## POSTER SESSIONS 2: Thursday 5, 13h30 – 15h30

### 4 - Plasma-material interactions: liquid/solid

**4-1** - Interaction between electric arc and Ag-SnO2 electrodes, *Aurélien Fouque*

**4-2** - Chemical analysis of Plasma Activated Water using Gliding Arc Discharge at atmospheric pressure: influence of the water content on the activation process, *Maxime Wartel, William Desdions, François Faubert, Nadia PELLERIN, Stéphane PELLERIN, Catherine Stride*

**4-3** - Setting for defined fume particle generation and observation using a TIG welding torch, *Stefan Eichler, Erwan Siewert, Jochen Schein*

**4-4** - Study of underwater pulsed electric discharge plasma for synthesis of metal colloidal solutions, *Tetiana Tmenova, Yann Cressault, Valensi Flavien, Anatoly Veklich, Viatcheslav Boretskij, Konstantin Lopatko*

### 5 - Powders and additive manufacturing

**5-1** - Trial Synthesis of Silicon Nanoparticles using a Newly Developed Tandem Type of Modulated Induction Thermal Plasma with Lower Coil Current Modulation, *Kazuki Onda, Naoto Kodama, Yosuke Ishisaka, Kotaro Shimizu, Yasunori Tanaka, Uesugi Yoshihiko, Tatsuo Ishijima, Shiori Sueyasu, Shu Watanabe, Keitaro Nakamura*

**5-2** - Aluminum oxynitride nanopowders synthesis in a reactor with a confined plasma jet, *Aleksey Astashov, Andrey Samokhin, Nikolay Alekseev, Mikhail Sinayskiy, Inessa Pahilo-Daryal*

**5-3** - Atmospheric pressure plasma modification of powder dispersions using RF jet and RF slit nozzle, *Barbora Pijáková, Jozef Ráheľ*

**5-4** - In-liquid synthesis of CuO nanoparticles by bipolar pulsed microplasma, *Dong-Wook Kim, Dong-Wha Park*

**5-5** - Synthesis of Metal Boride Nanoparticles in Triple Thermal Plasma Jet System, *Minseok Kim, Jeong-Hwan Oh, Tae-Hee Kim, Yong Hee Lee, Seung-Hyun Hong, Sooseok Choi*

**5-6** - Synthesis of Tungsten Carbide Nanoparticles using Triple Thermal Plasma Jet System, *Jeong-Hwan Oh, Minseok Kim, Young Hee Lee, Seung-Hyun Hong, Tae-Hee Kim, Sooseok Choi*

**5-7** - Reproduction of cosmic dust by non-equilibrium condensation in triple thermal plasma jet system, *Tae-Hee Kim, Jeong-Hwan Oh, Minseok Kim, Yong Hee Lee, Akira Tsuchiyama, Junya Matsuno, Aki Takigawa, Sooseok Choi*

### 6 - Material and Surface processing

**6-1** - Determination of residual stress by X-ray diffraction in a weld cordon, *Driss Dergham*

**6-2** - Tribological investigations of YSZ-CuAg composite coating, *Yan WANG, Yongli ZHAO, Geoffrey DARUT, Thierry POIRIER, Jorge STELLA, Hanlin LIAO, Marie-Pierre PLANCHE*

**6-3** - Reactive magnetron sputter deposition of titanium oxynitride TiNxOy coatings: influence of substrate bias voltage on the structure, composition, and properties, *nadia saoula, Farroudja Lamdani, Larbi Bait, noureddine madaoui, Hanane Mechri, Mourad azibi, samira sali, Abdelkader Hammouche*

**6-4** - Decomposition of ceramic inks by an arc plasma jet operating in a pulsed mode and coating deposition, *Fabrice Mavier, Fadi Zoubian, Pascal André, Marguerite BIENIA, Martine Lejeune, Vincent Rat*

**6-5** - In situ measurement of Silicon surface oxidation in low temperature oxygen plasma, *Andrey Miakonkikh, Iosif Clemente, Konstantin Rudenko, Sergey Averkin*

## 7 - Aeronautics and aerospace applications

**7-1** - Experimental arc root sweeping simulation and motion tracking for aeronautics applications, *clement zaepffel, Rafael Sousa Martins*

**7-2** - Study of electric arc extinction in aeronautical environment, *Loïc HERMETTE, Guillaume Belijar, Gaëtan Chanaud, Emeric Boliga, Yann Cressault, Philippe TEULET*

**7-3** - Introduction of Molecular Dynamics (MD) as a tool for the investigation of gridded ion thrusters, *Karsten Hartz-Behrend, Jochen Schein*

**7-4** - Determination of faults arc energy ignited between aeronautic cables, *Thomas Vazquez, Philippe TEULET, Flavien Valensi, Aurore RISACHER, Loïc HERMETTE, Vincent Casanovas*

**7-5** - Cold Atmospheric Pressure Plasma applied for Aeronautical Polyurethane surface activation: preliminaries characterizations, *Audrey SANCHOT, Vivien MURAT, Nicolas NAUDE, Bertrand RIVES, Laurent GUERRE-CHALEY, Thomas DELSOL*

**7-6** - Lightning arc interaction with complex structure, *Audrey BIGAND, Jean-Marc Bauchire, Christine Espinosa, Hervé Rabat*

**7-7** - Lightning strike protection explosion and overpressure profile, *Audrey BIGAND, Christine Espinosa, Jean-Marc Bauchire, Hervé Rabat*

**7-8** - LDA Electric Wind Velocity Measurements Behind Single Dielectric Barrier, Multi Dielectric Barrier and Sliding Discharge Plasma Actuators, *Berkant Goeksel*

## 8 - Energy and transport applications

**8-1** - Theory of reaction rates: application to SF6 plasma, *Xavier BAUMANN, Philippe TEULET, Yann Cressault, Arnaud Bultel*

## 9 - Environmental applications

**9-1** - Effects of discharge voltage and current on PFCs treatment process in an elongated arc reactor, *K-T Kim, D. H. Cho, D. R. Lee, S. K. Jo, D. H. Lee, Y-H Song*

**9-2** - Matrix Impact On Bacterial Biofilms Response and Resistance To Cold Plasma Treatments, *Frédéric Marchal, Maritxu Labadie, Elisabeth GIRBAL-NEUHAUSER, Catherine Fontagné-Faucher, Nofel Merbahi, Claire-Emmanuelle Marcato-Romain*

**9-3** - Reduction in size and quantity of by-product particles using a low-pressure plasma reactor in SiO2 thin film deposition, *Jae-Ok Lee, Jin-Young Lee, Seok Jun Suh, Dae Woong Kim, Woo Seok Kang, Min Hur*

**9-4** - Degradation of phenol aqueous solution using submerged arc plasma, *Eun Seo Jo, Dong-Wook Kim, Dong-Wha Park*