

## عنوان مقاله:

Effect of Si<sup>3</sup>N<sup>4</sup> nanoparticles on microhardness and corrosion resistance of Ni-Co electrodeposits

## محل انتشار:

هفتمین کنفرانس بین المللی پژوهش های کاربردی در علوم و مهندسی (سال: 1402)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

In the present study, the effect of Si<sup>3</sup>N<sup>4</sup> nanoparticles on the microhardness, and corrosion resistance of the Ni-Co nanocomposite layer were analyzed. For this goal, 5 g/L of Si<sup>3</sup>N<sup>4</sup> nanoparticles were incorporated into the Ni-Co alloy electrolyte. Vickers microhardness and electrochemical impedance spectroscopy (EIS) assays were used to determine the microhardness and corrosion resistance of the coatings, respectively. Results showed that the added nanoparticles increased the microhardness and charge-transfer resistance of the Ni-Co coatings by  $\approx 100$  HV and  $\approx 40$  k $\Omega$  cm<sup>2</sup>, respectively.

## کلمات کلیدی:

Si<sup>3</sup>N<sup>4</sup> nanoparticles, microhardness, corrosion resistance, Ni-Co, coating

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1682196>

