

Accepted Manuscript

Preparation and characterization of *in-situ* formable liposome/chitosan composite hydrogels

Riwan Li, Qiuying Liu, Haiwei Wu, Kun Wang, Lihua Li, Changren Zhou, Ningjian Ao

PII: S0167-577X(18)30416-6
DOI: <https://doi.org/10.1016/j.matlet.2018.03.052>
Reference: MLBLUE 24013

To appear in: *Materials Letters*

Received Date: 17 November 2017
Revised Date: 30 January 2018
Accepted Date: 8 March 2018

Please cite this article as: R. Li, Q. Liu, H. Wu, K. Wang, L. Li, C. Zhou, N. Ao, Preparation and characterization of *in-situ* formable liposome/chitosan composite hydrogels, *Materials Letters* (2018), doi: <https://doi.org/10.1016/j.matlet.2018.03.052>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Preparation and characterization of *in-situ* formable liposome/chitosan

composite hydrogels

Riwan Li ^{a,b}, Qiuying Liu ^c, Haiwei Wu ^b, Kun Wang ^a, Lihua Li ^{a,*}, Changren Zhou ^a, Ningjian Ao ^{b,*}

^a Department of Material Science and Engineering, Engineering Research Center of Artificial Organs and Materials, Jinan University, Guangzhou, 510632, PR China

^b Institute of Biomedical Engineering, College of Life Science and Technology, Jinan University, Guangzhou, 510632, PR China

^c Biomedicine Research and Development Center of Jinan University, Guangzhou, 510632, PR China

*Corresponding authors:

Professor Lihua Li

Tel.: 0086-20-85226663, Fax: 0086-20-85223271

Email address: tlihuali@jnu.edu.cn

Professor Ningjian Ao

E-mail address: taonj@jnu.edu.cn

Abstract

Liposome/chitosan hydrogels were prepared by facile Thiol-Ene reaction, with thiolated chitosan coated liposomes and maleilated chitosan coated liposomes. The gels were characterized by rheological experiments, scanning electron microscopy, swelling ratio, tensile test, polarizing microscope and cell experiments. The results showed that the gels had porous structure, the gel time and swelling ratio varied with different $n_{\text{SH}}/n_{\text{C}=\text{C}}$ ratio. After adding liposomes, the tensile strength of the gels increased

Download English Version:

<https://daneshyari.com/en/article/8013834>

Download Persian Version:

<https://daneshyari.com/article/8013834>

[Daneshyari.com](https://daneshyari.com)