

Physics of the Solid State 2000 vol.42 N7, pages 1310-1312

Electrical and magnetic properties of lead-substituted lanthanum ferrimanganites

Parfenov V., Bashkirov S., Valiullin A., Aver'yanov A.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The temperature dependences of the electrical conductivity, thermopower, and magnetoresistance for single crystals of lead-substituted lanthanum ferrimanganites are investigated. The data on the magnetic microstructure obtained by Mössbauer spectroscopy are analyzed. An inversion of the magnetoresistance sign with an increase in temperature and the giant positive magnetoresistance are found for one of the samples. The magnetoresistance quadratically depends on the field, and its temperature dependence exhibits a maximum. © 2000 MAIK "Nauka/Interperiodica".
