

论文

环境因素对复合材料力学性能的影响

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摘要:

以3234/G827 碳纤维增强复合材料为研究对象,利用正交试验的方法,选定三因素三水平的试验条件对复合材料进行盐水浸泡腐蚀试验.根据所取的3个环境因素即盐水浓度、溶液温度和浸泡时间,确定对复合材料力学性能影响最显著的因素是溶液温度.

关键词: 碳纤维增强复合材料 腐蚀失效 溶液浸泡

INFLUENCE OF ENVIRONMENTAL FACTORS ON THE MECHANICAL PROPERTIES OF COMPOSITES

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Abstract:

Carbon/epoxy composites were studied in this paper. In order to find the most important factors which could destroy the performance of the composite materials, corrosion tests were carried out by means of immersion. The test conditions were decided by the orthogonal tests of three factors i.e. temperature, concentration and the test period. The results showed that the immersion deteriorated the properties of composites, as well as that the solution temperature was the most important factor among the three factors.

Keywords: carbon/epoxy composites corrosion immersion

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