**ABSTRACT**

2-ethoxy-4-(4-phenyl-2, 3-dihydro-1, 5-benzothiazepin-2-yl) phenol (EPBTZ) and 2-(4-methoxyphenyl)-4-phenyl-2, 3-dihydro-1, 5-benzothiazepine (MPPBTZ) were synthesized by the condensation reaction between o-aminothiophenol and chalcone. The synthesized benzothiazepines were characterized by FTIR spectra. Their corrosion inhibition property on mild steel in sulphuric acid medium was investigated by weight loss and electrochemical techniques. Scanning electron microscopic studies were employed to examine the surface morphology of the inhibited and uninhibited metal samples. The compound EPBTZ revealed good corrosion protection property than MPPBTZ at all the temperatures studied. Electrochemical studies showed that the inhibitors behave as mixed type inhibitor retarding both cathodic and anodic corrosion reaction by forming an adsorbed protective layer.