

Wednesday 13 June 2018

09:00 Welcome

09:25 SurfaceFest - Session 1

Chair: Tiberiu Minea, Professor, director of LPGP, University Paris-Sud, Laboratoire de Physique des Gaz et des Plasmas, France

09:30 Surfaces: matter for innovation, basics and related techniques

Dr Anouk Galtayries and Dr Frederic Wiame, IRCP/PCS, Chimie Paris Tech, PSL University Paris, France

10:15 Development and progress of microLED Display Technology

Professor Ray-Hua Horng, Institute of Electronics, National Chiao Tung University, President Taiwan Vacuum Society, and Professor Dong Sing Wuu, National Chung Hsing University, Taiwan

11:00 Coffee break and Poster session

11:45 Organic material and hybrid perovskite a possible futur, for low cost flexible electronics
Professor Yvan Bonassieux, Ecole Polytechnique, France

12:30 Lunch

14:00 SurfaceFest - Session 2

Chair: Dr Anouk Galtayries, IRCP/PCS, Chimie Paris Tech, PSL University Paris, France

14:00 Characterization of ITO films on thin glass substrates

Dr. Olaf Zywitzki, Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Materials Analysis Head of Department, Dresden, Germany

14:30 TBD

Dr Alessandra Sergent, Dr Carlos Gomes-Vieira, Renault, France

15:00 Surface analytical techniques in support to industrialization of coated steel products

Dr Sébastien Cremel, Evelyne Gagaték, V. Philippe, M.J. Cornu, F. Broquedis, L. Gigli, Surface and coatings, ArcelorMittal, Global Research and Development Maizières Automotive Products, Maizières, France

15:30 Coffee break and Poster session

16:15 Electrochemical Storage of the Energy. Challenges in surface analysis

Professor Hervé Martinez, Professeur des universités, Directeur Adjoint IPREM CNRS UMR 5254 Helioparc, Pau, France

16:45 Metrology toolbox for advanced microelectronics

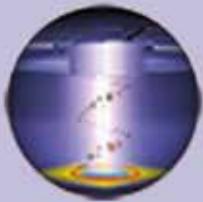
Dr Emmanuel Nolot, Metrology Leader, CEA LETI, Grenoble, France

17:15 Glasses Surface characterisation of glazing by combination of techniques

Dr Hervé Montigaud, Saint Gobain Research, France

17:45 Poster session

18: 15 Wine and fun food



Thursday 14 June 2018 -

08:45 SurfaceFest - GD Session

Chair: Patrick Chapon, Product Manager, HORIBA France, France

08:45 Latest developments in GDOES

Patrick Chapon, Product Manager, HORIBA France, France

09:00 Improved GDOES Depth Profiling of CIGS Solar Cells by adding Nitrogen to Argon Sputter Gas

Dr. Wolfram Hempel, Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW)
Photovoltaik: Materialforschung, Stuttgart, Germany

09:30 Depth elemental characterization of 1D self-aligned TiO₂ nanotubes using calibrated Radio Frequency Glow Discharge Optical Emission Spectroscopy (GDOES)

Shiva Mohajernia, Anca Mazare, Imgon Hwang, Helga Hildebrand, Patrik Schmuki, Department of Materials Science, WW4-LKO, University of Erlangen-Nuremberg, Erlangen, Germany

10:00 Surface and volume kinetics in plasmas. GD-OES case study

Pr Tiberiu MINEA, Professor, director of LPGP, University Paris-Sud, Laboratoire de Physique des Gaz et des Plasmas, France

10:30 Coffee break and poster session

11:15 RF Technology - from component to system

Andreea Vasiliu, Dr Gerard Hintz, COMET AG, Plasma Control Technology, Germany

11:45 Surfaces in silicon solar cells: deposition methods and advanced characterization

Pr Marisa Di Sabatino, Norwegian University of Science and Technology (NTNU), Department of Materials Science and Technology, Trondheim, Norway

12:15 Lunch and poster session

14:00 On the application of GD-OES to analyze corrosion products

Prof. Polina Volovitch, A. Maltseva, ENSCP Chimie Paris Tech, Paris, France

14:30 Capacitively or/and Inductively Coupled Plasma sources in argon at low pressure for surface treatment. Modeling and experimental study.

