

Investigation of Biocorrosion in Brass by *Arthrobacter sulfureus* in Neutral Medium

Authors : Ramachandran Manivannan, B. Sakthi Swaroop, Selvam Noyel Victoria

Abstract : Microbial corrosion of brass gauze by the aerobic film forming bacteria *Arthrobacter sulfurosus* in neutral media was investigated using gravimetric studies. Maximum weight loss of 166.98 mg was observed for a period of 28 days of exposure to the bacterial medium as against the weight loss of 13.69 mg for control. The optical density studies for the bacterial culture was found to show attainment of stationary phase in 48 h. Scanning electron microscopy analysis of the samples shows the presence of pitting corrosion. The energy dispersive X-ray analysis of the samples showed increased oxygen and phosphorus content in the sample due to bacterial activity.

Keywords : *Arthrobacter sulfureus*, biocorrosion, brass, neutral medium

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