

The 2nd International Conference on
**New Photocatalytic Materials for Environment,
Energy and Sustainability**
(NPM -2)

Call for Papers: Friday, March 31, 2017
(Abstracts should be sent to: hussain@alekabi.com)



Ljubljana, Slovenia

National Institute of Chemistry, Ljubljana, Slovenia
July 3-6, 2017

International Scientific Committee

Since the invited speakers are significantly contributing to the success of our conferences, we always considered them members of the international scientific committee.

Professor Detlef Bahnemann, Leibniz University Hannover, Germany and Saint-Petersburg State University, Russia

Professor Yu-Wen Chen, National Central University, Taiwan

Professor Christophe Colbeau-Justin, CNRS UMR 8000, Université Paris-Sud, France

Professor Juan Carlos Colmenares, Polish Academy of Sciences, Poland

Professor Imre Dekany, Szeged University Hungary

Professor Goran Dražić, National Institute of Chemistry, Slovenia

Dr. Mohamad El-Roz, Normandie University, ENSICAEN, UNICAEN, CNRS, France

Dr. Shiyong Fan, Dalian University of Technology, China

Dr. Chantal Guillard, IRCELYON, University of Lyon 1, France

Professor Klara Hernadi, University of Szeged, Hungary

Professor Michael R. Hoffmann, California Institute of Technology, USA

Professor Jan Hupka, Gdansk University of Technology, Poland

Professor Alex Kokorin, N. Semenov Institute of Chemical Physics, Russian Academy of Sciences, Russia

Professor Ewa Kowalska, Hokkaido University, Japan

Professor Xinyong Li, Dalian University of Technology, China

Professor Yao-Tung Lin, National Chung Hsing University, Taiwan

Professor Nataša Zabukovec Logar, National Institute of Chemistry and University of Nova Gorica, Slovenia

Professor Gongxuan Lu, Chinese Academy of Science, China

Professor Olinda Coelho Monteiro, Universidade de Lisboa, Portugal

Professor Antoni W. Morawski, West Pomeranian University of Technology, Poland

Professor Gerko Oskam, CINVESTAV-IPN, Unidad Mérida, Mexico

Professor Horváth Ottó, University of Pannonia, Hungary

Professor Gianfranco Pacchioni, University of Milano Bicocca, Italy

Professor Maria Cristina Paganini, 10125 Torino, Italy

Dr. Zsolt Pap, Babeş-Bolyai University, Romania & University of Szeged, Hungary

Professor Yaron Paz, Technion, Israel

Professor Albin Pintar, National Institute of Chemistry, Slovenia

Professor Sotiris E. Pratsinis, Swiss Federal Institute of Technology (ETH Zurich), Switzerland

Professor Xie Quan, Dalian University of Technology, China

Dr. Hynd Remita, Université Paris-Sud, France

Professor Elena Selli, Università degli Studi di Milano, Italy

Dr. Adrian M.T Silva, Porto University, Portugal

Professor Urska Lavrencic Stangar, University of Ljubljana and University of Nova Gorica, Slovenia

Professor Nataša Novak Tušar, National Institute of Chemistry and University of Nova Gorica, Slovenia

Dr. Zhifan Yin, Dalian University of Technology, China

Professor Chen Zhong, Nanyang Technological University, Singapore

Local Organizing Committee

Professor Nataša Novak Tušar (Chairwoman), National institute of chemistry and University of Nova Gorica, Slovenia

Professor Urska Lavrencic Stangar, University of Ljubljana, Slovenia

Professor Albin Pintar, National institute of chemistry, Slovenia

Professor Nataša Zabukovec Logar, National Institute of Chemistry and University of Nova Gorica, Slovenia

Conference Lead Organizer

Hussain Al-Ekabi, Ph.D.

President, Redox Technologies, Inc., The University of Western Ontario Research Park

100 Collip Circle, Suite 230A, London, Ontario N6G 4X8, Canada

Phone: (519) 858-5055; Fax: (519) 858-5056

E-mail: Hussain@alekabi.com; Website: www.redoxtech.com

Partial List of Confirmed Invited Speakers

Professor Detlef Bahnemann, Leibniz University Hannover, Germany and Saint-Petersburg State University, Russia

• *More than 25 Years of Photocatalytic Oxidation Studies of Aliphatic Alcohols: Do we Understand the Mechanism?*

Professor Yu-Wen Chen, National Central University, Taiwan

• *Photocatalytic Antibacteria Properties of Ag/TiO₂-CeO₂ Thin Film Prepared by Peroxo Sol-Gel Method*

