ROLE OF FLUORIDE ON CORRODABILITY OF DENTAL AMALGAMS

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ABSTRACT

The role of fluride ions on the corrosion behavior of some commercial dental amalgam in artificial saliva solution at pH level 7.1 was studied by using impedance and pot-entiodynamic polarization techniques.

It was found that, the presence of F^- ions in an artificial saliva solution at pH 7.1 increases the corrodibility of different types of dental amalgam. Sever pitting corrosio n occurred at level of 100 mM F^- ions.

The formulation of amalgam alloys greatly affect the resistance to pitting corrosion;
the resistance of the amalgam to pitting follows the order: Dispersalloy >> Phasealloy > Orally > Tytin > Valiant - pH.D.

It is recommcded to avoid oral treatment involving high F^- ions concentration in the