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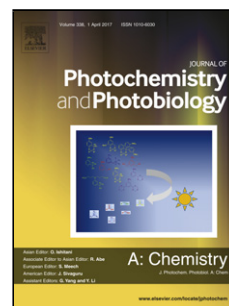
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Efficient visible light driven, mesoporous graphitic carbon nitride based hybrid nanocomposite: with superior photocatalytic activity for degradation of organic pollutant in aqueous phase

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- Nanocomposite was prepared using ultrasonication self-assembly method.
 - 15% nanocomposite possesses superior photocatalytic activity.
 - The enhanced photocatalytic activity of 15% nanocomposite due to synergic effects.
 - Synergic effect effectively speed up the charge transfer process.
 - The life time of e/h⁺ pairs increased due to formation of heterojunction.

Abstract

It is highly craved to develop the solar light driven photocatalyst for degradation of pollutants in aqueous phase by splitting of water has been an appealing challenge. Herein, visible light induced Na-g-C₃N₄/DyVO₄ nanocomposite with superior photocatalytic activity was synthesized by a facile in situ hydrothermal and ultra-sonication method. The prepared photocatalysts was characterized using standard analytical techniques such as XRD, BET, SEM, EDX, TEM, FT-IR and UV-Vis spectroscopy. The photocatalytic efficiency of prepared material was evaluated by monitoring the degradation of different organic model compounds such as RhB, MO, MB and 4-

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