**ABSTRACT**

Gum exudates of Azadirachta indica (GAI) has been investigated as green corrosion inhibitor for mild steel (MS) in 1N H2SO4 medium using weight loss method at 303K. The influence of semicarbazide (SC) on the inhibition performance of GAI for MS corrosion in 1N H2SO4 medium was also studied at 303-323K. Polarization and impedance studies were also performed for optimum concentration of GAI, SC and their mixture. The inhibiting potency of GAI on MS increases with increasing concentration and decreases with rise in temperature. But in the presence of SC, efficiency of GAI was significantly increased to a greater percentage and their synergistic parameter value > 1 confirms the existence of synergism between GAI and SC. Adsorption of GAI on MS obeys Langmuir’s isotherm model and physisorption is proposed from its activation parameters obtained from gravimetric methods.