



March 17-18 2010, Krakow

## ***Workshop on Photocatalysis and its Application in Removal of Contaminants***

### **Programme**

**Wednesday, 2010.03.17**

12 <sup>00</sup> – 15 <sup>00</sup>	<i>Registration in the hall of the ICSC</i>
15 <sup>00</sup> – 15 <sup>10</sup>	Opening of the workshop
15 <sup>10</sup> – 15 <sup>55</sup>	<i>Invited lecture:</i> V. I. Pârvulescu, University of Bucharest, Romania, <b>“Photocatalysis in Destroying Pesticides and Warfare Agents”</b>
15 <sup>55</sup> – 16 <sup>15</sup>	<u>A. Jańczyk</u> , G. Stochel, W. Macyk Jagiellonian University, Krakow, Poland <b>“Photocatalytic Inactivation of Tumor Cells and Microorganisms”</b>
16 <sup>15</sup> – 16 <sup>35</sup>	<u>P. Łabuz</u> , G. Stochel, W. Macyk, Jagiellonian University, Krakow, Poland <b>„Photosensitized Titanium Dioxide Colloids for Visible Light Disinfection”</b>
16 <sup>35</sup> – 16 <sup>55</sup>	<i>Coffee break</i>
16 <sup>55</sup> – 17 <sup>40</sup>	<u>S. Dzwigaj</u> , JP. Nogier, Y. Millot, T. Shishido, M. Matsuoka, M. Saito, E. Thouverez, M. Anpo, M. Che, University of Pierre and Marie Curie, Paris, France, <b>“The Design of Metal-Single site Catalysts for their Application in Photocatalytic Processes”</b>
17 <sup>40</sup> – 18 <sup>00</sup>	<u>R. Gryboś</u> , T. Kasza, M. Witko, Institute of Catalysis and Surface Chemistry PAS, Krakow, Poland <b>“Photocatalysis in Space Exploration: Water Dissociation in the Moon Base.”</b>
18 <sup>00</sup> – 21 <sup>00</sup>	<i>Poster session and welcome party in the site of the ICSC</i>

## Thursday, 2010.03.18

9 <sup>00</sup> – 9 <sup>30</sup>	<i>Invited lecture:</i> T. Ishikawa, Ube Industries Ltd., Ube City, Japan <b>“Strong Photo-Catalytic Fiber and its Wide Application”</b>
9 <sup>30</sup> – 10 <sup>00</sup>	I. Kumakiri, SINTEF Materials and Chemistry, Oslo, Norway <b>“Water Treatment with Catalytic Membrane Reactors”</b>
10 <sup>00</sup> – 10 <sup>30</sup>	<u>S. Mozia</u> , A. W. Morawski, West Pomeranian University of Technology, Szczecin, Poland <b>“Photocatalytic Membrane Reactors (PMRs) in Water and Wastewater Treatment: Possibilities and Perspectives”</b>
10 <sup>30</sup> – 11 <sup>00</sup>	<i>Coffee break</i>
11 <sup>00</sup> – 11 <sup>30</sup>	<u>W. Macyk</u> , J. Derdzińska, Jagiellonian University, Krakow, Poland <b>„Determination of Spectral and Redox Properties of Heterogeneous Photocatalysts”</b>
11 <sup>30</sup> – 11 <sup>50</sup>	<u>J. Kuncewicz</u> , K. Szaciłowski, G. Stochel, W. Macyk, Jagiellonian University, Krakow, Poland <b>“Photosensitization of Titanium Dioxide with Chromium(VI) Compounds – Mechanistic Studies”</b>
11 <sup>50</sup> – 12 <sup>10</sup>	<u>A. Zielińska-Jurek</u> , M. Walicka, A. Tadajewska, A. Zaleska Gdansk University of Technology, Gdansk, Poland <b>“Preparation of Ag/Cu-Doped Titanium (IV) Oxide Nanoparticles in w/o Microemulsion”</b>
12 <sup>10</sup> – 12 <sup>30</sup>	<u>M. Buchalska</u> , W. Macyk Jagiellonian University, Krakow, Poland <b>“Photoactivity of Surface Modified Nanocrystalline TiO<sub>2</sub> in Degradation of Organic Pollutants”</b>
12 <sup>30</sup> - 12 <sup>50</sup>	<u>D. Wodka</u> , E. Bielańska, R. P. Socha, M. Elżbieciak, J. Gurgul, P. Nowak, P. Warszyński, I. Kumakiri, Institute of Catalysis and Surface Chemistry PAS, Krakow, Poland <b>„Photocatalytic Activity of Titanium Dioxide Modified by Silver Nanoparticles”</b>
12 <sup>50</sup> - 13 <sup>10</sup>	<u>J. Dziedzic</u> , D. Wodka, P. Nowak, P. Warszyński, I. Kumakiri, C. Simon Institute of Catalysis and Surface Chemistry PAS, Krakow, Poland <b>„Photocatalytic Degradation of the Humic Species as a Method of their Removal from Water”</b>
13 <sup>10</sup> – 13 <sup>20</sup>	Closing of the seminar
13 <sup>30</sup>	<i>Lunch</i>

