

A Neutral Molecular-based Layered Magnet

[Fe(C₂O₄)(CH₃OH)]_n Exhibiting Magnetic Ordering at $T_N \approx$

23K

Bin Zhang,^{*†} Yan Zhang,[§] Jinbiao Zhang,[†] Junchao Li,[†] Daoben Zhu^{*†}

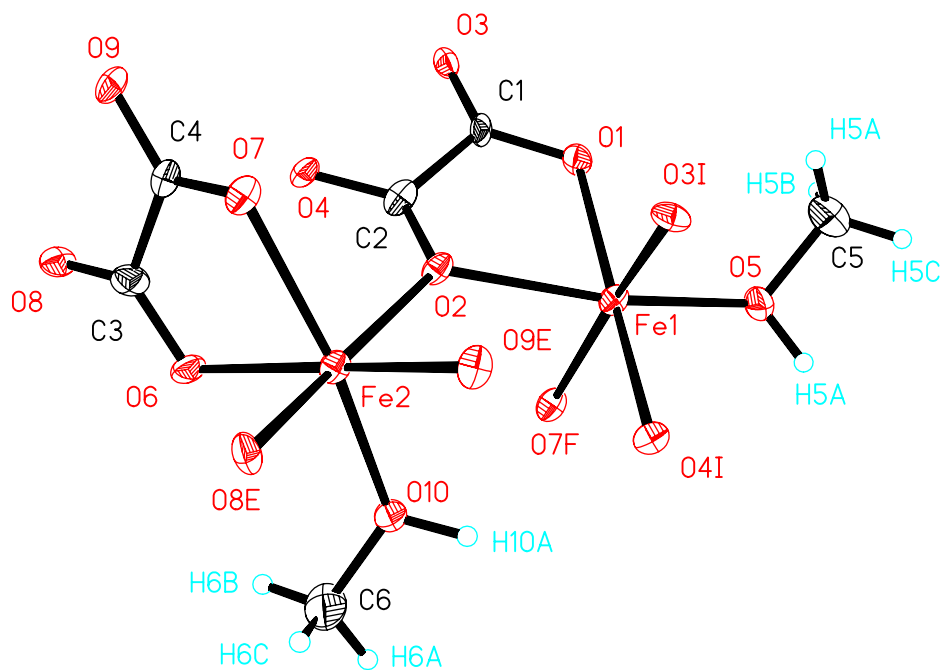
Supplementary materials

$a = 9.5865(8)\text{Å}$, $b = 6.0542(5)\text{Å}$, $c = 9.5851(9)\text{Å}$

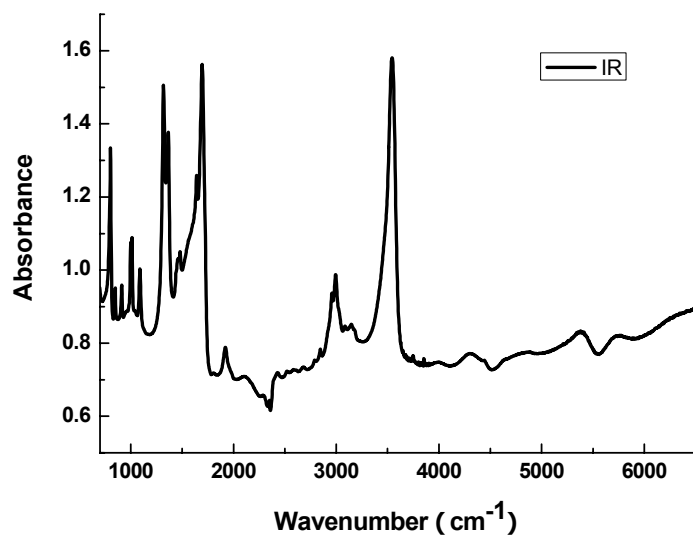
$\alpha = 90^\circ$, $\beta = 103.269(3)^\circ$, $\gamma = 90^\circ$

