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Dielectric property of $Y_{2.7}La_{0.3}Fe_5O_{12}$ ceramics

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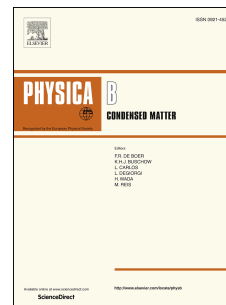
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Dielectric property of $Y_{2.7}La_{0.3}Fe_5O_{12}$ ceramicsH. R. Wu[†], R. X. Ti, Y. Xu, Y. Z. Shan

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Abstract

$Y_{2.7}La_{0.3}Fe_5O_{12}$ ceramics are prepared by conventional solid state method, and dielectric relaxations of $Y_{2.7}La_{0.3}Fe_5O_{12}$ ceramics were investigated systematically. Three sets of dielectric relaxation are observed in the temperature range of 100-450 K, which are due to quantum tunneling effect of electrons, electron hopping between Fe^{2+} and Fe^{3+} , and the migration of oxygen vacancies, respectively.

Keywords: $Y_3Fe_5O_{12}$ ceramics; dielectric property; Raman and IR spectra

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