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Quantitative analysis of micelle-catalyzed reaction between [Cu (II)-gly-leu] [±] complex with ninhydrin

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In the present paper, the kinetics of interaction of dipeptide glycyl leucine (Gly-Leu) metal complex, [Cu(II)-Gly-Leu]⁺ with ninhydrin has been studied by following the reaction spectrophotometrically at 70°C and a specific pH 5.0 in the absence and presence of conventional cetyltrimethylammonium bromide (CTAB). The order of the reaction with respect to [Cu (II)-Gly-Leu] ⁺ was unity while concerning [ninhydrin] was fractional. Furthermore, the reaction constants involved in the mechanism were obtained and experimental results have been derived on the basis of the proposed mechanism. Quantitative kinetic analysis of k_ψ-[CTAB] data was explained in terms of pseudo-phase of the micelles.

Biography

Neelam Hazoor Zaidi is working as a Senior Lecturer at UPSM & HS, Fiji. She has done BSc. (Hons.), MSc., and PhD in Chemistry from Aligarh Muslim University, Aligarh, UP, India and having more than 15 years of teaching and research experience in universities including 10 years at Fiji National University. In addition, she also worked for two years as Post Doctorate Research Fellow in Nanotechnology project at Indian Institute of Technology Delhi, sponsored by Council of Scientific and Industrial Research (CSIR-HRDG)-New Delhi, India. She has published numerous research papers in reputed Schimago and Scopus ranked international journals and also published book Chapters. Her area of research expertise are Physical chemistry, Biochemistry, Colloids & Surface Science, Micellar Growth, Forensic Sciences, Peptide and Protein kinetics, Catalysis, Nanotechnology, Quantum dots, Bio conjugation etc.

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