$V = 541.45(8)\text{Å}^3$

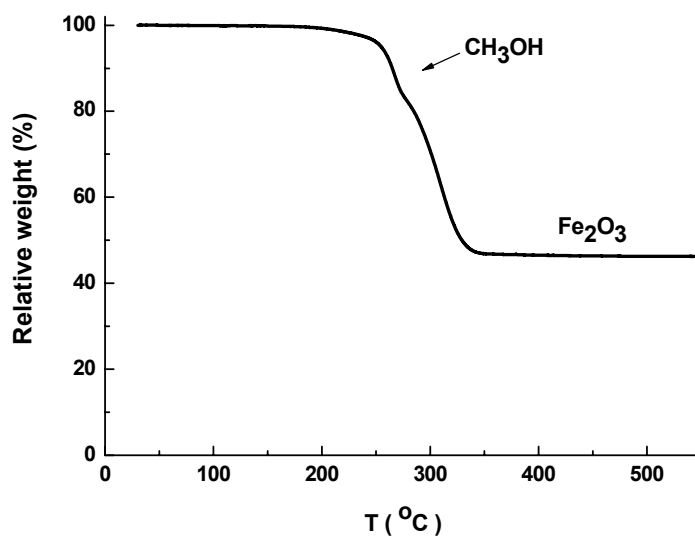
Pc



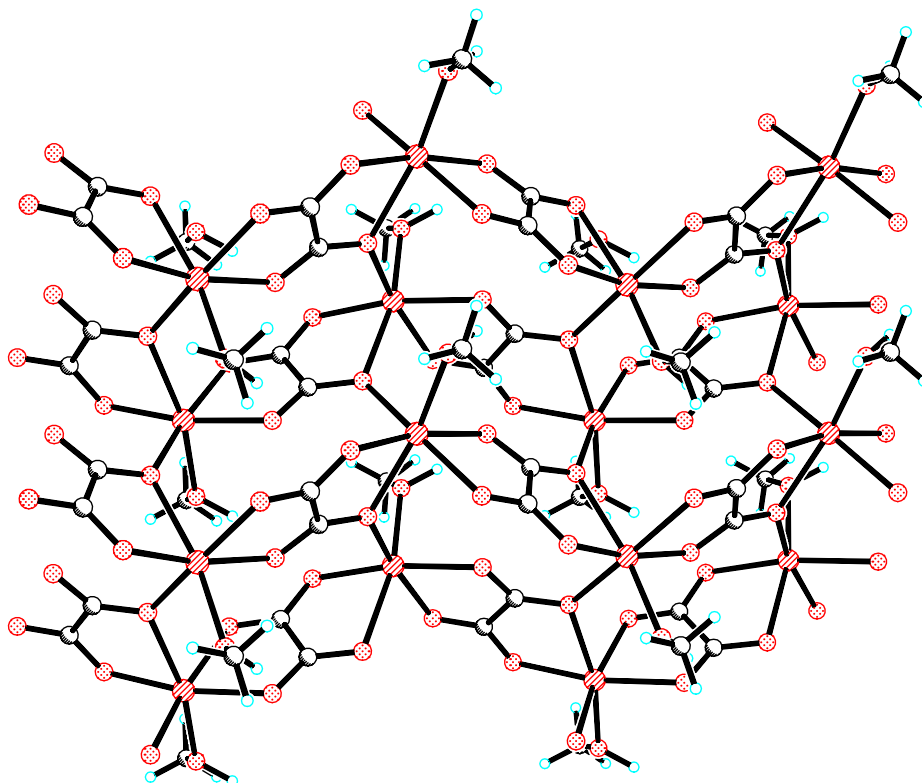
ORTEP drawing of title compound with 30% ellipsoid.



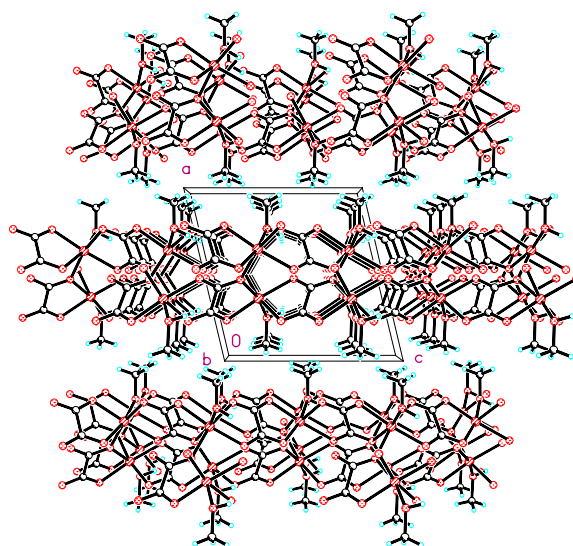
IR spectra of title compound on Micro-IR spectrometer.



