

Accepted Manuscript

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PII: S1350-4177(17)30105-0

DOI: <http://dx.doi.org/10.1016/j.ultsonch.2017.03.011>

Reference: ULTSON 3588

To appear in: *Ultrasonics Sonochemistry*

Received Date: 23 December 2016

Revised Date: 7 March 2017

Accepted Date: 7 March 2017



Please cite this article as: X. Cui, X. Guan, S. Zhong, J. Chen, H. Zhu, Z. Li, F. Xu, P. Chen, H. Wang, Multi-stimuli Responsive Smart Chitosan-based Microcapsules for Targeted Drug Delivery and Triggered Drug Release, *Ultrasonics Sonochemistry* (2017), doi: <http://dx.doi.org/10.1016/j.ultsonch.2017.03.011>

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Multi-stimuli Responsive Smart Chitosan-based Microcapsules for Targeted Drug Delivery and Triggered Drug Release

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ABSTRACT

In the present study, we designed a novel, multi-stimuli responsive, biocompatible and non-immunogenic smart carrier for targeted delivery and triggered release of hydrophobic drugs. The designed multi-stimuli responsive smart chitosan-based microcapsules (MSRS-CS-MCs) have been fabricated successfully from folic acid (FA) functionalized thiolated chitosan via a facile sonochemical method. Targeting moiety FA and red fluorescent dye (Rhodamine B isothiocyanate, RITC) were immobilized onto the shells of microcapsules. Meanwhile, oleic acid (OA) modified

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