Professor Juan Carlos Colmenares, Polish Academy of Sciences, Poland

• *From a Confined Multidimensional Nanostructured Environment to a Microspace: Alternative Solutions for Advanced Photocatalytic Methods in Wastewater Treatment*

Dr. Christophe Colbeau-Justin, CNRS UMR 8000, Université Paris-Sud, France

• *Increased Photocatalytic Properties of TiO₂ by Bimetallic Nanoparticles Deposition*

Professor Imre Dékány (Co-Authors: Ágota Deák and László Janovák), Szeged University Hungary

• *Structural, Morphological and Photocatalytic Characterization of Photoreactive Hybrid Thin Films with Tunable Wetting Properties*

Professor Goran Dražić, National Institute of Chemistry, Slovenia

• *Atomic Level Structural Characterisation of Photocatalytic Materials*

Dr. Mohamad El-Roz, Normandie University, ENSICAEN, UNICAEN, CNRS, France

• *FTIR Spectroscopy with Isotopic Exchange: A Powerful Technique to Elucidate Photocatalytic Reaction Mechanisms*

Dr. Shiying Fan, Dalian University of Technology, China

• *Tailored Heter- and Nano- Junction between Transition Metal Oxides and Chalcogenides for Solar Energy Utilization and Conversion*

Dr. Chantal Guillard (Co-authors: Son Ngo, Lynn M. Betts, and Frederic Dappozze), IRCELYON, University of Lyon 1, France

• *Mechanism of Degradation of Carboxylic Acid and Alcohol under Air and under N₂*

Professor Klara Hernadi, University of Szeged, Hungary

• *Hollow Structured Materials in Photocatalysis*

Dr. Michael R. Hoffmann, California Institute of Technology, USA

• *PV-Powered Semiconductor Electrochemistry: Achieving Low Schottky Barriers without IrO₂ or RuO₂ as Ohmic Contacts to Base Metals*

Professor Jan Hupka, Gdansk University of Technology, Poland

• *TBA*

Professor Alex Kokorin, N. Semenov Institute of Chemical Physics, Russian Academy of Sciences, Russia

• *Photoaccumulating Systems Based on Nanostructured TiO₂/MoO₃ and TiO₂/MoO₃:V₂O₅ Photocatalysts*

Professor Ewa Kowalska, Hokkaido University, Japan

• *Noble Metal-Modified Faceted Anatase Particles with Enhanced Photocatalytic Activities for Decomposition of Chemical and Microbiological Pollutants*

Professor Xinyong Li, Dalian University of Technology, China

• *In Situ Spectroscopy Investigation of the Surface-interface Charge-Transfer Process over Highly Efficient Solar Harvesting Photoactive Systems*

Professor Yao-Tung Lin, National Chung Hsing University, Taiwan

• *To Study the Visible-Light-Responsive Photocatalytic Inactivation of Microbial Cell Using Combined Ultrahigh Resolution Full-Field X-Ray Microscopy and Atomic Force Microscope*

Professor Gongxuan Lu, Chinese Academy of Science, China

• *Enhanced Visible Light Water Splitting Via Inhibition of Hydrogen-Oxygen Recombination*

Professor Olinda Coelho Monteiro, Universidade de Lisboa, Portugal

- *Custom-Made Photocatalysts: Playing with the Properties of Semiconductor Nanomaterials*

Professor Antoni W. Morawski, West Pomeranian University of Technology, Poland

- *On the Adsorption and Photocatalytic Decomposition of Dyes on Hybrid TiO₂/Graphene Materials*

Dr. Gerko Oskam, CINVESTAV-IPN, Unidad Mérida, Mexico

- *Charge Transport and Recombination Properties of Nanostructured Oxide Materials for Photoelectrochemical Solar Energy Conversion.*

Professor Horváth Ottó, University of Pannonia, Hungary

- *Photocatalytic and Photolytic Degradation of Nitrofurantoin: A Widely Used Drug*

Professor Gianfranco Pacchioni, University of Milano Bicocca, Italy

- *Oxides Doping for Photocatalysis: Pros and Cons*

Professor Maria Cristina Paganini, Torino, Italy

- *New Photoactive Materials Based on Transition Metal Oxides Doped With Rare Earth Metal Ions*

Dr. Zsolt Pap, Babeş-Bolyai University, Romania & University of Szeged, Hungary

- *Modelling the Synthesis Pathway of ZnO Shape-Tailored Photocatalysts Using the Box-Behnken Approach*

Professor Yaron Paz, Technion, Israel

- *TBA*

Professor Albin Pintar, National Institute of Chemistry, Slovenia

- *Novel Approaches towards Enhanced Charge Separation and Visible Light Utilization in TiO₂ Photocatalysis*

