

Accepted Manuscript

Construction of hybrid Z-scheme graphitic C₃N₄/reduced TiO₂ microsphere with visible-light-driven photocatalytic activity

C. Zhou, N.F. Ye, X.H. Yan, J.J. Wang, J.M. Pan, D.F. Wang, Q. Wang, J.X. Zu, X.N. Cheng

PII: S2352-8478(17)30108-9

DOI: [10.1016/j.jmat.2018.04.002](https://doi.org/10.1016/j.jmat.2018.04.002)

Reference: JMAT 132

To appear in: *Journal of Materiomics*

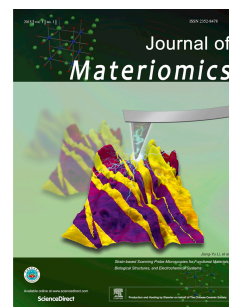
Received Date: 21 November 2017

Revised Date: 13 April 2018

Accepted Date: 16 April 2018

Please cite this article as: Zhou C, Ye NF, Yan XH, Wang JJ, Pan JM, Wang DF, Wang Q, Zu JX, Cheng XN, Construction of hybrid Z-scheme graphitic C₃N₄/reduced TiO₂ microsphere with visible-light-driven photocatalytic activity, *Journal of Materiomics* (2018), doi: 10.1016/j.jmat.2018.04.002.

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.



Construction of hybrid Z-scheme graphitic C₃N₄/reduced TiO₂ microsphere with visible-light-driven photocatalytic activity

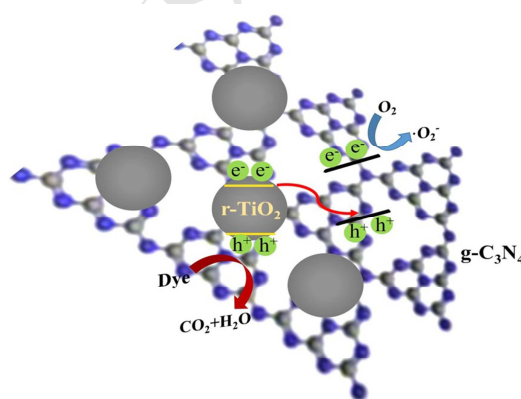
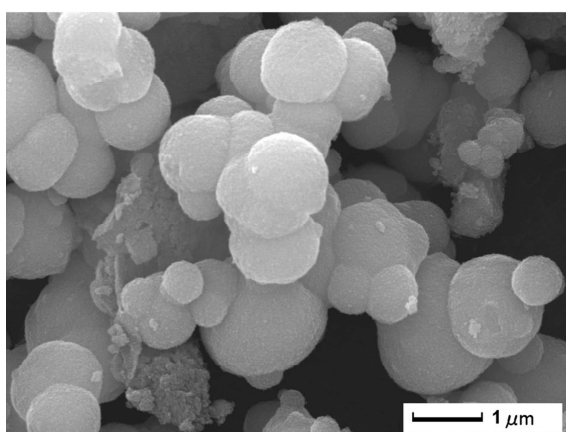
C. Zhou^{a, 1}, N.F. Ye^{a, 1}, X.H. Yan^{a, b, c*}, J.J. Wang^a, J.M. Pan^a, D.F. Wang^a, Q. Wang^a, J.X. Zu^a, X.N.

Cheng^{a, c}

^aSchool of Materials Science and Engineering, Jiangsu University, Zhenjiang 212013, Jiangsu, China

^bInstitute for Advanced Materials, Jiangsu University, Zhenjiang 212013, Jiangsu, China

^cInstitute of Green Materials and Metallurgy, Jiangsu University, Zhenjiang 212013, Jiangsu, China



The g-C₃N₄/r-TiO₂ Z-scheme composite was successfully prepared by a facile hydrothermal method. Materials with unique structure have been attracted wide attention and could be applied for removing environmental pollutants. When it was used to degrade the rhodamine B under visible light irradiation, it shown excellent photocatalytic activity and stability, which could be attributed to the synergic effect of g-C₃N₄ and r-TiO₂ catalyst, large specific surface area and the stable oxygen vacancy in composite.

¹These two authors contributed equally to this work

*Corresponding author: School of Materials Science and Engineering, Jiangsu University, Xuefu Road 301, Zhenjiang 212013, Jiangsu, P.R.China. Tel: +86 511 88783268

E-mail address: xhyan@mail.ujs.edu.cn (X.Yan)

Download English Version:

<https://daneshyari.com/en/article/8955378>

Download Persian Version:

<https://daneshyari.com/article/8955378>

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