Supporting Materials for

Two One-dimensional Copper-Oxalate-Framework with Jahn-Teller Effect: $[(CH_3)_3NH]_2[[Cu(\mu\text{-}C_2O_4)(C_2O_4)]\cdot 2.5H_2O$ (I) and $[(C_2H_5)_3NH]_2[Cu(\mu\text{-}C_2O_4)(C_2O_4)]\cdot H_2O$(II)

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Table S1. Crystallographic data of **I** and **II**

Compound	I	II
formula	C10H25CuN2O10.5	C16H34CuN2O9
Fw	404.86	461.99
F(000)	424	980
T, K	293	293
crystal system	Triclinic	Monoclinic
space group	$P\ \bar{1}$	$P\ 2_1/c$
a, Å	9.1043(3)	16.9291(3)
b, Å	9.4286(3)	9.6931(1)
c, Å	11.6225(4)	19.2582(3)
α, °	94.154(1)	90
β, °	112.273(1)	136.812(1)
γ, °	95.734(1)	90
V, Å^3	912.01(5)	2162.812(1)
Z	2	4
D_c, g/cm^3	1.474	1.419
μ (Mo K_α), mm^{-1}	1.248	1.057
crystal size, mm^3	0.36 × 0.25 × 0.15	0.40 × 0.33 × 0.18
T_{min} and T_{max}	0.662, 0.835	0.744, 0.831
$\theta_{min.}$, $\theta_{max.}$, °	3.496, 27.487	3.517, 27.498
no. total reflns.	14735	33283
no. uniq. reflns (R_{int})	4144(0.0361)	4944(0.0440)
no. obs. [I≥2σ(I$_0$)]	2963	3359
no. params	229	260
*R*1, *wR*2 [I≥2σ(I$_0$)]	0.0366, 0.0852	0.0394, 0.1036
*R*1, *wR*2 (all data)	0.0595, 0.0913	0.0652, 0.1139
GOF	0.980	1.032
[a]Δρ, e/Å^3	0.457, -0.350	0.773, -0.759
[b]Max. and mean Δ/σ	0.001, 0.000	0.001, 0.000
CCDC	881974	843074

