Short Communication

BiOCl Nanoplates Decorated on g-C₃N₄ for Enhanced Photocatalytic Activities

Yongkui Huang¹, Shifei Kang^{2,*}, Wenpeng Gong³, Yao Fang¹, Hengfei Qin¹, Siyu Liu¹, Shuijin Yang³, Xi Li^{1,*}

¹ Department of Environmental Science and Engineering, Fudan University, Shanghai 200433, China

² School of Environment and Architecture, University of Shanghai for Science and Technology, Shanghai 200093, China

³ Hubei Collaborative Innovation Center for Rare Metal Chemistry, College of Chemistry and Chemical Engineering, Hubei Normal University, Huangshi 435002, China

*E-mail: xi_li@fudan.edu.cn, sfkang@usst.edu.cn

doi: 10.20964/2017.05.32

Received: 29 November 2016 / Accepted: 11 March 2017 / Published: 12 April 2017

A facile solvothermal method has been successfully developed for the preparation of BiOCl/g-C₃N₄ nanocomposite using sodium dodecyl benzene sulfonate as the surfactant. The results revealed that BiOCl nanoplates with thickness below 5 nm and widths of 20~30 nm were uniformly dispersed on the surface of g-C₃N₄ nanosheets, indicating the formation of a close contact between the BiOCl and g-C₃N₄. The catalytic activity of the obtained BiOCl/g-C₃N₄ composite has been evaluated by the degradation process of rhodamine B under visible light irradiation. It has been demonstrated that the catalytic activity of BiOCl/g-C₃N₄ composite was significantly enhanced compared with the bare component due to the synergistic effect between BiOCl and g-C₃N₄.

Keywords: g-C₃N₄; BiOCl; Nanocomposite; Surfaces; Photocatalyst

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