Electronic Supplementary Material (ESI) for CrystEngComm
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Supporting Information

Two new series of rare-earth organic frameworks involving two structural architectures: syntheses, structures and magnetic properties

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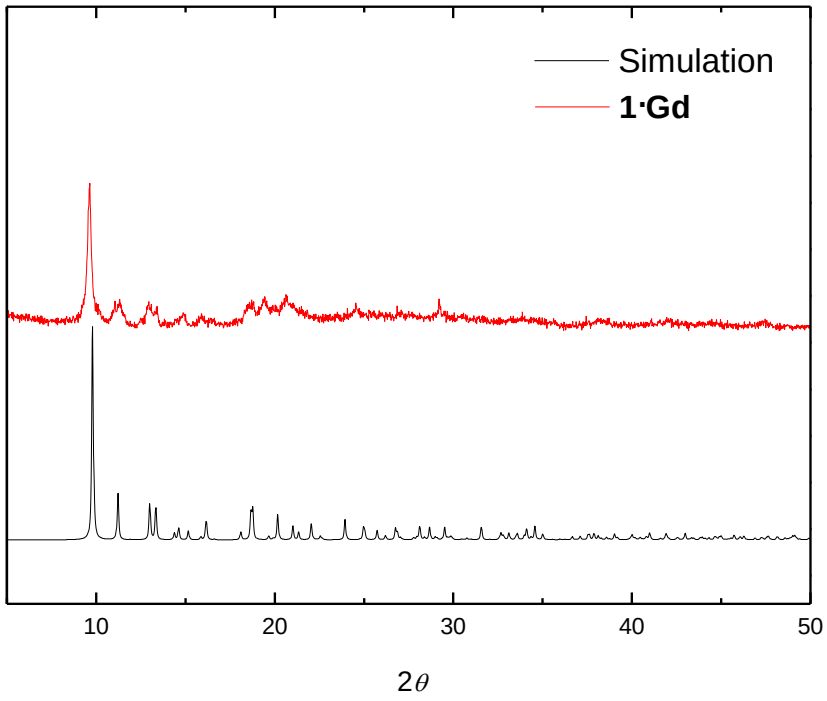
(a)



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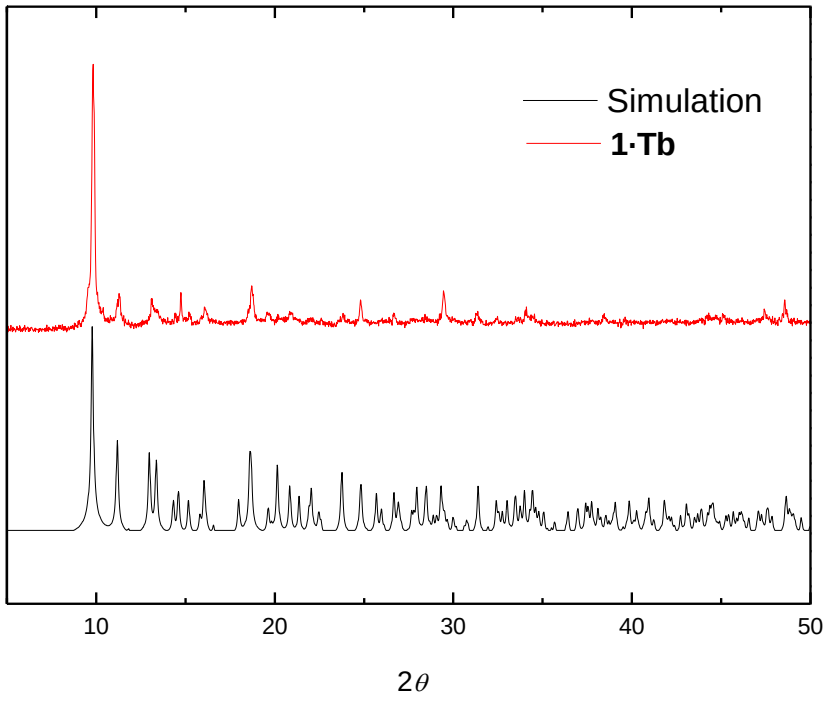

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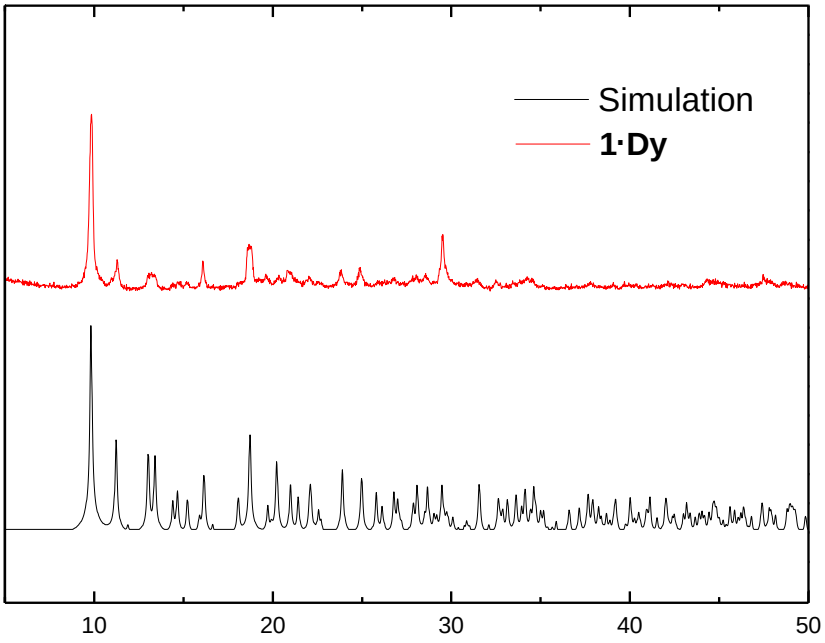

