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[\[PDF \(4212K\)\]](#) [\[References\]](#)**Degradability of fluorapatite-leucite ceramics in naturally acidic agents**[Boonlert KUKIATTRAKOON](#)¹⁾, [Chanothai HENGTRAKOOL](#)¹⁾ and [Urepon KEDJARUNE-LEGGAT](#)²⁾

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Abstract:

This study was conducted to evaluate the titratable acidity and effect of naturally acidic agents on the surface microhardness, elemental composition, and surface morphology of fluorapatite-leucite ceramics. One hundred and ten ceramic disks (IPS d.SIGN), 12.0 mm in diameter and 2.0 mm in thickness, were fabricated. Before immersion, the baseline data of Vickers microhardness and elemental composition were recorded. Four groups were immersed in acidic agents (citrate buffer solution, green mango juice, and pineapple juice) and deionized water (control) at 37°C for 168 hours, whereas one group was immersed in 4% acetic acid at 80°C for 168 hours. After immersion, specimens were evaluated and data were analyzed using one-way repeated ANOVA and Tukey's test ($\alpha=0.05$).

Microhardness values significantly decreased after immersion ($p<0.05$). In terms of elemental composition, the weight percentages of silicon, potassium, aluminum, and sodium also decreased after immersion ($p<0.05$). Results of this study showed that fluorapatite-leucite ceramics were affected by long-term immersion in acidic agents.

Key words:[Acidic agent](#), [Degradability](#), [Fluorapatite-leucite ceramic](#)[\[PDF \(4212K\)\]](#) [\[References\]](#)

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