

Metz (F) – June 16-18, 2010

Updated on May 25

Wednesday, June 16

- 8.30 am** **Conference registration and coffee**
- 9.00 am** **Opening ceremony**
- 9.15 am** **Influence of target material and cathode impedance on HiPIMS plasmas**
(Invited lecture)
R. Bandorf, H. Gerdes, G. Bräuer
Fraunhofer-IST, Germany
- 10.00 am High-power pulsed magnetron sputtering of WO₃. Influence of the pulse parameters on the discharge and film characteristics
A. Hemberg^{1,2}, S. Konstantinidis², C. Bittencourt², F. Renaux², J.P. Dauchot^{1,2}, R. Snyders^{1,2}
¹ *Materia Nova Research Center, Mons, Belgium*
² *Laboratoire de Chimie Inorganique et Analytique, CIRMAP, Mons, Belgium*
- 10.30 am Ion flux characteristics and efficiency of the deposition processes in high power impulse magnetron
J. Lazar, J. Rezek, J. Vıcek
Department of Physics, University of West Bohemia, Plzen, Czech Republic
- 11.00 am** **Coffee break**
- 11.25 am** **High frequency plasma PVD and PECVD processes for automotive parts:**
DLC coatings and comparison with conventional technologies
(Invited lecture)
X. Badiche, C. Héau, P. Maurin Perrier
HEF R&D, Andrézieux Bouthéon, France
- 12.10 am Deposition of carbon/metal nanocomposite films and nanofibers by a hybrid IPVD/PECVD process
A. El Mel, B. Angleraud, A. Granier, P.Y. Tessier
Institut des Matériaux Jean Rouxel (IMN), Université de Nantes, France
- 12.40 am** **Lunch (Self)**

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- 2.00 pm New DLC technologies**
(Invited lecture)
S. Mikhailov¹, C. Meunier², S. Goloviatinski³, E. Sheleg⁴, V. Sheleg⁵, C. Petit⁶
¹ He-Arc, IMA, La Chaux-de-Fonds, Switzerland
² FEMTO-ST, Université de Franche-Comté, Montbéliard, France
³ Swissnanocoat SA, La Chaux-de-Fonds, Switzerland
⁴ Creepservice Sarl, Bôle, Switzerland
⁵ SZOS, Smorgon, Belarus
⁶ Socrate Industrie Sarl, Le Bélieu, France
- 2.45 pm Ultrathin fluoropolymer coatings deposited by innovative physical vapour deposition process, based on laser-assisted magnetron sputtering, on flexible poly(ethylene terephthalate) for superhydrophobic properties
C. Becker^a, J. Petersen^{a,b}, D. Ruch^a, A. Dinia^b
^a DAMS, Centre de Recherche Public Henri Tudor, Esch sur Alzette, Luxembourg
^b IPCMS, CNRS-ULP, Strasbourg, France
- 3.15 pm Pt based thin films deposited by magnetron sputtering for PEMFC and DMFC fuel cells
A. Ennajdaoui¹, M. Cavarroc¹, M. Vogt¹, A. Cailard², M. Mougnot², P. Brault², S. Roualdès³, J. Durand³
¹ Made In Dreux Innovation, Vernouillet, France
² GREMI, Orléans, France
³ IEM, Montpellier, France
- 3.45 pm Structural effects of ion beam energy on SiO₂ thin films deposited by ion beam sputtering
C. Joseph, P. Bourson, M.D. Fontana
Laboratoire Matériaux Optiques, Photonique et Systèmes (LMOPS), Metz, France
- 4.15 pm Coffee Break**
- 4.45 pm POSTER SESSION**
- 6.30 pm Bus departure in front of the Congress Centre**
Cocktail served at "Hotel de Ville" de Metz
- 8.00 pm Conference Dinner at "La Place Caffè"**

