**Abstract**

The corrosion behaviour of mild Steel in 1M Sulphuric acid solution and its inhibition by pyrazolines was studied using weight-loss method at various temperatures(303-333k), electrochemical techniques, and gasometric method. The data revealed that the pyrazolines act as good inhibitor in the acid environment. The percentage inhibition efficiency of pyrazoline increased with increase in inhibitor concentration. Potentiodynamic polarization studies reveal that the pyrazolines act as anodic type inhibitors. Adsorption on the mild steel surface followed Langmuir adsorption isotherm. The thermodynamic parameters such as activation energy(Ea) and free energy of adsorption(ΔGads) were calculated. The synergistic effect of iodide ions on the performance of one of the pyrazolines was also studied.