

عنوان مقاله:

Morphological, topographical, and mechanical characteristics of Ni-Fe alloy electrodeposits

محل انتشار:

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خلاصه مقاله:

This paper attempts to evaluate the morphological and topographical characteristics as well as mechanical properties of Ni-Fe alloy coatings. The coatings are deposited using direct current (DC)- electrodeposition technique from a Watts bath. Morphological and topographical features of the fabricated deposits were studied by a field emission scanning electron microscope (FESEM) and atomic force microscope (AFM) respectively. The microhardness of the electrodeposits was measured by Vickers microhardness tester. The obtained results showed that the surface morphology of the alloy film is compact without any obvious defects. The AFM image confirmed the compactness of the surface. The surface roughness and microhardness of the alloy deposit are ۳.۲۸ nm and ۳۹۵ ± ۱۰ HV, respectively.

کلمات کلیدی:

Ni-Fe, electrodeposition, morphology, mechanical properties

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