Electronic Supplementary Information for Dalton Transactions

Supporting Information

Coordination Polymer Changing its Magnetic Properties and Color by Thermal Decomposition: Synthesis, Structure and Properties of New Thiocyanato Iron(II) Coordination Polymers based on 4,4'-Bipyridine as Ligand

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- Experimental and calculated XRPD patterns of compounds **1I**, **1II** and **3**.

  (Figure S1 to S3)

- IR spectroscopic data of all compounds.

  (Figure S4 to S7)

- Thermogravimetric and magnetic investigations of compound **1II**.

  (Figure S8 and S9)

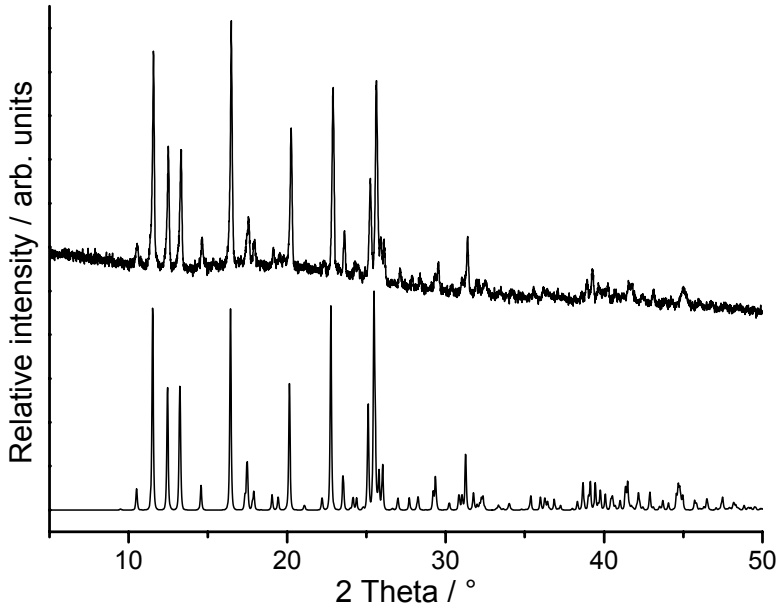

Figure S1. Experimental (top) and calculated (bottom) XRPD pattern of compound **1I**.

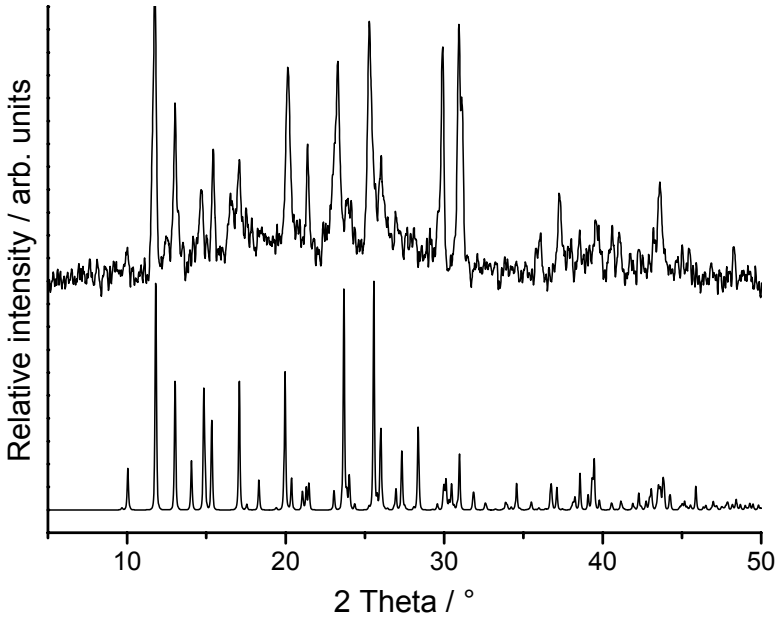

Figure S2. Experimental (top) and calculated (bottom) XRPD pattern of compound **1II**.

