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ONLINE ISSN : 1881-1361

PRINT ISSN : 0287-4547

Dental Materials Journal

Vol. 26 (2007) , No. 5 p.722-727

[\[PDF \(156K\)\]](#) [\[References\]](#)**Effect of Fluoride in Phosphate Buffer Solution on Bonding to Artificially Carious Enamel**[Hao WANG^{1\)}](#), [Yasushi SHIMADA^{1\)}](#) and [Junji TAGAMI^{1\)}](#)

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(Received June 15, 2006)

(Accepted May 16, 2007)

Abstract:

The purpose of the present study was to evaluate the effect of fluoride on resin bonding to artificially carious enamel. Specimens from demineralized human enamel sections were prepared using two commercially available adhesives (Clearfil SE Bond, Kuraray; Single Bond, 3M) and a composite resin (Clearfil AP-X, Kuraray) according to manufacturers' instructions. They were then immersed in phosphate buffered saline solution with varied fluoride concentrations at 0, 0.1, 0.5, 1, and 10 ppm. After immersion in each solution for one, three, or seven days, microshear bond strength was measured. The bond strengths of both adhesive systems to artificially carious enamel significantly increased after immersion in fluoride-phosphate buffer solution. Based on the findings obtained, we thus proposed not to remove the white enamel lesions for bonding in the clinic. They might be preserved and treated using fluoride applications.

Key words:[Fluoride](#), [Microshear bond strength](#), [Artificially carious enamel](#)[\[PDF \(156K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

To cite this article:

Hao WANG, Yasushi SHIMADA and Junji TAGAMI. Effect of Fluoride in Phosphate Buffer Solution on Bonding to Artificially Carious Enamel . Dent. Mater. J. 2007; 26: 722-727 .

doi:10.4012/dmj.26.722

JOI JST.JSTAGE/dmj/26.722

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