

### 论文

#### Mg及其合金的阳极氧化技术进展

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#### 摘要:

综述了阳极氧化技术在增强Mg及其合金耐蚀性和有关 Mg阳极氧化现象、成膜机理和膜的成分及结构等方面的研究进展。

关键词: Mg Mg合金 阳极氧化

#### PROGRESS ON ANODIZING TECHNOLOGY FOR MAGNESIUM AND ITS ALLOYS

#### Abstract:

In this paper, the progress of anodizing technology for magnesium and its alloys is overviewed. Corrosion resistance of Mg and its alloys may be efficiently enhanced by anodizing, the technology of which embodies mainly in variation of electrical parameters such as voltage and current while anodizing. Namely, the operating voltage is being raised toward higher values and the present constant voltage operation is being challenged by constant current operation. At the same time, simple alternating current or direct current electrical signals utilized during anodizing are being changed to sophisticated pulse signals or their superposed signals. On the other hand, the change of electrolyte composition is also an important aspect of the development of the technology. The investigation actually emphasized to the anodizing of magnesium and its alloys includes phenomena and mechanisms of the formation of anodizing coatings as well as their constituents and morphologies which are related to their protectiveness.

Keywords: magnesium magnesium alloys anodizing

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