Synthesis, Structure and Magnetic Properties of a New Iron Arsenate, $[C_{10}N_4H_{28}][\{FeF(OH)(HAsO_4)\}_4]$, with a Layer Structure

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Keywords: Iron / Arsenic / Solvothermal synthesis / N ligands

Through an unfortunate series of events, the Figures in this article^[1] do not correspond with their captions. The correct version is given below.

[1] S. Chakrabarti, S. K. Pati, M. A. Green, S. Natarajan, Eur. J. Inorg. Chem. 2003, 3820–3825.

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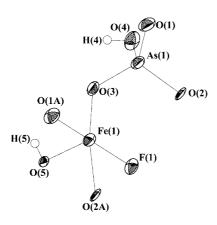


Figure 1. ORTEP diagram of $[C_{10}N_4H_{28}][\{FeF(OH)(HAsO_4)\}_4]$ showing the atoms that constitute the layer; thermal ellipsoids are given at 50% probability

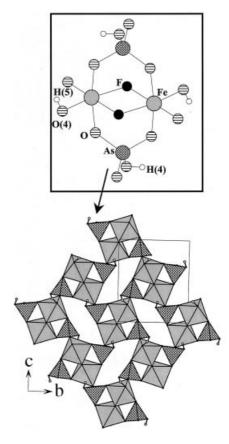


Figure 2. Polyhedral view of the structure of $[C_{10}N_4H_{28}]$ - $[\{FeF(OH)(HAsO_4)\}_4]$ in the bc plane showing a single layer; the inset shows the SBU-4 units; the amine molecules are not shown

CORRECTION

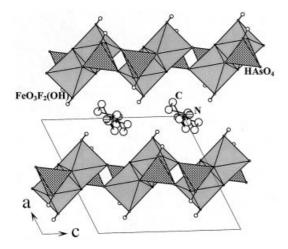


Figure 3. Polyhedral view of the structure of $[C_{10}N_4H_{28}][\{FeF(OH)(HAsO_4)\}_4]$ in the ac plane showing the arrangement of layers

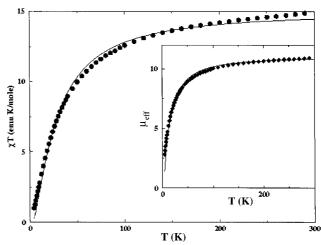


Figure 5. The variation of the χT as a function of temperature for $[C_{10}N_4H_{28}][\{FeF(OH)(HAsO_4)\}_4];$ the inset shows the variation of $\mu_{eff.}$ as a function of temperature; the solid line in both the cases shows the dimer-model fit to the experimental data

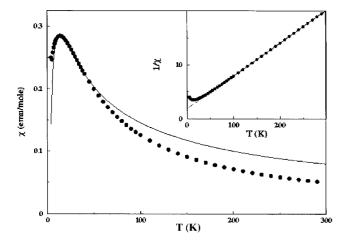


Figure 4. Thermal variation of the experimental magnetic susceptibility (χ) of $[C_{10}N_4H_{28}][\{FeF(OH)(HAsO_4)\}_4]$; the solid line is a fit using the exponential form (see text); the inset shows the variation of inverse magnetic susceptibility (χ^{-1}) with temperature; the Curie–Weiss fit is shown as dotted lines

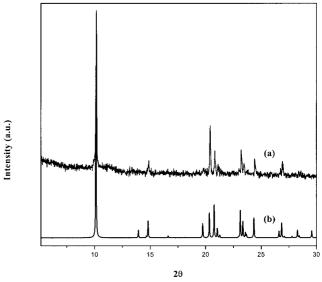


Figure 6. Powder XRD pattern of $[C_{10}N_4H_{28}]$ - $[\{FeF(OH)(HAsO_4)\}_4]$ (a) experimental (Cu $K\alpha$) and (b) simulated

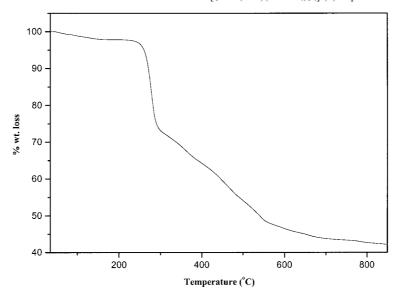


Figure 7. Thermogravimetric analysis (TGA) of $[C_{10}N_4H_{28}][\{FeF(OH)(HAsO_4)\}_4]$