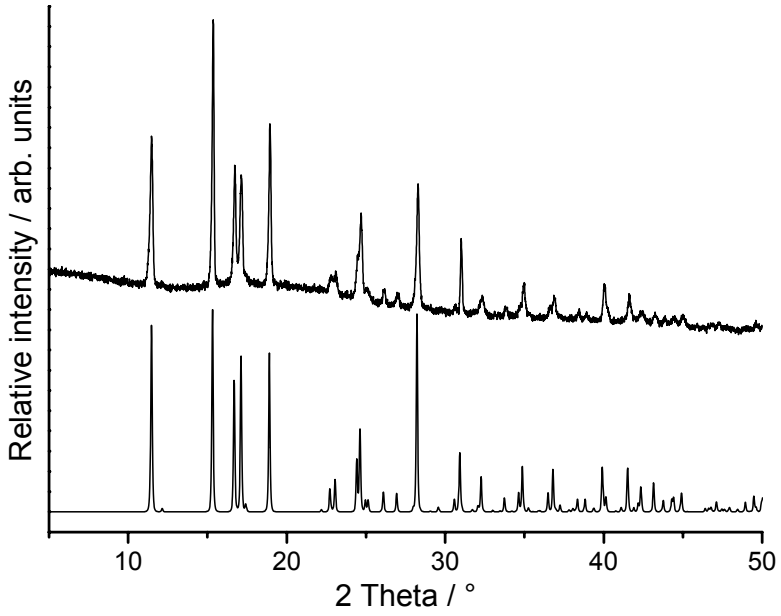

Figure S3. Experimental (top) and calculated (bottom) XRPD pattern of compound **3**.

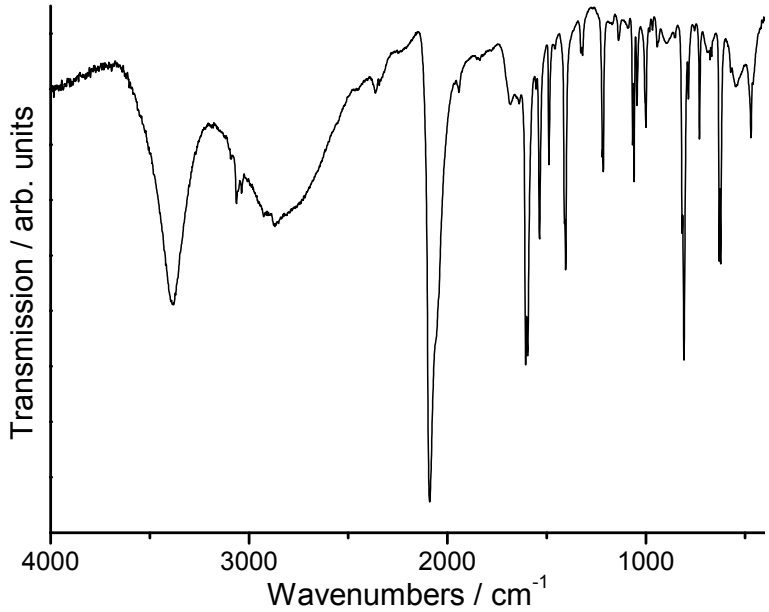

Figure S4. IR spectroscopic data of compound **1I**.

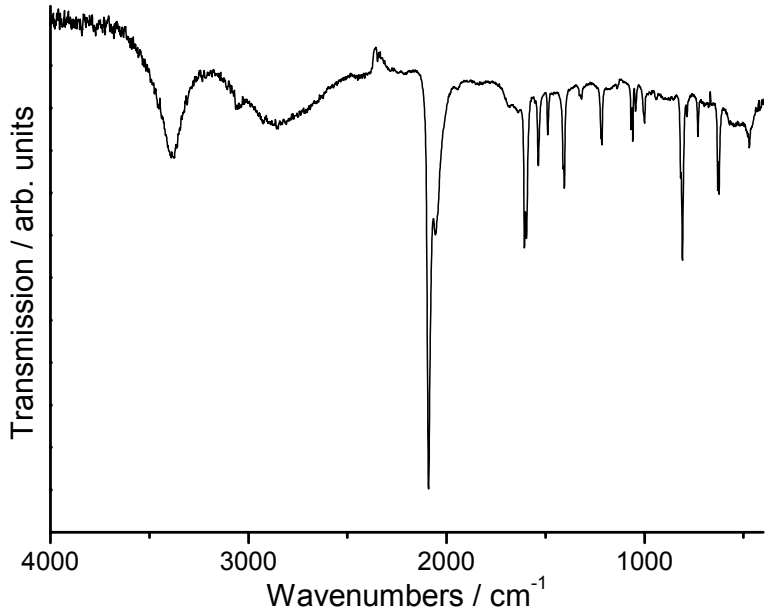

Figure S5. IR spectroscopic data of compound **1II**.

