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**EFFECT OF THE BIOCORROSION ON THE MECHANICAL PROPERTIES OF NITI BINARY TITANIUM ALLOYS: AN IN VITRO STUDY**

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Amongst the most interesting medical alloys developed in the last few years are the NiTi-alloys with nearly equiatomic nickel and titanium distribution. This provides them with several advantages such as shape memory effect, superelasticity and good biocompatibility. These alloys are successfully applied in orthopaedics and dentistry, where the superelastic property of NiTi produces a constant stress that accelerates wound healing. The shape memory effect is one of the greatest advantages for orthodontic wires and arches, which constitute the motor of dental shifting. The shape memory property in daily practice reduces significantly the time of treatment. However, there are some reports on the biofouling of NiTi alloys in oral environment. Hence an attempt was made to study the effect of oral bacteria on the resistance of the corrosion of NiTi dental alloys. The NiTi specimens were exposed to suspension containing oral bacteria for various time periods, the effect of biofouling was studied using potentiodynamic polarization technique. The surface morphology of NiTi was evaluated using scanning electron microscopy and the mechanical property of alloy was studied using universal testing machine.