

Waste water treatment by photo-catalytic oxidation process

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SUMMARY : Water shortage and water quality are the main issues in the global water crisis. As the population increases, there is ever growing demand on water resources. Due to increased industrial activities and urbanization, availability of good quality water is diminishing day by day. Purification of water is essential for availability of good quality water. Advance oxidation process (photo-catalytic oxidation process) is a method for degradation of organic compounds in waste water through a semiconductor catalyst *i.e.* TiO_2 with UV light. This paper discusses the organic and inorganic pollutants in waste water and their removal via photo-catalytic oxidation process. The mechanisms of photo-catalytic oxidation process have been discussed to radical formation *i.e.* OH^* . These radicals (*i.e.* OH^*) are capable to destroy the organic pollutants in waste water. This paper also discusses the several other conventional methods for purification of water.

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