



SCIENTIFIC AND TECHNICAL PROGRAMME



The Scientific Programme includes:

More than 120 presentations

- Key note lectures (KN)
- Long oral presentations (LP)
- Short oral presentation for poster introduction (SP) and Poster exhibition
- Workshop presentations

Organized in 27 sessions arranged in three parallel tracks.

Hour	October 20	October 21	October 22	October 23	Oct. 24	Oct. 25
7h00		Registration				
8h30 - 10h30		Opening	S7 S8 S9	S19 S20 S21		
10h30 - 11h00		Break	IOA General Assembly	Break	E C3	
11h00 - 12h30		Keynotes	E	S10 S11 S12	S22 S23 S24	
12h30 - 14h00		Lunch		Lunch	Lunch	T1 T2
14h00 - 16h00	Stand assembling	S1 S2 S3	E C1	S13 S14 S15	S25 S26 S27	
16h00 - 16h30	Registration	Break	E	Break	E	
16h30 - 18h30	Poster panels	S4 S5 S6		S16 S17 S18	Closing and Awards	
	19h00 Welcome reception					
				20h00 Congress dinner		

With S: Scientific Session; E: Exhibition; C: Cultural tour; T: Technical tour

S1 Ozone in the water cycle	S10 Poster introductions - Part 1	S19 New challenges in wastewaters - Part 1
S2 Design and engineering	S11 Poster introductions - Part 2	S20 Fundamentals - Part 3
S3 Ozone generation and measurement	S12 Ozone in Medicine - Part 2	S21 <i>Workshop</i> - Ozone in Medicine / Ozone in Inflammatory Conditions
S4 <i>Workshop</i> - Young Ozone People	S13 Ozone in Agrifood - Part 1	S22 New challenges in wastewaters - Part 2
S5 <i>Workshop</i> - CFD Modelling	S14 Fundamentals - Part 2	S23 Applications in Industrial Processes - Part 1
S6 <i>Workshop</i> - Feed gas for ozone generators	S15 Ozone in Medicine - Part 3	S24 <i>Workshop</i> - Ozone in Dentistry
S7 Applications in Drinking Water	S16 Ozone in Agrifood - Part 2	S25 New challenges in wastewaters - Part 3
S8 Fundamentals - Part 1	S17 <i>Workshop</i> - Ozone plant design: Key questions	S26 Applications in Industrial Processes - Part 2
S9 Ozone in Medicine - Part 1	S18 Ozone in Medicine - Part 4	S27 <i>Workshop</i> - IOA Highlights on innovation

Monday, 21 October

Plenary session. Opening

Hour			
08:30		Opening Addresses , Bernard PAOLINI, IOA President and Frédéric VIOLLEAU, IOA-EA ₃ G President Congress introduction, Michel ROUSTAN, Renate VIEBAHN, Co-chairs of the Scientific Committee Exhibition opening	
10:30		IOA General Assembly	
10:30		Break	
10:45	KN	00.1. Ozone and Nice, a nice story! <i>M. Roustan (France)</i>	
11h15	KN	00.2. Forty years of advances in ozone technology. A review of Ozone Science & Engineering <i>B. Loeb (USA)</i>	
11h45	KN	00.3. A tour through the European Regulations for ozone treatment <i>B. Paolini (Switzerland)</i>	
12:30		Lunch	

Session 1. Ozone in the water cycle

Hour	Presentation	ID
14:00	KN 01.1. On the road to a resilient water future <i>M. Hoekstra, R. Koolen, G. Zoutberg, R. van der Neut, B. Martijn (The Netherlands)</i>	175
14:40	LP 01.2. Advanced treatment trains for indirect potable reuse <i>A. Aaharoni, H. Cikurel, A. Ried, M. Fassbender, J. Gebhardt, H. Raanan Kiperwas (Israel, Germany)</i>	148
15:00	LP 01.3. Electro-Pulse Oxidation Process (EPOP) - An alternative AOP as pre-treatment for Soil-Aquifer Treatment of secondary effluents for Indirect Potable Reuse <i>O. Gafri, R. Abekasis, H. Cikurel, H. Raanan-Kiperwas, A. Izhar, A. Aharoni, O. Eliyahu (Israel)</i>	174
15:20	LP 01.4. Closing the water cycle applying suspended ion exchange and ozonation for pharmaceutical control <i>B. Martijn, J. Malley, G. Zoutberg, J. Kruithof (The Netherlands)</i>	205
15:40	LP 01.5. Ozone Solutions For Micropollutants Treatment at all Positions in the Water Cycle: Drinking Water to Wastewater <i>L. De Franceschi, K. Wasiak, M. Reid, C. Huynh (Switzerland, USA)</i>	215
16:00	Break	

