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Polarographic study of meta-hydroxy acetanilide and its determination

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Present paper deals with polarographic study of effect of maxima suppressors and supporting electrolytes on anodic waves of meta-hydroxy acetanilide and polarographic determination of meta-hydroxy acetanilide under optimum concentration of maxima suppressors and supporting electrolytes. The polarographic method has been developed to study qualitatively the effect of maxima suppressor (fuchsin) and supporting electrolyte (nitric acid) on oxidation wave of meta-hydroxy acetanilide. Polarograms of system were recorded from 500 to 1300 by using Rotating Platinum Micro Electrode as anode and Saturated Calomel Electrode as cathode on DC Recording Polarograph using Omniscribe recorder. It shows a similar behavior to that observed for paracetamol. It produces anodic wave at rotating platinum electrode. The oxidation yields the 3-N-acetylaminosemiquinone and represents a reversible reaction. Polarographically a value of 900 mV is found for decomposition potential of meta-hydroxy acetanilide and wave analysis point to one electron step for each wave. Waves of meta-hydroxy acetanilide are only proportional to concentration at low concentrations.

Biography

Swaroop Rani N Gupta has done PhD in Chemistry from Nagpur University, India in 1993. She is an Associate Professor in the Department of Chemistry, Brijlal Biyani Science College, India. She has published more than 15 papers in reputed international journals. She has presented papers at international conferences at India, Singapore, London, Dubai, Hong Kong, Mauritius, Tashkent and she has been serving as a Technical Committee Member of international conferences at Singapore, UK, Dubai, Hong Kong, Mauritius, Korea, Turkey, New Zealand, etc.

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