Abstract

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Biocompatible polymer-exfoliated nanosheets with ultra-high drug loading as safe and efficacious cancer therapeutics

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Abstract

Two-dimensional (2D) layered double hydroxide (LDH) nanoparticles have been widely studied for biomedical applications due to its tremendously biocompatible properties at the nanoscale. Exfoliating LDH nanoparticles into ultrathin nanosheets is an efficient way to maximize the utility of each single layer, which possess the higher specific surface area. However, current exfoliation methods of LDH nanoparticles are either time-consuming or lack of biocompatibility (bottom-up method), which remains a bottleneck for biomedical applications of LDH nanosheets. Herein, we developed a novel and rapid method to synthesis ultrathin LDH nanosheet with a thickness of around 3nm via bottom up method

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Biography

He Zhang is a second year PhD candidate in the major of Chemical engineering at University of New South wales. His research maily focous on desgining 2D nanomaterilas towards efficient drug delivery system.