عنوان مقاله:

REMOVAL OF ETHYLENE DICHLORIDE FROM PETRO CHEMICAL WASTEWATER

محل انتشار:

اولین همایش ملی تکنولوژی های نوین در شیمی و پتروشیمی (سال: 1393)

تعداد صفحات اصل مقاله: 9

نویسندگان:

,P Pishkar - *ABC Consultants Shahrood University,Iran*

,t sagharigar - *Birjand University,Iran*

m araghi - *Tehran University,Iran*

خلاصه مقاله:

This study was shown removal of Ethylene Dichloride from petro chemical wastewater by Photo-Fenton. EDC is the most abundant chlorinated groundwater pollutant. New environment-friendly approaches for the removal of EDC that does not bring about volatilization of the compound are required. The results of experiments showed that catalyst loading of 0.1 g/l TiO2 was the optimum and further increase in the loading reduced removal efficiency. Hence, this amount was used as the catalyst dosage for the photocatalytic reactions. In the present study, the influence of hydrogen peroxide on the degradation of EDC under UV light irradiation was investigated. Optimum value was 1.0 mM. The process was completely removed EDC after 60 min. processes comparison showed that radiation and are not sufficient for EDC oxidation and complete oxidation increases in the presence of Fe(III) with UV radiation. The experimental data showed that the photocatalytic degradation of EDC can be simulated by using pseudo-first-order reaction rate expression

کلمات کلیدی:

Ethylene Dichloride,TiO2/UV,H2O2/UV , Photo-Fenton