Potentiometric and pHmetric studies of paracetamol

Swaroopa Rani N Gupta
Brijlal Biyani Science College, India

Acid-base titration of paracetamol in nonaqueous solvents was done. Procedure was followed for titration of paracetamol in different media like acetic acid, pyridine, dimethylformamide and ethyl alcohol with standard perchloric acid in glacial acetic acid, sodium ethoxide in ethyl alcohol using platinum-calomel as well as glass-calomel electrode system. The equivalence point was located as accurately as possible by a differential graph of $\Delta E/\Delta V$ or $\Delta pH/\Delta V$ against $V$ and concentration of test solution was computed. The acid-base titration of paracetamol is rapid and reproducible, and permits its determination in medicinal sample. The electrode systems vary with the solvent employed. The platinum-calomel electrode system is suitable where the solvent is glacial acetic acid in this case perchloric acid in glacial acetic acid is the titrant while the glass-calomel electrode system is suitable where the solvent is either pyridine, an alcohol or dimethylformamide, the titrant consists of sodium ethoxide in ethyl alcohol.

Biography

Swaroopa Rani N Gupta has done Ph.D. in Chemistry from Nagpur University, Maharashtra, India in 1993. She is an Associate Professor in the Department of Chemistry, Brijlal Biyani Science College, Amravati, Maharashtra, India. She has published more than 15 papers in reputed international journals; she has presented papers at Inter National conferences at India, Singapore, London, Dubai, Hong Kong, Mauritius, Tashkent and has been serving as Technical committee member of International Conferences at Singapore, U.K., Dubai, Hong Kong, Mauritius, Korea, Turkey, New Zealand etc. She wants to explore world through great research interest in all aspect of world problem.