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# Room temperature magnetoresistance in $\text{Ba}_2\text{FeMoO}_6$

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## Abstract

The ordered double perovskite  $\text{Ba}_2\text{FeMoO}_6$  has been prepared by solid-state reaction, and investigated by means of the magnetoresistance (MR) and field-dependent magnetization. The temperature dependence of resistivity shows metallic behavior below the ferromagnetic transition temperature. The magnitude of MR is as large as  $-5\%$  with the magnetic field of 0.8 T at room temperature. A qualitative analysis of the observed MR is attempted through a correlation between MR and magnetization. © 2001 Elsevier Science B.V. All rights reserved.

*Keywords:* Magnetoresistance; Magnetic scattering; Spin-dependent scattering; Tunneling

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