Electronic Supplementary Information for Dalton Transactions

Supporting Materials for

An *S* = 3 Cyanide-Bridged Tetranuclear $Fe^{III}_2Ni^{II}_2$ Square that Exhibits Slow Relaxation of the Magnetization: Synthesis, Structure and Magnetic Property

Dayu Wu, Yanjuan Zhang, Wei Huang, and Osamu Sato

Table S1. The selected bond distances (Å) and bond angles (°) for compound 1-$(ClO_4)_2$

Compound 1-$(ClO_4)_2$	
Fe1-C22	1.905(6)
Fe1-C23	1.906(8)
Fe1-C21	1.915(7)
Fe1-N12	1.958(6)
Fe1-N11	1.967(6)
Fe1-N14	1.970(5)
Ni1-N8	2.047(5)
Ni1-N5	2.057(6)
Ni1-N7#	2.058(6)
Ni1-N3	2.067(6)
Ni1-N2	2.078(6)
Ni1-N6	2.093(6)
C22- Fe1- C21	87.9(3)
C23- Fe1- C21	86.2(3)
C22- Fe1- N12	91.8(2)
C23- Fe1- N12	178.2(2)
C21- Fe1- N12	93.5(3)
C23- Fe1- N11	92.0(3)
C21- Fe1- N11	177.5(2)
N12-Fe1- N11	88.4(2)
C22-Fe1-N14	178.9(2)
C23-Fe1-N14	93.3(2)
C21-Fe1-N14	91.0(2)
N11-Fe1-N14	87.3(2)
N8-Ni1-N5	90.2(2)
N8-Ni1-N7#	90.9(2)
N5-Ni1-N7#	94.6(2)
N8-Ni1-N3	92.0(2)
N5- Ni1-N3	175.6(2)
N7#-Ni1-N3	89.1(2)
N8-Ni1-N2	177.8(3)
N5- Ni1-N2	91.8(3)
N7#-Ni1-N2	89.8(2)
N3-Ni1-N2	86.0(3)
N8-Ni1-N6	90.0(2)
N5-Ni1-N6	84.8(2)
N7#-Ni1-N6	179.0(2)
N3-Ni1-N6	91.4(2)

Symmetry code: # -2-x, -2-y, 2-z

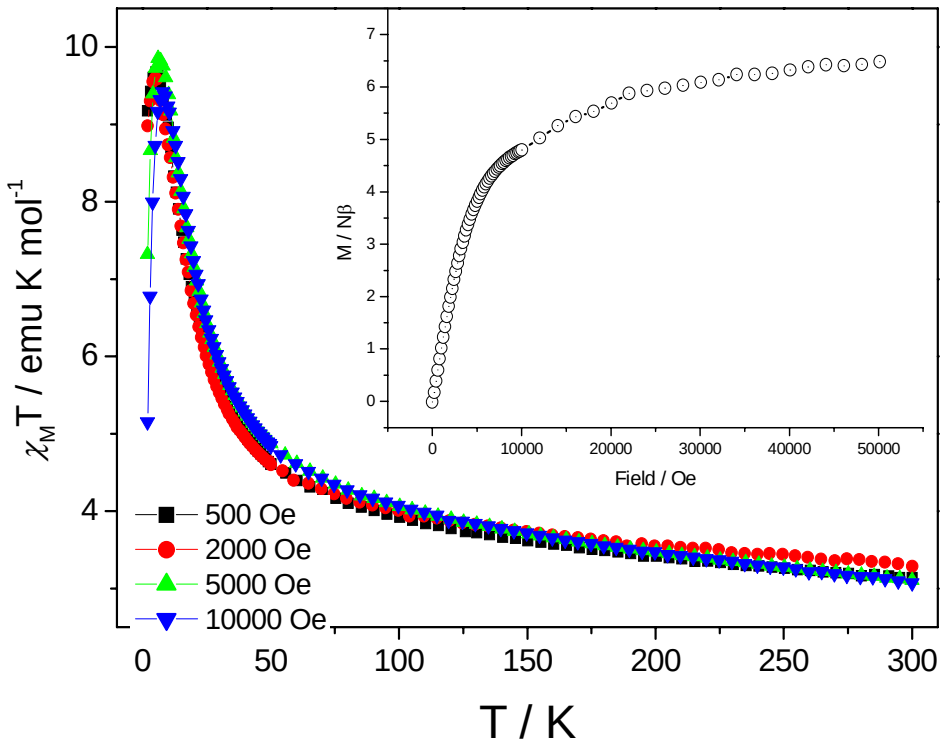

Figure S1. The temperature dependence of magnetic susceptibility in the form of $\chi_M T$ versus T at different field. Inset is the field-dependent magnetization of compound 1-$(ClO_4)_2$ at 2 K.