Professor Sotiris E. Pratsinis, Swiss Federal Institute of Technology (ETH Zurich), Switzerland

- *Scalable Flame Aerosol Synthesis of Highly Efficient Atomically-Dispersed Pd on TiO₂ for NO_x Removal by Solar Light*

Professor Xie Quan, Dalian University of Technology, China

- *g-C₃N₄ Based Photocatalysts for Efficient Visible-Light Induced Photocatalytic Degradation of Pollutants*

Dr. Hynd Remita, Université Paris-Sud, France

- *Conjugated Polymer Nanostructures for Photocatalysis under Visible Light*

Professor Elena Selli, Università degli Studi di Milano, Italy

- *TBA*

Dr. Adrian M.T Silva (Co-authors: Joaquim L. Faria and Cláudia G. Silva) Porto University, Portugal

- ***Carbon-Based Photocatalytic Materials***

Professor Urska Lavrencic Stangar, University of Ljubljana and University of Nova Gorica, Slovenia

- ***Transparent Thin Films with Self-Cleaning Efficiency and Improved Durability Prepared at Low Temperatures***

Professor Nataša Novak Tušar, National Institute of Chemistry and University of Nova Gorica, Slovenia

- ***Silica Supported Photocatalysts for Wastewater Treatment***

Dr. Zhifan Yin, Dalian University of Technology, China

- ***Facile Template-free Synthesis of CaFe_2O_4 Hierarchically Hollow Microspheres: Applications in Visible Light-driven Degradation of Gaseous 1,2-Dichlorobenzene***

Professor Chen Zhong, Nanyang Technological University, Singapore

- ***Towards More Efficient BiVO_4 Photoanode for PEC Water Oxidation through Doping and Codoping***

Topics to be covered

This international conference is designed to bring together interested professionals from universities, research institutions and industry to exchange information, views, experiences and perspectives. It presents the most current findings generated at the laboratories of universities and research institutions, as well as in the field by the practitioners. Abstracts are being solicited in the following areas:

1. New Photocatalytic Materials

- 2-1 Novel aspects of catalyst preparation, doping and co-doping
- 2-2 Broadening the spectral range of TiO_2 : Visible-light active TiO_2 catalyst
- 2-3 TiO_2 -sorbent combination (TiO_2 /Carbon, TiO_2 /Cement, etc)
- 2-4 Novel synthetic methodology for the preparation of nanostructured photocatalysts
- 2-5 Novel photocatalytic materials, such as metal-free photocatalysts (i.e., g- C_3N_4), plasmonic photocatalysts, TiO_2 based materials, TiO_2 composites with carbon based materials (carbon nanotube, graphene, fullerene...)
- 2-6 Perovskites
- 2-7 Novel supports for photocatalysis
- 2-8 Characterization

1. Advances in Photocatalysts

- 1-1 Water treatment
- 1-2 Air treatment
- 1-3 Indoor air purification
- 1-4 Disinfection and medical applications

2. Fundamental Investigations

- 3-1 Mechanistic Studies
- 3-2 Engineering and modeling

- 3-3 Anti-corrosion effects
- 3-4 Photocatalytic lithography
- 3-5 Lateral and remote oxidation
- 3-6 Microchemical systems
- 3-7 Process Integration
- 3-8 Photoefficiencies – definitions, values and misconceptions

4. Advances in Applications of Photocatalysis

- 4-1 Solar applications
- 4-2 Hydrogen production from water splitting
- 4-3 Dye sensitized solar cells
- 4-4 Fuel Cells
- 4-5 Clean photocatalytic chemical processes
- 4-6 TiO₂-based sunscreens
- 4-7 Biomedical surface applications

5. Technological and Commercial Issues

- 5-1 Standardization in academic research and for commercial products
- 5-2 Technology transfer
- 5-3 Integration of photocatalysis with other technologies
- 5-4 Toxicology of nanomaterials
- 5-5 Intellectual property, patents
- 5-6 The management and economy of TiO₂ photocatalytic processes

Call for Papers

Scientists, engineers, and business professionals who are interested in the topics covered by this conference are invited to submit abstracts of up to 500 words in English describing their work. All abstracts are due by **Friday, March 31, 2017**.

Guidelines to Prepare Abstracts

Please follow the following guidelines in preparing your abstract(s):

- Type single space using, if possible, Times New Roman 12-point font (preferred);
- Keep all material within a one-inch margin on all sides;
- The title should be typed in boldface (Title Case, 14- points) centered at the top of the page;
- Leave a double space between the title and the names of the author(s);
- The names of the authors should be typed in boldface in single space, and then addresses of the authors in single space; underline the name of the presenting author;
- Leave a double space between the end of the addresses and the opening paragraphs;
- Abstracts should be sent, in Microsoft Word format, to Hussain Al-Ekabi (E-mail: hussain@alekabi.com).

