



航空学报 » 1985, Vol. 6 » Issue (3) : 258-266 DOI:

论文

[最新目录](#) | [下期目录](#) | [过刊浏览](#) | [高级检索](#)

[<<](#) [<](#) [前一页](#) | [后一页](#) [>](#) [>>](#)

铝-硅涂层中Si的分布及作用

蔡玉林, 郑运荣, 莫龙生, 杨忠林

北京航空材料研究所

DISTRIBUTION AND EFFECT OF SILICON IN Al-Si COATINGS

Cai Yulin, Zheng Yunrong, Mo Longsheng, Yang Zhonglin

Beijing Institute of Aeronautical Materials

摘要

参考文献

相关文章

Download: [PDF \(1205KB\)](#) [HTML 0KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要

本文研究了Al-Si涂层中Si的分布和存在形式,揭示了含Si的铝化物涂层中形成的富Si的M₆C隔层,它阻碍铝化物涂层中Al和Si向内扩散,从而提高涂层的抗高温氧化能力。利用预处理法可使Al-Si涂层预制成富Si的M₆C隔层,进一步提高它的防护能力。

关键词:

Abstract:

Investigation of distribution and existence mode of silicon in Al-Si coatings has been carried out. It reveals that a Si-rich barrier may be formed between the Si-containing aluminide coating and substrate. The barrier impedes diffusion of Al and Si in the aluminide coating into the substrate, therefore the resistance of the coatings to oxidation at high temperature is improved. Pretreatment enables the Si-rich barrier to be preformed in the Al-Si coatings. Consequently the protective capability of the Al-Si coatings is enhanced.

Keywords:

Received 1984-09-03;

引用本文:

蔡玉林; 郑运荣; 莫龙生; 杨忠林. 铝-硅涂层中Si的分布及作用[J]. 航空学报, 1985, 6(3): 258-266. DOI:

Cai Yulin; Zheng Yunrong; Mo Longsheng; Yang Zhonglin. DISTRIBUTION AND EFFECT OF SILICON IN Al-Si COATINGS[J]. Acta Aeronautica et Astronautica Sinica, 1985, 6(3): 258-266. DOI:

Service

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [Email Alert](#)
- ▶ [RSS](#)

作者相关文章

- ▶ [蔡玉林](#)
- ▶ [郑运荣](#)
- ▶ [莫龙生](#)
- ▶ [杨忠林](#)