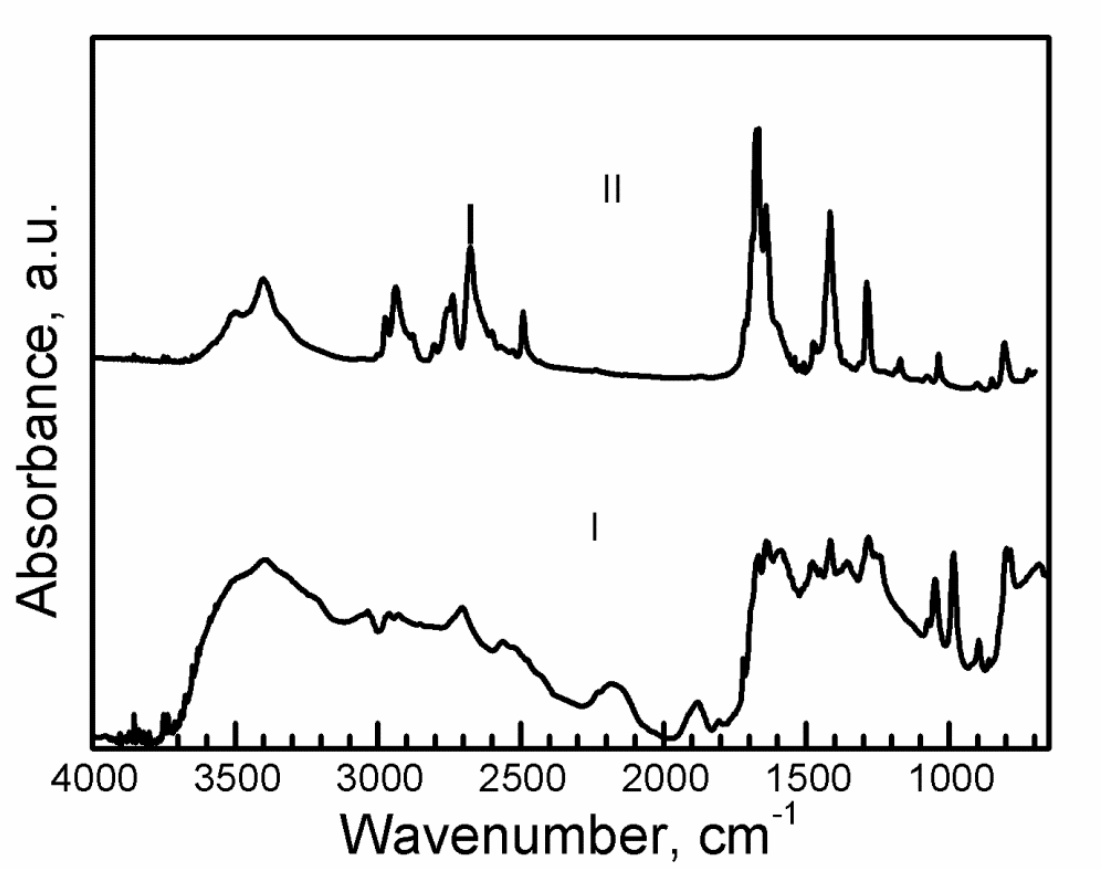

Figure S1. IR spectra of **I** and **II**.

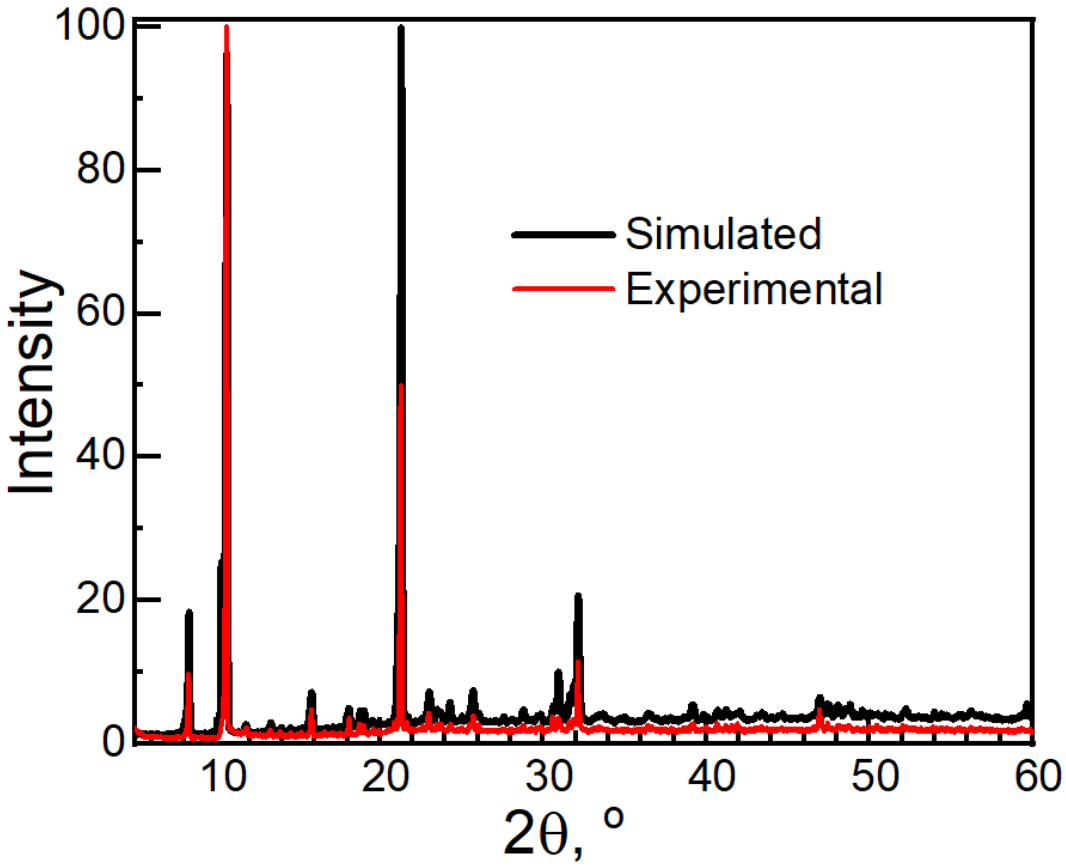

Figure S2. Experimental X-ray powder diffraction pattern of crystalline sample and simulated one based on single crystal structure of **I**. **I** shows preferred orientation.

