

The variation of photocatalytic degradation efficiency and properties of g-C₃N₄/ZnO composite photocatalysts by the effect of calcination temperatures

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In this study, g-C₃N₄/ZnO composite photocatalysts were prepared at several temperature points by thermal condensation method of dicyandiamide in the presence of ZnO and investigated the influence of preparation temperatures from variation of interaction between ZnO and g-C₃N₄ on the photocatalytic activity and properties of such synthesized photocatalytic materials. This is because to overcome drawbacks of photocatalysts such as fast recombination rate and poor light adsorption efficiency on the range of visible light, photocatalytic degradation test of Methylene Blue solution and several characterization methods were conducted to investigate variation of these properties. On the basis of these results, optimum preparation temperature was suggested with several figures to progressed understand for interaction change of g-C₃N₄/ZnO composites photocatalysts in the thermal condensation process.