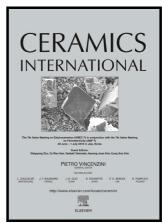
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Zinc Oxide Surface Functionalization and Related Effects on Corrosion Resistance of Titanium Implants

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ACCEPTED MANUSCRIPT

Zinc Oxide Surface Functionalization and Related

Effects on Corrosion Resistance of Titanium

Implants

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Abstract

Important clinical concerns in orthopedics and dental implantology are associated with a significant release of titanium (Ti) metal ions and debris due to the low corrosion resistance of this material. Chemical modifications on Ti surfaces have been performed in order to minimize effects of corrosion. In this contribution, zinc oxide (ZnO) thin films were deposited onto Ti surfaces and functionalized with four different organic bifunctional molecules in order to increase the corrosion resistance. SEM and XPS indicated the formation of nanostructured ZnO

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