

**CORROSION BEHAVIOUR OF DISPERSALLOY
AMALGAM AND NON-PRECIOUS ALLOYS IN
ARTIFICIAL SALIVA OF DIFFERENT PH**

E. NAGUIB* and KHLAF*
and A. G. GAD ALLAH**

Abstract

Corrosion behaviour of dispersalloy amalgam and non-precious alloys in artificial saliva of different pH was studied using potential and capacitance measurements. In slightly acidic media, the amount of potential shift for all alloys studied is, small as compared to more acid media, pH = 1.85. On the other hand, in alkaline saliva, especially of higher pH, 12.01, the potential shift for dispersalloy amalgam, is higher than that of non-precious alloys. Further, Wiron S alloy showed the most resistive alloy in such media. The results of capacitance measurements are in general accord with those implied by the potential. The corrosion potential of the non-precious alloys-amalgam combinations reflect the activity of Wiron S - amalgam combination and inertness of the other combination. All amalgam samples exhibit a gradual loss of the surface luster with blackish discoloration and pitting after a long exposure period to the medium.