



Synthesis of Radical Cation of Promethazine by Electrochemical Oxidation of Promethazine HCl, Free radical scavenging and Antibacterial Application

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ABSTRACT

Promethazine HCl was oxidized electrochemically in presence of platinum electrodes as cathode and anode. The rate constant for the formation of the oxidized compound was calculated by first order plot. The rate of formation of oxidized compound increases with increase in concentration of promethazine HCl. The reaction mechanism for the formation of oxidized compound was proposed. The oxidized product has been characterized by Ultra-violet, Infrared, Mass spectroscopy, NMR and ESR techniques. The antibacterial activity and antioxidant assay has been performed for both promethazine and oxidized compound.

Keywords: Electrochemical oxidation, Promethazine HCl (PMZ), Oxidized compound (PMZ)