Dr Laurent Therese¹, J. Lo¹, Ph. Belenguer² and Ph. Guillot¹, ¹DPHE, INU Champollion, Université de Toulouse, Albi, France, ²Laplace, Université de Toulouse, CNRS, INPT, UPS, Toulouse, France

15:00 Novel strategies for quantitative depth profile analysis of major and minor components by pulsed glow discharge time-of-flight mass spectrometry

Dr Lara Lobo, Rocio Muñiz, Beatriz Fernandez, Rosario Pereiro. University of Oviedo, Spain

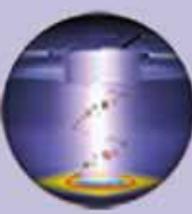
15:30 GDOES-assisted analysis of surface scale formation and oxidation-induced microstructural changes in high temperature Ni- and Co-base alloys

Dr Timur Galiullin, R. Pillai, D. Naumenko and W.J. Quadakkers, High Temperature Corrosion and Corrosion Protection, Institute of Energy and Climate Research, Forschungszentrum Jülich GmbH, Germany

16:00 Sequential GD-OES/XPS Profiling Of III-V Based Solar Cells: Study of The GD-OES Crater Chemistry For XPS Analyses Reliability»

Solène Béchu^{1,2}, Anaïs Loubat^{1,2}, Dr Muriel Bouttemy², Jackie Vigneron², Anne-Marie Goncalves², Nathalie Simon², Arnaud Etcheberry², ¹Institut Photovoltaïque d'Ile-de-France (IPVF), 91120 Palaiseau, France,

²Institut Lavoisier de Versailles (ILV), UMR 8180 CNRS-UVSQ, Versailles, 78035, France



Thursday 14 June 2018 -

08:45 **SurfaceFest - Ellipsometry Session**

Chair: Jean-Paul Gaston, Product Manager, HORIBA France, France

08:45 Latest developments in Ellipsometry

Jean-Paul Gaston, Product Manager, HORIBA France, France

09:00 TBD

Alexandre Baron, CRPP Bordeaux, France

09:30 Cryo-etching mechanism characterization by in-situ spectroscopic ellipsometry

Dr Remi Dussart, GREMI Orleans, France

10:00 Inversion of ellipsometric spectra using constrained splines. Application to characterization of nanogranular ZnO with various morphologies

Dr Mickael Gilliot, Reims Champagne-Ardenne University, France

10:30 **Coffee break and poster session**

11:15 Application of ellipsometry to the study of thin oxide films and plasma processes control

Dr Antoine Goulet, Institut des materiaux de Nantes, France

11:45 Ellipsometry of Au and Ag Colloidal Suspensions: New Experimental Setup to Characterize the Morphology of Metallic Nanostructures

Dr Yann Battie, University of Metz, France

12:15 **Lunch and poster session**

14:00 Feasibility and Limitations of the Thermo-Optic Coefficient Measurement with a Phase-Modulated Spectroscopic Ellipsometer

Dr Jean-Michel Rampnoux^a, M. Diez^b, V. Raimbault^c, S. Joly^b, J.B. Doucet^{b,c}, Mariana Mariño^d, Philippe Breuil^d, Mathilde Rieu^d, Damien Jamon^e, Jean-Paul Viricelle^d, Florence Garrelie^e,

^aLaboratoire Onde et Matière d'Aquitaine (LOMA), UMR 5798, CNRS-Université de Bordeaux, Talence, France, ^bUniv. Bordeaux, Bordeaux INP, CNRS, IMS, UMR 5218, Talence, France, ^cLAAS-CNRS, Toulouse, France, ^dMines Saint-Etienne, Univ Lyon, CNRS, UMR 5307 LGF, Centre SPIN, F - Saint-Etienne France,

^eUniv Lyon, UJM-Saint-Etienne, CNRS, Institut d'Optique Graduate School, Laboratoire Hubert Curien UMR 5516, Saint-Etienne, France

14:30 TBD

Pr Aotmane En Naciri, LCP- A2MC University of Metz, France

15:00 Interest of ellipsometry to understand thin films tantalum oxynitride nature

Dr Angélique Bousquet, University Clermont Auvergne, France

15:30 TBC

16:00 TBC

16:30 **Wrap up and end of the Surface Fest**