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Synthesis, characterization and bioactivity of manganese-zinc ferrite-bioglass via sol gel processing for the hyperthermia treatment of bone cancers**Ali Sheikh Bostanabad and Nasrin Nami**
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The phenomenon of bioactivity is associated with the formation of a crystallized hydroxyl carbonated apatite (HCA) layer on the bioglass surface, when soaked in a simulated physiological fluid. This layer is similar to the mineral phase of bone. Synthesized bioglasses have been obtained using organic modifiers instead of mineral modifiers, which are the usual precursors for sol-gel synthesis. Hyperthermia treatment is a method of the cancer therapy using the high temperature up to 43°C which healthy cells survive but tumor cells can't resist. The materials used to raise the temperature are called as thermoseed and they are ferrimagnetic, ferromagnetic and superparamagnetic particles potentially.

Biography

Ali Sheikh Bostanabad has completed his PhD and Postdoctoral studies from Peoples Friendship University of Russia. He is currently a Research Fellow in Auckland University, New Zealand. He has published more than 15 papers in reputed journals.

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