Supporting Information

Structural, thermal and topological characterization of coordination networks containing flexible aminocarboxylate ligands with a central biphenylene scaffold

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S1
1. Optical Microscope Images of MOF crystals

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Figure S 2 Crystals of PUMflex1.1-Zn
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2. Additional X-Ray Figures

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**Figure S 6** Asymmetric unit of PUM\textit{flex}1.1-Zn. All non-hydrogen atoms shown as ellipsoids at the 50% probability level. H atoms (isotropically refined) are reported in ball-and-stick style for the sake of clarity.
Figure S 7 Asymmetric unit of PUM/plex1-Zr. All non-hydrogen atoms shown as ellipsoids at the 50% probability level. H atoms (isotropically refined) are reported in ball-and-stick style for the sake of clarity.

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**Figure S 16** Additional view of PUMflex1.1-Zn asymmetric unit: disordered part of ligand L1 and DMF molecules ligand are highlighted
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3. Thermal Analysis

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## 5. Additional topological Data

Table S1: List of structures showing 1D chains of 2,8C1 topological type.

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<th>Reference</th>
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<td>5</td>
<td>WURXAJ</td>
<td>Y S.Mishra et al., Chem.Commun. 2010, 46, 3756.</td>
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<td>16</td>
<td>EJOZUA</td>
<td>Nd Lu Pan et al., J.Mol.Struct. 2016, 1117, 57</td>
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<td>17</td>
<td>EJUBAO</td>
<td>Sm Lu Pan et al., J.Mol.Struct. 2016, 1117, 57</td>
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