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- 8.30 am Coffee**
- 9.00 am Special session: “Industrial Hot Topics”**
Chair: Victor Bellido-Gonzalez
Gencoa, UK
- 9.05 am Reactive magnetron sputtering for industrial applications
V. Bellido-González, M. Audronis, B. Daniel, D. Monaghan
Gencoa, Liverpool, United Kingdom
- 9.25 am Direct heated hot pressing as a method for the cost efficient production of targets for sputtering or arc deposition
E. Neubauer, M. Kitzmantel, G. Kladler, W. Kapaun
Austrian Institute of Technology GmbH, Wien, Austria
- 9.45 am Cleaning, activation and coating using zero-potential, atmospheric-pressure plasma
- Examples of applications in automotive engineering
S. Gruber¹, A. Knospe², C. Buske²
¹ *Plasmatreat, Les Ulis, France*
² *Plasmatreat, Steinhagen, Allemagne*
- 10.05 am Ultra nanoindentation tester: new tool for thin films and ultra small volumes indentation measurements
G. Berthout¹, C. Meunier², J. Nohava¹
¹ *CSM Instruments SA, Peseux, Suisse*
² *CREST Montbéliard, France*
- 10.25 am Diamond-Like Carbon coatings for tribological applications on automotive components
R. Tietema, P. Peeters, D. Doerwald, R. Jacobs, T. Krug
Hauzer Techno Coating BV, Venlo, The Netherlands
- 10.50 am Coffee Break**
- 11.15 am SVTM Exhibition visit**
- 11.45 am Large area deposition of carbon based coatings by different techniques**
(Invited lecture)
J. Vyskocil
HVM Plasma, Prague, Czech Republic
- 12.30 am Lunch (Self)**

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- 2.00 pm** **Particle Monte Carlo models of gas and plasma dynamics in low and intermediate pressure reactors**
(Invited lecture)
S. Longo
*Chemistry Dept., University of Bari, Italy
& CNR-IMIP Bari, Italy*
- 2.45 pm Anomalous transport of electrons in DC magnetron discharge
L. Caillault, T. Minea
LPGP, Université Paris-Sud XI, Orsay, France
- 3.15 pm Modeling of the deposition and development of surface structures with the kinetic Monte Carlo code NASCAM
S. Lucas, P. Moskovkin
Research Center in Physics of Matter and Radiation (PMR), University of Namur (FUNDP), Belgium
- 3.45 pm** **POSTER SESSION**
- 5.05 pm** **Coffee Break**
- 5.30 pm** Tunable diode laser techniques for magnetron discharges diagnostics
(Invited lecture)
C. Vitelaru
¹ *Faculty of Physics AI I Cuza University, Iasi, Romania*
² *LPGP, Université Paris Sud-XI, Orsay, France*
- 6.15 pm TARGAN: Tumoral angiogenesis detected and treated with labeled radioactive nanoparticles
V. Bouchat¹, N. Moreau¹, V. Valembois¹, O. Feron², B. Gallez³, B. Masereel⁴, C. Michiels⁵, T. Vander Borgh⁶, S. Lucas¹
¹ *PMR, LARN, FUNDP University of Namur, Belgium*
² *Unité de Pharmacothérapie (FATH), Université catholique de Louvain, Belgium*
³ *Laboratoire de résonance magnétique biomédicale (CMFA), Université catholique de Louvain, Belgium*
⁴ *Département de Pharmacie (DP), FUNDP University of Namur, Belgium*
⁵ *Unité de Recherche en Biologie Cellulaire (URBC), FUNDP University of Namur, Belgium*
⁶ *Center for Molecular Imaging and Experimental Radiotherapy (IRME), Université catholique de Louvain, Belgium*

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- 8.30 am Coffee**
- 9.00 am In search for the limits of rotating cylindrical magnetron sputtering**
(Invited lecture)
W.P. Leroy, S. Mahieu, R. De Gryse, D. Depla
Dept. of Solid State Sciences, Ghent University, Belgium
- 9.45 am Film depositions using pulsed magnetron systems of several types
J. Vıcek, J. Rezek, O. Novak
Department of Physics, University of West Bohemia, Plzen, Czech Republic
- 10.15 am Coffee Break**
- 10.45 am Beam line ion implantation or plasma immersion ion implantation:
A versatile surface treatment for biomedical applications**
(Invited lecture)
F. Torregrosa
Ion Beam Service, Peynier, France
- 11.30 am Preparation, characterization and application of a novel membrane
A. Belouatek, A. Chougui, K. Zaiter
Laboratoire Membrane, Faculté des sciences et technologie, Université de Mostaganem, Algérie
- 12.00 am Closure ceremony**