

Tuning of Ferromagnetic Transition by Impurity Doping in $\text{RuSr}_2\text{EuCeCu}_2\text{O}_z$

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We have investigated the effect of impurity doping on the structural and magnetic properties of $(\text{Ru},\text{Sn})(\text{Sr},\text{La})_2\text{EuCeCu}_2\text{O}_z$ samples. We find that Sn substitution for Ru results in a significant decrease of the volume fraction of the ferromagnetic phase as well as a decrease in the temperature where the ferromagnetic component is observed whereas La substitution for Sr leads to an increase in the magnetic ordering temperature with a moderate change of ferromagnetic component. The experimental results are discussed in conjunction with the structural data, transport properties and a possible change of oxygen content.

keywords : $(\text{Ru},\text{Sn})(\text{Sr},\text{La})_2\text{EuCeCu}_2\text{O}_z$, magnetic ordering,, impurity substitution, structure.

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