

Preparation and Characterization Teeth Filling of PMMA/ n-TiO₂ To Wear Resistance and antibacterial

¹Fadhil K. Farhan, ²Mohammed O. Kadhim, Mohammed H. Ali, Awatif S. Abass

^{1,2}University of Tikrit College of Education and Pure Sciences Department of Physics

Abstract

In this research, the light filling with titanium oxide was formed as an anti-corrosion and antibacterial antibiotic. White acrylic powder was used with its solvent after mixing it with different percentages of biologically active titanium oxide using the liquid mixing method and the ultrasound technique to obtain a homogeneous mixture free of aggregates and then was molded into special molds for the required examination. The hard surface hardness of the samples prepared using the hardness device was examined along with the test of dry sliding wear using a Pin-on-disk method, as well as the examination of the samples to resist the bacteria of tooth decay. Structural tests were performed on X-ray diffraction techniques, scanning electron microscopy technique and infrared technique. The results were interpreted based on the practical density of the prepared samples.

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