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Study of Solvent Effects on Hydrolysis of Mono-*m*-toluidine Phosphate

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Abstract: The study of solvent effects on the hydrolysis of mono-*m*-toluidine phosphate has been carried out in 1, 4 dioxane/water and DMSO/water binary systems at various compositions. The pseudo first order rate constants have been determined. The rate of reaction increases with increase in percentage of 1, 4 dioxane and DMSO from 10 to 50% (v/v) at different temperatures. The activation parameters (ΔH^\ddagger , ΔG^\ddagger , ΔS^\ddagger) have been calculated. The results obtained have been explained on the basis of solute-solvent interaction, solvent of the transition state of the medium.

Keywords: Hydrolysis, Solvent effects, Mono-*m*-toluidine phosphate, Solvent-solute interaction, Activation parameters.

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