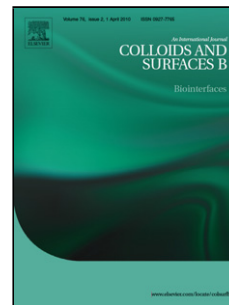


Accepted Manuscript

Title: Protein Adsorption and Macrophage Uptake of Zwitterionic Sulfobetaine Containing Micelles

Authors: Aijing Lu, Zhengzhong Wu, Xianglin Luo, Suming Li



PII: S0927-7765(18)30229-7
DOI: <https://doi.org/10.1016/j.colsurfb.2018.04.025>
Reference: COLSUB 9278

To appear in: *Colloids and Surfaces B: Biointerfaces*

Received date: 4-1-2018
Revised date: 30-3-2018
Accepted date: 8-4-2018

Please cite this article as: Aijing Lu, Zhengzhong Wu, Xianglin Luo, Suming Li, Protein Adsorption and Macrophage Uptake of Zwitterionic Sulfobetaine Containing Micelles, Colloids and Surfaces B: Biointerfaces <https://doi.org/10.1016/j.colsurfb.2018.04.025>

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.

Protein Adsorption and Macrophage Uptake of Zwitterionic Sulfobetaine Containing Micelles

Aijing Lu^{1,3} Zhengzhong Wu¹ Xianglin Luo^{1,2*} Suming Li^{3*}

¹ College of Polymer Science and Engineering, Sichuan University, Chengdu 610065; P. R. China;

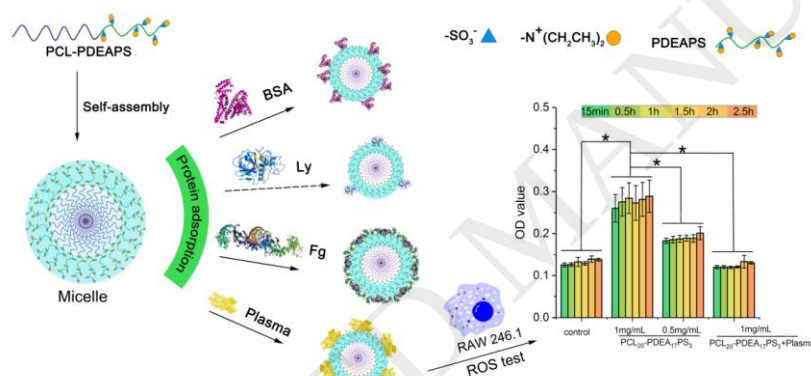
² State Key Lab of Polymer Materials Engineering, Sichuan University, Chengdu 610065; P.R. China;

³ Institut Européen des Membranes, UMR CNRS 5635, Université de Montpellier, Place Eugene Bataillon, 34095 Montpellier Cedex 5, France

Corresponding authors:

Xianglin Luo (Email: luoxl@scu.edu.cn); Suming Li (Email: suming.li@umontpellier.fr)

Graphical abstract



Highlights

- Self-assembled PCL-PDEAPS micelles containing zwitterionic sulfobetaine
- The micelles present nano-size, positive zeta potential, and very low CMC
- Larger adsorption of negatively charged proteins on PCL-PDEAPS than on PCL-PEG
- The adsorption amount increases with increasing zwitterionic content
- Denaturation of proteins is not detected during adsorption and detachment processes

Abstract:

Micelles of poly(ϵ -caprolactone)-*b*-poly((N,N-diethylaminoethyl methacrylate)/(N-(3-sulfopropyl-N-methacryloxyethyl-N,N-diethylammonium betaine)) (PCL-PDEAPS) and poly(ϵ -caprolactone)-*b*-poly(ethylene glycol) (PCL-PEG) were prepared and characterized. The interactions of micelles with model proteins such as bovine serum albumin (BSA), lysozyme (Ly),

Download English Version:

<https://daneshyari.com/en/article/6980409>

Download Persian Version:

<https://daneshyari.com/article/6980409>

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