

## POSTER SESSIONS

### Poster Session #1 – Monday 22 November (16:45 – 18:15)

#### BIO / Biointerfaces

- BIO #129** Large argon cluster beams for the fabrication of proteins thin films  
**V. Delmez, B. Tomasetti, T. Daphnis, C. Poleunis, C. Dupont, A. Delcorte**  
*Univ. Catholique de Louvain - Louvain-La-Neuve (BE)*

#### EMP / Electronic Materials

- EMP #139** Carrier traps density reduction at SiO<sub>2</sub>/4H-SiC interface by annealing in phosphorus and nitrogen atmosphere

**E. Brzozowski<sup>1</sup>, M. Kaminski<sup>1</sup>, A. Taube<sup>1</sup>, O. Sadowski<sup>1</sup>, K. Krol<sup>2</sup>, M. Guziewicz<sup>1</sup>**

<sup>1</sup> *Lukasiewicz Research Network - Institute of Microelectronics and Photonics - Warsaw (PL)*

<sup>2</sup> *Warsaw Univ. of Technology - Institute of Microelectronics and Optoelectronics - Warsaw (PL)*

- EMP #140** Low energy ion scattering investigation of the surface properties with the concentration of Br in Br-MeOH etching solution for CdTe single crystals

**O. Sik<sup>1,2</sup>, J. Stanek<sup>2,3</sup>, P. Bábor<sup>2,3</sup>**

<sup>1</sup> *Brno Univ. of Technology, FEEC, Dept of Physics – Brno (CZ)*

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#### SE / Surface Engineering

- SE #118** Passivation layer coating using Atomic Layer Deposition for high performances and high durability of photoelectrodes

**H. Cho, D. Kim, J. Choi**

*Sungkyunkwan Univ. - Suwon-Si (KR)*

- SE #120** Study of films developed on AISi 316L steel by anodic oxidation and Electrolytic Plasma Processes under different treatment conditions

**V. Andrei<sup>1</sup>, V. Malinovschi<sup>1</sup>, E. Coaca<sup>2</sup>, M. Alexandru<sup>2</sup>, C. Mihailescu<sup>3</sup>, C. Radulescu<sup>4</sup>, I.D. Dulama<sup>4</sup>**

<sup>1</sup> *Elssa Laboratory SRL - Pitesti (RO)*

<sup>2</sup> *Institute for Nuclear Research - Pitesti (RO)*

<sup>3</sup> *National Institute for Lasers, Plasma and Radiation Physics - Bucuresti (RO)*

