

## عنوان مقاله:

Effect of Surface Activation of St-12 Steel on Corrosion Resistance of Chromium / Nickel Alloy Electroplating Coatings

## محل انتشار:

چهارمین کنفرانس بین المللی پژوهش های نوین در علوم مهندسی و تکنولوژی (سال: 1394)

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## خلاصه مقاله:

The overall objective of this study is evaluation of chemical and anodical surface activation of St-12 steel as substrate for nickel/chromium alloy electroplating to increasing corrosion resistance of coating. For this purpose, Cr and Ni electrodeposited from Cr(III) - Ni(II) bath on St-12 steel samples by using pulse current, according to the two selective activation methods. The microstructures of the coatings were studied by optical microscopy (OM) and scanning electron microscopy (SEM) and electrochemical polarization in a 3.5% NaCl. In addition to high corrosion resistance of coatings on both activation methods; it results showed the coating created with chemical activation has higher corrosion resistance due to uniform activation and subsequently reduce number of penetrable cracks

## کلمات کلیدی:

Electroplating, Chromium, Nickel, Corrosion, Activation, Crack

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/515274>