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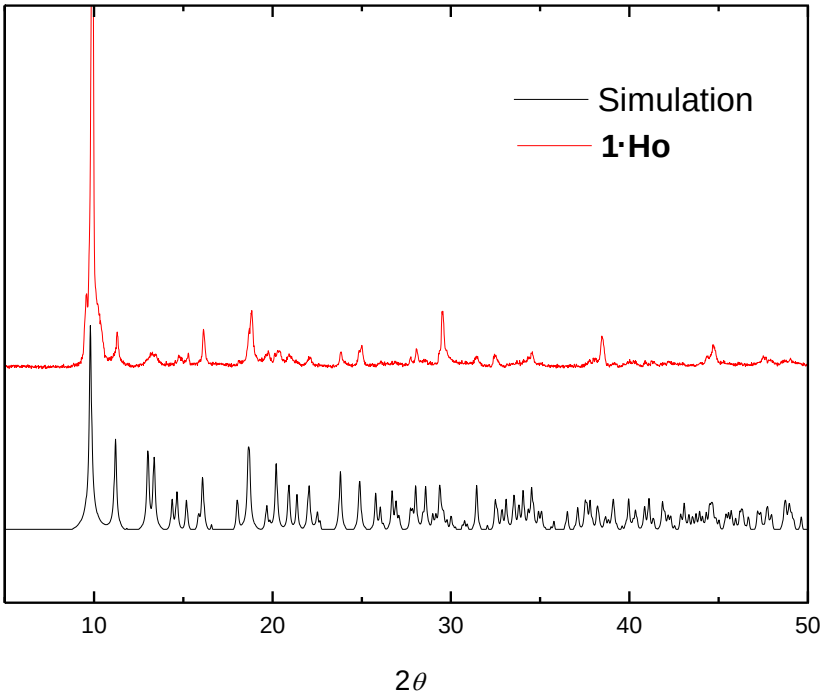

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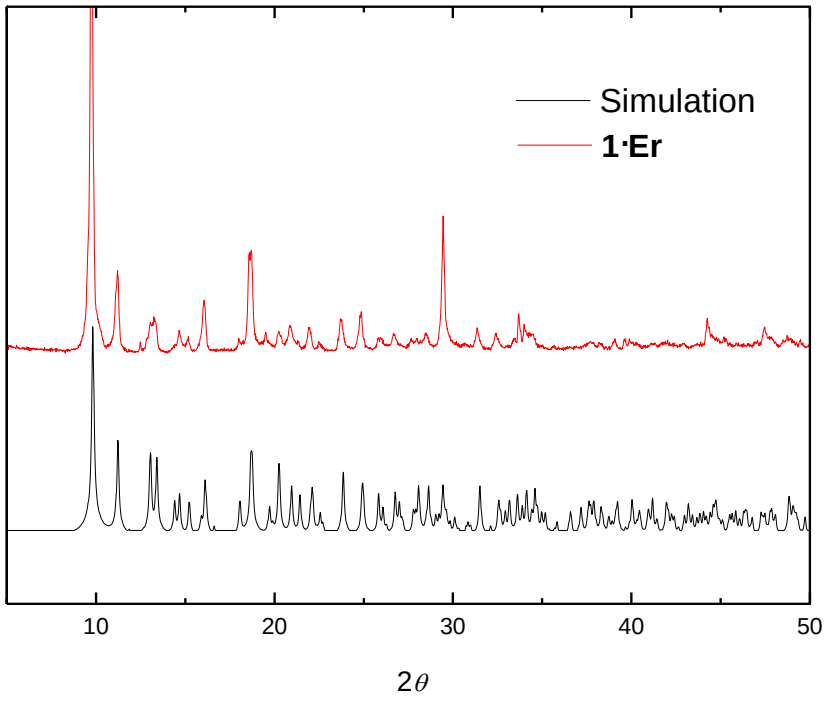

Fig. S1. Simulated PXRD pattern (red) and experimental PXRD pattern of **1·Gd−1·Er.**

(a)

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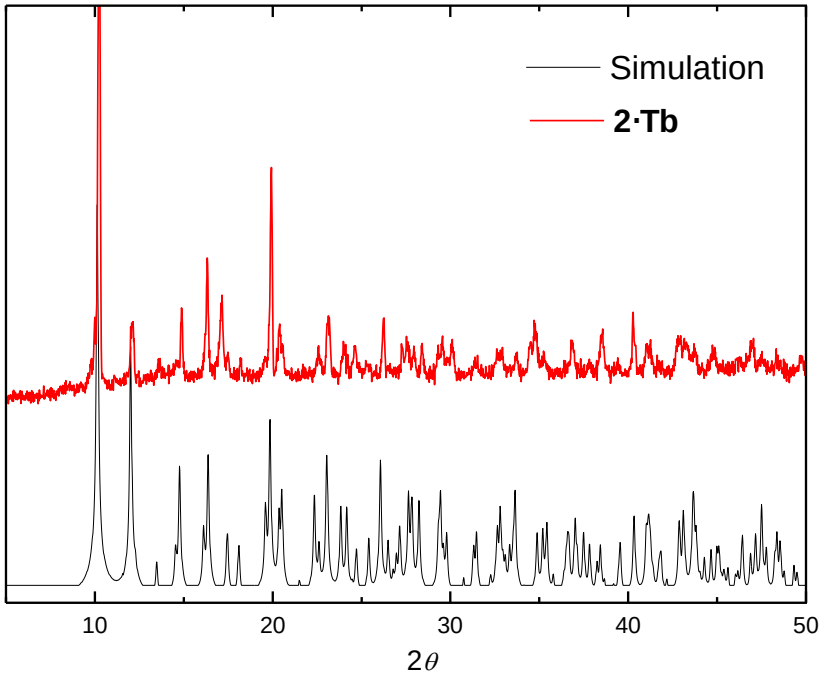

