

### 论文

有色金属涂层及其封闭层的海水腐蚀性能

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摘要:

介绍了金属涂层、金属涂层+封闭层等9种涂装体系在国内三个站静海全浸、潮差、飞溅区海水腐蚀性能的研究.结果表明: Al、Zn涂层及Zn-Al涂层+封闭层、Al涂层+842+546环氧沥青漆复合涂装体系具有良好的防护效果.试验分析表明: 涂层防护效果主要与材料在海水中的电极电位、涂层孔隙率以及材料性能密切相关.

关键词: 金属涂层 封闭层 屏蔽性

SEA WATER CORROSION PERFORMANCE OF NONFERROUS METALLIC COATINGS WITHOUT AND WITH SEALANT ON STEEL AND CAST IRON

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Abstract:

Studies of the sea water corrosion performance of 9 kinds of nonferrous metallic coatings without and with sealants on carbon steel and cast iron in the static-full immersed zone, tidal zone and splashing zone distributing in the three domestic sea areas are briefly introduced, then reasons leading to their corrosion resistance are analyzed in detail based on experimental results, which show that corrosion resistance in seawater for coatings of spraying aluminum, spraying zinc, spraying aluminum-zinc with sealants, and spraying aluminum+842+546 epoxy painting are prior to the others. Analysis of experimental results indicates that the corrosion resistance of coatings is well related to electrode potentials of materials in seawater, porosity of coatings, and performances of materials.

Keywords: metallic coatings sealants shielding property

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