**ABSTRACT**

The corrosion inhibition behaviour of two synthesized Mannich bases has been investigated for mild steel in 1M H2SO4 by weight loss and electrochemical techniques.The inhibition efficiency depends on concentration of the inhibitor and temperature. The inhibitors function by adsorption on mild steel surface and obey Langmuir isotherm indicating monolayer adsorption on the surface. Thermodynamic parameters show that the adsorption of the inhibitors occurs through electrostatic interaction. Polarization studies reveal that the inhibitors behave as mixed type in 1M H2SO4 affecting both anodic metal dissolution and cathodic hydrogen evolution. SEM studies show the formation of surface adsorptive film of the Mannich bases on the mild steel surface.