

Dielectric critical slowing down in pentakis(imidazolium) undecabromodibismuthate(III): $(C_3N_2H_5)_5Bi_2Br_{11}$.

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Streszczenie

Low frequency dielectric dispersion studies have been carried out for the ferroelectric pentakis(imidazolium) undecabromodibismuthate(III)— $(C_3N_2H_5)_5Bi_2Br_{11}$ —single crystal in the paraelectric phase in the radio-frequency region (100 Hz–1 MHz). The dielectric dispersion, observed for an electric field along the *a*-axis (*P* 2₁/*n* space group), is characterized by a polydispersive nature close to the Curie temperature (*T*_c = 155 K). The dielectric dispersion findings were analyzed accurately with the Cole–Cole formula. In the vicinity of the Curie temperature the process of the dielectric critical slowing down is clearly observed. Such a dynamic dielectric response is characteristic of ferroelectric crystals classified as 'order–disorder' type.

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