

Programme of the Conference

MONDAY – October 2nd – Restaurant de l'Aquarium ("Brasserie Là-Haut")

18h00-19h00 Registration

19h00-21h00 Welcome party

TUESDAY – October 3rd - Espace Encan

8h30-8h50 Registration

8h50-9h15 Opening Ceremony, *G Touchard, E Moreau*

9h15-10h45 Session 1 : Plasma Chemistry and Biology I, Chairman : MB Chang

- **Pleanary lecture** : Improvement and Scale-up of Plasma-Based Water Treatment Process, *N Takeuchi*
- Effect of gas species on water sterilization by pulsed discharge inside ozone bubbles, *N Osawa, D Ueda, S Morimoto, M Mitsumoto, S Sawada, I Tanida, S Osawa, I Mekata, K Nakata*
- Influence of discharge polarity on water treatment using DC corona discharge, *T Miichi, K Seto*
- An Investigation on the removal of Pharmaceuticals from Hospital Wastewater using Cold Plasma Technology, *S Cunningham*

10h45-11h05 Coffee Break

11h05-12h25 Session 2 : Plasma Chemistry and Biology II, Chairman : H Kim

- In situ PEDOT synthesis by plasma bubble, *H Takana, K Ohtake, N Takeuchi, G Coativy, S Livi, L Seveyrat, V Perrin, L Courty, F Dalmas, JY Cavaille*
- Application of black-TiO₂ for improving ozone generation efficiency, *YF Chu, K Pan, LS Ko, MB Chang*
- Formation and consumption of SO_x• species in situ by NTP and its effect on the degradation reaction, *AP Crema, D Muller, AJ Horn, NA Debacher*
- Multi-hollow surface dielectric barrier discharge: Its physical characterization and chemical activity for various air flow rates and relative humidities, *K Hensele, V Okruhlicova, R Cimerman*

12h25-14h Lunch at "Brasserie Là-Haut", Aquarium

14h-15h30 Session 3 : Plasma Discharges, Chairman : J Mizeraczyk

- **Pleanary lecture** : Numerical Study on Electrohydrodynamic Effects of Surface Barrier Discharge Aiming for Flow Control Applications, *H Nishida, K Nakai*
- Breakdown Spots in Metal-Insulator-Metal Structures, *H Kliem*

- Paint Coatings on Wind Turbine Blades for Lightning Protection, *Y Okegawa, S Zen, N Takeuchi, Y Suzuki, T Akimoto*
- DC and AC dielectric barrier discharges between a needle tip and the surface of a liquid for application in wastewater treatment, *L Alomari, T Orriere, C Batiot-Dupeyrat, B Teychene, E Moreau*

15h30-15h50 Coffee Break

15h50-17h30 Session 4 : Plasma and Flows, Chairman : E Moreau

- Experimental Study for Evaluating Forced Convection Heat Transfer with Plasma Actuator Including Joule Heating, *N Omori, A Hatamoto, H Nishida*
- Effects of supplied gas on plasma-induced liquid flows, *T Kawasaki, K Shen*
- Control of liquid flows by Ar plasma-jet irradiation, *K Shen, T Kawasaki*
- Experimental assessment of the ionic wind generated by a corona discharge in moving air, *S Grosse, E Moreau, N Benard, T Orrière*
- Numerical simulations of ionic wind resulting from corona discharge : analysis of unsteadiness, *C Marion, J Sierra-Ausin, D Fabre, F Plouraboué*

17h30-18h30 Poster session

- Oxydative coupling of methane over semiconducting materials in electric field, *V Maslova, E Fourré, G Velyasov, C Batiot-Dupeyrat*
- Evaluation of inactivation efficiency of phytonematode species exposed to NTP in water medium, *T Felix, L Pimenta, CMG Oliveira, OG Filho, NA Debacher*
- Trichel Pulse Corona Discharge; Comparison of Simulation Models, *A Shaygani, K Adamiak*
- Influence of gas mixture composition on the current-voltage characteristics of a compact corona discharge ionizer, *A Bologa, K Woletz, HJ Gehrmann, D Stapf*
- Numerical Analysis of Influence of Dielectric Surface on Electrohydrodynamic Force Generation in Barrier Discharge, *M Shimizu, Y Kaneko, H Nishida*
- Preliminary study of reduced-order modelling of electrohydrodynamic force by dielectric barrier discharge plasma, *K Nakai*
- The effect of changing interfacial tension on electrohydrodynamic processes in two-phase immiscible liquids, *VA Chirkov, GO Utiugov, IV Blashkov, SA Vasilkov*
- DBD pre-treatment of granular plastic wastes in view of tribo-electrostatic separation, *MS Benlidimi, S Labiod, A Parenty, Z Ziara, T Zeghloul, L Dascalescu*
- The effect of the distance between wires on potential uniformity at the surface of PP films corona charged by two-and three-wire-type electrodes, *O Chibane, A Rahmani, B Bendahmane, L Dascalescu, K Medles, T Zeghloul*
- A blower assisted mask for prevention of airborne infection, *A Mizuno*
- Corona-electrostatic separation of finely grinded WEEE, *H Moulai, T Zeghloul, N Menad, L Dascalescu*
- The characteristics of the electro-thermo-convective flow of a dielectric liquid analyzed through the Nusselt number, *D Koulova, H Romat, P Traoré*
- Frequency effect on active mixing enhancement downstream of a square-mesh plasma grid, *T Fridlender, N Benard, E Moreau*