Session 2. Design and engineering

Hour	Presentation	ID
14:00	LP 02.1. How advanced modelling (CFD) can enhance ozone system design <i>J. Anton, A. Ried (Germany)</i>	168
14:20	LP 02.2. Emerging operational challenges to ozone applications - high turndown, high doses, stable ozone residuals <i>S. S. Pathapati, D. W. Smith, A. L. Mazzei (USA, Canada)</i>	108
14:40	LP 02.3. Diffusion of Gas with Bubble Column in fully Turbulent Flow <i>P.A. Liechti, R. Hausler (Switzerland, Canada)</i>	155
15:00	LP 02.4. Ozonation and ozone based advanced oxidation in combinations with hydrodynamic cavitation - impacts on by-products formation in post-chlorinated drinking water <i>M. Čehovin, A. Žgajnar Gotvajn (Slovenia)</i>	142
15:20	LP 02.5. Ozone mass transfer in spray column <i>A. Canado, M. Pages, M. Tournois, M. Roustan, W. Remus-Borel, N. Dietrich, G. Hebrard, F. Violleau (France)</i>	87
15:40	Round table. Instantaneous Ozone Demand <i>IOA Ozone Engineering Group</i>	
16:00	Break	

Session 3. Ozone generation and measurement

Hour	Presentation	ID
14:00	LP 03.1. Oxygen recovery technology for ozone generators: results from technology demonstration at a drinking water treatment plant <i>S. Finley, S. Domanski (USA)</i>	100
14:20	LP 03.2. Efficient ozone generation using excimer - a competitive study between excimer and low-pressure mercury vapor lamp technology <i>K. Ziegler, S. Krahnert, F. Becker (Germany)</i>	112
14:40	LP 03.3. Photo Chemical Ozone Generation with Xenon Excimer Lamps- A Paradigm Shift for Ozone generation <i>N. Brueggemann, M. Salvermoser, R. Fietzek, R. Fiekens (Germany)</i>	152
15:00	LP 03.4. Innovative analytical method to measure ozone in gas phase <i>L. Vitola Pasetto, M.H. Manero, R. Richard, J.S. Pic, V. Simon, F. Violleau (France)</i>	126
15:20	LP 03.5. Corrosion resistance of stainless steel in dry ozone gas environment <i>T. Yoshimi, E. Ishimaru, M. Abe, T. Nishimura (Japan)</i>	105
15:40	LP 03.6. Implementation of a fluorescence (FDM) online measurement at an ozonation plant used for micropollutant elimination - operational aspects and comparison to UVA ₂₅₄ <i>M. Stapf, J. Schütz, V. Thiyagarajan, U. Miehe (Germany)</i>	147
16:00	Break	

Session 4. Workshop - Young Ozone People

Hour		ID
16:30	Leader: M. Pages	

Session 5. Workshop - CFD Modelling

Hour	Presentation	ID
16:30	Leader: A. Cockx	

Session 6. Workshop - Feed gas for ozone generators

Hour	Presentation	ID
16:30	Leader: P. A. Liechti	

Tuesday, 22 October

Session 7. Applications in drinking water

Hour	Presentation	ID
08:30	KN 07.1. Climate Change, Water Quality Challenges, is the water Industry Ready?" <i>S. Jasim (Canada)</i>	
09:10	LP 07.2. Removal of micro-pollutants by combining ozone and activated carbon filtration at a full scale drinking water production plant <i>E. Chauveheid (Belgium)</i>	88
09:30	LP 07.3. Worlds First Sequential Advanced Oxidation Process for Drinking Water Treatment put to the Test - Lessons learned from the first Year of operation <i>J. Scheideler, T. Knol (Germany, The Netherlands)</i>	133
09:50	LP 07.4. The Two-Stage Ozonation - Adsorption technology of Ground Water from Trichloroethylene and Tetrachloroethylene <i>I.S. Tkachenko, S.N. Tkachenko, N.A. Mamleeva (Russia)</i>	140
10:10	LP 07.5. Improving GAC based pump-and-treat remediation of chloroethenes by adding ozonation <i>A. Kokkoli, N. Agerholm, H. R. Andersen, K. M. S. Kaarsholm (Denmark)</i>	195
10:30	Break	

