Electronic Supplementary Information

A new type of entangled motif: from 2D polyrotaxane layers to a 3D polythreaded framework

Hua Wu, Bo Liu, Jin Yang, Hai-Yan Liu, and Jian-Fang Ma

a Key Lab of Polyoxometalate Science, Department of Chemistry, Northeast Normal University, Changchun 130024, People's Republic of China; b Heilongjiang Agricultural College of Vocational Technology, Jiamusi, 154007, People's Republic of China

Corresponding authors:
E-mail: yangjinnenu@yahoo.com.cn (J. Yang)
E-mail: jianfangma@yahoo.com.cn (Jian-Fang Ma)
Fax: +86-431-8509-8620
Materials. All reagents and solvents for syntheses were purchased from commercial sources and used as received.

General Characterization and Physical Measurements. The powder X-ray diffraction (PXRD) data was collected on a Rigaku RINT2000 diffractometer at room temperature with Cu Kα radiation in a flat plate geometry. The FT-IR spectra were recorded from KBr pellets in the range 4000–400 cm⁻¹ on a Mattson Alpha-Centauri spectrometer.

Fig. S1 Schematic representation of the (3,4)-connected network with a Schläfli symbol of (4²·6)(4²·6³·8).

Fig. S2 A view of two kinds of windows.
**Fig. S3** View of the 2D → 3D polythreaded framework originated from two polyrotaxane layers.

**Fig. S4** Simulated (red) and measured (black) PXRD patterns of 1.