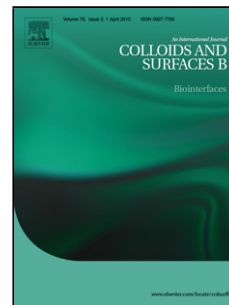


## Accepted Manuscript

Title: ATP-mediated intrinsic peroxidase-like activity of  $\text{Fe}_3\text{O}_4$ -based nanozyme: One step detection of blood glucose at physiological pH

Authors: N.V. Srikanth Vallabani, Ajay S. Karakoti, Sanjay Singh



PII: S0927-7765(17)30076-0  
DOI: <http://dx.doi.org/doi:10.1016/j.colsurfb.2017.02.004>  
Reference: COLSUB 8376

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

Received date: 21-12-2016  
Revised date: 3-2-2017  
Accepted date: 4-2-2017

Please cite this article as: N.V.Srikanth Vallabani, Ajay S.Karakoti, Sanjay Singh, ATP-mediated intrinsic peroxidase-like activity of  $\text{Fe}_3\text{O}_4$ -based nanozyme: One step detection of blood glucose at physiological pH, *Colloids and Surfaces B: Biointerfaces* <http://dx.doi.org/10.1016/j.colsurfb.2017.02.004>

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.

## Highlights

Peroxidase-like activity of  $\text{Fe}_3\text{O}_4$  nanoparticles at physiological pH (pH 7.4) has been investigated.

Use of ATP enhances the peroxidase-like activity at physiological pH.

Use of ATP leads to better substrate affinity (lower  $K_m$  than HRP) of  $\text{Fe}_3\text{O}_4$  nanoparticles.

New method to detect glucose from human blood serum at physiological pH is reported.

Download English Version:

<https://daneshyari.com/en/article/4982875>

Download Persian Version:

<https://daneshyari.com/article/4982875>

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