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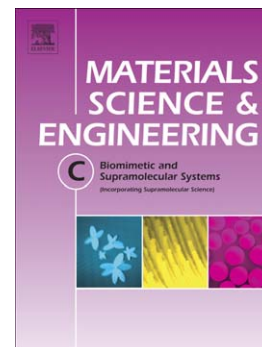
Synthesis, characterization, and *in-vitro* cytocompatibility of amorphous β -tri-calcium magnesium phosphate ceramics

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Synthesis, Characterization, and *In-Vitro* Cytocompatibility of Amorphous β -Tri-Calcium Magnesium Phosphate Ceramics

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Abstract: Biphasic mixtures of crystalline β -tricalcium magnesium phosphate (β -TCMP) and an amorphous calcium magnesium phosphate have been synthesized and reported to support enhanced hMSC differentiation in comparison to β -tricalcium phosphate (β -TCP) due to the release of increased amounts of bioactive ions. In the current study, completely amorphous β -TCMP has been synthesized which is capable of releasing increased amounts of Mg^{2+} and PO_4^{3-} ions, rather than a biphasic mixture as earlier reported. The amorphous phase formed was observed to crystallize between temperatures of 400-600°C. The scaffolds prepared with

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