**ABSTRACT**

The anti corrosive property of *Rosa damascena* (RD) leaves on mild steel in 0.5M sulphuric acid was analysed by mass loss techniques, impedance and polarisation studies. A maximum of 92.92 % inhibition efficiency was reached by using 12v/v % of RD inhibitor. Thermodynamic parameter specifies spontaneous adsorption of the inhibitor on mild steel surface. The adsorption of *Rosa damascena* inhibitor on mild steel surface was found to follow Langmuir adsorption isotherm. Surface analytical techniques validate the formation of protective layer on the inhibitor.