



INTERNATIONAL CONFERENCE

INTERNATIONAL OZONE ASSOCIATION

European African Asian Australasian Group

Ozone and Related Oxidants: Advances in Science and Technology

From Generation to Application in Water Treatment, Food Processing, Agriculture, Industry, Health and Environment



June 3 - 5, 2014
Dublin, Ireland

ADVANCE PROGRAMME

Tuesday 3 June 2014

8h30-10h30	Registration	
10h00	Welcome coffee	
10h30-12h00	Opening session	
10h30-11h00	Conference introduction <i>F. Violleau, M. Roustan, IOA-EA₃G Officers</i>	
11h00-11h30	Ozone as active substance under the biocidal product regulation <i>B. Paolini, General Manager Degrémont Technologies AG, Chairman of the Ozone Registration Group BWT, Degrémont Technologies (Ozonía), ProMinent and Xylem (WEDECO)</i>	Exhibition
11h30-12h	Ozone in Food processing: Challenges and Applications <i>C. P. O'Donnell Vice Principal of the UCD College of Engineering and Architecture. Manager of the Food Processing and Quality Pillar within the UCD Institute of Food and Health (Ireland)</i>	
12h00	Lunch	
13h30-17h30	Session 1. Agri-food applications	
13h30-14h	Effect of ozone on quality and safety of fruit based smoothies <i>U. Tiwari (Ireland)</i>	
14h00-14h30	Influence of postharvest ozone treatment on decay, catalase, lipoxygenase activities, and anthocyanin content of 'Redglobe' table grapes <i>T. Yaseen, A. Ricelli, P. Albanese, I. Nicoletti, S. Essakhi, A. M. D'Onghia (Italy)</i>	
14h30-15h00	Generation and efficacy of in-package ozone <i>Dr PJ Cullen (Australia)</i>	
15h00-15h30	Application of ozone in meat and fish processing <i>B. Tiwari (Ireland)</i>	Exhibition
15h30-16h00	Coffee break	
16h00-16h30	Destruction of malodorous compounds and VOCs from a simulated shrimp feed mill stack by ozone – catalytic oxidation process over CuO/MnO₂ catalyst <i>S. Jodpimai, V. Piriya Wong, P. Limsuwan (Thailand)</i>	
16h30-17h00	Application of ozone in food spices and grains. <i>B. Tiwari (India)</i>	
17h00-17h30	Influence of ozonation conditions on composition and on antibacterial activity of ozonated sunflower oils <i>S. Moureu, F. Violleau, D. A. Haimoud-Lekhal, A. Calmon (France)</i>	

Tuesday 3 June 2014

Medical Ozone: Low Dose Concept – Guidelines and Treatment Strategies

Medical Society for the Use of Ozone in Prevention and Medicine

Dr. med. Adriana Dragan, Konstanta (Romania)

Dr. med. Michael Schreiber, Aystetten/Augsburg (Germany)

Prof. Dr. med. Ziad Fahmy, Bad Kreuznach (Germany)

Dr. rer. nat. Renate Viebahn-Hänsler, Baden-Baden/Iffezheim (Germany)

8h30-10h30 **Registration**

10h00 **Welcome coffee**

10h00-12h00 **Part I. Chronic inflammatory processes, angiopathia and age related diseases, oxidative stress related diseases, Complementary oncology, treatment strategies**
Introduction: guidelines of ozone therapy; Ozone and hormesis, toxicity vs therapeutical benefit

Chronic inflammatory processes

Secondary prevention e.g. in diabetic patients

Age related diseases

Complementary oncology

Pharmacology, concentrations, dosis, treatment concepts

Systemic treatments

Auto hemotherapies, rectal ozone application

Combination with orthomolecular therapy and other biological infusion therapies for regeneration

12h00 **Lunch**

13h30-17h30 **Part II. Pain management**
Triggerpoints, acute and chronic processes in rheumatology, disc hernia and the specific injection techniques
Pain management

Myofascial pain syndrome, triggerpoints, injection techniques

Ozone and local anesthetics (neural therapy)

15h30-16h00 **Coffee break**

Ozone and acupuncture

Intraarticular and periarticular injections in inflammatory conditions of the joints

