

*The 15<sup>th</sup> International Conference on*  
**TiO<sub>2</sub> Photocatalysis: Fundamentals and**  
**Applications**  
**(TiO<sub>2</sub>-15)**

**Call for Papers**  
**Wednesday, June 30, 2010 is the Absolute Deadline for**  
**Submitting Abstracts**  
**Website: [www.redoxtech.com](http://www.redoxtech.com)**

**Town & Country Resort, San Diego, California**  
**November 15-18, 2010**

## International Organizing Committee

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**Jincai Zhao**, Chinese Academy of Sciences, China

## Conference Correspondence

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## The Scope of the Conference

This international conference has been bringing together interested parties from universities, research institutions and industry to exchange information, views, experience and perspectives. TiO<sub>2</sub>-15 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. Advances in TiO<sub>2</sub> photocatalyst applications-I

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

### 2. Materials development

- 2-1 Novel aspects of catalyst preparation, doping and co-doping
- 2-2 Broadening the spectral range of TiO<sub>2</sub>: Visible-light active TiO<sub>2</sub> catalyst
- 2-3 TiO<sub>2</sub>-sorbent combinations (TiO<sub>2</sub>/Carbon, TiO<sub>2</sub>/Cement, etc)
- 2-4 Novel supports for photocatalysis
- 2-5 Self-cleaning surfaces and coatings
- 2-6 Catalyst deactivation and regeneration
- 2-7 Characterization

### 3. 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 TiO<sub>2</sub> applications-II

- 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 TiO<sub>2</sub>-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 TiO<sub>2</sub> photocatalytic processes

## Invited Speakers (some titles are tentative)

The following invited speakers have kindly confirmed their participation:

*Significance of TiO<sub>2</sub> Photocatalysis for Organic Synthesis*

**Angelo Albini**

University of Pavia, Italy

*Some aspects of photocatalysis at doped and surface modified TiO<sub>2</sub>*

**Rossano Amadelli**

Università di Ferrara, Italy

**Masakazu Anpo (Waiting for the title of his lecture)**

Osaka Prefecture University, Japan

*How much Surface Photochemistry is there in Semiconductor Photocatalysis?*

**Detlef Bahnemann**

Hannover University, Germany

*Photocatalytic Degradation of Humic Substances: Polydispersity Effects and Polyelectrolyte Adsorption*

**Miray Bekbölet**

Bogazici University, Turkey

*N-TiO<sub>2</sub>: Chemical Synthesis and Photocatalysis*

**Roberto Candal**

INQUIMAE-CONICET-UBA, Argentina

*Synthesis of Semiconductor Oxide Nanostructures and Their Application in Aqueous Pollutant Treatment*

**Zhong Chen**

Nanyang Technological University, Singapore

*On the Origin of Visible-Light Activity of the Co-Doped TiO<sub>2</sub> Photocatalysts*

**Zekiye Cinar**

Yildiz Technical University, Turkey

**Hugo Destailats (Waiting for the title of his lecture)**

Lawrence Berkeley National Laboratory, USA

*Surface Science Studies of TiO<sub>2</sub> Anatase*

**Ulrike Diebold**

Tulane University, USA

*NF-Codoped TiO<sub>2</sub> for the Destruction of Cyanotoxins in Water*

**Dionysios Dionysiou**

University of Cincinnati, USA

*Self Cleaning Performances - CEN Standardization Activities*

**Anne Durandean**

Saint-Gobain Recherche - Thin Film department, France

*Band-gap Engineering in TiO<sub>2</sub> by Bulk Doping with p-Block Elements. A Reliable Perspective for Visible Light Harvesting*

**Elio Giamello**

University of Torino, Italy

**Steve Hay (Waiting for the title of his lecture)**

United Tech. Research Centre, USA

**Valerie Hequet (Waiting for the title of her lecture)**

Ecole des Mines de Nantes, France

*Recall of Fundamentals for a True Photocatalysis and True Applications*

**Jean-Marie Herrmann**

IRCELYON, France

*Environmental Applications of Semiconductor Photocatalysis: A Forty- Year Perspective*

