Dielectric relaxation and electronic spectroscopy of double potassium yttrium tetraoxophosphate(V) $K_3Y(PO_4)_2$ doped by neodymium and europium ions.

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Streszczenie

The paper presents the results of our investigation on electric properties of double potassium yttrium tetraoxophosphate(V) doped by lanthanide ions $K_3Y_{(1-x)}Ln_x(PO_4)_2$ (x = 0.01, 0.05, Ln = Eu^{3+}, Nd^{3+}). Electric permittivity and dielectric loss measurements have been performed on polycrystalline samples in the temperature range −50 °C to +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 tetraoxophosphate(V), Electric properties, Molecular dynamics

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