

Bulletin of the Russian Academy of Sciences: Physics 2010 vol.74 N3, pages 343-346

Mössbauer investigations of magnetic system stratification in europium and thulium ferromanganites

Bashkirov S., Boltakova N., Parfenov V., Nazipov R., Pyataev A., Gabidullin I.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Strontium-substituted ferromanganites of europium and thulium were investigated. Samples of $\text{Eu}_{0.65}\text{Sr}_{0.35}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ and $\text{Tm}_{0.65}\text{Sr}_{0.35}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ were prepared using ceramic processing. Based on the data from X-ray analysis, the samples with europium had a perovskite lattice, whereas the thulium samples were crystallized in an ilmenite lattice. Stratification of the magnetic subsystem was observed in the Mössbauer spectra of certain samples at $T \approx 300$ K. © Allerton Press, Inc., 2010.

<http://dx.doi.org/10.3103/S1062873810030123>