**Michael Hoffman**

California Institute of Technology, USA

*Performance of Doped TiO<sub>2</sub> Photocatalysts in Visible Light*

**Jan Hupka and Adriana Zaleska**

Gdansk University of Technology, Poland

*Preparation and Characteristic Reaction of Au Nanoparticle-Loaded Titanium Oxide Photocatalyst*

**Tatsuhiko Ihara**

Kinki University, Japan

*Decontamination of Bioaerosols by UV-A Photocatalysis: Bactericidal, Virucidal and Sporocidal Aspects at the Frontier Between Photocatalysis and Microbiology*

**Sébastien Josset, Marie-Claire Lett, Nicolas Keller, Valérie Keller**

European Laboratory for Catalysis and Surface Sciences, France

*Photocatalytic Degradation of Chemical and Biological Warfare Agents: Application to Self-Decontaminating Textiles and Paints*

**Valerie Keller**

European Laboratory for Catalysis and Surface Sciences, France

*Advances in Design and Modeling of Photocatalytic Reactors for Environmental Applications*

**Gianluca Li Puma**

The University of Nottingham, UK

*Solar Photocatalytic Treatment of Printing Industrial Wastewaters: From Laboratory to Industrial Scale*

**Jose Colina-Marquez and Fiderman Machuca-Martinez**

Universidad del Valle, Colombia

*Morphology-Photocatalytic Activity Relationships for Shape Controlled TiO<sub>2</sub> Nanoparticles obtained by Hydrothermal Methods*

**Valter Maurino**

University of Torino, Italy

*The First Truly Negative VOC, Commercially Available, Photocatalytic Paints using CristalActive Technology*

**Robert McIntyre**

Millennium Inorganic Chemicals, UK

**Theodore Mill (Waiting for the title of his lecture)**

SRI, USA

*Micro Structuration of Photocatalysts for Improved Efficiency*

**Claudio Minero**

University of Torino, Italy

*Large Scale TiO<sub>2</sub> Photocatalytic Installation for Wastewater Purification*

**Antoni Morawski**

West Pomeranian University of Technology, Poland

*Control of Reaction Sites on TiO<sub>2</sub> Nanoparticles by Exposing Crystal Surfaces*

**Teruhisa Ohno**

Kyushu Institute of Technology

*Design and Fabrication of Titania Photocatalysts: Revisiting Principles and Mechanism of Titania Photocatalysts*

**Bunsho Ohtani**

Hokkaido University, Japan

*New Developments in the Treatment of Culture Salmon Effluents with the Use of the Recently Designed New Batch Photoreactor*

**Mario Ollino**

Universidad Técnica Federico Santa María, Chile

*Kinetics of Carbonaceous Film Removal: Comparison of Photocatalysis and Thermal Catalysis*

**David Ollis**

North Carolina State University, USA

*Utilizing Novel Nanostructures for Efficient Photocatalysis*

**Alexander Orlov**

Stony Brook University, USA

*Nature of Defect States in n-Doped and Reduced TiO<sub>2</sub>*

**Gianfranco Pacchioni**

Università di Milano-Bicocca, Italy

*Photocatalysis by Bismuth- containing Oxides*

**Yaron Paz**

Technion-IIT, Israel

*Learning about Photocatalysis Fundamentals from the Use of other Air/Water Purification Methods, Inhibitors and Probe Molecules*

**Pierre Pichat**

CNRS/Ecole Centrale de Lyon, France

*Determination of Quantum Yields in Light Scattering Systems and Polychromatic Excitation Light*

**Joseph Rabani**

The Hebrew University of Jerusalem, Israel

*Development of a New Photocatalytic System for the Treatment of Odors and Corrosive Compounds Generated in Wastewater Treatment Plants*

**Benigno Sánchez-Cabrero**

CIEMAT – PSA, Spain

*Titanium Dioxide and Astrochemistry*

**Nick Serpone**

Università degli Studi di Pavia, Italy

*Test Methods of Photocatalytic Materials under Ultraviolet and Visible Light Irradiation*

**koji Takeuchi**

National Institute of Advanced Industrial Science & Technology (AIST), Japan

*Selective Oxidation of Alcohols over Semiconductor Photocatalysts*

**Tsunehiro Tanaka**

Kyoto University, Japan

*Photocatalytic Degradation of Gallic Acid by UV-LED Radiation*

**Miguel A. Valenzuela**

Instituto Politecnico Nacional-ESIQIE, Mexico

**Shozo Yanagida (Waiting for the title of his lecture)**

Osaka University, Japan

*Photocatalytic Degradation Process of Organic Substances by TiO<sub>2</sub>-Zeolite Composite on a Conventional Glass Cloth*

