

## **Overview of pathogenic micro-organisms destruction in contaminated water by oxide photocatalysis**

### **Abstract**

The titanium dioxide (TiO<sub>2</sub>) is a semiconductor oxide photocatalys, which is chemically and biologically inert but exhibits excellent photolytic activity in the ultraviolet (UV) region. Progress in photocatalytic water disinfection requires understanding both concepts of TiO<sub>2</sub> semiconductor as well the biochemistry of microorganisms. The advantage and disadvantage for current water purifications are discussed. Finally, the photocatalytic reactions to water disinfection and detoxification using solar energy.

### **Keywords**

Photocatalysis; Water treatment