**ABSTRACT**

The inhibiting effect of two synthesized quinolone Schiff bases(SB1& SB2) on mild steel corrosion in 1M H2SO4 was evaluated using weight loss and electrochemical measurements. The Schiff bases reduce the corrosion of mild steel. The efficiency was concentration and temperature dependent. Polarization studies indicated that the Schiff bases are mixed type inhibitors and they function by adsorption obeying Langmuir isotherm. Quantum chemical studies showed that the inhibition efficiency correlated well with the EHOMO, energy gap and total energy. Fukui function analysis through DFT calculations were used to predict the possible centres for adsorption and inhibition.