

Electronic Supplementary Information

Single Crystal Neutron and Magnetic Measurements of $\text{Rb}_2\text{Mn}_3(\text{VO}_4)_2\text{CO}_3$ and $\text{K}_2\text{Co}_3(\text{VO}_4)_2\text{CO}_3$ with Mixed Honeycomb and Triangular Magnetic Lattices

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Summary of Electronic Supplementary Information:

Figure S1-S2. Calculated (a) and experimental (b) PXRD patterns for $\text{Rb}_2\text{Mn}_3(\text{VO}_4)_2\text{CO}_3$ (**I**) and $\text{K}_2\text{Co}_3(\text{VO}_4)_2\text{CO}_3$ (**II**), respectively.

Table S1: Bond Valence Sum Analysis of Manganese and Cobalt in **I** and **II**.

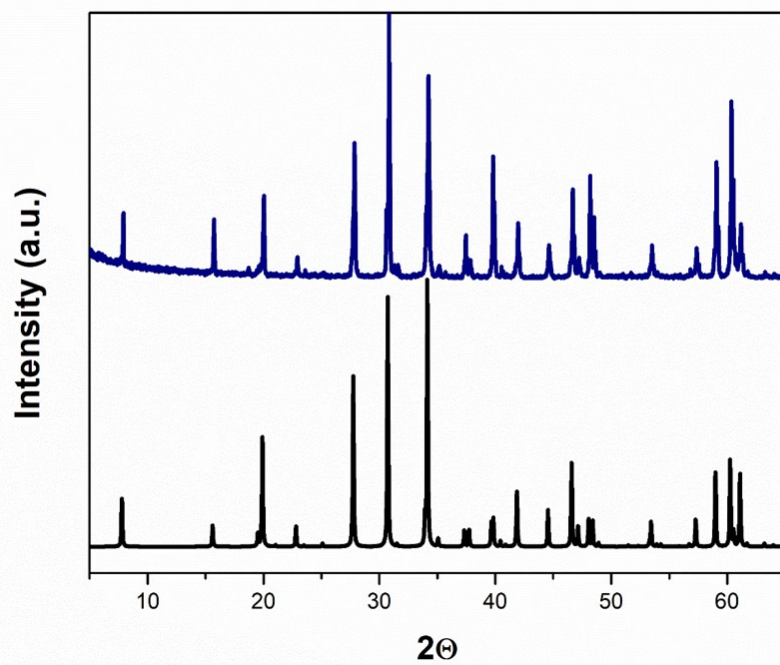


Figure S1. Calculated (a) and experimental (b) PXRD patterns for $\text{Rb}_2\text{Mn}_3(\text{VO}_4)_2\text{CO}_3$ (I).

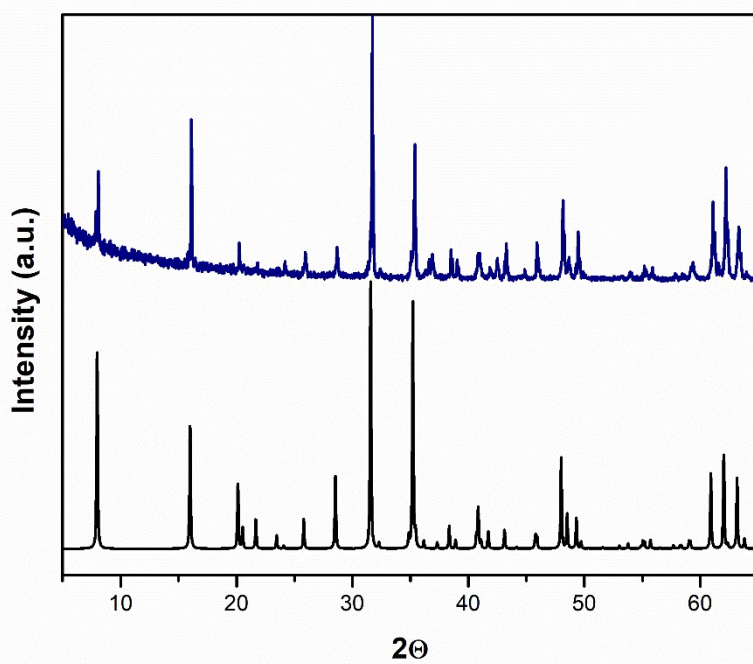


Figure S2. Calculated (a) and experimental (b) PXRD patterns for $\text{K}_2\text{Co}_3(\text{VO}_4)_2\text{CO}_3$ (II).

Table S1: Bond Valence Sum Analysis of Manganese and Cobalt in **I** and **II**.

Rb₂Mn₃(VO₄)₂CO₃ I		K₂Co₃(VO₄)₂CO₃ II	
MnO₆		MnO₆	
Mn1-O1	0.372	Mn1-O1	0.350
Mn1-O1	0.372	Mn1-O1	0.350
Mn1-O1	0.372	Mn1-O1	0.350
Mn1-O1	0.321	Mn1-O1	0.325
Mn1-O1	0.321	Mn1-O1	0.325
Mn1-O1	0.321	Mn1-O1	0.325
Σ	2.079	Σ	2.025
MnO₅		MnO₅	
Mn2-O2	0.337	Mn2-O2	0.327
Mn2-O2	0.337	Mn2-O2	0.327
Mn2-O3	0.437	Mn2-O3	0.393
Mn2-O3	0.437	Mn2-O3	0.393
Mn2-O3	0.437	Mn2-O3	0.393
Σ	1.985	Σ	1.833

