

## OXIDATION BEHAVIOR OF SAE-1053 ALLOY IN PRESENCE OF SEAWATER

### **Abstract**

The oxidation behavior of steel SAE-1053 alloy were investigated in presence of seawater at atmospheric condition. The rate of corrosion was varied with the water movements and the aeration. The scale morphologies were determined by SEM. After immersed in seawater, the alloy surface of incomplete recrystallisation shows thick, loose and porous deposits. The various elements were characterized by using energy-dispersive X-ray spectroscopy (EDS) analysis. The main constituents were found such as FeO, in addition to Na O, MoO and MnO.