

Supporting Information

A Family of Germanates Constructed from Ge₇ Clusters Co-templated by Metal Complexes and Organic/Inorganic Species

Xiaoyan Ren,^b Qinhe Pan,^{a,*} Jiancong Liu,^b Yi Li,^b Fuxiang Wang,^a

Jiyang Li,^{b,*} Yan Xu,^b Li Li^b

^a Ministry of Education Key Laboratory of Advanced Materials of Tropical Island Resources, Department of Materials and Chemical Engineering, Hainan University, Haikou 570228, PR China

^b State Key of laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, Jilin University, Changchun 130012, PR China

Table of contents

Fig. S1 The experimental and simulated X-ray power diffraction patterns for **JLG-3**.

Fig. S2 The experimental and simulated X-ray power diffraction patterns for **JLG-6**.

Fig. S3 The experimental and simulated X-ray power diffraction patterns for **JLG-8**.

Fig. S4 TG curves of **JLG-3**, **JLG-6** and **JLG-8**.

Fig. S5 The X defined Ge₇ cluster of **JLG-3**, **JLG-6** and **JLG-8**.

Fig. S6 The structure of (a) **JU-85** and (b) **JLG-3** viewed along the Ge₇ chains.

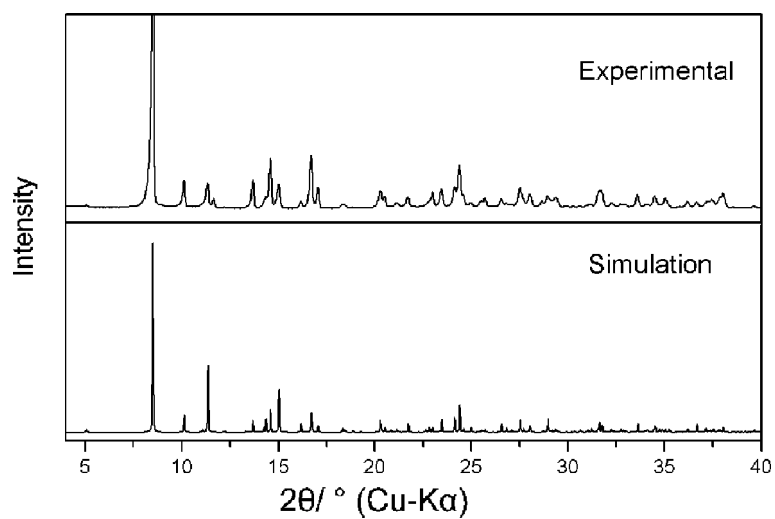


Fig. S1 The experimental and simulated X-ray power diffraction patterns for **JLG-3**.

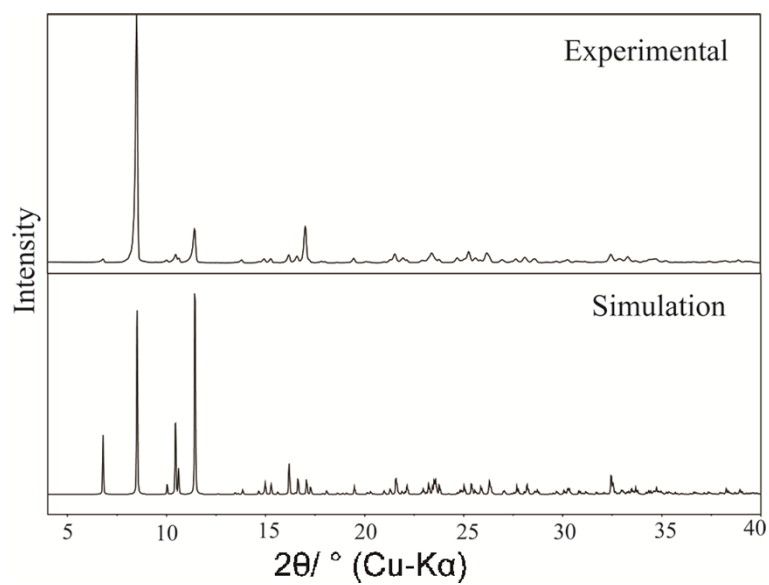


Fig. S2 The experimental and simulated X-ray power diffraction patterns for **JLG-6**.

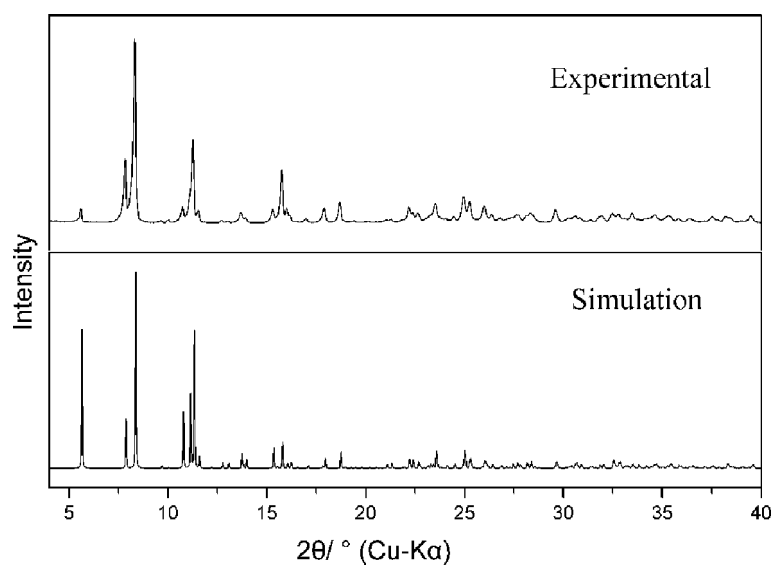


Fig. S3 The experimental and simulated X-ray power diffraction patterns for **JLG-8**.

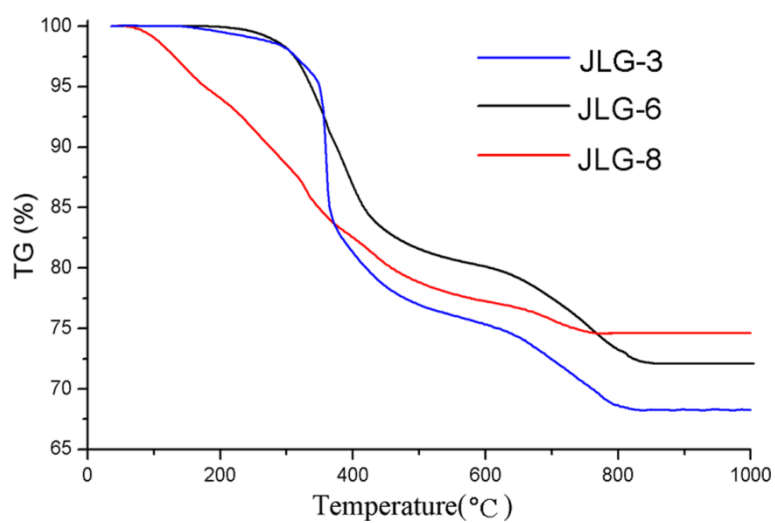


Fig. S4 TG curves of **JLG-3**, **JLG-6** and **JLG-8**.

