#### Available online at www.joac.info

ISSN: 2278-1862



# Journal of Applicable Chemistry



## 2019, 8 (3): 1001-1011 (International Peer Reviewed Journal)

## Photocatalytic Applications of Semiconducting Metal oxide Materials: A Review

D. Nathiya<sup>1</sup>, N. M. I. Alhaji<sup>1</sup>\*, M. Kavin Micheal<sup>2</sup>, Mayuri Meshram<sup>2,3</sup> and A. Ayeshamariam<sup>2</sup>

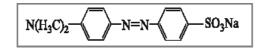
 Department of Chemistry, Khadir Mohideen College, Adirampattinam-614701, INDIA
Department of Physics, Khadir Mohideen College, Adirampattinam-614701, INDIA
Integrated Science Education and Research Centre (ISERC), Santiniketan, Bolpur, West Bengal-731235, INDIA Email: nmialhaji34@gmail.com

Accepted on 25<sup>th</sup> April, 2019

### ABSTRACT

Semiconducting metal oxides are one of the important materials of a special attention with photocatalytic properties to clean water and preserve plants. To remove the impurities and dyes from effluents water technological approaches take the important tool to perform the purification on photocatalytic surfaces. Metal oxides such as ZnO, WO<sub>3</sub>, TiO<sub>2</sub>, CeO<sub>2</sub> AgO, Ga<sub>2</sub>O<sub>3</sub>, AgGaO<sub>2</sub> and ZnGa<sub>2</sub>O<sub>4</sub> use their photocatalytic properties to clean water and soil and to inhibit the growth of undesirable micro-organisms, mold, algae, lichens and fungi. This review focuses about the reported research analyses of based on photocatalytic properties of metal oxides.

#### **Graphical Abstract**



Methyl orange

Keywords: Photocatalytic degradation, Water purification, Semiconducting oxides, Metal oxides.