

Specific heat of $\text{Nd}_{1-x}\text{Lu}_x\text{Mn}_2$

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Abstract: Specific heat measurements have been performed on $\text{Nd}_{1-x}\text{Lu}_x\text{Mn}_2$ compounds with x values of 0.0, 0.02, 0.05, 0.10 and 1.0 for temperatures between 1.5 and 300 K in magnetic fields up to 8 T. The electronic and lattice contributions to the specific heat of the isostructural paramagnetic compound LuMn_2 have been taken as a reference for the Nd containing compounds in order to deduce the magnetic and crystal field contributions. By comparing the measured specific heat data with the calculated specific heat contribution from the Nd-ions, the Mn contribution is deduced. The variation of this Mn contribution with x is discussed. ?? 1992.

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