



ELSEVIER

Journal of Magnetism and Magnetic Materials 254–255 (2003) 574–576

M Journal of
M magnetism
M and
magnetic
materials

www.elsevier.com/locate/jmmm

Magnetic properties of ordered Perovskite $\text{Ba}_2\text{FeMoO}_6$

H. Han^a, C.S. Kim^b, B.W. Lee^{a,*}

^a*Department of Physics, Hankuk University of Foreign Studies, Yongin, Kyungki 449-791, South Korea*

^b*Department of Physics, Kookmin University, Seoul 136-702, South Korea*

Abstract

Magnetic properties have been investigated for ordered perovskite $\text{Ba}_2\text{FeMoO}_6$. Saturation magnetization is $3.7 \mu_B/\text{f.u.}$ which is consistent with the Fe/Mo ordering of 97% estimated from X-ray refinement. Magnetization could be interpreted as a mixture of ferromagnetic and paramagnetic components. The paramagnetic component has been found to increase substantially with increasing temperature from 21% at 20 K to 55% at room temperature.

© 2002 Elsevier Science B.V. All rights reserved.

Keywords: Magnetization; Magnetic ordering; Perovskite structure
