

عنوان مقاله:

Catalytic oxidation of naphtol blue black in water: Effect of Operating Parameters and the Type of Catalyst

محل انتشار:

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خلاصه مقاله:

The main objective of this work is to study the oxidation of naphthol blue black (NBB) in aqueous solution by hydrogen peroxide using a recyclable Dawson type heteropolyanion $[H_{1.5}Fe_{1.5}P_2W_{12}Mo_6O_{61}.23H_2O]$ as catalyst. The effects of various experimental parameters of the oxidation reaction of the dye were investigated. The mineralization of the dye was investigated by the total organic carbon (TOC) measurement in optimum conditions. The influence of the catalyst nature (Dawson- type iron -substituted heteropolyanion) and (Dawson- type copper -substituted heteropolyanion) on the oxidation process was investigated. The catalytic oxidation using a recyclable heteropolyanions as catalysts is an economically and environmentally friendly process to remove the toxicity of the recalcitrant compounds in water

کلمات کلیدی:

Dye removal, Naphthol blue black (NBB), Water treatment, Catalytic oxidation

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