WEDNESDAY – October 4th - Espace Encan

9h-10h40 Session 5 : Environmental and Perspectives, Chairman : S Agnel

- Evolution of the next generation of connected sensors in the digitized world, *O Bonnaud*
- Electricity in the context of a new vision of global warming in which anthropogenic heat and not CO₂ is determinant , *M Vert*
- Water Dipole and Global Warming on the Earth, *A Tourelle*
- Environmental Warning of using Hydrogen gas or liquid in vehicles, *G Touchard, K Urashima*
- Charging of water and cray mixture in near supercritical state, *A Mizuno, K Minghui, K Umeno*

10h40-11h10 Coffee Break

11h10-12h Session 6 : Electrostatics and Space Charge, Chairman : A Mizuno

- **Plenary lecture** : Evolution of the Space Charge Measurement With the Thermal Step Method Over the 10 Last Years, *JC Laurentie, J Castellon, P Notingher, S Agnel, T Martiré, T Paillat, A Tourelle, M Jebli, PS Mbolo Noah, X Sidambarompoulé, S Zhao*
- Effect of gas temperature on collection efficiency for diesel exhaust particles in an electrostatic precipitator with a high electric field, *A Zukeran, Y Tanahashi, K Ito, K Yasumoto, Y Ehara*

12h-13h30 Lunch at "**Brasserie Là-Haut**", Aquarium

15h Boat Excursion(**La Rochelle Croisières**)

THURSDAY – October 5th - Espace Encan

9h-10h10 Session 7 : Liquids I, Chairman : P Notingher

- **Plenary lecture** : The application of novel numerical models of two-phase liquid electrohydrodynamics for the research into electrical coalescence and non-coalescence, *VA Chirkov, DD Saifullin, PA Kostin, IA Dobrovolskii, SA Vasilkov, GO Yagodin, IA Elagin*
- Schlieren Velocimetry of Phase Change Material Heat Transfer Enhancement under the Application of Electrohydrodynamics, *E Chariandy, S Liu, T Sato, JS Cotton*
- Similarities and Differences in Electrocoalescence Processes of Conducting Uncharged Droplets at the DC and Pulsed Voltage, *BA Chernykh, VA Chirkov, AV Samusenko, PA Kostin*
- Contribution of the electrostatic separation to the recycling of industrial waste, *T Zeghloul, L Dascalescu*

10h30-11h Coffee Break

11h-12h20 Session 8 : Liquids II, Chairman : V Chirkov

- Measurement of the charge distribution at the solid/liquid interface by a new version of the PEA method, *G Rincon, L Berquez, T Paillat, P Leblanc*

- Charges distribution measurement at solid/liquid interface by PWP method, V Berry, P Leblanc, S Holé, T Paillat
- Operando coupled space charge distribution and potentiostatic measurements, M Arnaud, Y Walter, R Federicci, S Holé, B Lerido
- Features of Electrical Coalescence of Two Charged Droplets Suspended in Dielectric Liquid, AS Karchevskaia, VA Chirkov, IA Elagin

12h20-14h Lunch at "Brasserie Là-Haut", Aquarium

14h-15h40 Session 9 : Plasma chemistry and Biology III, Chairman : C Dupeyrat

- A Single-shot LIF Imaging of N₂ (A³Σ⁺) Metastable Molecules in the Afterglow of Streamer Discharge in N₂, S Kanazawa, J Mizeraczyk, A Kuno, S Tanouchi, H Tasaka, T Furuki, K Tachibana, R Ichiki, M Kocik
- Development of a electrostatic sampler for suspended viruses in air, K Fukuda, H Baba, M Yoshida, K Kitabayashi, S Katsushima, H Sonehara, K Mizuno, H Kanamori, K Tokuda, A Nakagawa, A Mizuno
- Plasma-engineered hcp Cobalt-nitrogen-carbon Interface as Highly Active Oxygen Reduction Reaction Sites for Aluminum-air battery, S Kim, OL Li
- Development of Compact Pulsed Power Generator for Keeping Freshness of Agricultural and Marine Products , K Takaki, K Takahashi, C Yuan, K Urashima
- Influence of Pulsed Current on Anisakis Inactivation, D Wang, Y Ishibashi, C Onitsuka, K Nakamura, Y Inoue, M Matsui, T Tanino, T Ohshima, T Namihira

15h40-16h10 Coffee Break

16h10-18h10 Session 10 : Plasma chemistry and Biology IV, Chairman : N Debacher

- Ammonia decomposition over Ce and La-based materials in an electric field, V Maslova, E Fourré, G Veryasov, C Batiot-Dupeyrat
- Warm plasma for sustainable nitrogen fixation , HH Kim, AA Abdelaziz
- Investigations on Physical Characteristics and Chemical Reactions of Multi-parallel Diaphragm Discharge Plasma, T Watanabe, S Zen, N Takeuchi
- Study of CO₂ conversion in the DC corona discharge in the carbon dioxide-helium-nitrogen gas mixtures , A Bologg, K Woletz, HJ Gehrman, D Stapf
- Investigation of a dielectric barrier discharge operating at atmospheric pressure for spatial atomic layer deposition application, GBl Ndiffo Yemeli, T Tian, H Rabat, O Aubry, D Munoz-Rojas, J Lemaire, G Charles, D Hong
- Effect of subsurface gas supply on PFOS decomposition by plasma, S Qing, D Wang, T Namihira, N Takeuchi

20h Gala dinner at the restaurant "Les 4 sergents"