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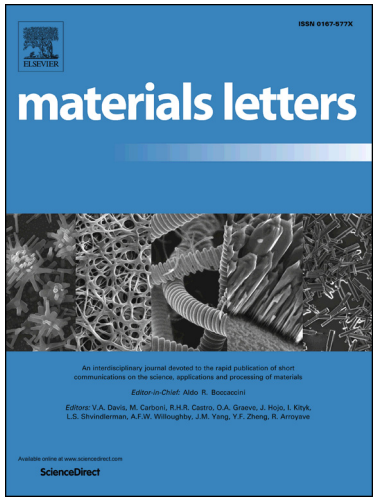

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The implementation of image analysis for the visualization of adhesion assessment of a composite film

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Abstract

The objective of this study is to investigate quantitative assessment of the adhesion behavior of composite films onto a metallic surface. The composite films had UV cured Bis-GMA (Bisphenol A glycidylmethacrylate)/TEGDMA (triethylene glycol dimethacrylate) as matrix and ferrous oxide doped alumina (Al_2O_3 Fe) particles with two surface modifications, (3-methacryloxypropyltrimethoxysilane) (MEMO) and the vinyltris(2-methoxyethoxy)silane (VTMOEO), as reinforcement. Composites were made with 0.5,1.5 and 3 wt. % of alumina particles. Adhesion was evaluated using the micro hardness testing method. The contact angle was measured and compared to the adhesive parameter from micro hardness measurements. The form of the indent on the

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