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Volume Page

Keyword:    [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(4992K\)\]](#) [\[References\]](#)**Study of corrosion of combinations of titanium/Ti-6Al-4V implants and dental alloys**[Masatoshi YAMAZOE](#)<sup>1)</sup>

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**Abstract:**

Metal ions released in 1% lactic acid solution from combinations of titanium fixtures with superstructures made of dental precious metal alloys (dental alloys) and titanium and differences based on the fixing method were investigated. In combinations of titanium with dental alloys, the level of Ti release was influenced by micro-structure of titanium: it was lower when the grain size was smaller. In titanium-titanium combinations, differences in the micro-structure of metal also markedly influenced the dissolution: the level of release increased when the micro-structure of titanium was different. The Ti and V release levels were higher in combination with titanium alloy and titanium than with titanium alloy and dental alloys. Regarding the superstructure-fixture fixing method, the level of Ti release was significantly lower in cement than in direct fixation.

**Key words:**[Implant](#), [Dissolution of metal ions](#), [Micro-structure of titanium](#)[\[PDF \(4992K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

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