Short Communication

Preparation of Iron Tetradecanoate Coating on the Surface of Mg-Li Alloy and Its Corrosion Resistance

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Magnesium alloys were commonly used in the industry, but their lower corrosion resistance limited to their application. In this work, an iron tetradecanoate ($\text{Fe}(\text{CH}_3(\text{CH}_2)_{12}\text{COO})_3$) coating was on the surface of Mg-7Li-3Al-1Si alloy prepared using an environment friendly method by one-step in order to improve the corrosion resistance of Mg alloy. Results showed that the prepared coating has an ideal corrosion resistance and a good protection performance.

Keywords: Mg-Li-Al-Si alloy, One-step method, coating, Microstructure, corrosion protection

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