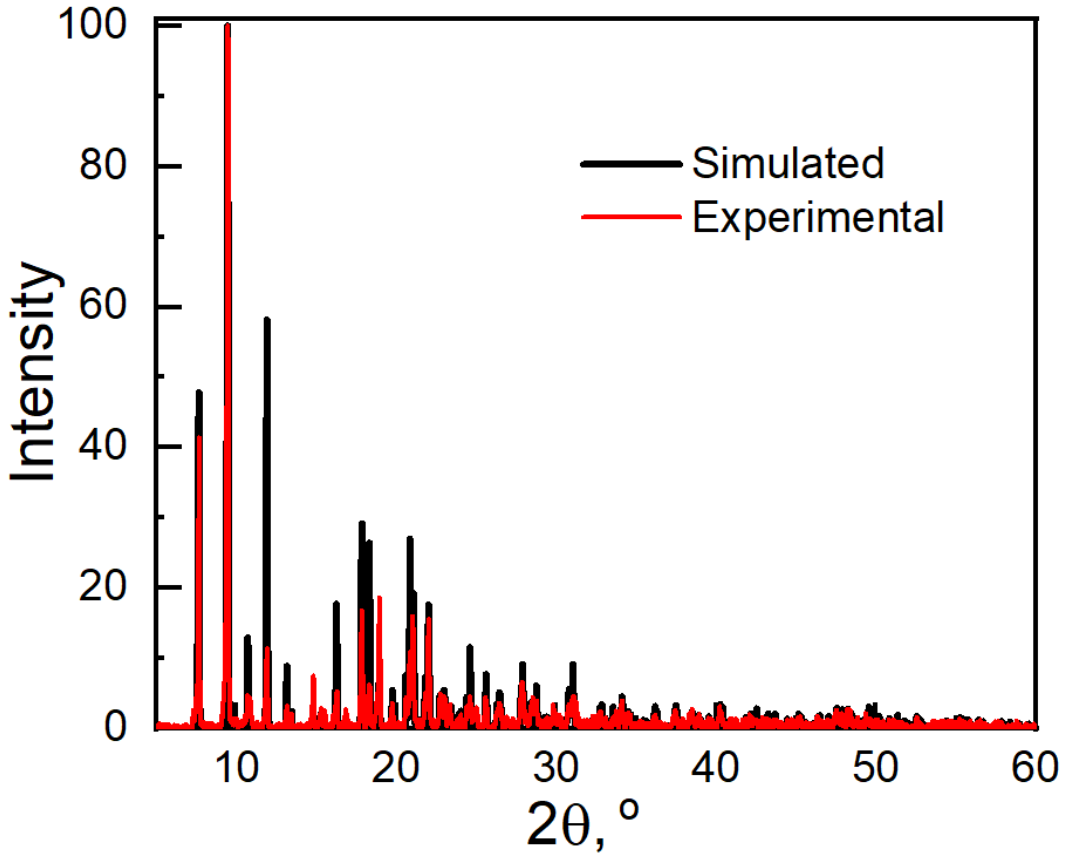

Figure S3. Experimental X-ray powder diffraction pattern of crystalline sample and simulated one based on single crystal structure of **II**.