Session 8. Fundamentals - Part 1

Hour	Presentation	ID
08:30	LP 08.1. Ethylbenzene decomposition by ozone in a three-phases system <i>J. Dueñas Moreno, T. Poznyak, J. L. Rodríguez (Mexico)</i>	82
08:50	LP 08.2. Phenol degradation in H ₂ O ₂ / pulsed UV process <i>A.I. Kulebyakina, A.D. Volosatova, Y.A. Goldshteyn, S.G. Shashkovskiy (Russia)</i>	83
09:10	LP 08.3. Application of activated carbon/persulfate for acetaminophen removal from water <i>M. Qutob, Ş. Doğan (Turkey)</i>	111
09:30	LP 08.4. Developing the next generation of UV-based advanced oxidation process using a dual wavelength approach: UV _{254nm} -H ₂ O ₂ and Vacuum UV _{185nm} -H ₂ O <i>N.K. George, B.A. Wols, D. Santoro, L. Furatian, J. Ferwerda, W. Gernjak (The Netherlands, Canada, Spain)</i>	176
09:50	LP 08.5. Passing the smell test - with ozone AOP <i>S. Dominguez, L. Dinkloh, S. Besser, A. Ried, H. Stapel (USA, Germany)</i>	177
10:10	SP 09.5. Novel magnetic photocatalyst [UETiO ₂ (Fe)] for photocatalytic ozonation processes <i>J. López, A. Rey, P. M. Álvarez, F. Beltrán (Spain)</i>	109
10:15	SP 09.6. Solar photocatalytic ozonation of nom with TiO ₂ , WO ₃ and WO ₃ -TiO ₂ catalysts for drinking water treatment <i>A. Rey, A. M. Udaondo, F. J. Beltrán (Spain)</i>	130
10:30	Break	

Session 9. Ozone in Medicine - Part 1 / Introduction. Clinical trials in topical ozone application

Hour	Presentation	ID
08:30	LP 09.1. Ozone in Medicine: the low-dose ozone concept and the role of glutathione <i>R. Viebahn, O. S. Leon Fernandez (Germany, Cuba)</i>	217
08:50	LP 09.2. Evaluation of the role of topical ozone therapy in management of moderate and severe burn injuries <i>M. Masoud, H. Shalaby, K. Eltobgy, M. Degheidy, M. Mawsouf, E. Abdelzaher (Egypt)</i>	121
09:20	LP 09.3. Effectiveness of ozone therapy in the prevention of purulent infections after the operation of sigma-anal anastomosis <i>S. Navruzov, A. Khakimov (Uzbekistan)</i>	93
09:40	LP 09.4. Treatment of peri anal fistulas with ozone therapy <i>S. Bhatti (Pakistan)</i>	221
10:00	LP 09.5. Ozonated Sunflower Oil in Full-thickness Burns <i>M. S. Melo, H. C. Carvalho, A. B. Fernandes, C. J. de Lima, L. P. Alves, L. H. M. S. Melo, M. A. C. Salgado, R. A. Zângaro, (Brazil)</i>	136
10:20	Poster exhibition	
	SP 09.6. Mild ozonisation activates antioxidant cell response by the Keap1/Nrf2 dependent pathway <i>V. Covi, M. Malatesta, G. Tabaracci (Italy)</i>	86
	SP 09.7. Analysis of Blood Ozonation by Dispersive Raman Spectroscopy <i>H. C. Carvalho, A. B. Fernandes, C. J. de Lima, L. P. Alves, L. H. M. S. Melo, M. S. Melo, R. A. Zângaro, L. Silveira Jr.</i>	137
	SP 09.8. Evaluation of Ozonated Red Blood Cells Elasticity <i>H. C. Carvalho, A. B. Fernandes, C. J. de Lima, R. A. Zângaro, Y. S. S. Silva, A. Fontes, D. S. Moura, R. E. de Araujo</i>	138
	SP 09.9. Rapid resolution of hemorrhagic fever (Ebola) in Sierra Leone with ozone therapy <i>R. Jay Rowen, H. Robins, K. Carew, M. Morlai Kamara, M. Ibrahim Jalloh (USA)</i>	150
	SP 09.10. Life quality study in relation to alternative infusion solution: conventional versus glucosate <i>M. Martinelli, F. Giovannangeli (Italy)</i>	161
	SP 09.11. Ozonucleolysis is more effective in cervical than lumbar disc lesions - 45000 cases <i>U. Rashid (Pakistan)</i>	164
10:30	Break	

