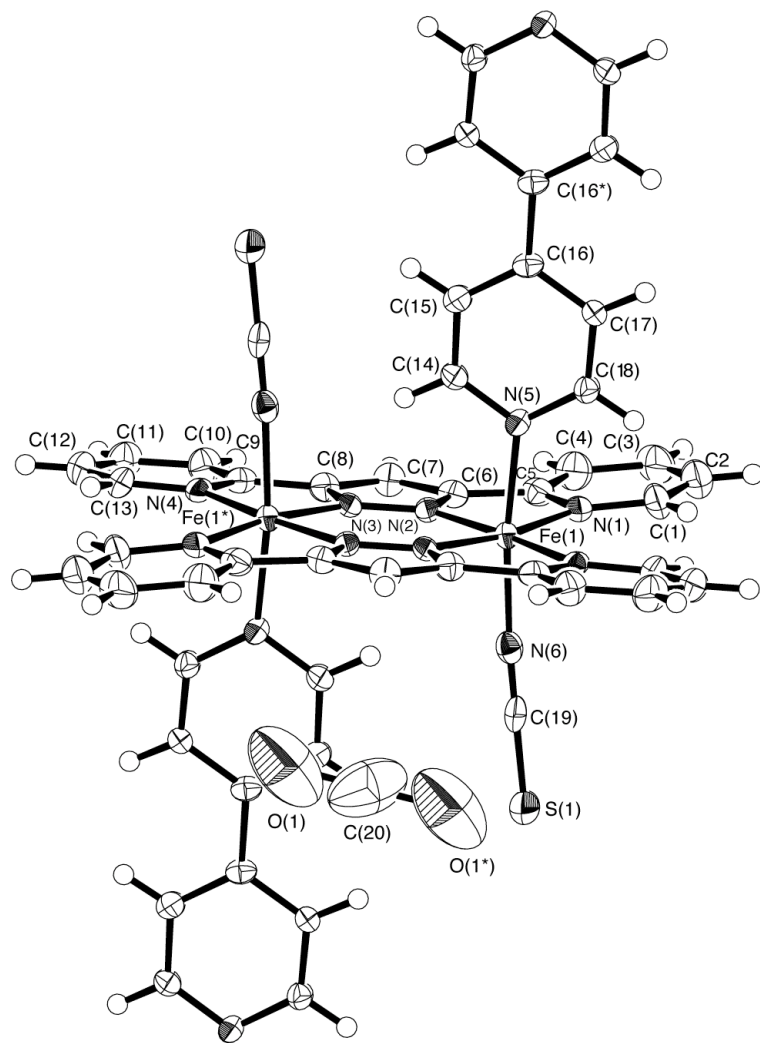
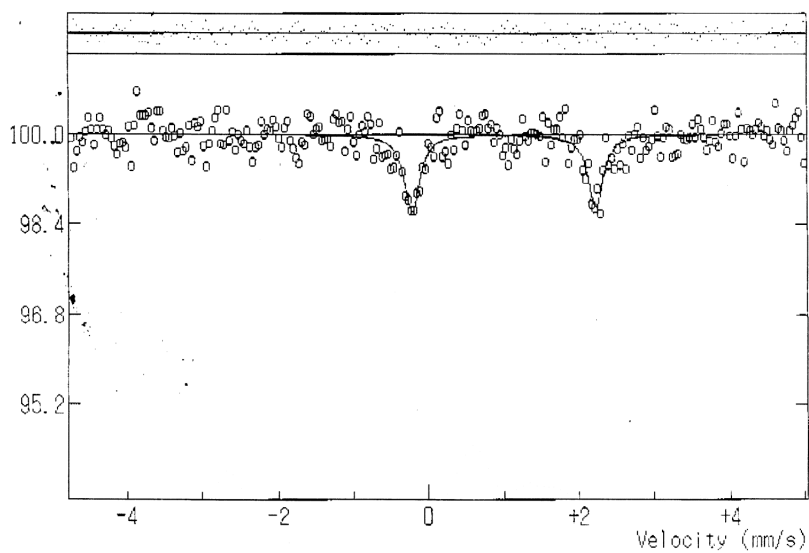
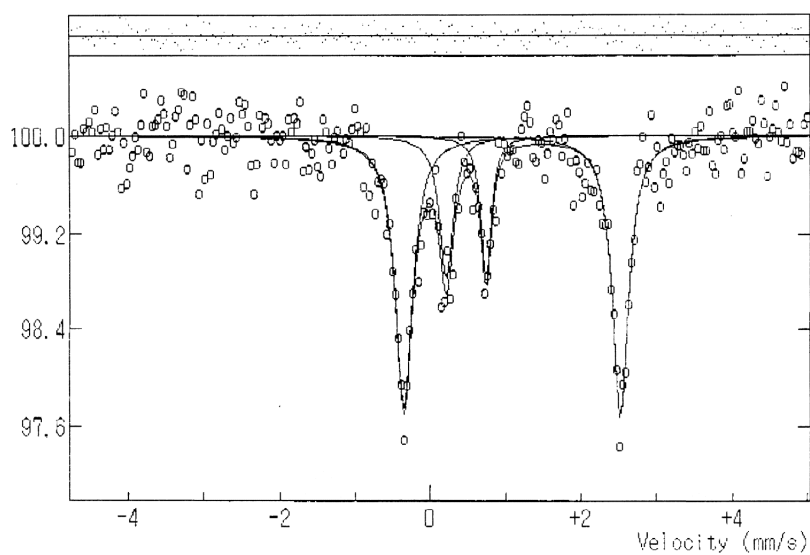


