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(57) Abstract :
The present disclosure relates generally to pharmaceutical formulations. More specifically, the disclosure provides sustained release polymeric nanoparticles oral formulation for management of osteoporosis comprising drug, targeting ligand, and polymer nanoparticles of simvastatin, hydroxyapatite, and polylactic-co-glycolic acid, wherein simvastatin is bound by hydroxyapatite and encapsulated by polylactic-co-glycolic acid. The present disclosure also provides a method of synthesis of a sustained release polymeric nanoparticles oral formulation using solvent evaporation technology that can be performed under ambient conditions and is scalable.

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