

Investigation of the electrical properties of some dental composite restorative materials before and after laser exposure

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A B S T R A C T

Some electrical properties, such as piezoelectricity, ac conductivity, dielectric constant and loss tangent of nine commercial types of dental composite restorative materials, have been investigated before and after laser exposure for 3s to study the effect of a probable laser exposure during some surgeries on the electrical properties of these materials. No piezoelectric effect has been found in these materials before and after laser exposure. The materials were found to be good insulators (very poorly conducting materials). The temperature and frequency dependence of ac conductivity, dielectric constant and loss tangent have not shown significant changes in values after laser exposure.

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