Fig. S1. ORTEP drawing for $[\{\text{Fe}^{\text{II}}_2(\text{NCS})_2(\mu\text{-bpypz})_2\}(\mu\text{-4,4}'\text{-bpy})]\cdot\text{MeOH}$ at 150 K

297 K



168 K



79.5 K

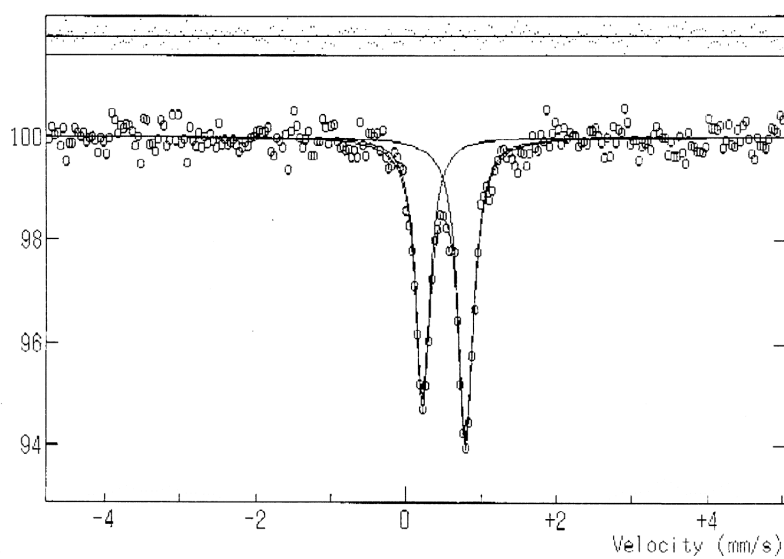
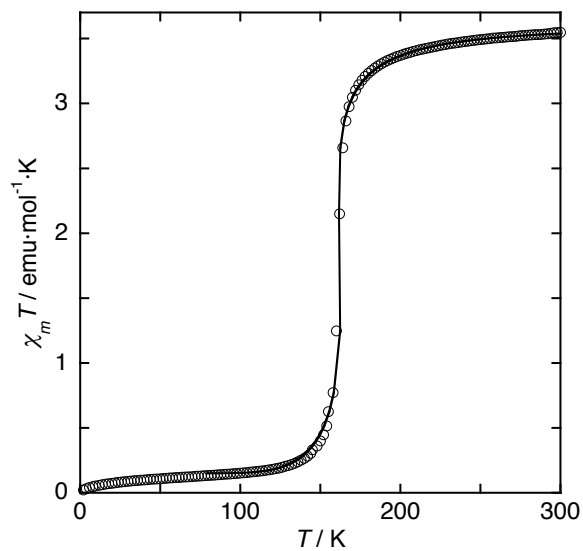


Fig. S2. Mössbauer spectra of $[\{Fe^{II}_2(NCS)_2(\mu\text{-bpy}pz)_2\}(\mu\text{-4,4'}\text{-bpy})]\cdot\text{MeOH}$.