<sup>4</sup> *Valahia Univ. of Targoviste (RO)*

SS / Surface Science

- SS #131** CeO<sub>x</sub>/Pt inverse model electrocatalyst: Relation between morphology, chemical state and stability in alkaline environment  
**L. Fusek<sup>1,2</sup>, J. Keresteš<sup>1</sup>, P.K. Samal<sup>1</sup>, I. Khalakhan<sup>1</sup>, V. Johánek<sup>1</sup>, Y. Lykhach<sup>2</sup>, J. Libuda<sup>2</sup>, O. Brummel<sup>2</sup>, J. Mysliveček<sup>1</sup>**  
<sup>1</sup> Department of Surface and Plasma Science, Charles Univ. - Prague (CZ)  
<sup>2</sup> Interface Research and Catalysis, ECRC, Friedrich-Alexander Univ. - Erlangen (DE)
- SS #132** Surface assisted synthesis, characterization and electronic properties of pristine and oxygen-exposed graphene nanoribbons on Ag(110)  
**M. Rocca<sup>1</sup>, J.E. Barcelon<sup>2</sup>, M. Smerieri<sup>3</sup>, G. Carraro<sup>1</sup>, P. Wojciechowski<sup>4</sup>, L. Vattuone<sup>1</sup>, S. Nappini<sup>5</sup>, I. Pis<sup>5</sup>, E. Magnano<sup>5</sup>, F. Bondino<sup>5</sup>, C. Di Valentin<sup>6</sup>, L. Vaghi<sup>6</sup>, A. Papagni<sup>6</sup>, L. Savio<sup>7</sup>**  
<sup>1</sup> Dipartimento di Fisica Univ. Genova (IT)  
<sup>2</sup> Dipartimento di Fisica Univ. Parma (IT)  
<sup>3</sup> IMEM-CNR - Genova (IT)  
<sup>4</sup> Institute of Molecular Physics, Polish Academy of Sciences - Poznan (PL)  
<sup>5</sup> IOM CNR - Trieste (IT)  
<sup>6</sup> Univ. Milano Bicocca - Milano (IT)  
<sup>7</sup> IMEM CNR - Genova (IT)
- SS #133** Prominence of terahertz acoustic surface plasmon excitation in gas-surface interaction with metals  
**M. Rocca<sup>1</sup>, G. Bracco<sup>1</sup>, L. Vattuone<sup>1</sup>, M. Smerieri<sup>2</sup>, G. Carraro<sup>1</sup>, L. Savio<sup>2</sup>, G. Paolini<sup>1</sup>, G. Benedek<sup>3</sup>, P. Echenique<sup>4</sup>**  
<sup>1</sup> Dipartimento di Fisica, Univ. Genova - Genova (IT)  
<sup>2</sup> IMEM CNR - Genova (IT)  
<sup>3</sup> Univ. Milano Bicocca - Milano (IT)  
<sup>4</sup> DIPC Donostia - San Sebastian (ES)
- SS #134** Step Engineering for model electrocatalytic studies using ion erosion  
**P. Samal<sup>1</sup>, J. Škvára<sup>1</sup>, L. Fusek<sup>1,2</sup>, M. Ronovský<sup>1</sup>, V. Johánek<sup>1</sup>, Y. Lykhach<sup>2</sup>, J. Libuda<sup>2</sup>, O. Brummel<sup>2</sup>, J. Mysliveček<sup>1</sup>**  
<sup>1</sup> Department of Surface and Plasma Science, Charles Univ. Prague (CZ)  
<sup>2</sup> Interface Research and Catalysis, ECRC, Friedrich-Alexander-Univ. - Erlangen (DE)
- SS #138** Thermal stability study of mixed CeO<sub>x</sub>-Co<sub>3</sub>O<sub>4</sub> thin film oxide catalysts  
**V. Uvarov, L. Fusek, J. Krutel, J. Mysliveček, V. Johánek**  
Department of Surface and Plasma Science - Praha (CZ)

TF / Thin Film

- TF #008** Bundle-type columnar Cu<sub>2</sub>O photoabsorbers with vertical grain boundaries using instant strike-processed metallic seeds and their enhanced photoelectrochemical efficiency  
**J. Choi, D.S. Kim, Y.B. Kim, S.H. Jung, H.K. Cho**  
Sungkyunkwan Univ. - Suwon (KR)
- TF #039** Deposition of zirconium on a half-sphere: a glad modelization  
**K. Rahmouni<sup>1,2</sup>, A. Besnard<sup>1</sup>, C. Nouveau<sup>1</sup>, M. Zaabat<sup>2</sup>, K. Oulmi<sup>3</sup>, L. Aissani<sup>2</sup>**  
<sup>1</sup> Arts et Metiers Institute of Technology, LaBoMaP, HESAM Univ. - Cluny (FR)  
<sup>2</sup> Laboratory of active components and materials, Larbi Ben M'hidi Univ.. - Oum El Bouaghi (DZ)  
<sup>3</sup> Laboratory of Electrochemistry, Faculty of material sciences, Batna Univ. 1 - Batna (DZ)