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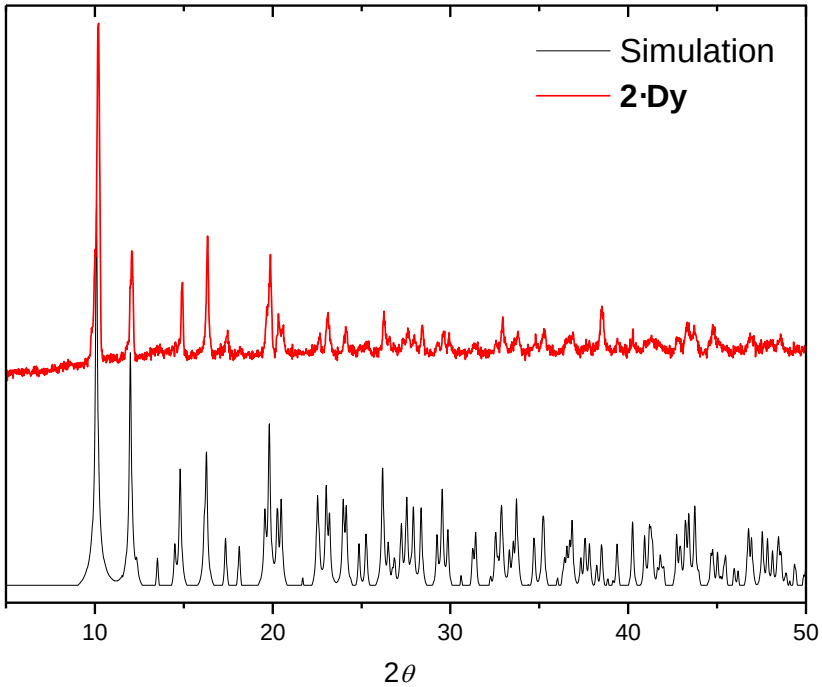

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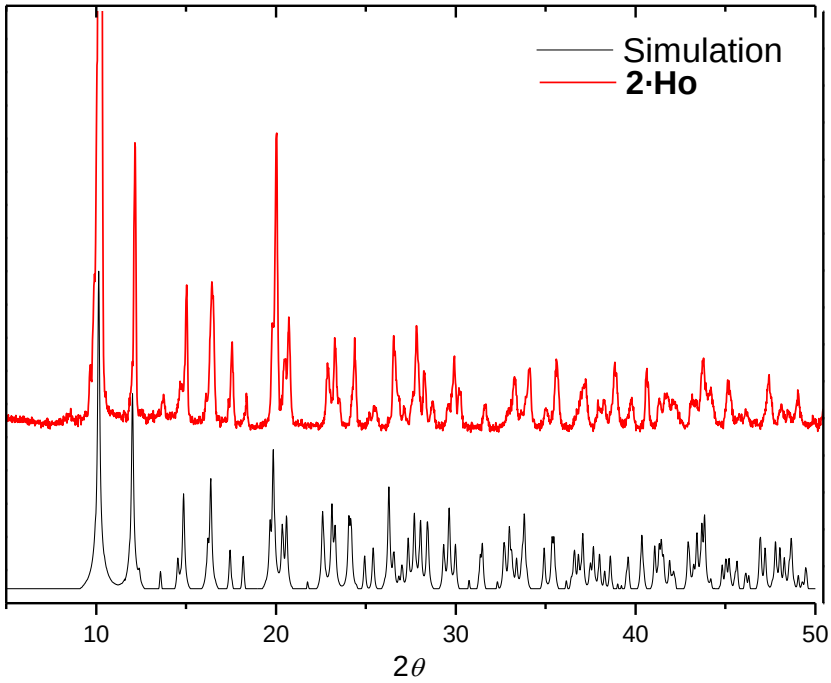

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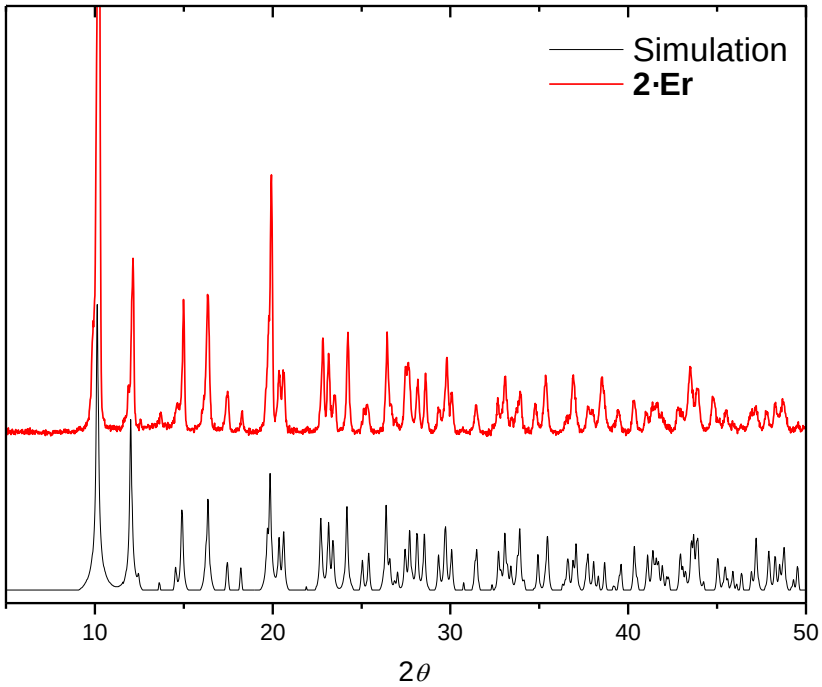

