

Supporting Information

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Large Spin Coherence Length and High Photovoltaic Efficiency of the Room Temperature Ferrimagnet $\text{Ca}_2\text{FeOsO}_6$ by Strain Engineering

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Supplementary Material

Large spin coherence length and high photovoltaic efficiency of the epitaxial strained room temperature ferrimagnetic $\text{Ca}_2\text{FeOsO}_6$

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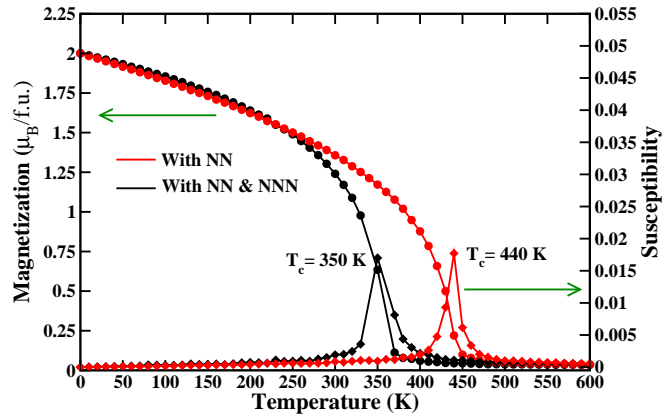


FIG. S1. Temperature dependences of the magnetic susceptibility and total magnetization without strain obtained from classical Monte Carlo simulations, indicating that the critical temperature of the G-FiM phase is 440 K when only the NN couplings are considered and 350 K when both the NN and NNN couplings are considered. The total magnetization rapidly decreases near the critical temperature, indicating a FM-to-paramagnetic phase transition.

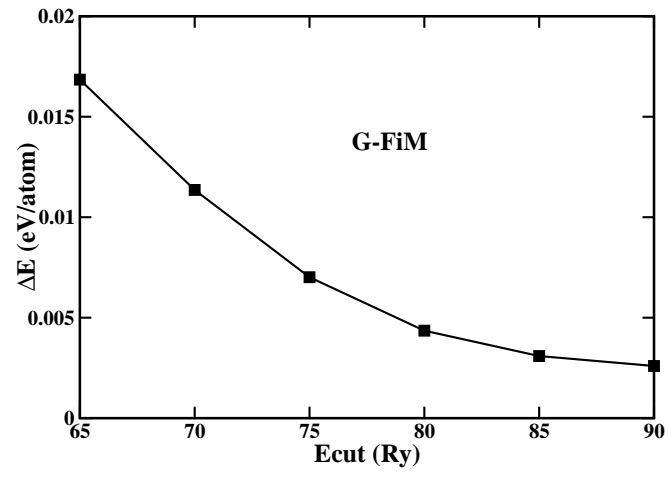


FIG. S2. Total energy convergence with respect to the plane wave cutoff energy.