Session 10. Poster introductions - Part 1

Hour	Presentation	ID
11:00	SP 10.1. Modification of dough rheological properties, storage proteins characteristics and change in the glutathione reductase activity in soft wheat flour after grains gaseous ozone treatment <i>M. Heuls, M. Pages, J. Of, S. Rannee, A.M. Busuttill, F. Violleau (France)</i>	80
11:05	SP 10.2. Impact of dissolved ozone and free chlorine for the viral decontamination of ready-to-eat salads at laboratory scale <i>J. Loutreul, A. Gombert, S. Gauthier, S. Baig, T. Aussenac, B. Picoche, N. Boudaud (France)</i>	199
11:10	SP 10.3. Preozonation for aerobic stabilization of biosolids generated in a dairy products industry <i>C.R. Ramírez-Cortina, A. Colín-Sánchez, M. de la Soledad Alonso-Gutiérrez, G. Ibáñez-Cervantes (México)</i>	171
11:15	SP 10.4. Degradation of organic compounds during ozonation in the presence of zero-valent iron <i>A. Cruz-Alcalde, N. López-Vinent, L. Sánchez-Fontanet, S. Esplugas, C. Sans (Spain)</i>	128
11:20	SP 10.5. Degradation of cimetidine by hybrid titanium dioxide photocatalytic system with process component combination and dissolved oxygen <i>H. Lee, H.J. Bang, S.J. Kim, H. Kim, S.C. Jung (Korea)</i>	154
11:25	SP 10.8. Effect of NOM on the efficacy of different ozone and solar-light based AOPs for the reduction of DBPs formation potential <i>A. Rey, A. M. Udaondo, E. M. Rodríguez, F. J. Beltrán (Spain)</i>	132
11:30	SP 10.9. Vibrational spectroscopy as a tool for fast and on-line monitoring of ozone concentration in water inside a reactor <i>S. Treguier, S. Cug, V. Lemetter, A. Canado, M. Pages, F. Violleau (France)</i>	89
11:35	SP 10.10. CLEANASC®: a new process of disinfection and deodorization of helmet by ozonation <i>B. Lerzy, C. Staut, F. Girard, T. Aussenac (France)</i>	124
11:40	Poster Exhibition	
12:30	Lunch	

Session 11. Poster introductions - Part 2

Hour	Presentation	ID
11:00	SP 11.1. Cefuroxime removal from water with ozone photolysis <i>O. Monago, A. M. Chavez, F. J. Beltrán (Spain)</i>	115
11:05	SP 11.2. Degradation of microcystin-LR by vacuum UV/ O ₃ <i>F. Alafifi, S. Jasim, M. Mohseni (Canada)</i>	188
11:10	SP 11.3. Removal of Microcystin-LR in drinking water using ozone and ozone-based AOP <i>J. Saththasivam, G. Ponnusamy, S. Jasim (Qatar)</i>	103
11:15	SP 11.4. Mineralization of Primidone in an urban secondary wastewater effluent with TiO ₂ photocatalytic ozonation and a UVA LED photoreactor <i>M. Figueredo, E. M. Rodríguez, F. J. Beltrán (Spain)</i>	113
11:20	SP 11.5. Impacts of water matrix on the efficiency of micropollutants elimination from urine by ozonation <i>J.S. Pic, H. Deng, C. Guigui (France)</i>	120
11:25	SP 11.6. Catalyst selection for industrial textile wastewater treatment <i>L. Bilińska, K. Blus, M. Gmurek, S. Ledakowicz (Poland)</i>	107
11:30	SP 11.7. Carbon nanotube electrochemical filtration for estrogenic activity removal <i>G. Cunha, B. Souza, J. P. Bassin, D. Bila, C. Vecitis, M. Dezotti (Brazil, USA)</i>	198
11:35	SP 11.8. Photocatalytic Absorption and COD Degradation of Dewatering Wastewater from a Gas Refinery Storage Tank by using MWCNTs/TiO ₂ Nano-composite <i>M. Akrami, F. Farzaneh (Iran)</i>	228
11:40	Exhibition	
12:30	Lunch	

