

Supporting Information

Co₂GeO₄ Nanoplates and Nano-octahedrons from Low-Temperature Controlled Synthesis and Their Magnetic Properties

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To explore the effect of the experimental parameters on the products, a series of experiments are performed. The respective detailed conditions are given in Table S1. Sample A (SA) and Sample B (SB) are the final products of Co₂GeO₄ nanoparticles among these experiments.

Table S1. The products obtained from different conditions.

Sample	CoCl ₂ ·6H ₂ O(g)	GeO ₂ (g)	CTAB(mmol)	NaOH(mmol)	Hydrothermal Temperature (°C)
SA	0.238	0.052	1.1	0.1	120, then annealing at 400
SB	0.238	0.052	1.1	0.4	160
SC	0.238	0.052	1.1	0.8	160
SD	0.238	0.052	None	0.1	160
SE	0.238	0.052	0.275	0.1	160
SF	0.238	0.052	0.55	0.1	160
SG	0.238	0.052	None	0.4	160

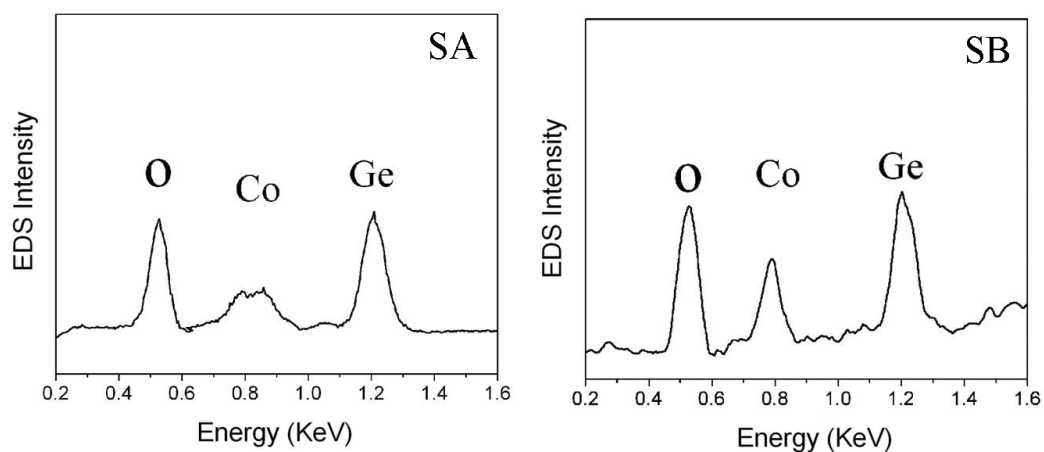


Fig. S1. The EDS patterns of SA and SB (the ratio of the above elements is closed to the theoretical ratio 2:1:4).

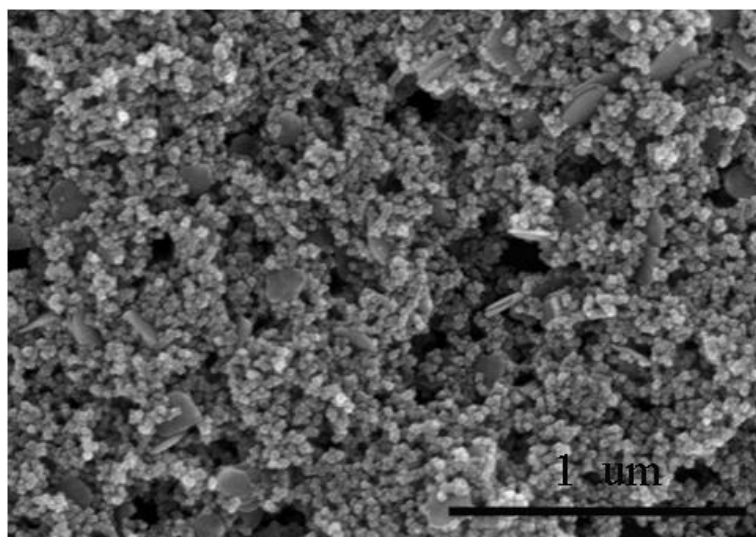


Fig. S2. Typical SEM image of the as-prepared Co_2GeO_4 products when the amount of NaOH is 0.8 mmol.

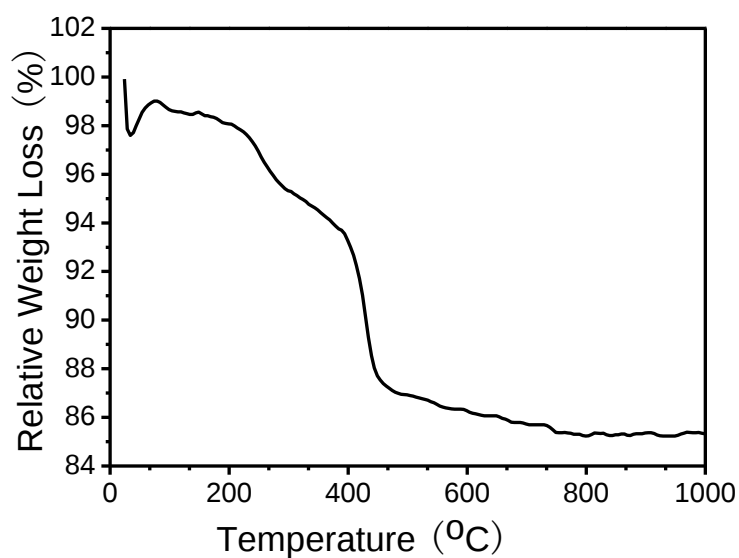


Fig. S3. Thermogravimetric analysis of precursor.

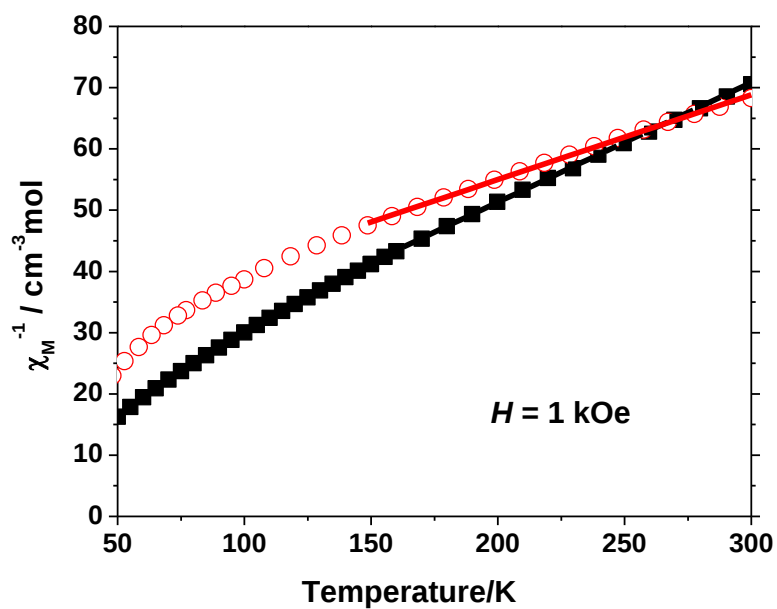


Fig. S4. Plot of χ_M^{-1} vs T for SA (open circle) and SB (filled cubic). The line is linear fitted.