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EH-1

Elektroforetski taložene kompozitne prevlake sa gentamicinom

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Uvođenje antibiotika u polimer/mineralnu kompozitnu prevlaku poboljšava antibakterijska svojstva prevlaka. Kompozitna prevlaka (hidroksiapatit - HAP, poli(vinilalkohol), hitozan, gentamicin) dobijena je elektroforetskim taloženjem iz četvorokomponentne vodene suspenzije. Primenom termogravimetrijske i rendgenske difrakcione analize pokazano je prisustvo karbonatno-supstituisanog HAP. Antibakterijska aktivnost kompozitne prevlake sa gentamicinom potvrđena je protiv soja *S. aureus* i *E. coli*, čineći ovu prevlaku pogodnom za potencijalnu primenu u biomedicini.

Electrophoretically deposited gentamicin-loaded composite coating

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Antibiotic introduction in polymer/mineral coating can improve the antibacterial properties of coatings. Composite coating (hydroxyapatite, poly(vinyl alcohol), chitosan, gentamicin) was fabricated from a four-component aqueous suspension using electrophoretic deposition. Structural and morphological characterization of the coating was investigated by X-ray diffraction and thermogravimetric analysis proving carbonate-substituted HAP. The presence of gentamicin contributed to the antibacterial activity of composite coating against *S. aureus* and *E. coli* strains, representing a suitable material for possible application in biomedicine.

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