



## Biomimetic potential of some methacrylate-based copolymers: A comparative study

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Résumé en anglais	<p>Preparation of new biocompatible materials for bone recovery has consistently gained interest in the last few decades. Special attention was given to polymers that contain negatively charged groups, such as phosphate, carboxyl, and sulfonic groups toward calcification. This present paper work demonstrates that other functional groups present also potential application in bone pathology. New copolymers of 2-hydroxyethyl methacrylate with diallyldimethylammonium chloride (DADMAC), glycidyl methacrylate (GlyMA), methacrylic acid (MAA), 2-methacryloyloxymethyl acetoacetate (MOEAA), 2-methacryloyloxyethyltriethylammonium chloride (MOETAC), and tetrahydrofurfuryl methacrylate (THFMA) were obtained. The copolymers were characterized by FTIR, swelling potential, and they were submitted to in vitro tests for calcification and cytotoxicity evaluation. GlyMA and MOETAC-containing copolymers show promising results for further in vivo mineralization tests, as a potential alternative to the classical bone grafts, in bone tissue engineering.</p>
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