

International Ozone Association
European-African-Australasian-Group
International Conference October 01-03-2002

(IN CONJUNCTION WITH RAI-AQUATECH)

Dear Colleagues and all people internationally world-wide interested in Ozone and related Technologies:

IOA-EA3G has already organized several International Conferences, and among them in 1986 and 1996 at RAI-Aquatech in Amsterdam. This year, in 2002, again the group has the opportunity and is able to propose to you a programme on:

OZONE IN GLOBAL WATER SANITATION

Together with the Organizing Board of IOA-EA₃G have been designed, integrating the proposals of a wide and open call for papers, a series of very and complete sessions on this technology continuously on the move. Always open, according to the incorporated laws of IOA, to all progress and further development of Ozone and related Processes the Conference is also integrating additional technologies on ozone-oxidation for the progress on global water sanitation such as synergy with UV, catalytic oxidation processes...

Why **global**? IOA members are fully aware indeed that many unit processes for purification of water can be operational at the preliminary point of use and by considering the results locally. But globally in view of protection of the environment?: it always ends finally by oxidation, and **ozone** is a major oxidant in water treatment and other industrial and environmental applications. Ozone is also in line with natural oxygen-based oxidation processes protecting globally conditions of life ?!

The presentations by authors of a wide international range of countries is a guarantee of always further progress in ozone and related oxidation technologies.

It is my privilege to present to you the Conference, name of the EA₃G, the Organizing Board and the Scientific & Technical Committee **and also to wish you a pleasant stay in Amsterdam.**

Meet us there.

Dr. Willy J. Masschelein
In name of IOA-EA₃G

Tuesday, Oct. 01-am. : 10.00: REGISTRATION OF IOA CONFERENCE IS OPEN.

Tuesday, Oct. 01-pm: 14.00 to14.30:

Welcome address by Ir Dr Joop Kruihof, Pres. Elect of IOA
and Prof. G. Gordon, Pres. in Office of IOA

Introduction to the Conference by Dr W. J. Masschelein.

SESSION *1*: Water Treatment Technology and Ozone for nutritional Quality.
Tuesday Oct. 01-pm.

Chair: Prof. Rein Munter (Estonia.) & Prof. Michel Roustan (France).

14.30-15.00: M. Kuosa, A. Laari & J. Kallas (Finland): **Ozone Mass Transfer and self-decomposition in Bubble columns.**

15.00-15.30: Y.H. Chen, C.Y. Chang, C.Y. Chiu, Y.H. Hu, P.C. Chiang, Y. Ku & J.N. Chen (Taiwan): **A Dynamynic Model of Ozonation of Pollutants in a Bubble Column with Oxygen Mass Transfer.**

15.30 -> 16.00: BREAK. (Sponsored by ONDEO-Degrémont)

16.00-16.30: P.M. Alvarez, F.J. Beltran, Josepha Jaramillo & V.Gomez-Serrano (Spain.): **Ozone Regeneration of activated carbon.**

16.30-17.00: Z. Do-Quang, Is. Baudin; M.R. Chevalier & A. Cockx (France.): **Bromate Formation Control.**

17.00-17.30: Prof S.N. Chuvashv (Russia): **Disinfecting of Water containing pathogenic Bacteria by Application of Chlorine-free Water.**

17.30-18.00: W.A.M. Hijnen, E. Baars, A.J. van der Veer, Th. G. Boskopper & G.J. Medema (The Nethetlands) : **Influence of DOC on the Inactivation Capacity of Ozonation assessed with C. perfringens and a Lab-scale continuous Flow System.**

18.00-18.30: Dr R. G. Rice (USA): **Certification of Ozone in the Food Industries of USA.**

**EVENING RECEPTION FOR PARTICIPTANTS TO THE IOA CONFERENCE
AND ACCOMPANYING PERSONS.**

(ON REGISTRATION-TICKETS TO BE WITHDRAWN AT IOA OFFICE)

**SESSION *II*: UV & Advanced Oxidation
Wednesday Oct. 02-am.**

Chair: : Prof. Andras Dombi (Hungary) & Dr Steve Lambert (UK).

09.00-09.30: Dr J.R. Bolton & M.I. Stefan (Canada): **Fundamental photochemical Approach to the Concepts of Fluence Rate and Electrical Energy Efficiency in photochemical Degradation Reactions.**

09.30-10.00: Dr Y.A. Lawryshyn & Dr B. Cairns (Canada): **UV Disinfection of Water; the Need for UV Reactor Validation.**

10.00-10.30: Dr G.F. Ijpelaar, Dr B.van der Veer, Dr G. Medema & Dr J.C. Kruithof (The Netherlands): **By-Product Formation during UV Disinfection of a pre-treated Surface Water.**

10.30-11.00: BREAK. (Sponsored by WEDECO)

11.00-11.30: M. I. Stefan, Dr J.C. Kruithof, P.C. Kamp & M. Welling (Canada & The Netherlands): **Kinetic Parameters of Herbicide Photo-degradation in drinking Water Treatment.**

11.30-12.00: J. Sanz, J.I. Lombrana, R. Rodriguez, A. Urkiaga, M. Gutiérrez & L. de las Fuentes (Spain.): **UV/H₂O₂ - Effect on biodegradability.**

12.00-12.30: A. Urkiaga, L. de las Fuentes, L. Barcena, & M. Gutierrez (Spain): **Evaluation of different advanced Oxidation Technologies for organic Pollutants Removal in aqueous Streams.**

12.30-14.00: LUNCH TIME.

**SESSION *III*: Ozone-oxidation-catalytic Oxidation Processes.
Wednesday Oct 02-pm.**

Chair: Dr Fr. R Luck (France) & Dr G.F. Ijpelaar (The Netherlands).