Wednesday 4 June 2014

8h30-10h30 Session 2. Advanced Oxidation processes

- 8h30-9h00 **Ozone/H₂O₂ performance on the degradation of Sulphamethoxazole**
R. C. Martins, R. F. Dantas, C. Sans, S. Esplugas, R. M. Quinta-Ferreira (Portugal, Spain)
- 9h00-9h30 **Comparison of ozonation (O₃ and O₃/H₂O₂) with solar photo-fenton for cork boiling wastewater remediation**
I. Oller, E. De Torres-Socias, M. J. Trinidad-Lozano, F. J. Yuste-Córdoba, S. Malato (Spain)
- 9h30-10h00 **Heterogeneous nanocatalytic ozonation**
C. Tizaoui, H. Mohammad-Salim (UK)
- 10h00-10h30 **Apply recyclable magnetic palladium-manganese catalyst with ozonation to decompose natural organic matters**
C.J. Tsao, L.W. Lu, C.N. Chang, C.K. Wang (Taiwan)

10h30-11h00 **Coffee break**

11h00-12h00 Session 3. Oral introduction and Poster session

- Degradation of simulated textile effluent employing electrochemically generated OCI- under UV photolysis**
T. de Mello Florêncio, A. Claudia G. Malpass, G.R. Pointer Malpass (Brazil)
- Photocatalytic ozonation of short chain carboxylic acids**
C.A. Orge, J.L. Faria, M.F.R. Pereira (Portugal)
- Degradation of a mixture of pharmaceuticals by catalytic ozonation**
A. Gonçalves, J. Restivo, J. Órfão, E. Garcia-Bordejé, M. Pereira (Portugal, Spain)

12h00 **Lunch**

13h30-15h30 Session 4. Industrial ozone applications

- 13h30-14h00 **Ozonation and electrolysis for seawater application**
J.W. Kang, Y. Jung, E. Hong (Republic of Korea)
- 14h00-14h30 **UV oxidation as a stand-alone and complementary technology for odor reduction in air pollution control: introduction of the concept of „UV-dosage“ as a design parameter of air treatment photochemical reactors**
H. Ruiz, E. Arnold, E. Roth (Germany)
- 14h30-15h00 **Application of Ozone in the US Dairy Industry**
M. Oneby, M. Walsh (USA)
- 15h00-15h30 **A preliminary investigation into the efficacy of ozone for inactivation of the microalgae *dunaliella tertiolecta* in photobioreactors**
R. M. Clarke, P. J. Solan, B. K. Tiwari, C. P. O'Donnell, T. P. Curran (Ireland)

15h30-16h00 **Coffee break**

16h00-18h00 Session 5. Focus on micropollutants issues

- 16h00-16h30 **Removal of Chemicals of Emerging Concerns (CECs) in the water cycle – a review of existing treatment solutions**
A. Ried (Germany)
- 16h30-17h00 **Treatment of nanofiltration concentrates by ozonation for pharmaceuticals removal in different water matrixes**
S. Miralles-Cuevas, F. Audino, I. Oller, J.A. Sánchez-Pérez, S. Malato (Spain, Italy)
- 17h00-17h30 **Novel advanced oxidation process for the removal of emerging pesticides**
A. Bosmith, B. Holden, J. Scheideler (England, Germany)
- 17h30-18h00 **Ozonation treatment of urban primary wastewater effluents**
M. Marcé, B. Domenjoud, S. Esplugas, S. Baig (Spain, France)

19h00 **Conference dinner**
The Merry Ploughboy - Traditional Music Pub voted "Best Dinner/Entertainment in Ireland"

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Thursday 5 June 2014

8h30-12h00 **Session 6. Ozone contacting systems and engineering**

8h30-9h00 **How to make the contact between ozone and waters?**
M. Roustan, S. Baig (France)

9h00-9h30 **Absorption of ozone in water in a wetted wall column with film promoter**
C.R. Fonseca, A.C.S.C. Teixeira (Brazil)

9h30-10h00 **Introduction of Japanese Industrial Standard JIS B 9946**
H. Takahara, H. Tsuno (Japan)

10h00-10h30 **Coffee break**

10h30-11h30 **IOA Guidelines and Standards**
S. Baig, Chair of the IOA Ozone Engineering group

11h30-12h00 **Closing session**

12h00 **Lunch**

14h00-17h00 **Technical visit**
University College Dublin, Institute of Food and Health

Exhibition