- TF #107** Study of the effect of nanoparticles addition to P3HT:PCBM films  
**M. Acosta, D. Canto-Reyes, R.A. Soberanis-Ortiz, I. Riech, J.A. Mendez-Gamboa, I. Perez Quintana**  
*Univ. Autonoma de Yucatan - Merida (MX)*
- TF #108** Figure of merit evaluation for multilayers ZnO:Al/Cu/ZnO:Al as a function of copper thickness for TCO applications in solar cells  
**M. Acosta, J.A. Mendez-Gamboa, M. Rivera-Vidal, R. Hernandez-Castillo, I. Riech, I. Perez Quintana**  
*Univ. Autonoma de Yucatan - Mérida (MX)*
- TF #123** Transparent niobium-doped titanium dioxide thin films with high Seebeck coefficient for thermoelectric applications  
**J. Ribeiro<sup>1</sup>, F. Correia<sup>1</sup>, F. Rodrigues<sup>1</sup>, S. Reparaz<sup>2</sup>, A. Goñi<sup>2, 3</sup>, C. Tavares<sup>1</sup>**  
<sup>1</sup> Centre of Physics, Univ. Minho and Porto - Guimarães (PT)  
<sup>2</sup> Institut de Ciència de Materials de Barcelona-CSIC (ICMAB), Esfera UAB - Bellaterra (ES)  
<sup>3</sup> ICREA, Barcelona (ES)
- TF #124** Computer study of morphology of nanocomposites  
**S. Novak<sup>1</sup>, R. Hrach<sup>2</sup>**  
<sup>1</sup> J.E. Purkinje Univ. - Usti Nad Labem (CZ)  
<sup>2</sup> Faculty of Mathematics and Physics, Charles Univ. - Prague (CZ)
- TF #126** The role of Bi doping on transparent zinc oxide thin films doped with Al and Ga  
**F. Correia<sup>1</sup>, J.M. Ribeiro<sup>1</sup>, A. Kuzmin<sup>2</sup>, I. Pudza<sup>2</sup>, A. Kalinko<sup>3, 4</sup>, E. Welter<sup>4</sup>, A. Mendes<sup>5</sup>, J. Rodrigues<sup>6</sup>, N.B. Sedrine<sup>6</sup>, T. Monteiro<sup>6</sup>, M.R. Correia<sup>6</sup>, J.S. Reparaz<sup>7</sup>, M. Kong<sup>7</sup>, A.R. Goñi<sup>7, 8</sup>**  
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<sup>2</sup> Institute of Solid State Physics, Univ. Latvia - Riga (LV)  
<sup>3</sup> Department Chemie, Naturwissenschaftliche Fakultät, Univ. Paderborn (DE)  
<sup>4</sup> Deutsches Elektronen-Synchrotron - Research Centre Helmholtz Association - Hamburg (DE)  
<sup>5</sup> LEPABE, Faculty of Engineering, Univ. Porto (PT)  
<sup>6</sup> Departamento de Física & i3N, Univ. Aveiro (PT)  
<sup>7</sup> Instituto de Ciencia de Materiales de Barcelona-CSIC - Bellaterra (ES)  
<sup>8</sup> ICREA, Passeig Lluís Companys 23 - Barcelona (ES)

## Poster Session #2 – Tuesday 23 November (17:20 – 18:50)

### ASS / Applied Surface Science

- ASS #036** Dynamic pressure measurement in the LHC  
**S. Bilgen<sup>1</sup>, B. Mercier<sup>1</sup>, G. Sattonnay<sup>1</sup>, V. Baglin<sup>2</sup>**  
<sup>1</sup> Univ. Paris-Saclay, CNRS/IN2P3, IJCLab - Orsay (FR)  
<sup>2</sup> CERN - Geneva (CH)
- ASS #074** Effect of SHI irradiation and high temperature annealing on the microstructure of SiC implanted with Ag  
**H. Abdelbagi, T. Hlatshwayo**  
Univ. Pretoria (ZA)
- ASS #135** Understanding the function of organic/inorganic hybrid electrolyte in Mg-air batteries: XPS and ToF-SIMS studies  
**Y. Zhou, S. Zanna, A. Seyeux, P. Marcus, J. Swiatowska**  
PSL Research Univ., CNRS – Chimie ParisTech, IRCP - Paris (FR)

### ITER / ITER: Energy, plasma and materials

- ITER #079** Impacts of inboard materials on a tokamak DEMO reactor design  
**B. Hong**  
Jeonbuk National Univ. - Jeonju-Si (KR)
- ITER #111** Performance qualification of a stainless steel roots pump for pumping the ITER tokamak exhaust during fusion power operation  
**S. Nasluzov<sup>1</sup>, I. Banerjee<sup>1</sup>, S. Hughes<sup>1</sup>, G. Wolfers<sup>1</sup>, J.L. Bersier<sup>1</sup>, R. Pearce<sup>1</sup>, L. Worth<sup>1</sup>, A. Schopphoff<sup>2</sup>, C. Smith<sup>3</sup>**  
<sup>1</sup> ITER Organization - Saint-Paul-Lez-Durance (FR)  
<sup>2</sup> Pfeiffer Vacuum GmbH - Asslar (DE)  
<sup>3</sup> Oak Ridge National Laboratory - Oak Ridge (US)

