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The Protonation Constants of Some Aliphatic Alkylamines in ethanol-water Mixtures

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Keywords Authors <u>Abstract:</u> Protonation constants of methyl-, ethyl-, propyl- and butylamines Were determined potentiometrically using an electrode system calibrated in concentration units of hydrogen ion in ethanol-water mixtures (10% -80% ethanol, v/v) at an ionic strength of 0.1 and at 25°C. The trend in the values of protonation constants of these aliphatic amines was explained in terms of the number of alkyl groups and solvent composition. The basicity orders were found to be $NH_3 < R_3N < RNH_2 < R_2NH$ (R:-CH₃, - C₂H₅, -n-C₃H₇ and --n-C₄H₉) in all the solvent mixtures studied.



Key Words: Aliphatic amines, potentiometry, protonation constant, ethanol-water mixtures.

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