

عنوان مقاله:

Investigation of Photocatalytic Degradation Process in Wastewater Treatment Industry

محل انتشار:

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خلاصه مقاله:

The process of photocatalytic degradation has emerged as a promising technology for the removal of pollutants from the air and is one of the most important and growing technologies in the field of wastewater treatment. This process in the operating conditions of ambient temperature and pressure has the ability to remove several types of pollutants in aqueous and gaseous environments and in this regard is relatively superior to other methods. Some of the other advantages of this new technology are: Unlike conventional treatment methods that transfer pollutants from one environment to another. The photocatalytic method usually leads to the production of harmless products. In this process, the usual methods and effluent flows should be used, which is not possible by other treatment methods. In this process, the reaction conditions are balanced and gentle, the reaction time is relatively short and the minimum additive chemicals are required. It is possible to combine this method with other treatment methods, especially biological treatment. Since the goal of photocatalytic reactions is generally the oxidation of organic matter and the reduction of inorganic matter, the main applications studied for this process are: decolorization and removal of pigment, reduction of effluent COD, complete removal of hazardous organic matter, elimination of material Hazardous inorganics such as cyanides, heavy metal treatment, fungicide decomposition, herbicides, harmful pesticides, purification and sanitation of water, elimination of foul-smelling compounds, removal of soil contaminants, removal of .air pollutants, and elimination of cancer cells and viruses

کلمات کلیدی:

Environmental Pollutants, Balanced reaction, Wastewater Treatment, Photocatalytic degradation

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