عنوان مقاله:

Enhanced photocatalytic performance over new nano structure of HAp/g- C3N4: Methylene Blue photodegradation study

محل انتشار:

بیستمین سمینار شیمی معدنی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

In the present work, the new nanoparticles of HAp/g–C3N4 was synthesized by an easy sol–gel method. Visible light degradation of methylene blue (MB) on to HAp/g–C3N4 studied in aqueous solution at room temperature. For achievement to high photocatalytic efficiency, graphite carbon nitride (g–C3N4) as new heterojunction component along with hydroxyapatite (HAp) was selected. The heterojunction structures improve the catalytic activity with increasing the charge carrier of transferred ones between the components [1]. Influence of various operational parameters such as pH, composite dose, and degradation time for photocatalytic process were examined. New heterojunction structure of photocatalysts such as g–C3N4 composites were used for environmental remediation [2]. Moreover, the related mechanism of hole-electron pairs generation induced by HAp/g–C3N4 heterojunction (schematically illustrated below) were fully discussed. The structure of nanocomposite were studied by X-ray diffraction (XRD), FTIR spectroscopy, elemental analysis of energy dispersion spectroscopy (EDS), scanning electron microscopy (SEM), and transmission electron microscopy (TEM). It can be concluded that the new synthesized .nanocomposite of HAP/g–C3N4 show remarkable photocatalytic activity about degradation of MB pollutant

کلمات کلیدی: