

Nonlinear dielectric effect in the vicinity of solid–liquid phase transition of 1-decanol.

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The motivation to perform nonlinear dielectric effect (NDE) experiments in the vicinity of the freezing–melting region of 1-decanol was the intention to observe a pretransition anomaly in supercooled liquid, similar to that announced already for nitrobenzene. In the case of 1-decanol the pretransition effects related to supercooling were not observed, but we found interesting NDE behavior in the solid state approaching the melting temperature. To our best knowledge, it is the first time that NDE was measured in the solid state close to solid–liquid phase transition. In our opinion, the observed behavior could be interpreted as an effect of appearance of the rotator phase and premelting.

Adres publiczny

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Strona internetowa wydawcy

<https://www.acs.org/content/acs/en.html>