Fig. S2. Simulated PXRD pattern (red) and experimental PXRD pattern of **2·Tb–2·Er.**

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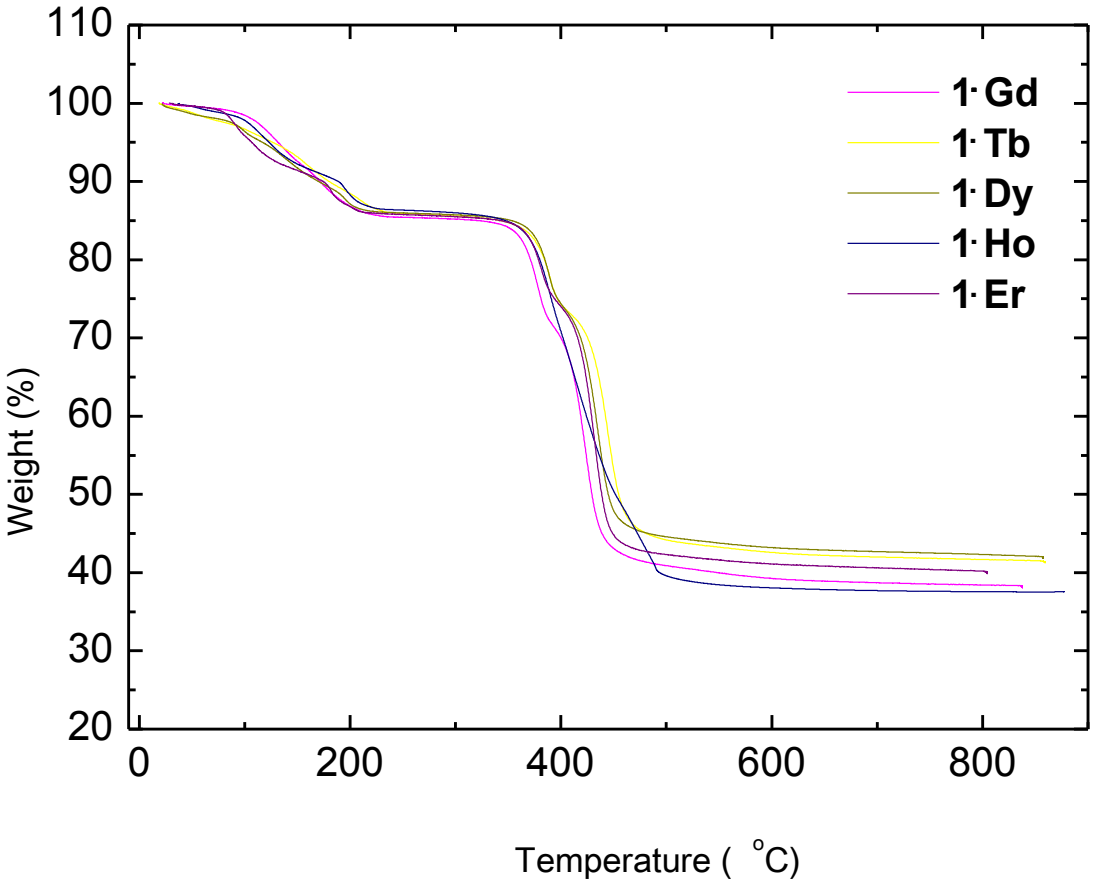

Fig. S3. Thermogravimetric (TG) analysis diagrams of **1·Gd−1·Er**.

