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Acoustical and Thermodynamic Properties of Some Antibiotic Drugs at 2 MHz by Ultrasonic Interferometry- A Comparative Study

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Abstract: *Density, viscosity and ultrasonic velocity measured experimentally for the aqueous solutions of ceftriaxone sodium, cefotaxime sodium and ampicillin sodium with different concentrations and temperature and 2MHz frequency. Acoustical and thermodynamic parameters such as Wada's constant, Rao's constant, relative association, specific acoustic relaxation time, free volume, adiabatic compressibility, intermolecular free length, specific acoustic impedance and apparent molar volume determine from experimental data. The results have been interpreted to comparative study of molecular interactions in the aqueous solution of Ceftriaxone sodium, Ampicillin sodium and Cefotaxime sodium.*

Keywords: ceftriaxone sodium; cefotaxime sodium; ampicillin sodium; acoustical thermodynamic parameters; molecular interaction

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