**Atsuo Yasumori**

Tokyo University of Science, Japan

*Photocatalytic Nanomaterials for Solar-Driven Water Disinfection*

**Jimmy Yu**

Chinese University of Hong Kong

*Photocatalysis: Gas Phase Purification Aspect*

**Orfan Zahraa**

Institut National Polytechnique de Lorraine (INPL), France

*Heterogeneous Photocatalytic Decomposition of Environmentally Persistent Perfluorooctanoic Acid (PFOA)*

**Pengyi Zhang**

Tsinghua University, China

*Photodegradation of Dyes on TiO<sub>2</sub> under Visible Irradiation and its Application to Selective Oxidation of Alcohols*

**Jincai Zhao**

Chinese Academy of Sciences, China

## Call for Abstracts

Scientists, engineers, and business professionals who are interested in TiO<sub>2</sub>-15 are invited to submit abstracts of up to 500 words in English describing their work. All abstracts are due by **Wednesday, June 30, 2010**. In addition to the invited lectures (25 minutes each) listed above, about 25 additional abstracts will be chosen for short talks (15 minutes each) and the rest of abstracts will be presented in the poster session. Each poster will have 1.2 m x 1.2 m of display space.

## 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, followed the 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 Dr. Hussain Al-Ekabi (E-mail: [hussain@alekabi.com](mailto:hussain@alekabi.com)).

## Call for Exhibits

Companies conducting business related to the themes of TiO<sub>2</sub>-15 are invited to exhibit their products and/or services. Exhibits will be displayed throughout the conferences in a central area near the registration desks, coffee breaks, poster sessions and lecture rooms. The cost of an 8-ft x 10-ft booth is **\$2,250.00US** if payment is received on or before **Wednesday, June 30, 2009**, and **\$2,500.00US** if payment is received after that date. This includes two free registrations to

attend the technical session of the conference. Please, reserve early, as space is limited, and will be served on a first come first serve basis.

## Registration

The deadline for the early registration is **Wednesday, June 30, 2009**. The on-site registration starts on Sunday, **November 14, 2010**, 2:00 – 8:00 p.m. and will resume on Tuesday, November 15 at 7:30 a.m. All registration fees are set in US dollars. The registration fees can be paid either by credit cards (Visa, Master Card or American Express) or by “Encoded Checks” in US funds drawn on a US bank account made payable to “Redox Technologies, Inc.”

Payment made by Visa will be converted, at our end, into their equivalents in 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 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.

## Meeting Site and Accommodation

TiO2-15 will be held at the Town & Country Resort, San Diego, California, USA. A block of rooms has been reserved at the Resort at a special group rate for the participants. The rate is **\$145.00US** for single or double beds per night. For reservations, please contact the reservation department of the resort by phone: 1-800- 772-8527 or (619) 291-7131 (ext. 3810) or by fax: (619) 294-4681. To obtain this rate, please inform the hotel that you are attending Redox Meetings. Please be advised that this block of rooms is being held at this special rate until **Friday, October 22, 2010**. After this date, we cannot guarantee the availability of rooms or the special rate. Please, book early to avoid disappointment.

### Dates to Remember

Wednesday, June 30, 2010		Deadline for receiving abstracts
Wednesday, June 30, 2010		Deadline for receiving payments of early registration
Friday, July 30, 2010		Notification of the authors regarding their abstracts
Sunday, November 14, 2010	2:00 – 8:00 p.m.	On-site registration
Monday, November 15, 2010	8:30 a.m. – 5:30 p.m.	Technical sessions
Tuesday, November 17, 2010	8:30 a.m. – 5:30 p.m.	Technical sessions
Wednesday, November 18, 2010	8:30 a.m. – 5:30 p.m.	Technical sessions
Wednesday, November 17, 2010	7:00 – 9:00 p.m.	Banquet Dinner
Thursday, November 18, 2010	8:30 – 4:00pm	Technical Sessions
Thursday, November 18, 2010	4:00pm	Adjourn