

## عنوان مقاله:

PULSE ELECTRODEPOSITION OF Ni-TiN NANOCOMPOSITE COATING AND INVESTIGATING ITS CORROSION PROPERTIES

## محل انتشار:

اولین همایش بین المللی و ششمین همایش مشترک انجمن مهندسی متالورژی ایران (سال: 1391)

تعداد صفحات اصل مقاله: 11

## نویسندگان:

Tina Shadloo - M. S. Student Department of Metallurgy and Material Science, Tehran University, Tehran, Iran

(Changiz Dehghanian - Prof

## خلاصه مقاله:

In this study, nanocomposite coating with nickel matrix and nano TiN powder was synthesized. These coatings have been produced by electroplating technique and pulse current was applied to compare different properties by altering its parameters. The surface morphology has been studied by SEM microscopy. Also XRD patterns and EDX curves were used to investigate the phases which existed in the coatings and to calculate the percentage of each in them. It was shown that by increasing the current density, the amount of the powder in the coating was increased. The corrosion resistance was decreased during elevating the current density. In addition, by lowering the duty cycle, the amount of powder was increased. According to the duty cycle data, it was concluded that the higher the amount of the nano phase in the coatings, the better will be the corrosion resistance of the coatings

## کلمات کلیدی:

nanocomposite coating, electroplating, pulse current, corrosion resistance

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/180033>