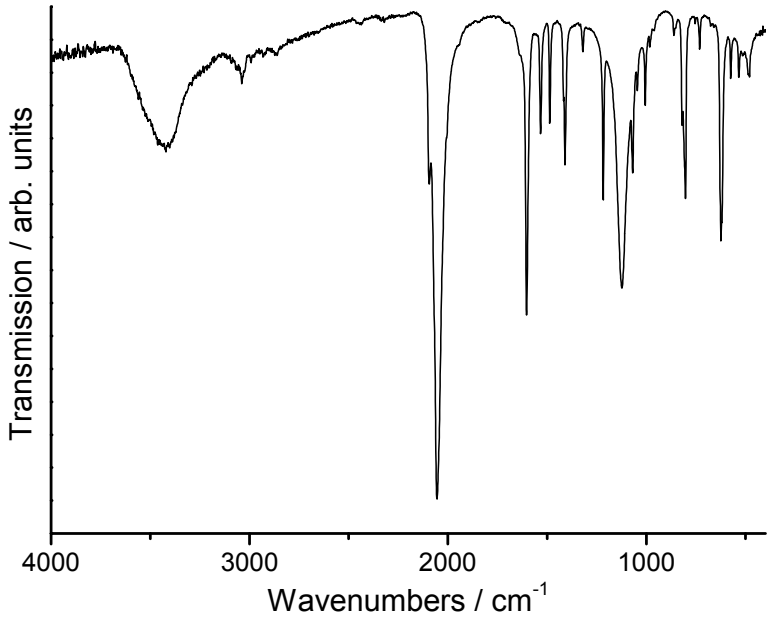

Figure S6. IR spectroscopic data of compound **2**.

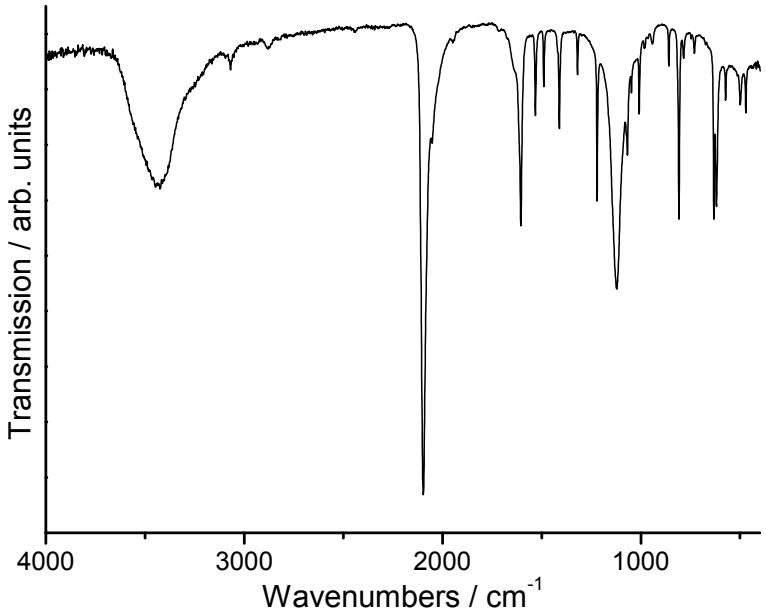

Figure S7. IR spectroscopic data of compound **3**.

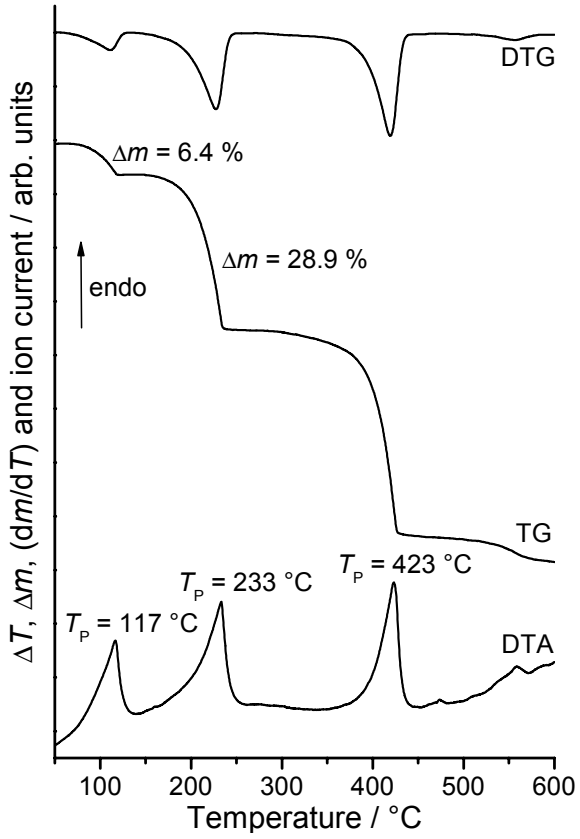

Figure S8. DTG, TG and DTA curves for compound **1II**. Heating rate = 4 °C/min; given are the mass changes (%) and the peak temperatures T_P (°C).

