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IN SITU, ELECTROPOLYMERIZATION OF EUGENOL IN BASIC MEDIUM. APPLICATION TO STAINLESS STEELS CORROSION INHIBITION.

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The corrosion of metals present a major problem of the chemical. It destroys the fourth annual production of metals. What struck on the natural and economic resources. In addition, the harmful impact on the environment and health.

The electropolymerization *in situ* of eugenol gives rise to an insulating polymer. The heat treatment improves the homogeneity of the polymer and its adhesion to the electrode. A mechanism for the formation of poly-eugenol is proposed. The formation of the polymer leads to a decrease of cathodic and anodic currents. The reaction rates of oxygen reduction and dissolution of the steel were remarkably reduced.