

Supporting information

Spin Crossover (SCO) Iron (II) Coordination Polymer Chains: Syntheses, Structures and Magnetic Characterizations of $[\text{Fe}(\text{aqin})_2(\mu_2\text{-M}(\text{CN})_4)]$ ($\text{M} = \text{Ni}(\text{II}), \text{Pt}(\text{II}), \text{aqin} = \text{Quinolin-8-amine}$).

Fatima Setifi,^{†,§} Eric Milin,[†] Catherine Charles,[†] Franck Thétiot,[†] Smail Triki,^{*,†} Carlos J. Gómez-García.[‡]

[†]UMR CNRS 6521, Chimie, Electrochimie Moléculaires, Chimie Analytique, Université de Bretagne Occidentale, BP 809, 29285 Brest Cedex, France. E-mail: smail.triki@univ-brest.fr

[§]Laboratoire de Chimie, Ingénierie Moléculaire et Nanostructures (LCIMN), Université Ferhat Abbas de Sétif, 19000 Sétif, Algeria.

[‡]Instituto de Ciencia Molecular (ICMol), Parque Científico, Universidad de Valencia, C/ Catedrático José Beltrán, 2, 46980 Paterna, Valencia, Spain.

X-ray powder diffraction for $[\text{Fe}(\text{aqin})_2(\mu_2\text{-Ni}(\text{CN})_4)]$ (**1**)

The room-temperature X-ray powder diffraction spectrum (XRPD) of compound **1** has been performed to confirm that the sample used for magnetic and infrared measurements is effectively identical to the corresponding single crystals used for X-ray structure study. The spectrum was recorded on a PANalytical Empyrean X-ray powder diffractometer at 45 kV, 40 mA with a Cu-target tube. The observed X-ray diffraction pattern is similar to the calculated one as indicated in the figure S1.

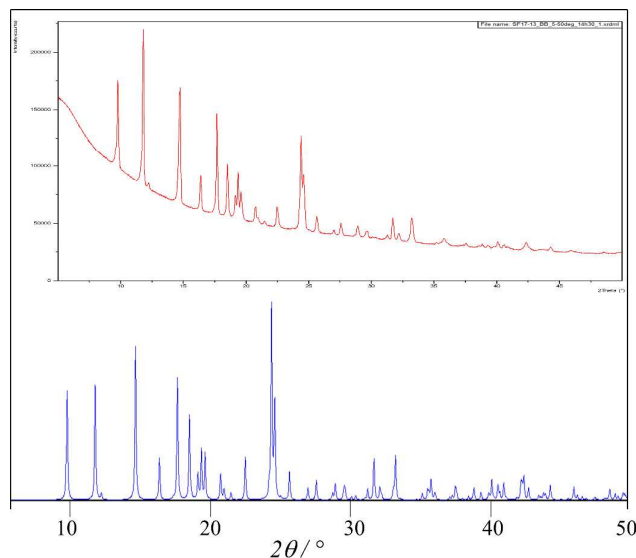


Figure S1. Calculated (blue lines) and observed at room temperature (red lines) X-ray powder diffraction patterns for $[\text{Fe}(\text{aqin})_2(\text{Ni}(\text{CN})_4)]$ (**1**). The calculated pattern was generated from the room temperature cif file of **1**.