Electronic supplementary information (ESI) in the manuscript

Low-dimensional ferromagnetic properties of SrCuV_2O_7 and BaCuV_2O_7

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Fig. S1. Experimental XRD patterns for the SrCuV₂O₇ and BaCuV₂O₇ samples. Tick marks show the position of possible Bragg reflections. Lattice parameters were refined using the Rietveld fitting with RIETAN-2000 (F. Izumi and T. Ikeda, *Mater. Sci. Forum*, **2000**, 321–324, 198). Note that the XRD pattern of BaCuV₂O₇ is with a strong preferred orientation.

Fig. S2. Experimental XRD pattern for the BaZnV_2O_7 sample. Tick marks show the position of possible Bragg reflections. Lattice parameters were refined using the Rietveld fitting with RIETAN-2000 (F. Izumi and T. Ikeda, *Mater. Sci. Forum*, **2000**, 321–324, 198).

Fig. S3. TG and DTA curves for SrCuV_2O_7 , BaCuV_2O_7 , and BaZnV_2O_7 .

Fig. S4. The real part of the *ac* susceptibility, $\chi'(T)$, at different static magnetic fields for SrCuV_2O_7 . The curves were measured from 30 to 1.8 K using an *ac* field with the amplitude $H_{ac} = 1$ Oe and frequency $f = 10^3$ Hz. The curves at $H_{dc} \geq 10$ kOe are also shown using the secondary y axis.

Fig. S5. The real part of the *ac* susceptibility, $\chi'(T)$, at different static magnetic fields for BaCuV_2O_7 .

Fig. S6. The C_m vs T curves at different static magnetic fields for (a) SrCuV_2O_7 and (b) BaCuV_2O_7 up to 21 K.

Fig. S7. The excess heat capacity curves, $C_p(H) - C_p(0 \text{ T})$, at different static magnetic fields, H , for SrCuV_2O_7 and BaCuV_2O_7 . The presentation of the excess heat capacity has the advantage that the contribution of the lattice specific heat is canceled out.