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Oxidation of Dipeptide Glycylglycine By PMS In Aqueous Medium And Comparison With Monomer Glycine: A Kinetic And Mechanistic Study

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ABSTRACT

The kinetics of oxidation reactions of dipeptide Glycylglycine (GG) by Peroxomonosulphate (PMS) in aqueous medium, under the condition (PMS) \ll (GG) at different temperatures (313 – 323 K), to produce an aldehyde, and ammonia were studied. Perusal of the kinetic results showed that the first order dependence in [PMS] and fractional order dependence in [GG]. The effect of ionic strength and Acetonitrile (ACN) on rate was studied and thermodynamic parameters were also calculated. Michealis Menten type mechanism was proposed.

Keywords: The kinetics of oxidation reactions of dipeptide Glycylglycine, the effect of ionic strength, thermodynamic parameters.
