

Two-dimensional porous sheet-like carbon-doped ZnO/g-C₃N₄nanocomposite with high visible-light photocatalytic performance

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© 2016 Elsevier B.V. The ZnO/g-C₃N₄nanocomposites were synthesized by a single-step and scalable synthesis method through calcining the mixture of zinc acetate and urea. Two-dimensional shape, porous and carbon-doped microstructure were demonstrated by the SEM, TEM, N₂adsorption and XPS. ZnO/g-C₃N₄nanocomposites were used as a photocatalyst for photodegradation of MB and MO under visible light irradiation. The photocatalytic performance of the porous sheet-like carbon-doped ZnO/g-C₃N₄nanocomposites was higher than those of commercial P25, ZnO and g-C₃N₄.