Supporting Information

Series of open-framework aluminoborates containing B_5O_{10} clusters

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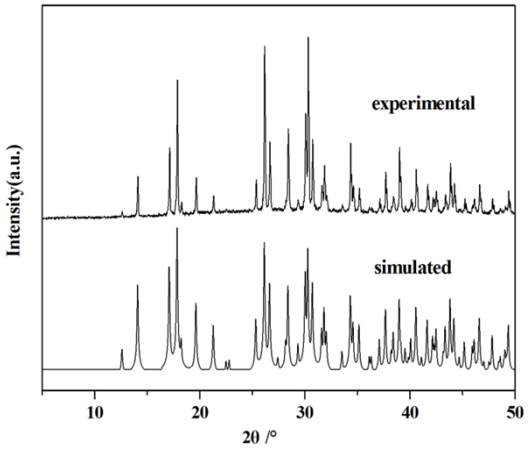

Figure S1. The XRD patterns of **1**.

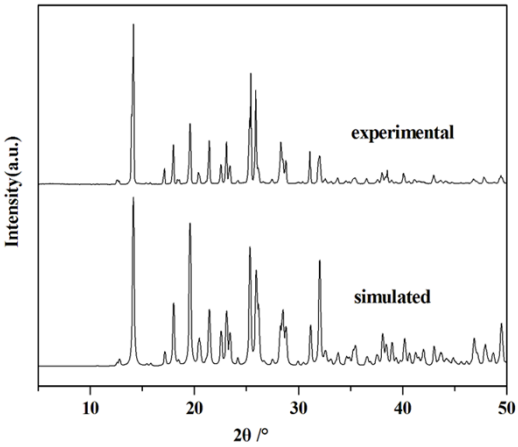

Figure S2. The XRD patterns of **2**.

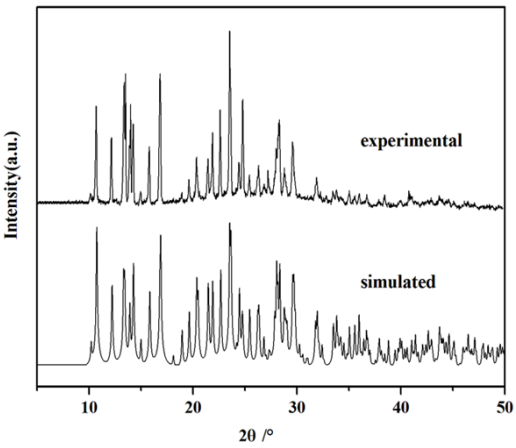

Figure S3. The XRD patterns of **3.**

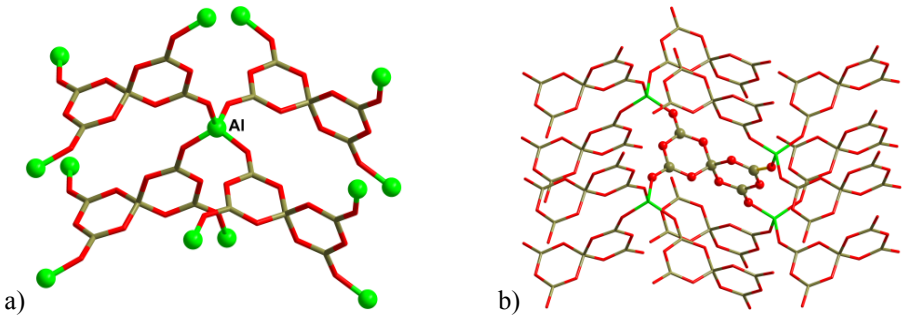

Figure S4. Views of the linkage of B_5O_{10} and AlO_4 groups in **1** and **2**. Each B_5O_{10}/AlO_4 unit is bridged by four AlO_4/B_5O_{10} groups to 12 other B_5O_{10}/AlO_4 units.

