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## Magnetic microstructure and the electrical properties of rare-earth Fe-substituted cuprates of the 8-8-20 type

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### Abstract

Crystal structure, magnetic microstructure, and electrical properties of cuprates of rare-earth elements with a partial substitution of the atoms of strontium for rare-earth elements (REEs) and iron for copper have been investigated. The detailed analysis of the Mössbauer spectra of cuprates made it possible to assume that the substitution of strontium for REEs in iron-substituted cuprates of neodymium leads to a recharging of part of iron cations, and in praseodymium cuprates, of lanthanide ions. The measurements of electrical conductivity and thermopower of the samples confirmed this assumption. © 2007 Pleiades Publishing, Ltd.

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