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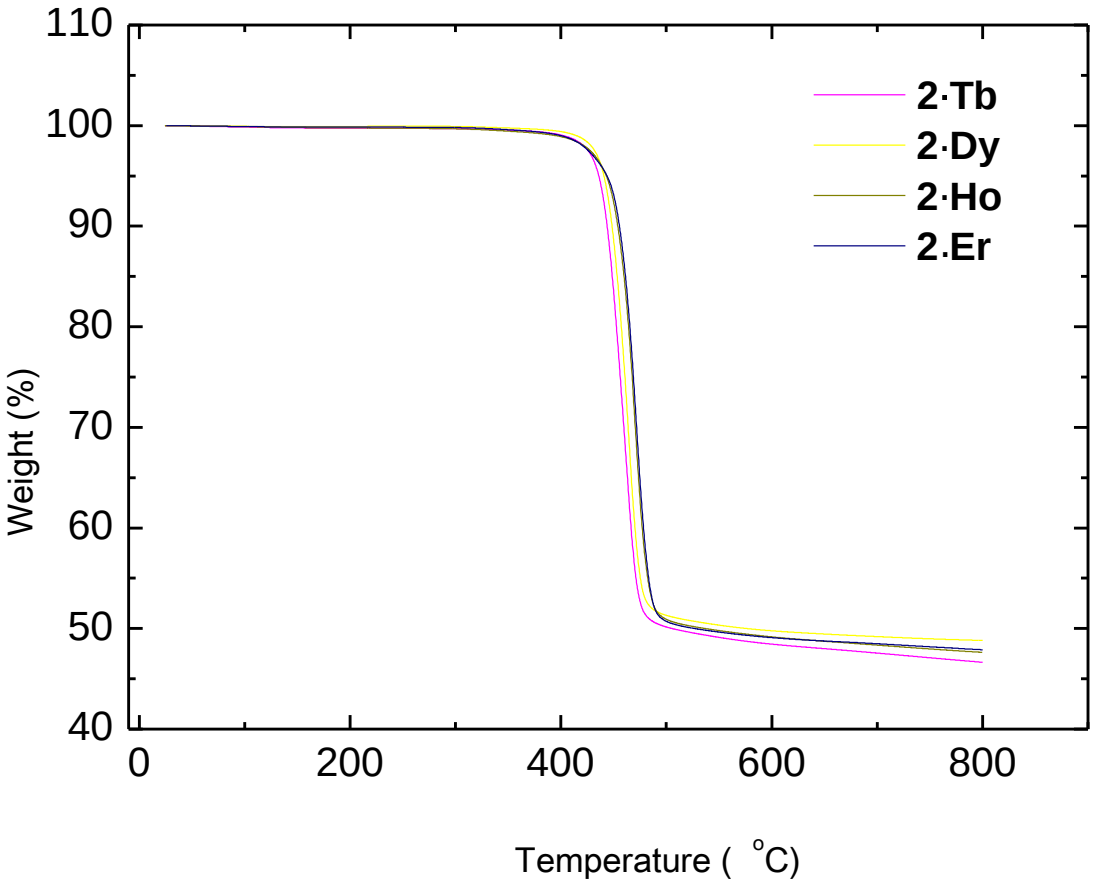

Fig. S4. Thermogravimetric (TG) analysis diagrams of **2·Tb–2·Er**.

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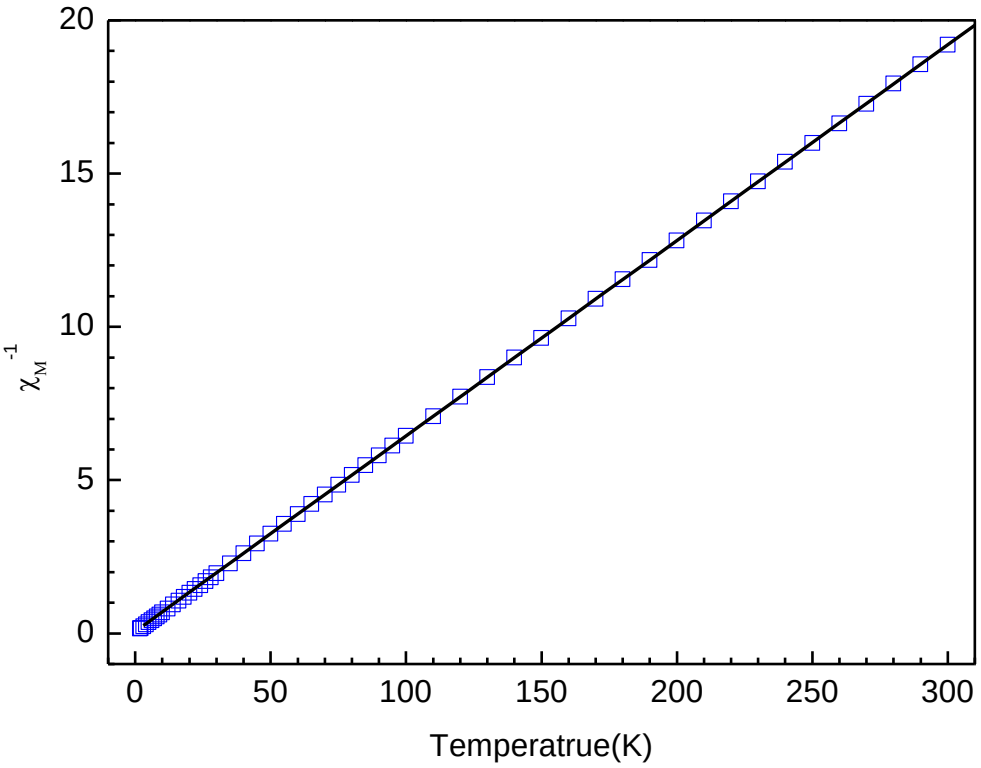

Fig. S5. Plots of χ_M^{-1} vs. *T* for **1·Gd**. The solid line is estimated from the Curie–Weiss law.