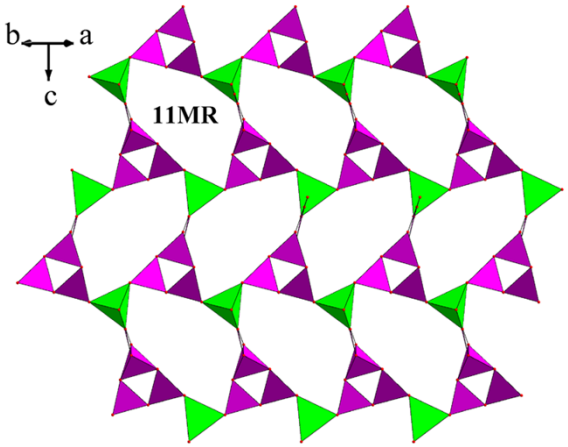

Figure S5. Polyhedral view of the odd 11-ring channels along the [110] direction. Color code: AlO_4, green; BO_3 and BO_4, purple.

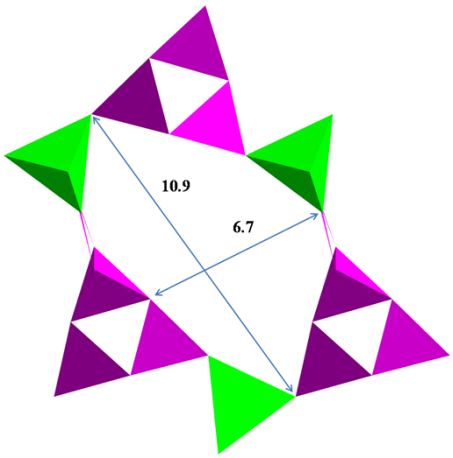

Figure S6. View of the 11-ring opening in **1**.

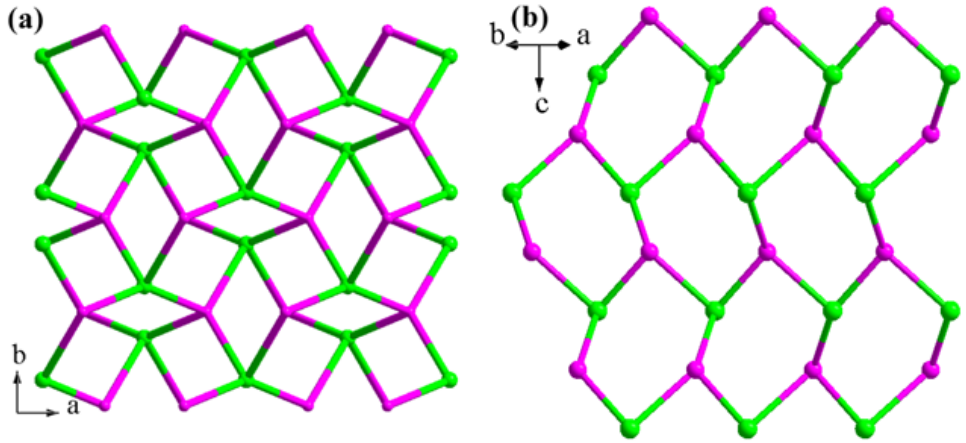

Figure S7. Topological view of the network along the [001], [110] directions. Color codes: AlO_4 is green nodes and B_5O_{10} is pink nodes.