Cooling Mode



Heating Mode

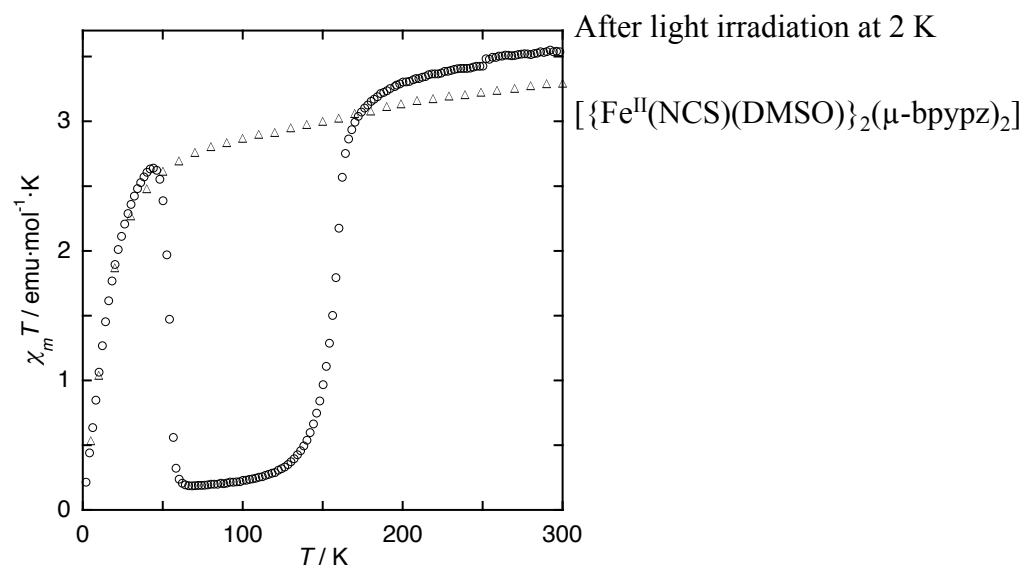
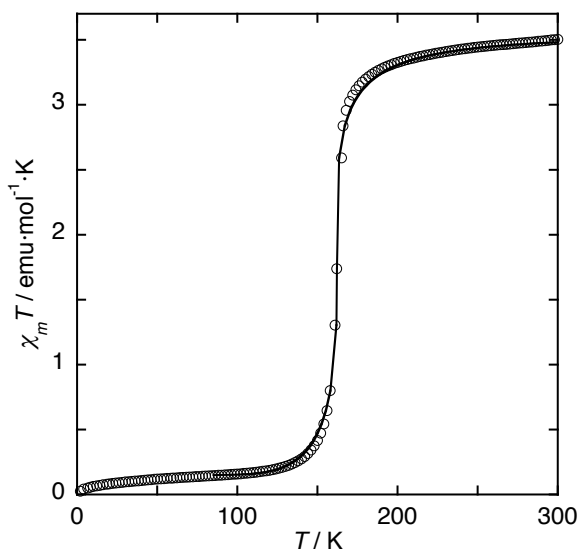


Fig. S3. Temperature dependence of $\chi_M T$ for $[\{\text{Fe}^{\text{II}}_2(\text{NCS})_2(\mu\text{-bpyz})_2\}(\mu\text{-4,4}'\text{-bpy})] \cdot \text{MeOH}$.

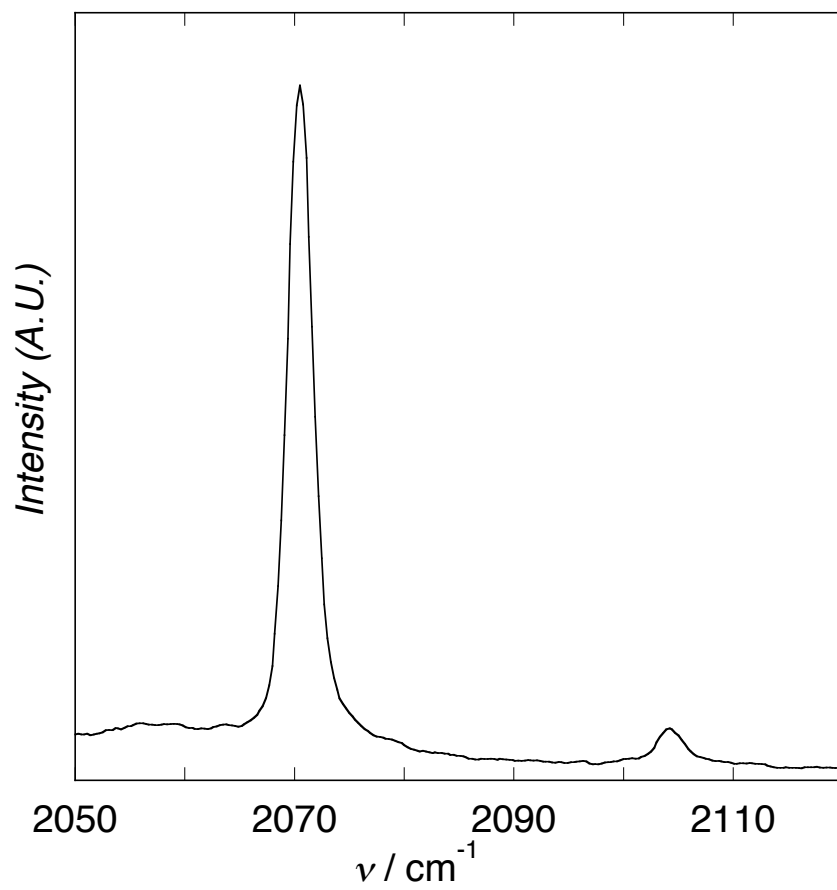


Fig. S4. Raman Spectrum of [$\{\text{Fe}^{\text{II}}_2(\text{NCS})_2(\mu\text{-bpypz})_2\}(\mu\text{-4,4'-bpy})\} \cdot \text{MeOH}$] at 10 K.