

Author: [ADVANCED](#)

Volume Page

Keyword: [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(514K\)\]](#) [\[References\]](#)**Effects of aging and HEMA content on the translucency, fluorescence, and opalescence properties of experimental HEMA-added glass ionomers**[Yong-Keun LEE](#)¹⁾, [Bin YU](#)²⁾, [Guang-Feng ZHAO](#)²⁾ and [Jin Ik LIM](#)²⁾

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Abstract:

Changes in the translucency, fluorescence, and opalescence of experimental 10–50% 2-hydroxyethyl methacrylate (HEMA)-added glass ionomers (HAGIs) after 5,000 cycles of thermocycling were determined and compared with those of commercial resin-modified glass ionomers (RMGIs). Changes in the translucency (TP), fluorescence (FL), and opalescence (OP) parameters were in the range of –3.5 to 0.2, –2.3 to 0.3 and –2.6 to 9.1 units respectively for HAGIs; and –0.9 to 0.3, –0.7 to 0.6, and 1.1 to 2.3 units respectively for RMGIs. Changes in the TP, FL, and OP of HAGIs were influenced by the HEMA content and powder shade, and were generally larger than those of RMGIs. Since the changes in TP, FL, and OP of experimental HAGIs were influenced by the HEMA content, there arises a need to determine the optimal HEMA ratio to attain high stability for these optical properties. In addition, results of this study showed that apart from optimal HEMA ratio, future studies should include other aspects and factors that contribute to age-dependent changes in optical properties.

Key words:[Glass ionomer](#), [Optical stability](#), [Aging](#)[\[PDF \(514K\)\]](#) [\[References\]](#)

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