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Dynamical heterogeneity of $NaNO_2$ confined within porous glasses

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Keywords

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Abstract

Frequency dependences of imaginary part of the dielectric response $\varepsilon'(f)$ of SiO_2–$NaNO_2$ nanocomposite, prepared by embedding of sodium nitrite into porous glasses with 7 nm average pore diameter, have been studied within a temperature range of 360–520 K. It has been found that the spectrum $S(\omega) = \varepsilon'(f)/f$ contains the component $\sim 1/f^a$, where a is a coefficient indicating the dynamical heterogeneity of dipoles. Peculiarities of the temperature dependence of a are discussed.