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IR Fourier spectroscopy study of internal rotation of nitrosubstituted 1,2-diphenylethanes

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Abstract

The IR spectra and internal rotation of 1,2-di-(3,4-dinitrophenyl)ethane in the crystalline phase and solutions were investigated at different temperatures. The thermodynamic parameters of conformational equilibrium were determined. The data obtained were discussed in terms of the reactive field model and compared with the data on 1,2-di-(paranitrophenyl)ethane and 1,2-d--(phenyl)ethane. The presence of the compensation effect in the thermodynamics of conformational equilibria was confirmed.