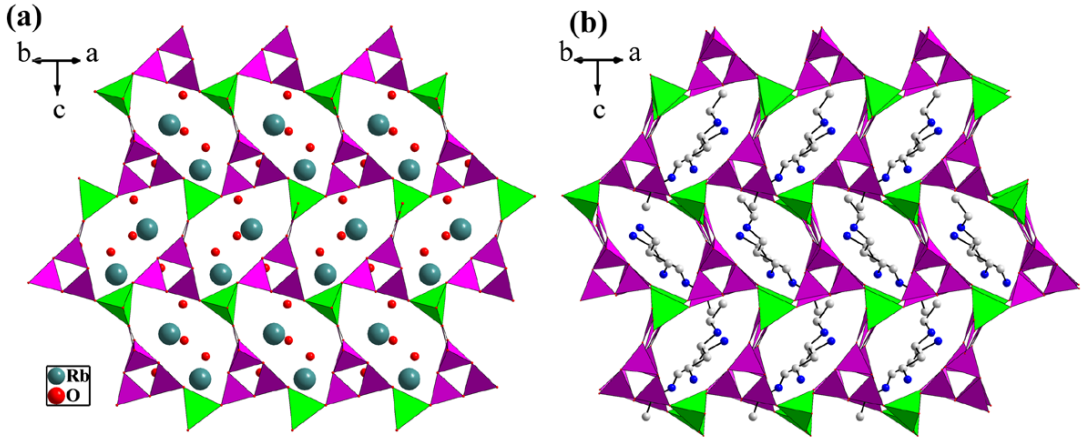

Figure S8. The 11-MR channels are occupied by the guest Rb^+ and H_2O molecules in **1** (a), and $[NH_3(CH_2)_3NH_2CH_2CH_3]^{2+}$ cations in **2** (b).

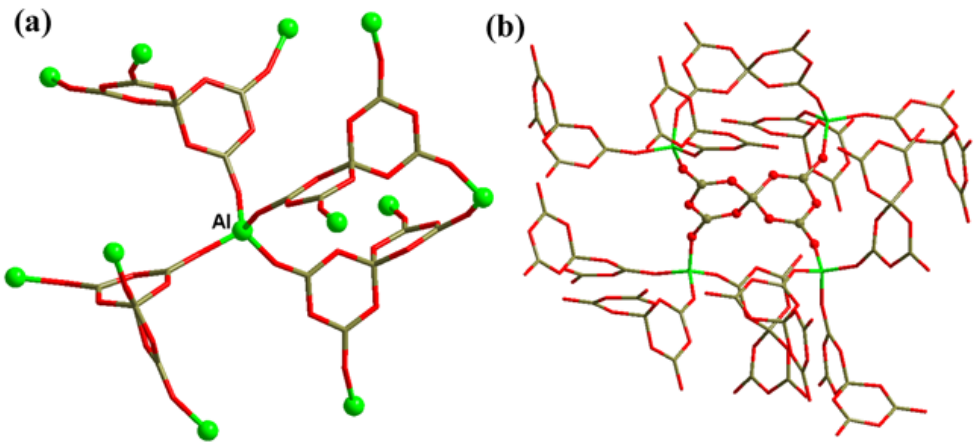

Figure S9. Views of the linkage of B_5O_{10} and AlO_4 groups in **3**. Each B_5O_{10}/AlO_4 unit is bridged by four AlO_4/B_5O_{10} groups to 11 other B_5O_{10}/AlO_4 units.

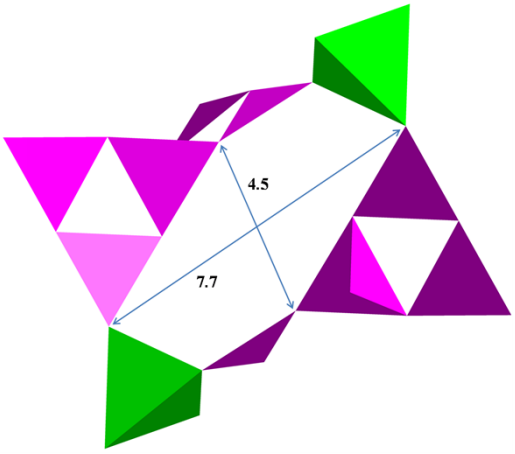

Figure S10. View of the 8-ring opening in **3**.

