

Oxidation Behaviour Of AISI-304 Steel In The Presence Of Na_2SO_4 And $\text{Fe}_2(\text{SO}_4)_3$
At 973 K

Abstract

The high temperature oxidation behaviour of AISI-304 austenitic steel was studied in the presence of Na_2SO_4 , $\text{Fe}_2(\text{SO}_4)_3$ or a mixture at 973 K in flowing air. The studies were carried out to examine the influence of eutectic and solid phases present in the $\text{Na}_2\text{SO}_4 + \text{Fe}_2(\text{SO}_4)_3$ systems on the hot corrosion of AISI-304 steel which is extensively employed as a high temperature structural alloy. The scale morphologies were determined on the basis of X-ray diffraction analysis and scanning electron microscopy.