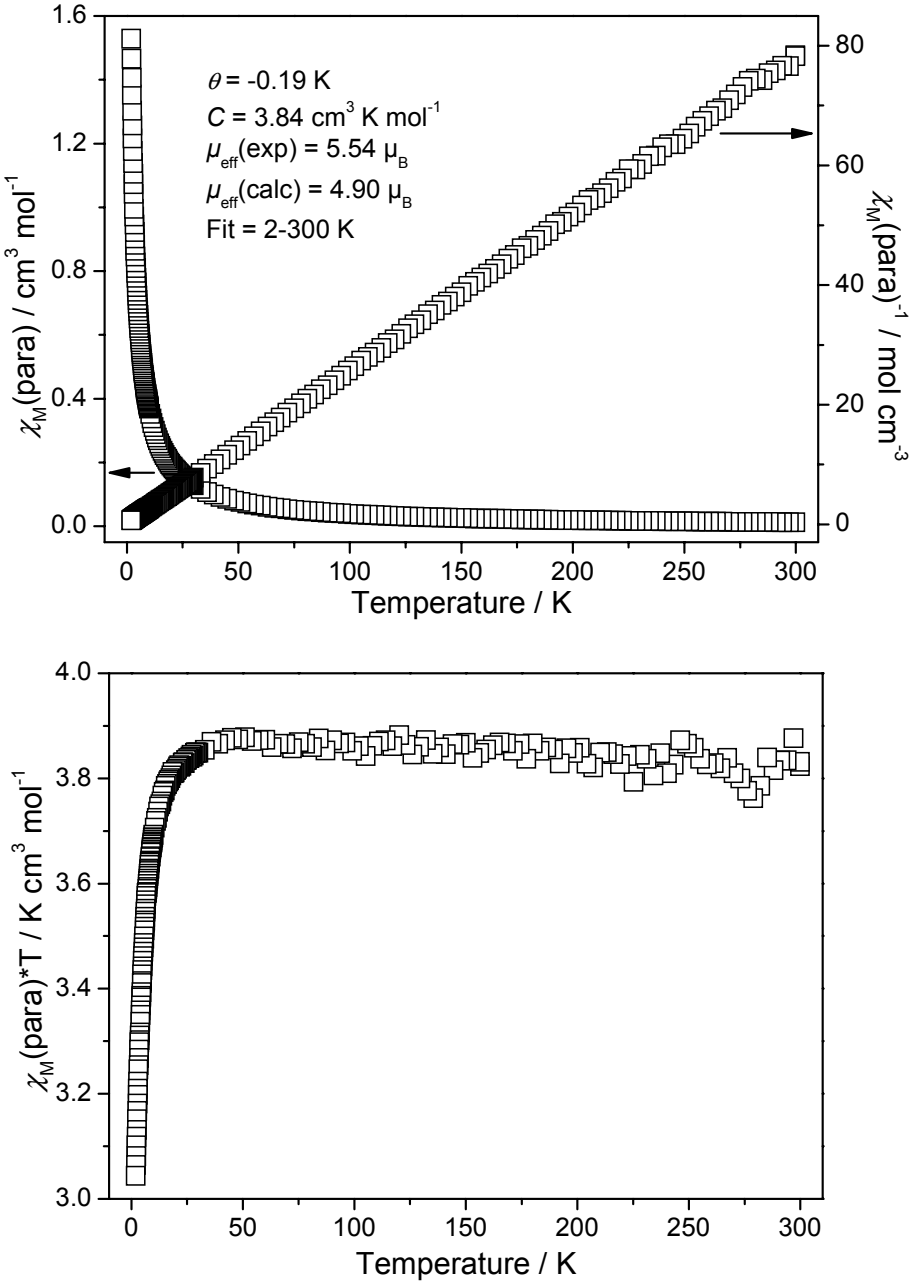

Figure S9. Results of the magnetic measurements by plots of paramagnetic susceptibility and reciprocal paramagnetic susceptibility (top) as well as $\chi_M T$ (bottom) as function of temperature for compound **1II**.