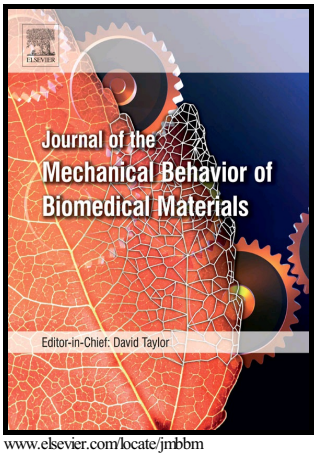

www.elsevier.com/locate/jmbbm

Enhancing bond strength on demineralized dentin by pre-treatment with selective remineralising agents

Luiz Filipe Barbosa-Martins, Jossaria Pereira de Sousa, Aline Rogéria Freire de Castilho, Julia Puppin-Rontani, Robert P.W. Davies, Regina Maria Puppin-Rontani

PII: S1751-6161(18)30274-1
DOI: https://doi.org/10.1016/j.jmbbm.2018.03.007
Reference: JMBBM2716

To appear in: *Journal of the Mechanical Behavior of Biomedical Materials*

Received date: 5 January 2018
Revised date: 1 March 2018
Accepted date: 5 March 2018

Cite this article as: Luiz Filipe Barbosa-Martins, Jossaria Pereira de Sousa, Aline Rogéria Freire de Castilho, Julia Puppin-Rontani, Robert P.W. Davies and Regina Maria Puppin-Rontani, Enhancing bond strength on demineralized dentin by pre-treatment with selective remineralising agents, *Journal of the Mechanical Behavior of Biomedical Materials,* https://doi.org/10.1016/j.jmbbm.2018.03.007

Enhancing bond strength on demineralized dentin by pre-treatment with selective remineralising agents

Luiz Filipe Barbosa-Martins[a], Jossaria Pereira de Sousa[a], Aline Rogéria Freire de Castilho[a], Julia Puppin-Rontani[b], Robert P. W. Davies[c], Regina Maria Puppin-Rontani[a,b,*]

[a] Department of Pediatric Dentistry, Piracicaba Dental School, University of Campinas, Piracicaba, São Paulo, Brazil.
[b] Department of Restorative Dentistry, University of Campinas, Piracicaba, São Paulo, Brazil.
[c] Department of Oral Biology, University of Leeds, St James University Hospital, Leeds UK

*__Corresponding author:__ Department of Pediatric Dentistry, Piracicaba Dental School, University of Campinas. 901, Limeira Avenue, Zip Code: 13414-903. Areião, Piracicaba, São Paulo, Brazil.
E-mail address: rmpuppin@gmail.com

Enhancing bond strength on demineralized dentin by pre-treatment with selective remineralising agents

ABSTRACT

Bonding to demineralized dentin of a diseased tooth has shown to be a significant clinical issue. This study evaluated the effect of 0.2% NaF-(NaF), MI Paste™-(CPP-ACP) and the self-assembling peptide 'P_{11}-4' (Ace-QQRFEWEFEQQ-NH_2) contained in Curodont™ Repair, have on microtensile bond strength-(μTBS) of two different adhesive systems (Adper™ Single Bond-(SB) or Clearfil™ SE Bond (CSE)) and wettability of demineralized dentin slices after remineralising agents were applied. The highest μTBS were found for the demineralized dentin-(DD) treated with CPP-ACP; both adhesives systems ($p<0.05$) did not significantly difference from P_{11}-4 treatment