In situ solvent and counteranion-induced synthesis, structural characterization and photoluminescence properties of Pb-based MOFs

Qi-Bing Bo,* Juan-Juan Pang, Hong-Yan Wang and Zhen-Wei Zhang

School of Chemistry and Chemical Engineering, University of Jinan, Jinan 250022 (China)

*Email: chm_boqb@ujn.edu.cn

Electronic Supplementary Information (ESI)
ESI 1 Schematic description of the equivalent 2D topology framework with a uninodeal sql-type topological motif considering the Pb and tip ligand as connected nodes. Color codes: mauve for the organic 4-connected nodes, green for inorganic 4-connected nodes.

ESI 2 Schematic description of the equivalent 2D topology framework with a uninodeal hxi-type topological motif considering the Pb$_6$O$_2$ clusters and tip ligands as nodes and linkers, respectively. Color codes: 2-connected tip linkers are omitted, green for inorganic 6-connected Pb$_6$O$_2$ cluster nodes.
ESI 3 Schematic description of the equivalent 3D topology framework with a uninodal **dia**-type topological motif considering the Pb₄O clusters and tip ligands as nodes and linkers, respectively. Color codes: 2-connected tip linkers are omitted, green for inorganic 4-connected Pb₄O cluster nodes.

ESI 4 FT-IR spectra for 1, 2 and 3.
ESI 5 TG curves for 1, 2 and 3

ESI 6 (a) The experimental and simulated PXRD patterns for 1. The top is the experimental pattern, and the bottom is the simulated one.
ESI 6 (b) The experimental and simulated PXRD patterns for 2. The top is the experimental pattern, and the bottom is the simulated one.

ESI 6 (c) The experimental and simulated PXRD patterns for 3. The top is the experimental pattern, and the bottom is the simulated one.
ESI 7 The excitation spectrum for 1, monitored at 527 nm.

ESI 8 The excitation spectrum for 2, monitored at 568 nm.
ESI 9 The excitation spectrum for 3, monitored at 416 nm.