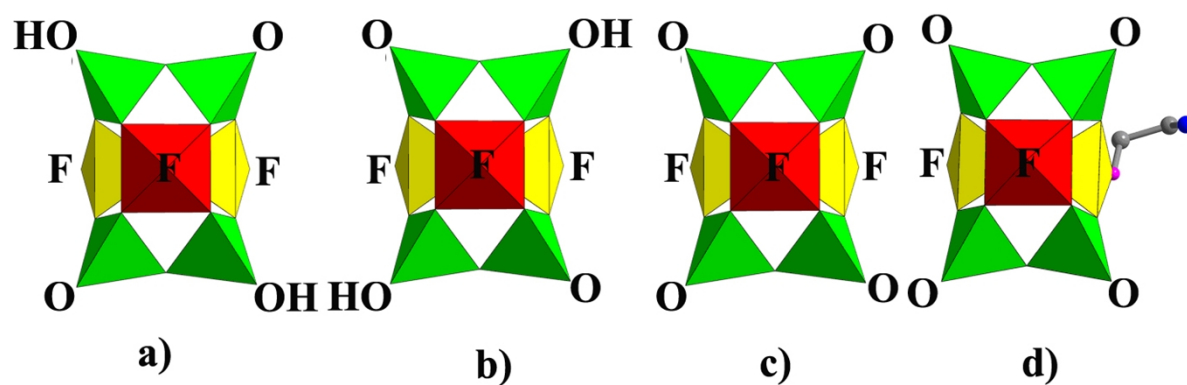
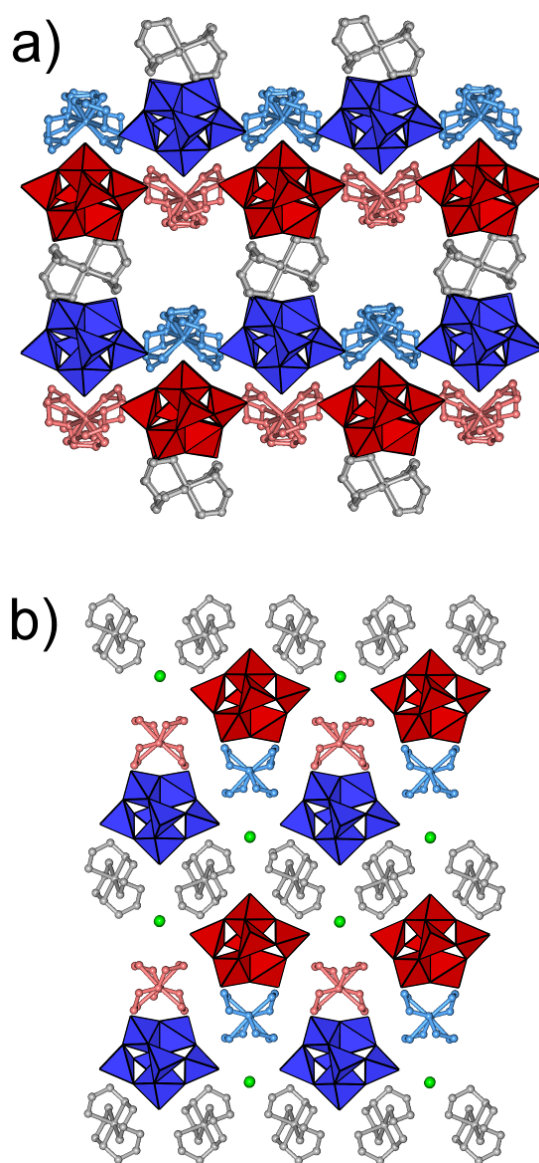


Fig. S5 The X defined Ge₇ cluster of **JLG-3**, **JLG-6** and **JLG-8**. a) and b) are two different X defined Ge₇ clusters from R- and L- chains of **JLG-3**, respectively. c) is the X defined Ge₇ cluster of **JLG-8**, d) is the X defined Ge₇ cluster of **JLG-6**.



FigureS6. The structure of a) **JU-85** and b) **JLG-3** viewed along the Ge₇ chains. R- and L-Ge₇ clusters are shown as dark red and dark blue polyhedra; Δ -*mer*-, Λ -*mer*-, and *s-fac*-Ni(dien)₂²⁺ cations are shown as light red, light blue, and grey ball-and-sticks, respectively. Cl⁻ anions in **JLG-3** are shown as green spheres. Water molecules are omitted for clarity.

