

## TEMATICĂ ȘI BIBLIOGRAFIE

### Cercetător Științific gr. III – Varianta 3

#### Tematică:

1. Funcționalizarea materialelor avansate pentru aplicații în domeniul protecției mediului
2. Procese de oxidare avansată - fotocataliza eterogenă în tratarea apelor uzate.
3. Metode de sinteză a noilor materiale cu utilizare în domeniul protecției mediului și tehnici de caracterizare a acestora.

#### Referințe bibliografice:

1. Hydrothermal synthesis of multifunctional TiO<sub>2</sub>-ZnO oxide systems with desired antibacterial and photocatalytic properties, Authors: Katarzyna Siwińska-Stefańska, Adam Kubiaka, Adam Piasecki, Anna Dobrowolska, Katarzyna Czaczyk, Mykhaylo Motylenko, David Rafajad, Hermann Ehrliche, Teofil Jesionowski, Applied Surface Science, 2019, pg. 791- 801
2. Multifunctional ZnO materials prepared by a versatile green carbohydrate-assisted combustion method for environmental remediation applications, authors: Cristian D. Enea, Greta Patrinoiu, Cornel Munteanu, Ramona Enea, Mariana Carmen Chifiriuc, Ceramic Journals, 2019, pg 2295- 2302
3. Heterogeneous photocatalysed degradation of two selected pesticide derivatives, triclopyr and daminozid in aqueous suspensions of titanium dioxide, M. Qamar, M. Muneer, D. Bahnemann, 2014, Journal of Environmental Management
4. Heterogeneous photocatalysed degradation of a herbicide derivative, isoproturon in aqueous suspension of titanium dioxide, M.M. Haque, M. Muneer, 2012, Journal of Environmental Management, India
5. Photocatalysed degradation of two selected pesticide derivatives, dichlorvos and phosphamidon, in aqueous, suspensions of titanium dioxide, Desalination Journal, 2017
6. Photocatalytic Degradation of Organic Water Contaminants: Mechanisms Involving Hydroxyl Radical Attack, Craig S. Turchi And David F. Ollis, Journal of Catalyst
7. Photocatalytic TiO<sub>2</sub> films and membranes for the development of efficient wastewater treatment and reuse systems, Desalination journal, 2007, pg. 199-206, authors: Hyeok Choia, Elias Stathatosb, Dionysios D. Dionysioua
8. Titanium oxide nanotubes prepared in phosphate electrolytes, authors: Andrei Ghicov, Hiroaki Tsuchiya, Jan M. Macak, Patrik Schmuki \*, Electrochemistry Communications, 2005, 505- 509
9. Preparation of a Novel TiO<sub>2</sub>-Based p-n Junction Nanotube Photocatalyst, Authors: Yongsheng Chen, John Crittenden, Stephen A. Chakraborty, Larry Sutter and David Whand, Environmental Science & Technology, vol. 30, no.5, pg. 1201- 1208