

عنوان مقاله:

MICROSTRUCTURAL EVOLUTION AND CORROSION BEHAVIOR OF TITANIACRACK-FREE NANOCOATING ON
316L STAINLESS STEEL SUBSTRATE

محل انتشار:

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خلاصه مقاله:

Nanostructured Titania coatings have been supplied on the 316L stainless steel substrates via a polymeric sol-gel process and dip coating technique. The crystalline phases and surface morphology of the TiO₂coatings were characterized by X-ray diffraction (XRD), scanning electronic microscopy (SEM)and Optical Microscopy(OM), respectively, and the ultraviolet-visible (UV) spectra of the films were also measured. Electrochemical technique was also exploited to evaluate the anticorrosion performance of the coatings in dark and ultraviolet (UV) illumination. The XRD analysis results indicated that the fabricated Titania coating was in Anatase phase after calcination at 450 °C. Moreover, the SEMand OM observations showed a crack-free and uniform coating

کلمات کلیدی:

nanostructured Titania coating; Crack-free coating; Corrosion; 316L stainless steel

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