Session 12. Ozone in Medicine - Part 2 / Inflammatory Diseases

Hour	Presentation	ID
11:00	LP 12.1 Potentiation of medical ozone beneficial effects after a second cycle of ozone exposition is mediated by innate immune memory in rheumatoid arthritis patients <i>O. S. León Fernández, R. Viebahn-Häensler, G. Takon Oru, E. García Fernández, J. C. Polo Vega, B. Tamargo Santos, G. López Cabreja, I. Serrano Espinosa (Cuba, Germany)</i>	96
11:20	LP 12.2 Intraarticular injection of IL-1/ozone in osteoarthritis of the knee: a randomized, placebo-controlled study <i>Z. Fahmy (Germany)</i>	218
11:40	LP 12.3 Ozone therapy against inflammation and degeneration <i>V. Simonetti (Italy)</i>	153
12:00	LP 12.4 Ozone therapy for complex regional pain syndrome: review and case report <i>R. Rowen, H. Robins (USA)</i>	149
12:20	Discussion	
12:30	Lunch	

Session 13. Ozone in Agrifood - Part 1

Hour	Presentation	ID
14:00	LP 13.1. In vivo fungicide properties of ozone dissolved into water against the fungus responsible of apple scab, venturia inaequalis <i>M. Pages, D. Kleiber, S. Maldes, F. Violleau (France)</i>	85
14:20	LP 13.2. Fludioxonil, difenoconazole and sedaxane, pesticides degradation of loaded wheat seeds: comparison of different oxidative technologies <i>M. Heuls, M. Pages, J. Of, S. Rannee, A.M. Busuttil, F. Violleau (France)</i>	78
14:40	LP 13.3. Effect of ozone on the rheological properties of flours and dough of french soft wheat <i>P. Gozé, R. Larbi, T. Aussenac (France)</i>	125
15:00	LP 13.4. Ozonation of sunflower oils: properties, purification and application <i>J. Vinet, S. Moureu, R. Pierron, A. Calmon, F. Violleau (France)</i>	97
15:20	LP 13.5. Ozonisation of meat processing environments acts on microbiota that survives after cleaning: a promising disinfection synergism <i>C. Botta, I. Ferrocino, M.C. Cavallero, S. Riva, C. Carboni, L. Cocolin, K. Rantsiou (Italy)</i>	157
15:40	LP 13.6. Ozone treatment: a solution to improve sanitary and physiological quality of grapevine <i>A. Romeo-Olivan, M. Pages, C. Breton, F. Violleau, A. Jacques (France)</i>	79
16:00	Break	

Session 14. Fundamentals - Part 2

Hour	Presentation	ID
14:00	LP 14.1. Catalytic ozonation for micropollutants removal: laboratory and pilot studies <i>R. Mahmudov, I. Pajolli, F.J. Chassaing, V. Yargeau (USA, France, Canada)</i>	90
14:20	LP 14.2. Synergetic Micropolluants Removal by Hybrid Oxidation Separation Technology (HOST): Fabrication of Ceria-Functionalized Ceramic Membrane, Performance Evaluation and Mechanistic Study <i>W. J. Lee, T.-T. Lim (Singapore)</i>	118
14:40	LP 14.3. Degradation of phenol in water using ozonation and catalytic ozone <i>R. Kidak, G. Badru Olabimpe (Turkey)</i>	101
15:00	LP 14.4. Modelling of clopyralid removal by solar photocatalytic ozonation coupled process <i>Z. Rajah, M. Guiza, F. J. Rivas Toledo, A. Ouederni (Tunisia, Spain)</i>	110
15:20	LP 14.5. Removal of ibuprofen and gemfibrozil using ozone and ozone/hydrogen peroxide advanced oxidation <i>H. Farzaneh, K. Loganathan, J. Saththasivam, G. McKay (Qatar)</i>	114
15:40	LP 14.6. Treatment of ciprofloxacin by ozone/persulfate oxidation <i>S. B. Kpange, Ş. Doğan, S. Pirgalioglu (Turkey)</i>	119
16:00	Break	

