

### 论文摘要

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## 镁合金表面化学转化膜的研究进展

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**摘要:** 综述镁合金化学转化膜: 铬酸盐转化膜、磷酸盐转化膜、磷酸盐-高锰酸盐转化膜、锡酸盐转化膜、稀土转化膜、植酸转化膜等处理方法的工艺特点。讨论磷酸盐转化膜的成膜原理及工艺, 分析这些化学转化工艺存在的不足, 并展望镁合金化学转化膜的研究前景。

**关键字:** 镁合金; 化学转化膜; 磷酸盐; 锡酸盐; 稀土; 腐蚀

## Progress of chemical conversion coatings on magnesium alloys

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**Abstract:** The state-of-the-art processes of chemical conversion films on magnesium alloy such as chromate, phosphate, stannate, rare-earth, phosphate-permanganate and phytate were reviewed. The emphasis on the mechanism of the formation and the processes of the phosphate conversion coatings were discussed. The disadvantages of the processes of the various coatings were analyzed. And the developmental trends of chemical conversion coatings on magnesium alloys were proposed.

**Key words:** magnesium alloy; chemical conversion coating; phosphate; stannate; rare earth; corrosion

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