



**Kinetics and Mechanism of L-Histidine by Mn(III)  
in Pyrophosphate Medium**

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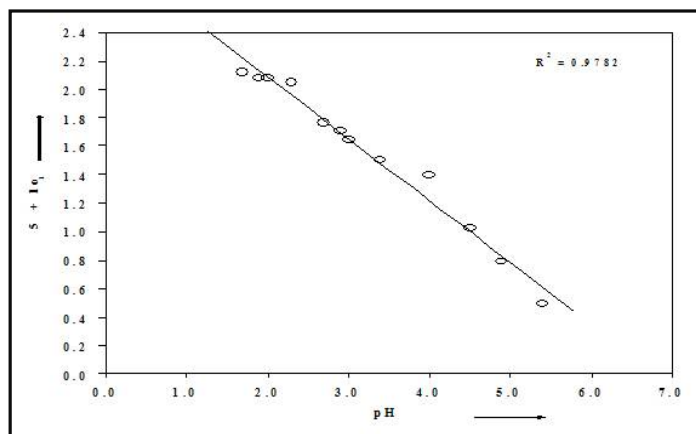
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**ABSTRACT**

*Kinetics of oxidation of L-Histidine by manganese(III)pyrophosphate has been studied in pyrophosphate medium. The reaction shows first order dependence on Mn(III) Py<sub>3</sub>, L-Histidine and fractional order with respect to [H<sup>+</sup>]. The rate of oxidation decrease dielectric constant of solvent suggesting ion- dipole interaction. Addition of MnSO<sub>4</sub> and Na<sub>4</sub>P<sub>2</sub>O<sub>7</sub> shows retarding effect on rate of reaction. Activation parameters have been evaluated. A mechanism consistent with experimental observations has been proposed.*

**Graphical Abstract**



Variation of rate with pH log k<sub>1</sub> v/s pH.

**Keywords:** Kinetics, Oxidation, L-Histidine, Manganese(III) Pyrophosphate.