

SYNTHESIS AND EVALUATION OF ANTI-CORROSIVE BEHAVIOR OF SOME SCHIFF BASE DERIVATIVE

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ABSTRACT

Corrosion is derived from the Latin word “corrosus” meaning away. It can be defined as “the destruction or deterioration and consequent loss of metals through chemical or electrochemical attack by the environment”. The process of corrosion is the transformation of pure metal into its undesired metallic compounds. The life time of metal gets shortened by the corrosion process. Most metals [except noble metals] occur in the form of their compounds such as **oxides, sulfides, carbonates, chlorides**, etc. The extraction of metals from their ores is an endothermic process, energy being supplied in the form of heat or electrical energy. Pure metals are relatively at higher energy state compared to their corresponding ores and they have a natural tendency to revert back to their combined state. Therefore, the metals combine with the environment and get converted into their compounds. Thus corrosion of metals can be considered as extractive metallurgy in reverse. Corrosion is breaking down of essential properties in a material due to reactions with its surroundings. Corrosion also includes the dissolution of ceramic materials and can refer to discoloration and weakening of polymers by the sun's ultraviolet light. To synthesis series of a Schiff bases from 4-amino antipyrine and different aromatic aldehyde ie, **furfuraldehyde, salicylaldehyde** and **anisaldehyde**. The 4-amino antipyrine as a effective inhibitors. it was found that the adsorbed inhibitors accounts for protecting the metal from corrosive medium and modifying electrode reactions resulting in the dissolution of the metals.the weight-loss measurements and electrochemical studies have the same tendency to explain about metal deterioration.

KEYWORDS: Corrosion Process, Sulfides, Carbonates, Chlorides, Furfuraldehyde, Salicylaldehyde, Anisaldehyde