Session 15. Ozone in Medicine - Part 3 / Pain

Hour	Presentation	ID
14:00	LP 15.1 Minimally Invasive OxygenOzone Therapy for Lumbar Disk Herniation. Improving the results. <u>A. Alexandre (Italy)</u>	219
14:30	LP 15.2 The use of oxygen ozone therapy in the treatment of cervicobrachial pain syndrome: case series study <u>M. Martinelli, F. Giovannangeli (Italy)</u>	162
14:50	LP 15.3 Comparison of disc herniated patients receiving ozonucleolysis with & without physical therapy <u>Noor-ul-Huda, U. Rashid, M. Farooq (Pakistan)</u>	163
15:10	LP 15.4 Herniated discs unchanged over the time: size reduced after oxygen-ozone therapy <u>M. Bonetti, A. Zambello (Italy)</u>	172
15:30	LP 15.5 Effect of adding ozone sauna to local injections in low back pain treatment <u>T. T. Tanbouli, M. Al-Qanni (Egypt)</u>	106
15:50	Discussion	
16:00	Break	

Session 16. Ozone in Agrifood - Part 2

Hour	Presentation	ID
16:30	LP 16.1. The effect of the combination of gaseous ozone and different storage temperatures on the quality of yellow-flesh kiwifruit CV. 'Soreli'. <u>C. Carboni, V. Goffi, R. Forniti, R. Botondi (Italy)</u>	158
16:50	LP 16.2. Effects of continuous low ozone exposition on ariane apples in cold storage conditions with modified atmosphere <u>V. Lemetter, M. Pages, D. Kleiber, J. Joulie, S. Maldes, F. Violleau (France)</u>	94
17:10	LP 16.3. Researches on active and passive monitoring aeromicroflora in milk processing units and the results obtained following use the GF3XO-15 ozone generator <u>I.E. Popa, G. Puchianu, D.V. Enache (Romania)</u>	186
17:30	LP 16.4. Short-term ozone treatments during postharvest manegement influence grape volatile composition <u>S. Rio Segade, M. Vilanova, M. Pollon, S. Giacosa, C. Carboni, L. Rolle (Italy, Spain)</u>	159
17:50	LP 16.5. Effectiveness of ozonated water treatment on microbial control and storage quality of different Citrus fruit species <u>M.C. Strano, F.V. Romeo, P. Foti, M. Allegra, C. Carboni (Italy)</u>	160

Session 17. Workshop Ozone plant design: Key questions

Hour	Presentation	ID
16:30	WS <i>Leader: S. Baig</i>	

Session 18. Ozone in Medicine - Part 4 / Case report, preclinical trials

16:30	LP 18.1 Ozone Therapy and Its Usefulness in a Wide Variety of Ailments: A Systems Medicine Approach <u>L. Re (Italy)</u>	
16:50	LP 18.2 Medical ozone an important part of COPD-therapy <u>R. Thiele (Austria)</u>	151
17:10	LP 18.3 The level of hydrogen peroxide in HeLa Cells in an ozonated medium <u>C. Kontorshchikova, A. Belova, V. Dudenkova, A. Orlova (Russia)</u>	187
17:30	LP 18.4 Effect of ozonation over the therapeutic properties of different vegetable oils with low ozonation degree <u>F. Antunez, P. Guerra-Blanco, T. Poznyak, I. Chairez, J. Dueñas Moreno (Mexico)</u>	141

