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Kinetics and mechanism of oxidation of some amino acids by peroxodisulfate

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In this study two amino acids were chosen (DL alanine, DL serine) to determine their effect on dissociation of $S_2O_8^{-2}$ ion. As the reaction was very slow, Ag^+ ion was used as a catalyst. The kinetics measurement showed that the reactions in both cases were found in the first order with respect to $S_2O_8^{-2}$, half order with respect to Ag^+ and zero order with respect to substrates. Mechanisms were proposed for these reactions according to the determined orders. The energy of activation (AE) was determined for each reaction and was found to be 30.50 $kJmol^{-1}$ in case of DL serine and 24.40 $kJmol^{-1}$ in case of DL alanine.

Biography

Abelmahmod Saad has completed his PhD from Al Neelain University. He is currently the Dean of Faculty of Applied Sciences, Red Sea University in Sudan. He has published more than 10 papers in reputed journals.

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