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Z. Naturforsch. 55a, 616–622 (2000); received January 3, 2000

Effects of pressure on the thermal Z/E isomerization of 4-(dimethylamino)-4′-nitroazobenzene were studied in a silicon oil at various temperatures. The results were compared with the ones previously obtained in glycerol triacetate (GTA) and 2-methylpentane-2,4-diol (MPD). Even in the polymer, pressure effects expected from the transition state theory were obtained at low pressures ($P < 200 \text{ MPa}$). However, as in GTA and MPD, the transition state theory became invalid at higher pressures. For the polymeric liquid, the macroscopic shear viscosity obviously does not suffice for a quantitative description of the microscopic frictions between the reactant and the solvent molecules.

Key words: High-pressure Kinetics; Z/E Isomerization; Dynamic Solvent Effects; Liquid Polymer.