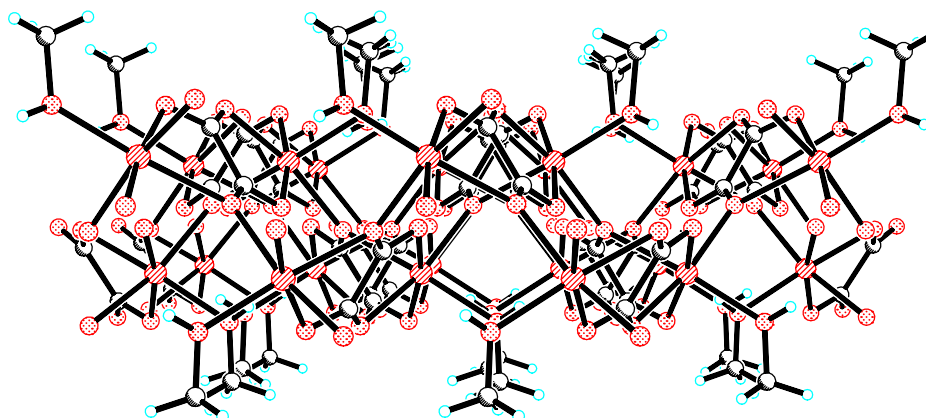
The TGA run of title compound.



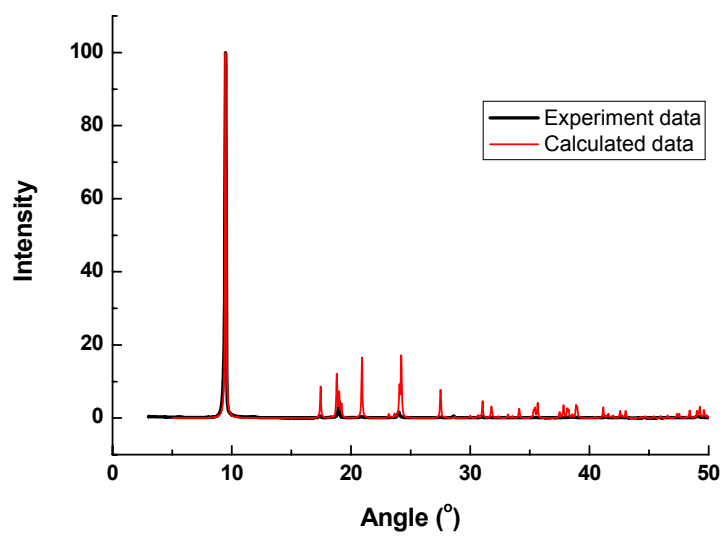
Layered structure of title compound projected along *a* axis.



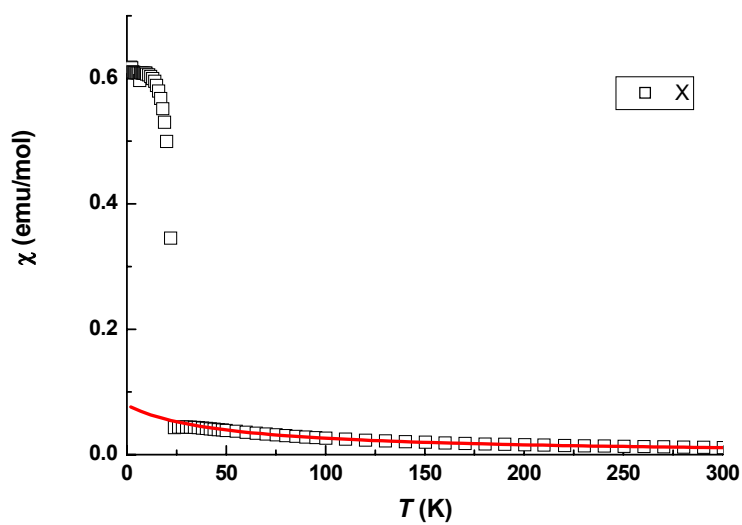
Packing diagram of title compound viewed along *b* axis.



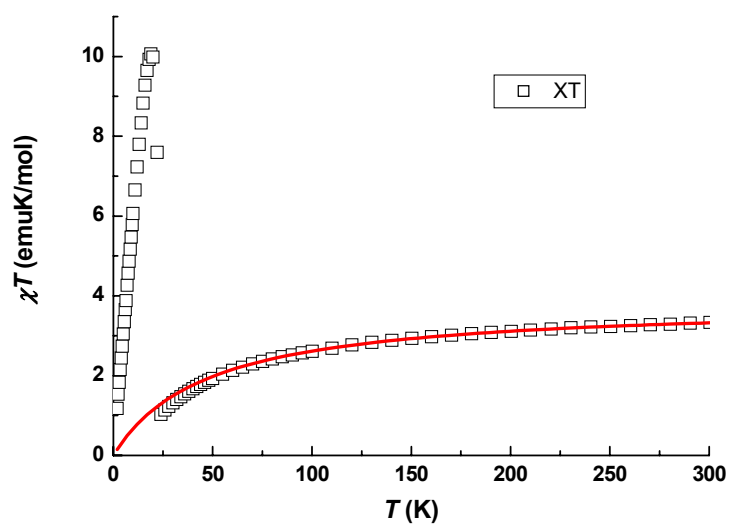
Packing diagram of title compound viewed along *c* axis.