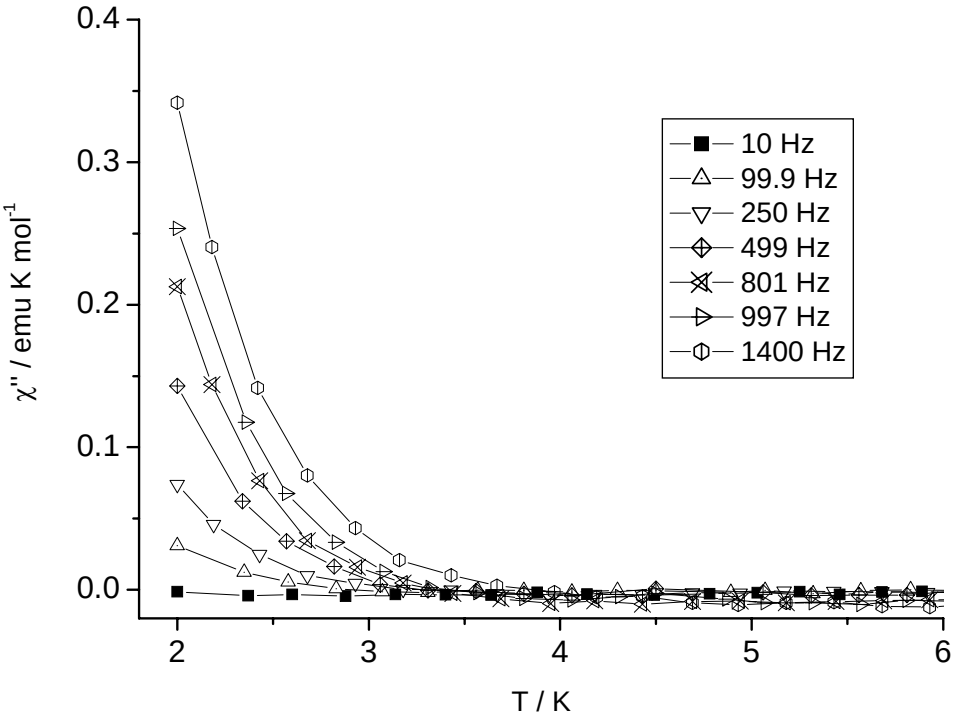

Figure S2. Out-of-phase component of the *ac* susceptibility in zero applied field at different frequencies for 1-$(ClO_4)_2$.

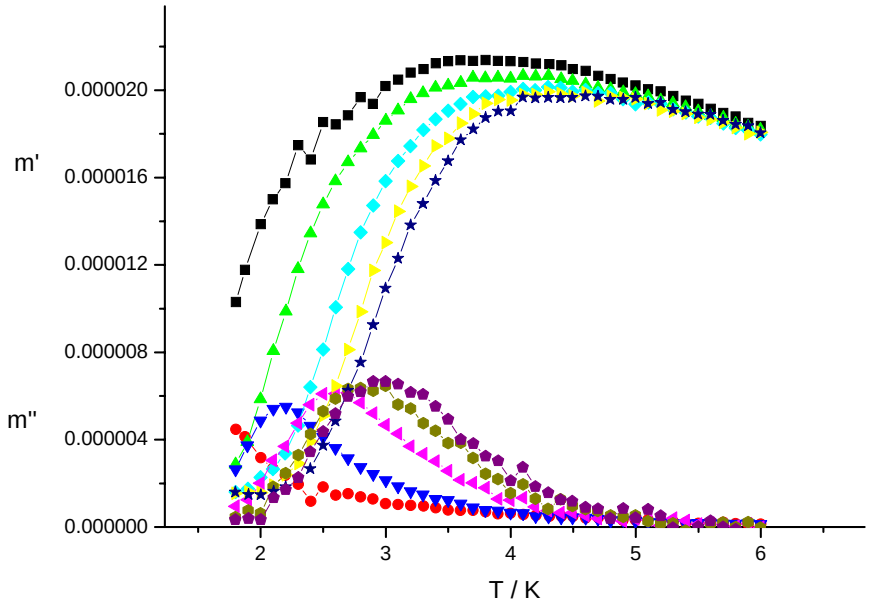

Figure S3. Out-of-phase component of the *ac* susceptibility for **1**-$(ClO_4)_2$ in 5000 G field at frequencies of 10, 100, 500 1000 and 1500 Hz, respectively.