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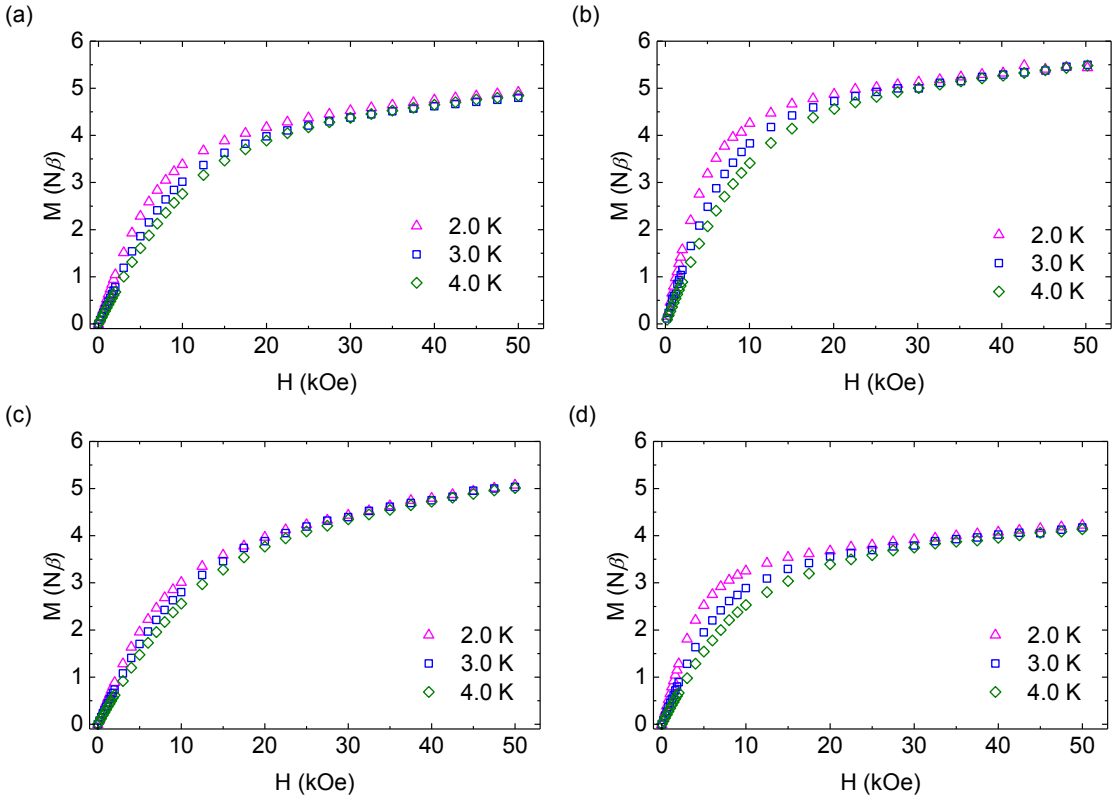

Fig. S4. Magnetization vs. applied field plots at 2.0, 3.0, 4.0 K of (a) **1·Tb**, (b) **1·Dy** (c) **1·Ho** and (d) **1·Er.**

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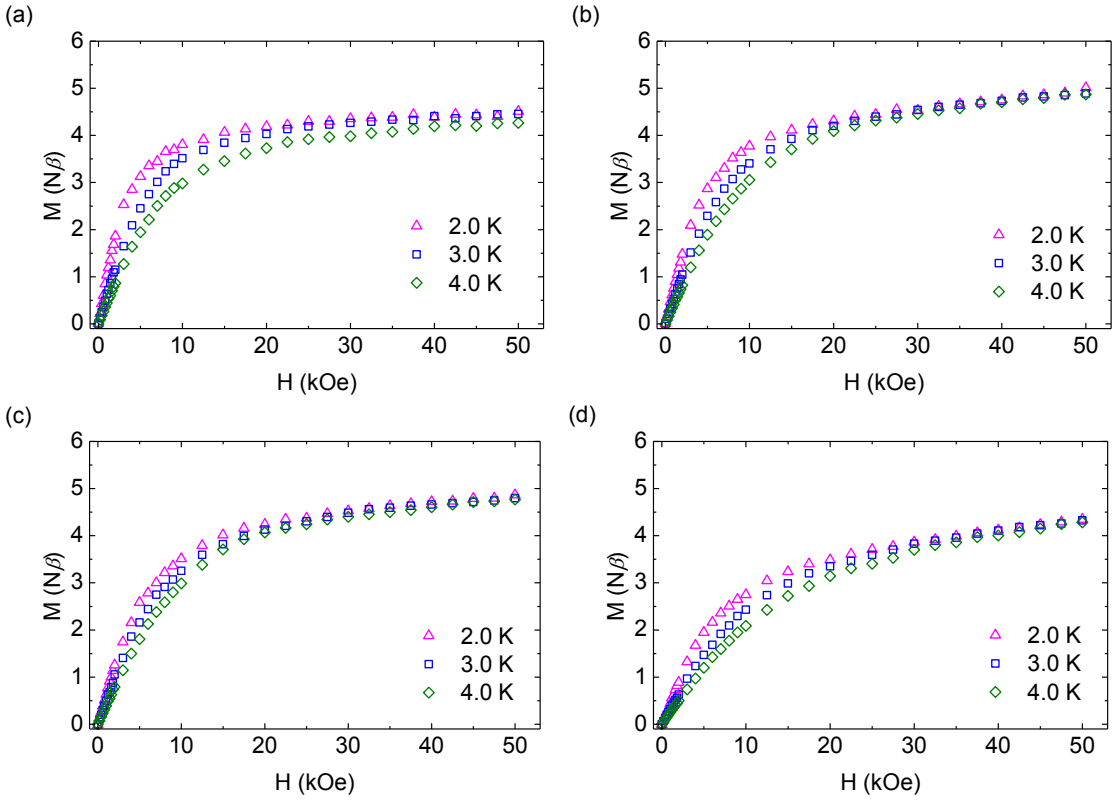

Fig. S5. Magnetization vs. applied field plots at 2.0, 3.0, 4.0 K of (a) **2·Tb**, (b) **2·Dy** (c) **2·Ho** and (d) **2·Er.**