### PST / Plasma Science & Technique

- PST #068** Microstructure of Ti-AlN composite produced by pulsed plasma sintering  
**J. Mizera, K. Cymerman, R. Sitek**  
Warsaw Univ. of Technology - Warsaw (PL)
- PST #128** Forces applied on nanoparticles produced in magnetron discharges  
**C. Arnas<sup>1</sup>, T. Guidez<sup>2</sup>**  
<sup>1</sup> Aix-Marseille Univ., CNRS, PIIM - Marseille (FR)  
<sup>2</sup> Ecole Centrale de Marseille - Marseille (FR)

VST / Vacuum Science and Technology

- VST #014** The uncertainty investigation of an optical interferometric device for a new oil manometer with high resolution  
**T. Eykhvald, I. Sadkovskaya, A. Eikhvald**  
*D.I. Mendeleev institute for Metrology (VNIIM) - St-Petersburg (RU)*
- VST #027** Vacuum as quantum technology enabler  
**R. Bauer, A. Trützscher, K. Bergner**  
*VACOM GmbH - Grosslöbichau (DE)*
- VST #047** Specifics of the application of the vacuum pumps used in chemical and oil and gas industries  
**U. Gordeeva**  
*Bauman Moscow State Technical Univ. - Moscow (RU)*
- VST #075** Conceptual design of a compact multipurpose space simulation system  
**M. Assis Da Silveira<sup>1</sup>, G. Favale<sup>2</sup>, P. Gessini<sup>1</sup>**  
<sup>1</sup> *Univ. Brasília (BR)*  
<sup>2</sup> *Comando da Aeronáutica - Parque de Material Aeronáutico de São Paulo (BR)*
- VST #083** Vacuum acceptance testing of ESS high beta superconducting accelerating cavities at the STFC Daresbury Laboratory.  
**S. Wilde<sup>1,2</sup>, K. Middleman<sup>1,2</sup>**  
<sup>1</sup> *STFC Daresbury Lab., Accelerator Science and Technology Centre - Daresbury (UK)*  
<sup>2</sup> *Cockcroft Institute – Warrington (UK)*
- VST #109** ITER UHV valves qualification program  
**G. Godia Alastuey<sup>1</sup>, E. Quinn<sup>1</sup>, G. Vine<sup>1</sup>, A. Cecchi<sup>2</sup>, E. Maleche<sup>1</sup>, B. Boussier<sup>1</sup>, R. Pearce<sup>1</sup>, L. Worth<sup>1</sup>**  
<sup>1</sup> *ITER Organization (FR)*  
<sup>2</sup> *PHIMECA (FR)*
- VST #125** Investigation of systematic effects of viscosity measurements based on a spinning rotor gauge  
**A. Marsteller, J. Wydra, R. Grössle, S. Gentner**  
*Karlsruhe Institute of Technologies - Karlsruhe (DE)*
- VST #136** Design and construction of an ultra-high vacuum set up for the characterization of getter films deposited on wafers  
**A. Bosseboeuf, C. Bessouet, P. Coste, F. Parrain, A. Poizat, A. Boukrit, S. Jacob, J. Moulin**  
*C2N, CNRS, Univ. Paris-Saclay, Palaiseau (FR)*
- VST #137** Calibration of micro Pirani vacuum gauges for internal pressure measurement in miniaturized vacuum chambers  
**P. Coste<sup>1</sup>, F. Parrain<sup>1</sup>, A. Bosseboeuf<sup>1</sup>, C. Bessouet<sup>1</sup>, J. Moulin<sup>1</sup>, Y. Jang<sup>2</sup>**  
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<sup>2</sup> *Nextron Corporation - Busan (KR)*