Wednesday, 23 October

Session 19. New challenges in wastewaters - Part 1

Hour	Presentation	ID
08:30	KN 19.1. Treating Urban Micropollutants and Pharmaceuticals in wastewaters: new solution involving synergetic biological and chemical oxidation using ozone <i>B. Domenjoud, A. Gonzalez Ospina, A. Kiss, A. Bergé, E. Vulliet, M. Marce, S. Esplugas, S. Bony, A. Devaux, A. Wigh, S. Baig (France, Spain)</i>	206
09:10	LP 19.2. Micropollutant removal - full-scale reality for the largest sewage treatment plant in Switzerland <i>L. Dinkloh, T. Puehmeier, A. Ried, H. Stapel, S. Bressmer, C. Abegglen (Germany, Switzerland)</i>	178
09:30	LP 19.3. Degradation of pharmaceuticals in waste water treatment plant effluent by ozonation and ozone based advanced oxidation <i>B. Delfos, B. Martijn, H. Bruning, J. Kruithof (The Netherlands)</i>	204
09:50	LP 19.4. Coupling ozonation and nanofiltration for removal of pharmaceuticals pollutants in wastewater for sustainable reuse <i>Z. A. Yacouba, J. Mendret, F. Zaviska, G. Lesage, S. Brosillon (France)</i>	122
10:10	LP 19.5. Transformations of protein-like and humic/fulvic-like fractions during post-treatment of wastewater effluent by ozonation <i>A. Ignatev, T. Tuhkanen (Finland)</i>	144
10:30	Break	

Session 20. Fundamentals - Part 3

Hour	Presentation	ID
08:30	LP 20.1. Ozonation using hollow fiber contactor technology for the elimination of pharmaceuticals: state of the art <i>A. Schmitt, S. Brosillon, J. Mendret (France)</i>	123
08:50	LP 20.2. Impact of Ozone and Biological Filtration on NDMA Formation (WRF 4491 and 4669) <i>B. Kuhnel, A. Evans, C. Russell, P. Huck, S. Peldszus, W. Mitch, R. Hozalski (USA, Canada)</i>	143
09:10	LP 20.3. Estrone degradation using non-thermal plasma and ozone: kinetics of degradation products <i>C. Tizaoui (UK)</i>	189
09:30	LP 20.4. Accelerated oxidation of iopamidol by ozone/peroxymonosulfate (O ₃ /PMS) process: Kinetics, mechanism and simultaneous reduction on iodinated disinfection by-products formation potential <i>H. Dong, Y. Mao, L. Zhang, Z. Qiang (China)</i>	216
09:50	LP 20.5. A novel kinetic ozonation model for prediction of bromate formation, bromate mitigation and trace organic contaminant removal <i>W. Audenaert, G. Bellandi, R. Mack Pearce, I. Takács, P. Buehlmann, S. Hogard, G. Salazar-Benites, U. Rehman, I. Nopens, C. Wilson, C. Bott (Belgium, USA, France)</i>	192
10:10	LP 20.6. How to predict bromate formation during ozonation <i>S. Baig, M. Roustan (France)</i>	
10:30	Break	

Session 21. Workshop: Ozone in Medicine / Ozone in Inflammatory Conditions

Hour	Presentation	ID
08:30	LP 21.1 The effect of ozone on colonic epithelial cells <i>H. Himuro, H. Matsumura, T. Abe (Japan)</i>	117
08:50	LP 21.2 Ozone workshop: Ozone as a complimentary therapy in medicine in the fields of chronic inflammatory disease <i>M. Schreiber (Germany)</i>	116
09:40	LP 21.3 Possible errors in pain treatment with ozone <i>S. Tiron (Romania)</i>	179
10:00	LP 21.4 Trigeminal neuralgia treated with ozone <i>S. Tiron, V. Simonetti, M. Marcvar, L. Rajnoveanu (Romania, Italy)</i>	180
10:30	Break	

Session 22. New challenges in wastewaters - Part 2

Hour	Presentation	ID
11:00	LP 22.1. Successful Treatment of Micropollutants and Recalcitrant COD from Wastewater using the Nyex™ Combined Adsorption and Electrochemical Regeneration (AOP) Process <i>M. A. Khan, M. Massaros, D. Zulfiqar, E. Carson (UK)</i>	167
11:20	LP 22.2. Strategies for enhanced ozone-resistant micropollutants abatement in wastewater and alternatives for process monitoring <i>A. Cruz-Alcalde, S. Esplugas, C. Sans (Spain)</i>	127
11:40	LP 22.3. Removal of microcontaminants from water in presence of microplastics <i>T.G. de Araújo Belé, T.M. Bragadin de Castro, J. Cristale, R. Falcão Dantas (Brazil)</i>	193
12:00	Discussion	
12:30	Lunch	