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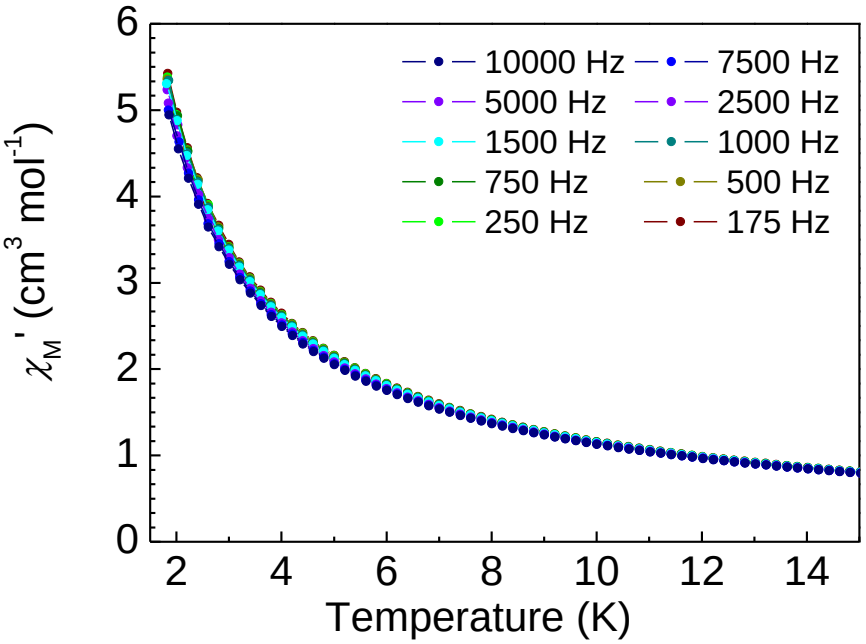
(a)



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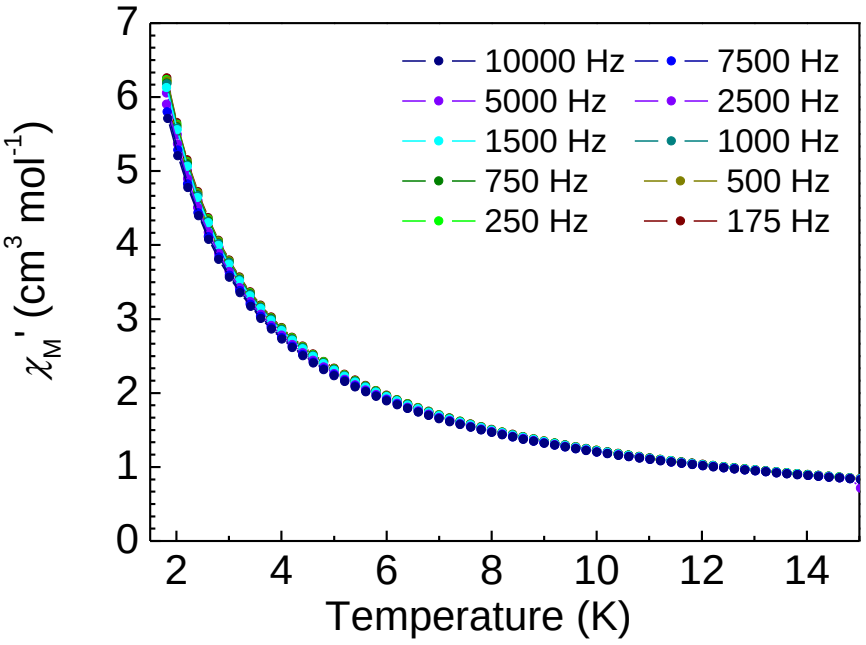

Fig. S6. Plots of χ_M' *vs*. temperature for a powder samples of (a) **1·Dr** and (b) **2·Dy** in a 3.5 G ac field. The data were collected in an ac field oscillating at the indicated frequency.

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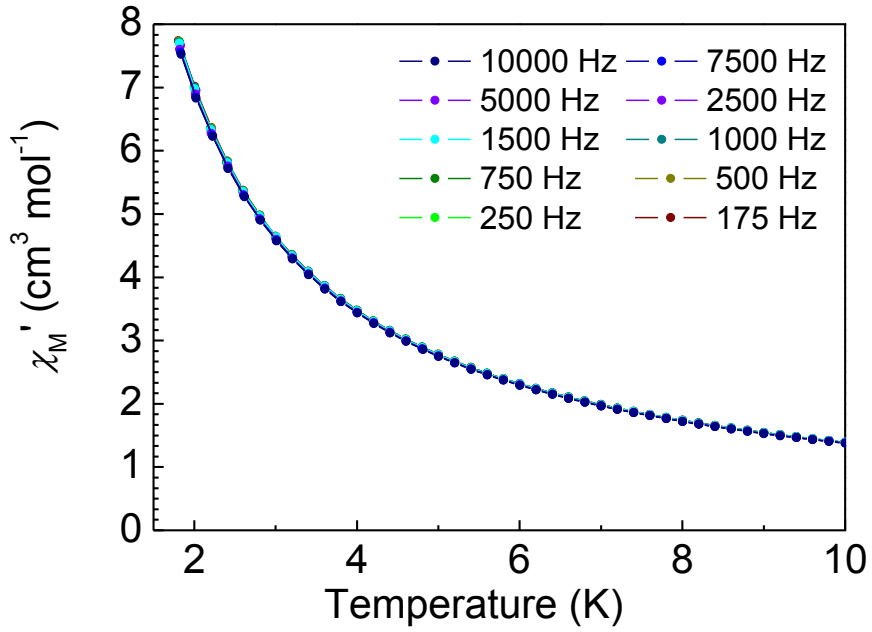
(a)