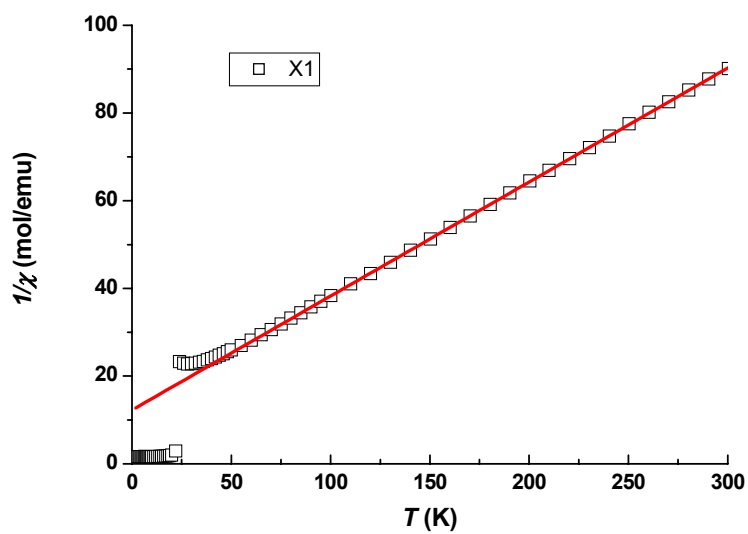
X-ray powder diffraction pattern of polycrystals used for magnetic measurement and stimulated data from CCDC684183 with Cu $K\alpha$ radiation.



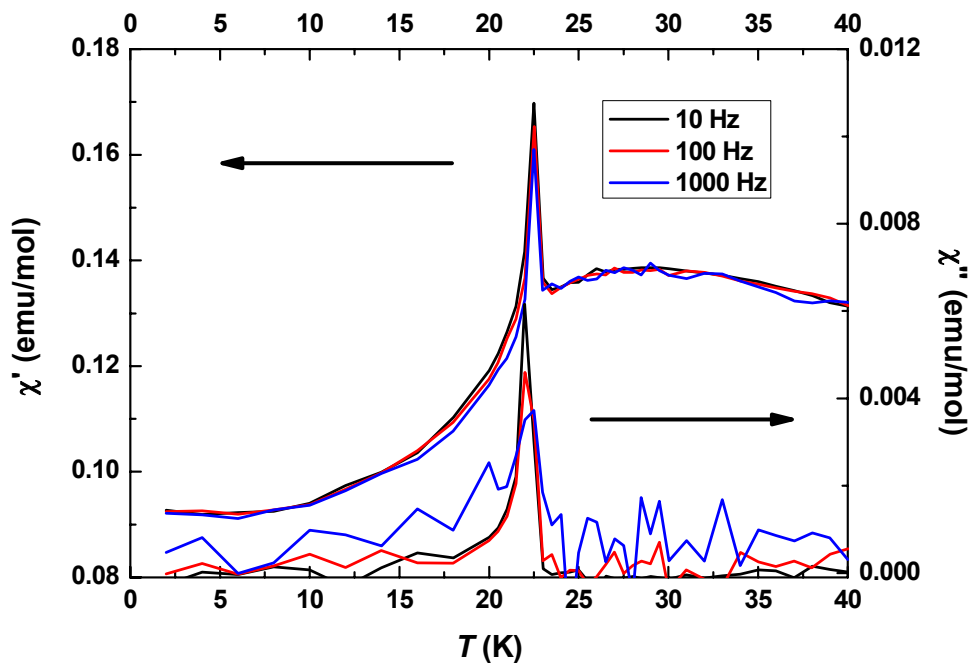
The χ - T plot of title compound. Empty square is experiment data, and solid red is fitting data.



The χT - T plot of title compound. Empty square is experiment data, and solid red line is fitting data.



The $1/\chi$ - T plot of title compound. Empty square is experiment data, and solid red line is fitting data



AC susceptibility measurement under 10, 100, 1000 Hz.