RELATION BETWEEN MAGNETIC AND ELECTRICAL PROPERTIES OF PEROVSKITES CA0.6PR0.4MN1-YRUYO3

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TÓM TẮT:

Perovskie compouds Ca0,6Pr0,4Mn1-yRuyO3 (y = 0,0; 0,03;0,05; 0,07) were prepared by traditional ceramic technology method using oxides with purity higher than 99,9%. Samples were single phase acccording to X-ray diffraction analyses. Thermalmagneticc plots, temperature depence of sample's resistivity were determined by VSM and four probe method. Electron spin resonance spectra (ESR) were measured by spectrometer JEF-TE300 in X-band (9.2GHz) and temperature range 77K-450K. The conductivity of system in the temperature range 82K-145K is examined in the framework of three conducting models: bad gap (BG), small polaron (SP), variable range hopping (VRH).