



EIS DIAGNOSIS OF SOME DENTAL ALLOYS IN ARTIFICIAL SALIVA

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Abstract

Electrochemical impedance spectroscopy (EIS) measurements were used to characterize the electrochemical behaviour of the some commercial dental alloys: two PdAg based alloys (Paliag, PaliagMaestro), two NiCr based alloys (Wiroloy, VeraSoft), two CoCr based alloys (Vitallium, VeraPDI) and two CuAl based alloys (Gaudent, NPG+2) in artificial saliva. Impedance spectra were represented in the form of Bode plots and it was fitted using a commercial software package called Electrochemistry Power Suite. The passivation of all the samples occurred spontaneously at the open circuit potential. The alloys Paliag, Wiroloy and Vitallium are in the optimum corrosion resistant condition.

Keywords: commercial dental alloys, corrosion, EIS

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