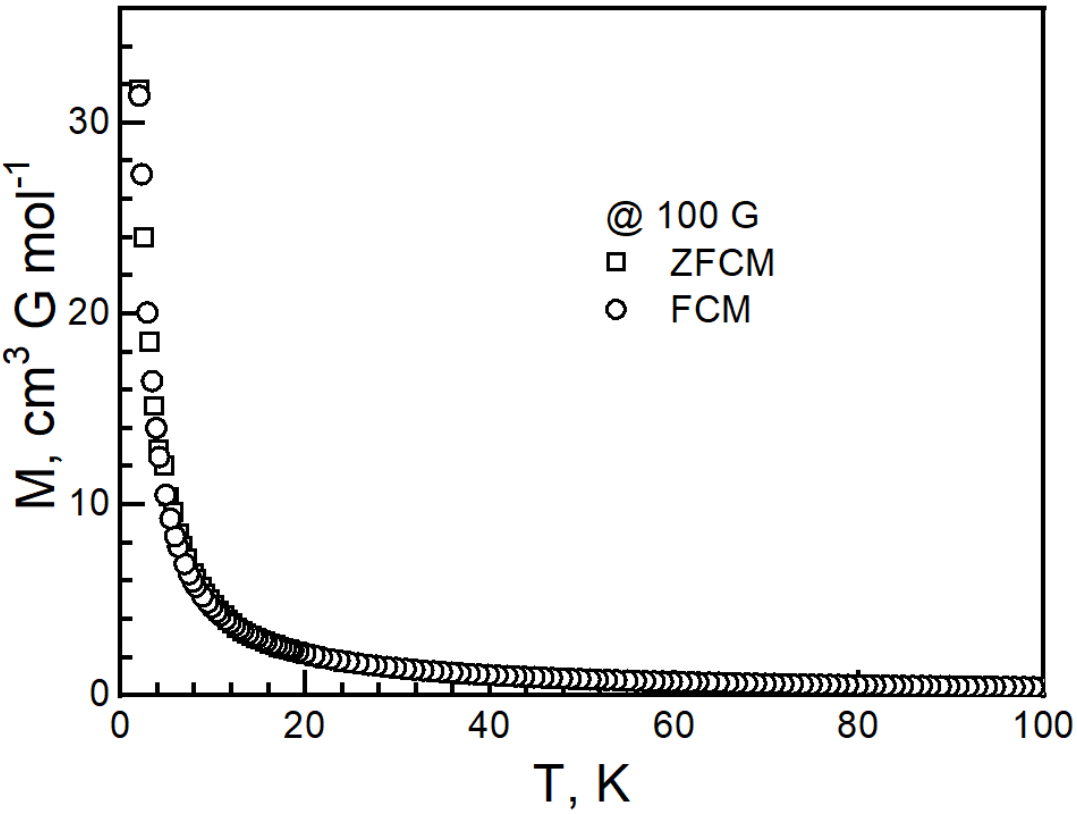

Figure S4. ZFCM/FCM of polycrystal of **I** under 100 G.

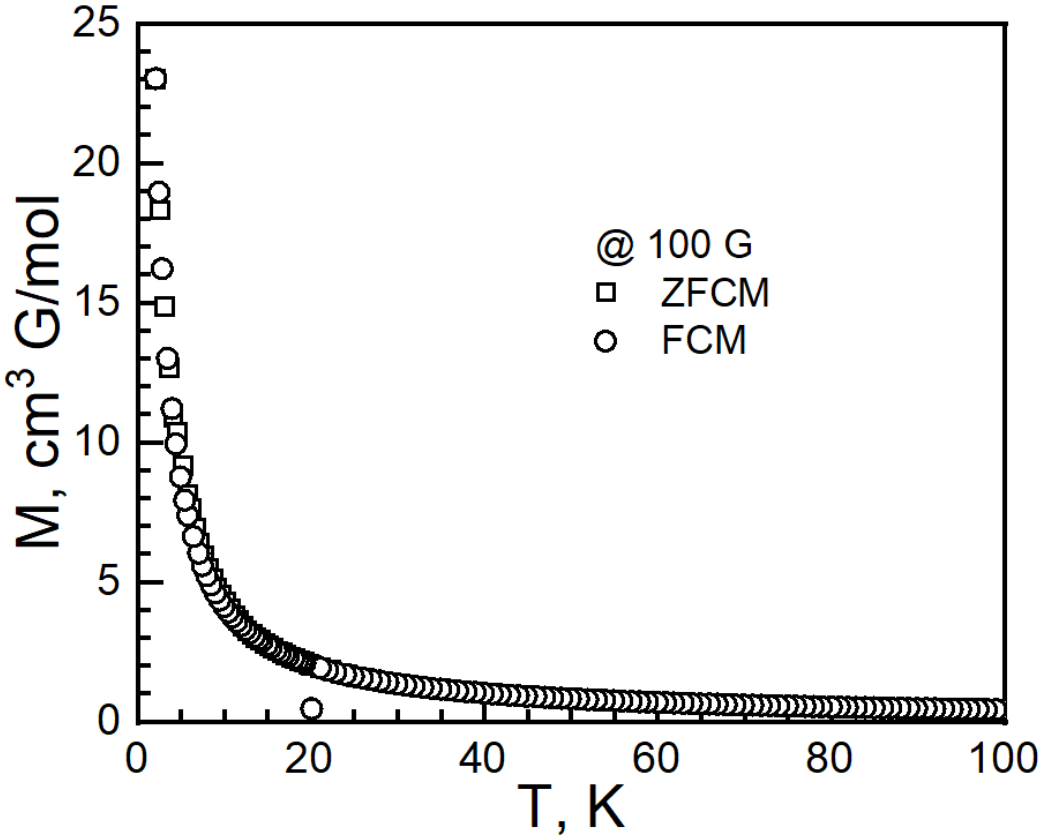

Figure S5. ZFCM/FCM of polycrystal of **II** under 100 G.