Influence of Conformational Equilibria upon the Self-Diffusion of the Conformers in Neat Liquids

Liuping Chen and Hans-Dietrich Lüdemann[a]

Institute of Physical Chemistry, School of Chemistry and Chemical Engineering, Zhongshan (Sun Yat-Sen) University, Guangzhou 510275, People's Republic of China
[a] University of Regensburg, Institute of Biophysics and Physical Biochemistry, D-93040 Regensburg

Reprint requests to Prof. H.-D. L.; Fax: 0941-943-2479;
E-mail: Hans-Dietrich.Luedemann@Biologie.Uni-Regensburg.de

Z. Naturforsch. **55 a,** 605–608 (2000); received April 19, 2000

The self-diffusion coefficients D of the isomers of liquid N-isopropyl-N-methylacetamide (IPMAA) and acetylacetone (ACAC) are studied as functions of temperature. For ACAC also pressure dependent studies were undertaken. In IPMAA the cis and trans conformers have almost identical D. In liquid ACAC, D_{Keto} is always smaller than D_{enol}, this difference being 15% around 300 K.

Key words: Conformers; Self Diffusion; Neat Liquids; Pressure.