List of posters

- P1       E. Adamek, J. Ziemiańska, I. Lipska, A. Makowski, A. Sobczak, W. Baran  
Medical University of Silesia, Sosnowiec, Poland  
**“Assessment of Radiant Flux Absorption by Irradiated Phase on the Kinetics of Photocatalytic Reactions”**
- P2       T. Baran, W. Macyk  
Jagiellonian University, Krakow, Poland  
**“Visible Light Induced Photocatalytic *versus* Photoassisted Oxidation of Volatile Air Pollutants”**
- P3       W. Baran, J. Ziemiańska, E. Adamek, A. Sobczak, I. Lipska, A. Makowski  
Medical University of Silesia, Sosnowiec, Poland  
**“The Study of Photocatalytic Degradation of Sulfonamides Applied to Municipal Wastewater”**
- P4       P. Brożek, G. Suski, D. Dolat, A. W. Morawski  
West Pomeranian University of Technology, Szczecin, Poland  
**“Water and Wastewater Treatment on Photocatalytic Pilot Plant”**
- P5       J. C. Colmenares, Z. Karpiński, M. A. Aramendia, A. Marinas, J. M. Marinas,  
F. J. Urbano  
Institute of Physical Chemistry PAS, Warszawa, Poland.  
**“Ultrasound-Assisted Synthesis of Nanostructured Metal-Supported Titania Photocatalysts and their Use in the Degradation of 3-Chloropyridine in Aqueous Solution”**
- P6       A. Hänel, A. Zaleska, J. Hupka  
Gdansk University of Technology, Gdansk, Poland  
**“Photocatalytic Activity of TiO<sub>2</sub> Immobilized on Glass Beads”**
- P7       E. Grabowska, H. Remita, A. Zaleska,  
Gdansk University of Technology, Gdansk, Poland  
**“Metal-Modified TiO<sub>2</sub> Nanoparticles: Characterization and Photoactivity”**
- P8       J. Grzechulska-Damszel,  
West Pomeranian University of Technology, Szczecin, Poland  
**“Application of Titania Coating as Photoactive Refill in the Reactor for Purification of Water Contaminated with Organics”**
- P9       D. Kędracki, J. Dziedzic, K. Szczepanowicz, P. Nowak, L. Szyk-Warszyńska,  
P. Warszyński,  
Institute of Catalysis and Surface Chemistry PAS, Jagiellonian University, Krakow,  
Poland  
**“Encapsulation of Oxidant Compounds in Application for Purification of Water”**
- P10      L. Kowalczyk, M. I. Szynkowska, E. Maćkiewicz, J. Góralski, T. Paryjczak,  
Technical University of Lodz, Lodz, Poland  
**“Activity of Modified Titanium Catalysts in the Reaction of Photocatalytic Oxidation of Ammonia.”**

- P11      I. Kumakiri, A. Karlsson, Ø. Vistad, J. Yang, J. Hafizovic, A. Bouzga  
SINTEF Materials and Chemistry, Oslo, Norway  
**“High Throughput Evaluation for Photo-Catalytic Water Treatment”**
- P12      I. Kumakiri, C. Simon, K. Szczepanowicz, D. Wodka, P. Nowak,  
L. Szyk-Warszyńska, P. Warszyński  
SINTEF Materials and Chemistry, Oslo, Norway  
**“Removal of Natural Organic Matters in Portable Water Using Photo-Catalytic Membrane Reactor”**
- P13      R. P. Socha, P. Żurek, P. Nowak  
Institute of Catalysis and Surface Chemistry PAS, Krakow, Poland  
**“Influence of Doping of TiO<sub>2</sub> with Transition Metal Ions on the Charge – Transfer at the TiO<sub>2</sub>/Aqueous Electrolyte Interface”**
- P14      E. Świetek, W. Macyk,  
Jagiellonian University, Krakow, Poland  
**„Enantioselective Organic Synthesis on Surface-Modified Semiconductor Photocatalysts”**
- P15      D. Wodka, P. Nowak, P. Warszyński, I. Kumakiri  
Institute of Catalysis and Surface Chemistry PAS, Krakow, Poland  
**“Photocatalytic Membrane Methods of Removal of Organic Contaminants for Water Treatment – Preparation and Testing of the Photo – Catalyst”**
- P16      W. Żmudziński,  
University of Economics, Poznan, Poland  
**“Glucose Degradation by Photocatalysis on Titanium Dioxide”**