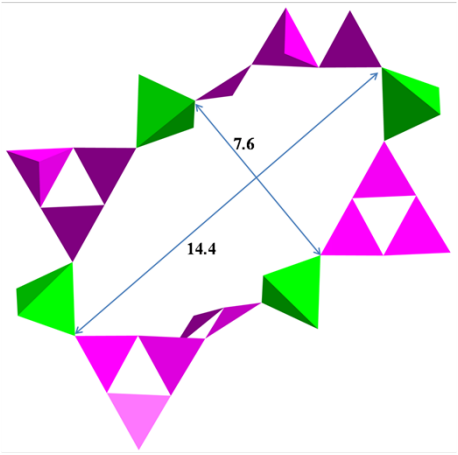

Figure S11. View of the 14-ring opening in **3**.

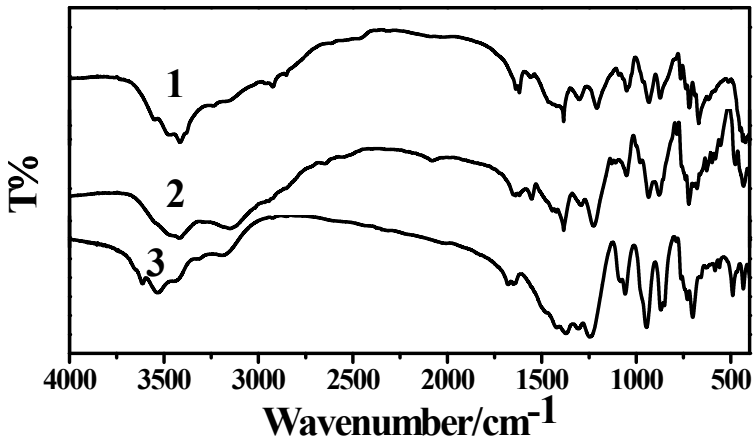

Figure S12. IR spectra for compounds **1-3**.

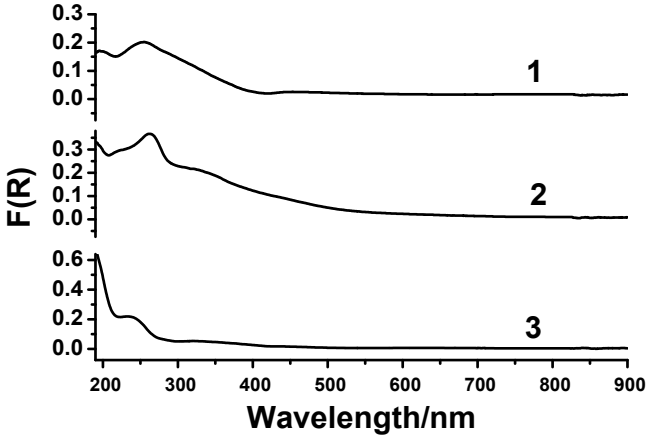

Figure S13. UV-visible absorption spectra

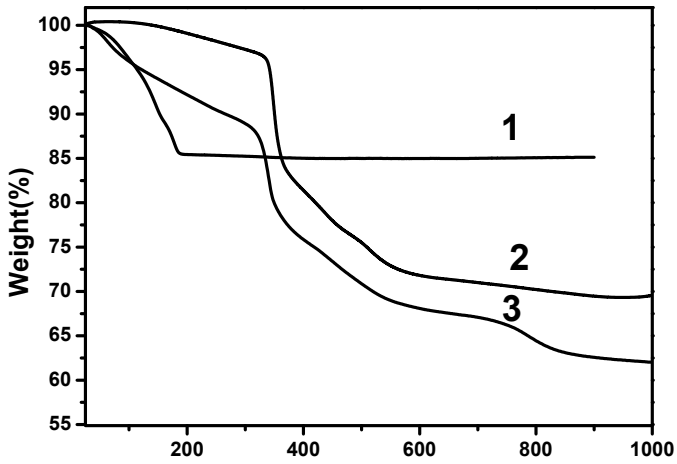

Figure S14. TG curves of **1-3**.