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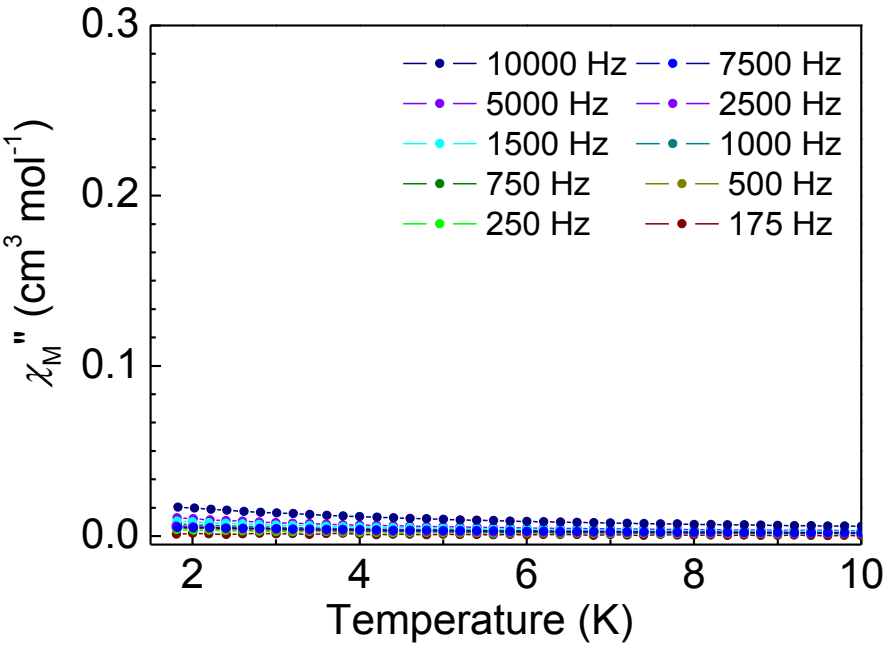

Fig. S7. Plots of (a) χ_M' *vs*. temperature and (a) χ_M'' *vs*. temperature for a powder samples of **1·Gd** in a 3.5 G ac field. The data were collected in an ac field oscillating at the indicated frequency.

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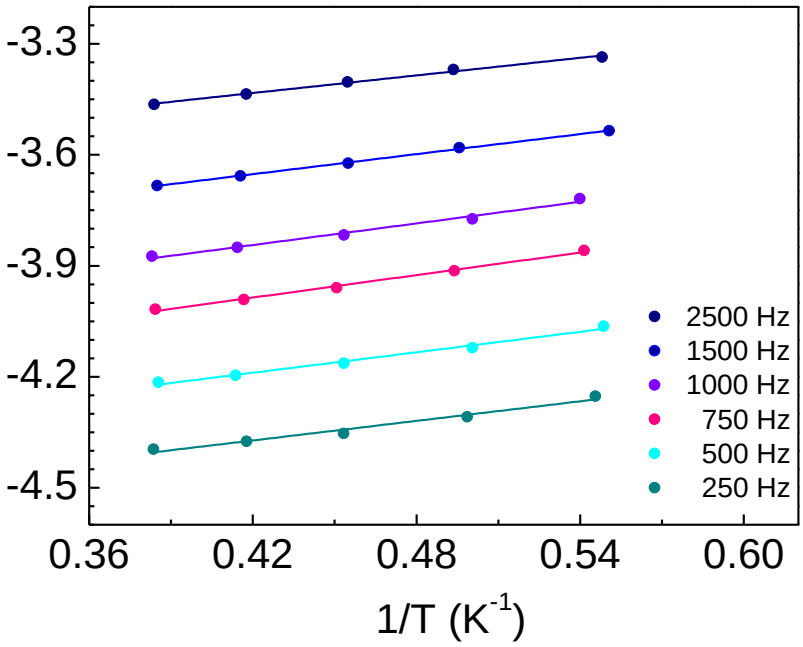
(a)



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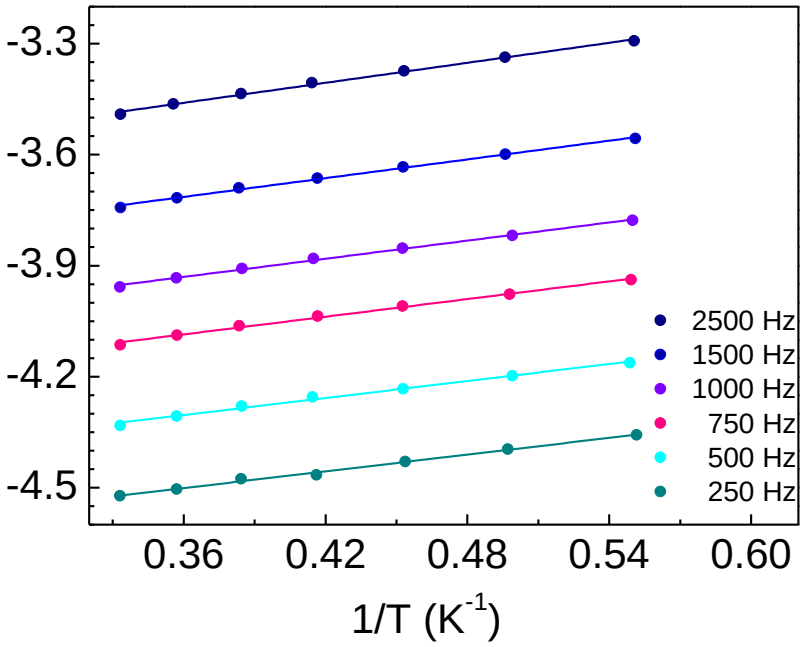

Fig. S8. Plots of natural logarithm of χ''/χ' vs T^{-1} (a) **1·Dr** and (b) **2·Dy**; the solid line represents the fitting in the range of 1.8–3.2 K