Dynamic Solvent Effects in the Degenerate Isomerization of a Hexafluoroacetone Anil Studied by High-Pressure $^{19}$F NMR

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Z. Naturforsch. 54 a, 417–421 (1999); received April 19, 1999

The rate of the degenerate isomerization of $N$-hexafluoroisopropylidene-$N'$,$N'$-dimethyl-$p$-phenylenediamine was measured by high-pressure $^{19}$F NMR spectroscopy in a viscous hydrocarbon, 2,4-dicyclohexyl-2-methylpentane. Pressure-induced retardations that cannot be rationalized within the framework of the transition state theory (TST) were observed, and it was concluded that the reaction was cast into the TST-invalid nonequilibrium conditions by high pressure.

**Key words:** High-pressure $^{19}$F NMR; High-pressure Kinetics; Hexafluoroacetone Anil; Degenerate Isomerization; Dynamic Solvent Effect.