

***pK_a*s in Dicarboxylic Acids by Constant-*pH* Molecular Dynamics Simulations**

M. Długosz and J. M. Antosiewicz

Department of Biophysics, Warsaw University,
Warsaw 02-089, Poland

Reprint requests to Dr. J. M. A.;
e-mail: jantosi@biogeo.uw.edu.pl

Z. Naturforsch. **59a**, 873 – 874 (2004);
received May 19, 2004

A method for performing constant-*pH* molecular dynamics, where *pH* is one of the external parameters of the solution, is applied for computation of protonation equilibria in a series of small dicarboxylic acids. Proton dissociation constants for succinic, glutaric, adipic and cork acids were determined. Very good agreement with experimental measurements is achieved.

Key words: *pK_a*; Constant-*pH* Molecular Dynamics;
Dicarboxylic Acid.