Session 23. Applications in Industrial Processes - Part 1

Hour	Presentation	ID
11:00	LP 23.1. Color stripping of the reactive dyed fabric by conventional and ozone assisted process-a comparative study <i>A. Powar, A. Perwuelz, N. Behary, L. Hoang, T. Aussenac (France, Romania, China)</i>	91
11:20	LP 23.2. On the mechanism of wood pulp oxidation during ozone bleaching <i>D. Lachenal, F. Pouyet, J. Perrin, E. Montet (France)</i>	173
11:40	LP 23.3. Comparison of bleaching treatments of linen fabrics for clothing and furniture applications: conventional versus ozone <i>A. B. Rhouma, A. Perwuelz, N. Behary, X. Legrand, L. Hoang, T. Aussenac (France)</i>	92
12:00	LP 23.4. Evaluation of excess sludge reduction using ozone ultra-fine bubble <i>K. Hashimoto, T. Marushima, S. Nakai, W. Nishijima, H. Motoshige (Japan)</i>	84
12:20	Discussion	
12:30	Lunch	

Session 24. Workshop: Ozone in Dentistry

Hour	Presentation	ID
11:00	LP 24.1 Ozone in dentistry: the systemical ozone therapy and the lokal use of ozonated water and ozonated olive oil in dentistry and dental surgery <i>W. Schueler (Germany)</i>	166
11:45	LP 24.2 Integration of ozone with photon-induced photo-acoustic streaming (PIPS) for enhanced outcomes in endodontic therapy <i>P. Mollica (USA)</i>	222
12:30	SP 24.3 Ozon protocol in implant surgery <i>Ç. Sevük (Turkey)</i>	196
12:35	Lunch	

Session 25. New challenges in wastewaters - Part 3

Hour	Presentation	ID
14:00	LP 25.1. Performic Acid: An alternative chemical disinfectant for Reuse application, evaluation of its bactericidal efficacy, impacts on the natural environment and facilities: feedback after 18 months of use as tertiary treatment of urban waste water <i>P. Aubeuf-Prieur, M. Hesampour (France)</i>	135
14:20	LP 25.2. Effect of two different application methods of ozone on geobacillus stearothermophilus spores <i>E. Sarron, D. Marier, S. Gauthier, S. Baig, B. Picoche, P. Sajet, P. Gadonna-Widehem (France)</i>	207
14:40	LP 25.3. Catalytic ozonation for municipal wastewater disinfection and micropollutants removal <i>J. A. Malvestiti, A. Cruz-Alcalde, N. López-Vinent, R. F. Dantas, C. Sans (Brazil, Spain)</i>	95
15:00	Break	

Session 26. Applications in Industrial Processes - Part 2

Hour	Presentation	ID
14:00	LP 26.1. Development and industrial cases of oxidation and ozonation in flow chemistry <i>J. Vinet, G. Gotti, M. Pages-Homs, F. Violleau, J.C. Monbaliu, G. Gauron (France, Belgium)</i>	197
14:20	LP 26.2. Comparison of UV/Fenton, UV/H ₂ O ₂ , UV/Ozone and Ozone in degrading the naphthenic acids in oil sands process water <i>H. Demir-Duz, S. Ashagre Messele, M.G. Álvarez, S. Contreras, M. Gamal El-Din (Canada, Spain)</i>	191
14:40	LP 26.3. Ozone and H ₂ O ₂ in wastewater treatment of a bio-refinery <i>C. Carboni (Italy)</i>	156
15:00	Break	

Session 27. Workshop - IOA Highlights on innovation

Hour	Presentation	ID
14:00	WS	
15:00	Break	

Plenary session

15:30	Awards Ceremony Synthesis and Conclusions Announcements	
17h00	Adjourn	

EXHIBITION - Monday 21 October to Wednesday 23 October

Leading companies supplying equipment for ozone application display new and standard products.
Enough time will be available to go in the exhibition space and see the exhibits.
[Few stands are available. Save your space now.](#)

