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[\[Image PDF \(435K\)\]](#) [\[References\]](#)**Effects of Calcium Phosphate Precipitation Method on Acid Resistance to Apatite Powder and Bovine Tooth**

[Toshiyuki SUGE](#)¹⁾, [Akiko KAWASAKI](#)¹⁾, [Kunio ISHIKAWA](#)²⁾, [Takashi MATSUO](#)¹⁾
and [Shigeyuki EBISU](#)³⁾

1) Department of Conservative Dentistry, Institute of Health Biosciences, The University of Tokushima Graduate School

2) Department of Biomaterials, Faculty of Dental Science, Kyushu University

3) Department of Restorative Dentistry and Endodontology, Division of Oral Infections and Disease Control, Osaka University Graduate School of Dentistry

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Abstract:

The aims of this study were to evaluate the effects of CPP method on the crystallinity of apatite powder and on the acid resistance of bovine enamel. Crystallinity degrees of apatite powder before and after CPP treatment were measured by powder X-ray diffraction analysis. Polished bovine enamel specimens treated with CPP method or NaF were immersed in a lactic acid solution for up to five days. The demineralized depth of enamel was measured with a surface roughness analyzer. XRD peaks became sharper after the CPP treatment, indicating an increased crystallinity of the apatite powder. The demineralized depth of bovine enamel treated with CPP method was shallower than that of enamel treated with NaF. Results of this study revealed that the CPP method increased the crystallinity of apatite powder and the acid resistance of enamel. Therefore, the CPP method would be useful not only for treating dentin hypersensitivity, but also for the prevention of dental caries.

Key words:

[Hydroxyapatites](#), [Calcium Phosphates](#), [Crystallinity](#)

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