Dielectric relaxation in double potassium yttrium orthophosphate $K_3Y(PO_4)_2$ doped by praseodymium and dysprosium ions.

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We report the paper presents the results of electric properties of double potassium yttrium orthophosphates doped by lanthanide ions $K_3Y_{(1-x)}Ln_x(PO_4)_2$ (x = 0.01, 0.05, Ln = Pr^{3+}, Dy^{3+}). Electric permittivity and dielectric loss measurements have been performed on polycrystalline samples in the temperature range −50–120 °C and frequency range 1 kHz–1 MHz by means of HP 4282A impedance meter. The frequency and temperature dependence of electric properties were analyzed by theoretical models of dielectric relaxation in order to obtain information abut molecular dynamic of our solids in external electric field.

Słowa kluczowe

dielectric relaxation, double othophosphate, electric properties

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