14.00-14.30: Prof. B. Legube, H.X. Fu & Dr N. Karpel Vel Leitner (Fr): **Catalytic Ozonation with Ru/CeO₂-TiO₂ Catalyst.**

14.30-15.00: Dr I. Ilisz & Prof. A. Dombi (Hungary): **TiO₂-based heterogeneous photocatalytic Water Treatment combined with Ozonation.**

15.00-15.30: Y. Onari, S. Iwasaki, O. Yoshioka & M. Takahashi (Japan): **Advanced Oxidations of endocrine disrupting Chemicals in Water by O₃-TiO₂-UV.**

15.30-16.00: BREAK. (Sponsored by ONDEO-Degrémont)

16.00-16.30: Fr. Beaudouin, Fr. Ménard & Dr Fr. Luck (France.): **Removal of Organic compounds by advanced Oxidation/reverse Osmosis.**

16.30-17.00: S. Preis, J.L. Falconer, K. Magrini-Bair, E. Wolfrum & J. Kallas (Finland & USA): **Gas-phase photocatalytic Oxidations.**

17.00-17.30: Prof. F. J. Beltran, Fr. J. Rivas, R. Montero-de-Espinosa, P.M. Alvarez & J.F. Garcia-Araya (Spain.): **Heterogeneous catalytic Oxidations (example: oxalic in water).**

17.30-18.00: Prof. M.M. Ksenofontova, A.N. Mitrofanova, N.A. Mamleeva, A.N. Pryakhin & Prof. A.N. Lunin (Russia): **Lignosulfonate Ozonation in the Presence of transition Metal Ions.**

18.00-18.30: Dr F. De Smeth, Drs H. Vankerkhoven & Prof. C. Vinkier (Belgium): **Advanced Oxidation Processes in the Removal of Organics from Silicon Surfaces in IC Manufacturing: theoretical Concepts.**

ADJOURN.

**SESSION *IV*: Ozone-Oxidations in Wastewater Treatment.
Thursday, Oct. 03 am.**

Chair: Prof. B. Legube (France) & Prof. F.J. Beltran (Spain).

09.00- 09.30: Dr A. Ried, Dr J. Mielke & Ing. H. Stapel (Germany): **Integrated Ozone and UV Applications for additional Process-and-Wastewater Treatment.**

09.30-10.00: A. Goi, M. Trapido, A. Dello, Y. Veressinina & R. Munter (Estonia): **Ozonation and the Fenton Reagent for the Degradation of Nitroaromatic Compounds.**

10.00-10.30: A. Gieldowska, J. Perkowski & L. Kos (Poland): **The Use of Ozone for the Decomposition of aqueous Solutions of nonionic Surfactants.**

10.30-11.00: BREAK. (Sponsored by WEDECO)

11.00-11.30: I.W. van der Merwe (South Africa): **Removal and Destruction of chlorinated Solvents in heavily contaminated Groundwater.**

11.30-12.00: Fr. J. Rivas, F.J. Beltran, N. Rivas, B. Acedo & P.M. Alvares (Spain): **Ozone Enhancement of Landfill Leachate Biodegradability.**

12.00-12.30: I. Kamenev, K. Roosalu, U. Vaks, A. Viiraja & J. Kallas (Estonia & Finland): **Purification of Pulp and Paper Mill Wastewater- Aerobic Bio-oxidation with Ozonation in a Recirculation System.**

12.30-14.00: LUNCH TIME.

**SESSION V: Group Discussions, Conclusions and Outlooks.
Thursday Oct. 03. pm**

**CHAIR & Moderators: Dr J.P. Duguet (France), Dr R.G. Rice (USA)
& Dr E. Chauveheid (Belgium).**

14.00-16.00: Announced Contributions by :

- Y.H. Chen, C.Y. Chang, C.C. Chen, C.Y. Chiu, Y.H. Yu, P.C. Chiang, Y. Ku & J.N. Chen (Taiwan): **Decomposition of Thiazolidine-2-thione in aqueous solution by Ozonation.**

- A. Kerc & M. Bekbolet (Turkey): **Sequential Oxidation of Humic Acids by Ozonation and Photocatalysis.**

- M. Krichevskaya, A. Kachina, T. Malygina, T. Preis & J. Kallas (Estonia & Finland): **Photocatalytic Oxidation of Jet and Motor Fuel oxygenated Additives in aqueous Solutions.**

- R. Munter, S. Preis & E. Siirde (Estonia): **Chemical Oxygen Demand as a generalized kinetic Parameter for Ozonation Processes of Water Solutions and Wastewaters.**

- S. Verenich, K. Roosalu & J. Kallas (Estonia & Finland): **Hydrogen Peroxide promoted wet Oxidation of concentrated debarking Process Waters.**

- Dr Joon-Wun Kang, Tue-Moon Hwang, Hyung-Nam Lim, Sang-kuk Han, Hei-Chul Choi (Korea): **Generation of OH Radicals from Decomposition of Ozone by Goelite (α -FeOOH) and Sand in a Slurry-phase.**

+ Contributions from the floor

16.00-16.30: BREAK

16.30-17.00: Presentation by Barry L. Loeb, Editor in Chief of Ozone Science & Engineering and OZONEWS: First 23 Years of OS&E... and...

17.00: Outlook to future actions of EA₃G: Arnd Böhme (Germany.) & Sylvie Baig (France)

**More about the 16th - IOA World Congress in Las Vegas-2003:
Prof. Dr G. Gordon, International President of IOA**

Conclusions of the conference: Dr. J.C. Kruithof, President Elect of IOA

Closing: on behalf of IOA-EA3G: Dr W.J. Masschelein