Meeting Site and Accommodation

The conference will be held at The National Institute of Chemistry (NIC), Ljubljana, Slovenia. Blocks of guest rooms with a discounted rate have been reserved for participants at the following hotels, all of which include breakfast:

- **Hotel Lev, Vošnjakova**

Guest room rate: Single room = 90 € /night - Double room for 2 persons = 105 € /night

Distance from NIC: walking distance from National Institute of Chemistry 1.5 km, 10 min by taxi

Deadline for booking: rooms must be booked by June 1, 2017 to receive this discounted rate

Booking link: <http://bookings.ihotelier.com/bookings.jsp?groupID=1752696&hotelID=86073>

- **City Hotel, Dalmatinova Street**

Guest room rate: Single room = 90 € /night - Double room for 2 persons = 115 € /night

Distance from NIC: walking distance from National Institute of Chemistry 1.5 km, 10 min by taxi

Deadline for booking: rooms must be booked by May 26, 2017 to receive this discounted rate

Booking link: https://www.cityhotel.si/eventBooking.xhtml?event=EVENT_187

- **Hotel Mrak, Rimska cesta**

Guest room rate: Double room single use = 75 € /night - Double room for 2 persons = 95 € /night

Distance from NIC: walking distance from National Institute of Chemistry 700 m, 5 min by taxi

Deadline for booking: rooms must be booked by April 6, 2017 to receive this discounted rate

Booking link: sales@hotelmrak.si; Code for the booking: NPM2

Please book your room early to avoid disappointment.

Registration

The deadline for the early registration is Thursday, March 31, 2016. The on-site registration starts on **Sunday afternoon, July 2, 2017 at 2:00-7:00 p.m.** and will be resumed on **Monday morning at 7:30 a.m.**

The registration fees are structured in Euro and USD for your convenience. We encourage you to pay your registration fee through the website online with Shopify in USD.

You can also pay your registration fee directly to us by either credit card (Visa, Master Card or American Express) or by bank transfers. Payments made by Visa will be converted, at our end, into equivalent US Dollars using the exchange rate of Bank of Canada. Payments made by a Master Card or an American Express Card will be converted, at our end, into their equivalents in Canadian dollars using also the exchange rate of Bank of Canada. As a result, depending on the fluctuation of the exchange rate and potential fees that your credit card financial institution may apply for the conversion, payments by credit card may turn out to be slightly higher than the actual amount stated on the registration form.

Participants are also allowed to pay by cash for on-site registration only.

REGISTRATION FORM

The 2nd International Conference on New Photocatalytic Materials for Environment, Energy and Sustainability (NPM-2)

National Institute of Chemistry, Ljubljana, Slovenia
July 3-6, 2017

➔ **PERSONAL DATA** (please print):

Mr. Ms. Miss Mrs. Dr. Prof. Name: _____

Professional Title: _____ Organization: _____

Phone: _____ Fax: _____ E-mail: _____

➔ **REGISTRATION FEES (in Euro):**

Registration Options	Early Registration *,** Paid Before March 31, 2017	Standard Registration **, ** Paid After March 31, 2017
Students	€400 (\$430UD)	€500 (\$535US)
Invited Speakers	€500 (\$535US)	€600 (\$645US)
Academia/Governmental Agencies/ Presenters	€600 (\$645UD)	€700 (\$750US)
Industry	€700 (\$750US)	€800 (\$856US)
Exhibition with two free registration	€1750 (\$1,875UD)	€2,250 (\$2,410US)

*As in previous annual meetings, all participants, including the speakers, the members of the international organizing committees, and the sessions' chairs are expected to register and pay their registration fees.

**The registration fee covers the technical sessions, hot lunches, reception, and the coffee breaks. Banquet Dinner will be sponsored by the National Institute of Chemistry, Slovenia

➔ **METHODS OF PAYMENT**

Bank Transfer (Details to be provided at a later date)

Visa***

MasterCard***

American Express***

Credit Card No.: _____ Expiration Date: _____

Signature: _____ Security Code: _____

Cash (on-site registration only)

**** Payments by Visa will be converted into \$US while payments by MC or AMEX will be converted to their equivalents in Canadian dollars using the exchange rate of Bank of Canada.

➔ **PLEASE, MAIL/FAX YOUR REGISTRATION FORM ALONG WITH YOUR PAYMENT TO:**

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