

SPECTROSCOPIC AND THERMODYNAMIC STUDY OF AQUO-ORGANIC SOLVENT SYSTEMS

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Each of the solvents methanol, ethanol and isopropanol was mixed with water in varying proportions. The behaviour of these mixtures were probed using the U. V. absorption spectrum of the iodide ion.

The variation of the peak maximum (E_{\max}) of the iodide ion in the solvent mixtures with mole fraction (x) can be described using the equation:

$$E_{\max}^2 = ax^2 + bx + c$$

where a, b and c are constants.

The deviation from the theoretical behaviour is attributed to structural effects of the solvents. Thermodynamic parameters are used to explain these structural effects.