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## What is the best etching timing in a resin infiltrant used on enamel surface after remineralization with CPP-ACP?

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### ABSTRACT

**Introduction:** Nowadays there are non-invasive therapeutical options to treat white spot lesions (WSL), such as remineralization with CPP-ACP pastes and infiltrative technics with infiltrant resins which fill the gaps caused by demineralisation, preventing the progression of the initial lesion [1,2]. The aim of this exploratory study is to observe the enamel surface after artificial induction of caries, when a pre-treatment with Casein Phosphopeptide - Amorphous Calcium Phosphate is applied, followed by an enamel infiltrating resin, with different times of acid conditioning.

**Material and methods:** 6 specimens were obtained from 2 human molars and randomly distributed into 3 groups (A, B and C). All the groups undergo artificial white spot induction through lactic acid buffer solution for 6 days, and CPP-ACP treatment for 4 weeks. Group A remained without any further treatment; B and C were treated with infiltrating resins with different acid conditioning timings, 2 and 3 min respectively. After treatment, 2 specimens of each group were visualised by scanning electron microscopy (SEM).

**Discussion and results:** According to the SEM analysis, this exploratory study suggests that group A is more homogenous, with less exposure of gaps compared to groups B and C, which are more heterogeneous, C more than B, as demonstrated in [Image 1](#).

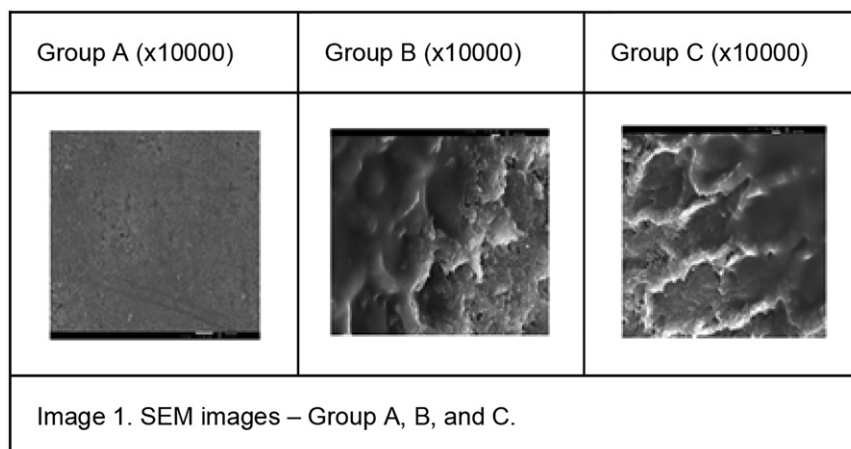
**Conclusions:** Group A treated with CPP-ACP presents the most homogenous images of enamel surface. The images of group C, treated with 3 min of acid conditioning suggest a greater demineralisation than images of group B (2 min).

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**Image 1.** SEM images – Group A, B, and C.