عنوان مقاله:

Application of Chitosan Nanocomposite / Multiwall Nanotube/ Iron Oxides to Removal Amaranth from Wastewater

محل انتشار:

نهمین سمینار ملی شیمی و محیط زیست ایران (سال: 1398)

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خلاصه مقاله:

Azo paints make up more than 70% of the chemical and artificial colors produced in the world. It is widely used in textile, paper, food, medicine, cosmetics and hygiene industries. Azo compounds are carcinogenic and harmful and are resistant to biological degradation due to its complex structure. The best solution is to remove these compounds from factory wastewaters before entering the environment [1]. In this research, we used nanocomposite chitosan / iron oxide / carbon nanotubes in a few walls to remove amaranth from Azo group colors [2]. Initially, the synthesis of the nanocomposite was carried out by the Hummer method and was used to remove the amaranth after synthesis [3]. In this work, parameters such as PH = 2, absorbance value m = .011gr, temperature and time T = 25 and t = 7min were investigated. In optimal conditions and concentration of 15 ppm, removal of 95% of amaranth color was observed. In order to investigate the synthesis of the IR spectrum and the XRD pattern, as well as analyzes such as BET-BJH, SEM-EDX, VSM, all analyzes showed the correctness of the synthesis performed and the composition as an adsorbent to remove the azo compounds Wastewater was used.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: