

Disorder-tuned magnetism and magnetocaloric response in a layered $\text{SrGd}_2\text{Al}_2\text{O}_7$ single crystal

Yang *et al.*

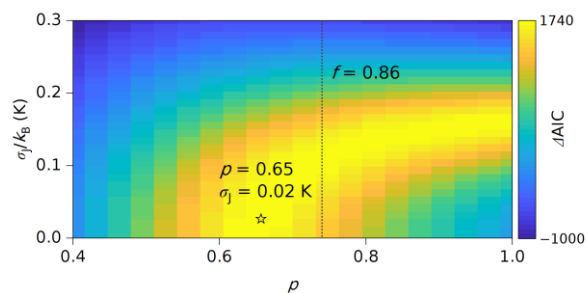


Figure S1. ΔAIC map from the GAB analysis scanning the probability p and the exchange-width σ_j/k_B for fields $\parallel c$. The optimum occurs near $p = 0.65$ and $\sigma_j \approx 0.02$ K (star), close to the crystallographic Sr-Gd mixing fraction ($f \approx 0.86$, Wyckoff 4e).

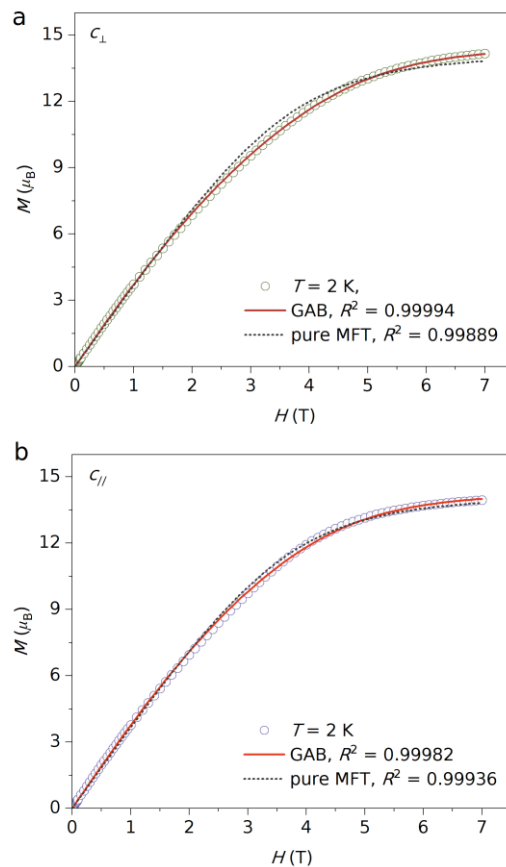


Figure S2. The GAB fitting outperforms pure MFT for the $T = 2$ K isothermal magnetization data in both field orientations (perpendicular and parallel to the c axis), achieving higher R^2 values.