Supporting Information

Polyoxometalate-based frameworks with a linker of paddlewheel diruthenium(II, III) complexes

Akihiro Hashikawa,[a] Yuki Sawada,[a] Yuma Yamamoto,[a] Masaki Nishio,[a] Wataru Kosaka,[a] Yoshihito Hayashi[a] and Hitoshi Miyasaka*[a,b]

[a] *Department of Chemistry, Division of Material Sciences, Graduate School of Natural Science and Technology, Kanazawa University, Kakuma-machi, Kanazawa 920-1192, Japan*
[b] *Institute for Materials Research, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan*.

* Corresponding author
Prof. Dr. Hitoshi Miyasaka
Institute for Materials Research, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan
Tel: +81-22-215-2030
Fax: +81-22-215-2031
E-mail: miyasaka@imr.tohoku.ac.jp

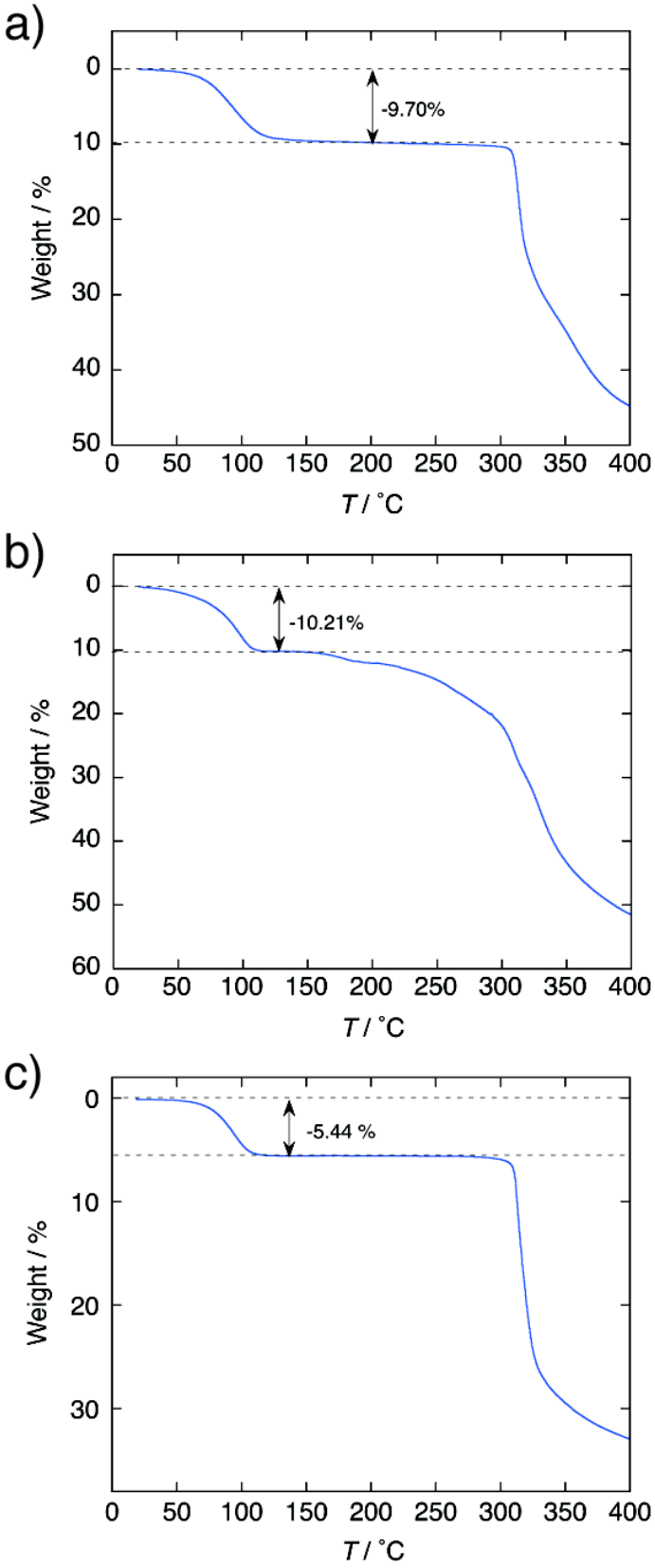

Figure S1. TGA curves for **1** (a), **2** (b), and **3** (c), where the loss of weight almost corresponds to amount of crystallization solvents; $CH_2Cl_2 \cdot C_2H_4Cl_2$ (9.61 %) for **1**, $C_2H_4Cl_2 \cdot 9.5H_2O$ (10.06 %) for **2**, and $2(C_2H_4Cl_2)$ (5.52 %) for **3** determined by X-ray crystallography and elemental analyses.

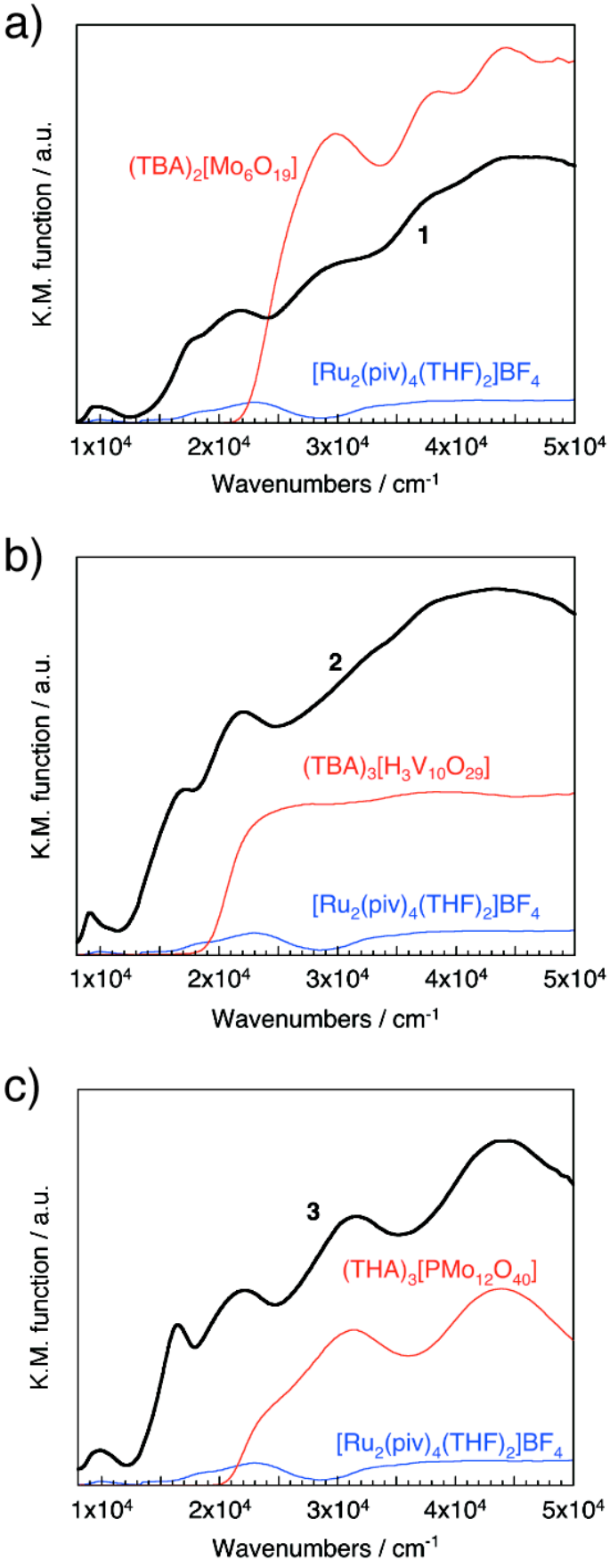

Figure S2. Powder reflection spectra of **1** (a), **2** (b), and **3** (c) together with the precursors of $[Ru_2]BF_4$ (blue) and POMs (red) measured based on a $BaSO_4$ pellet.