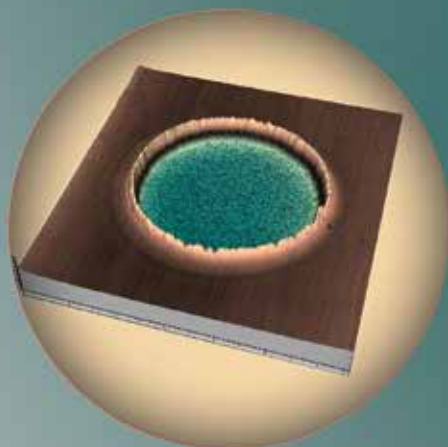
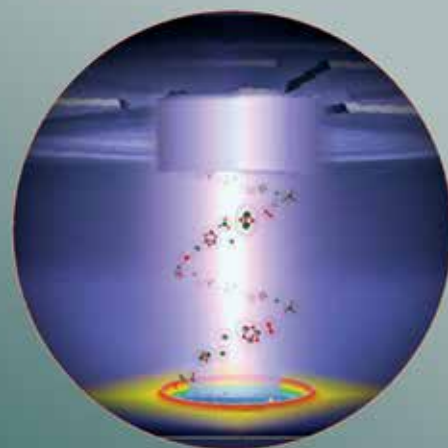
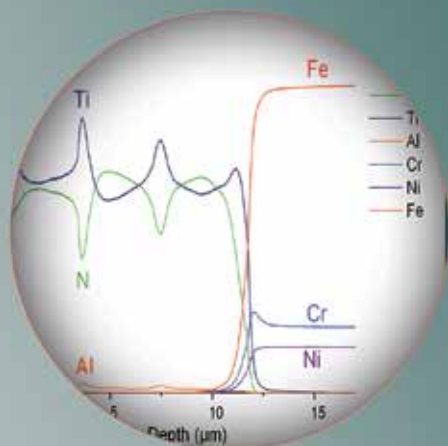
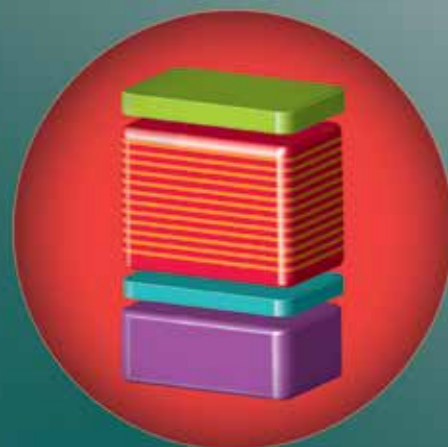


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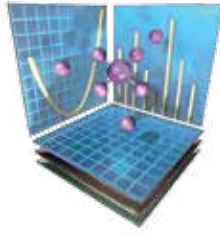
**11 & 12
June 2014
France**



**7th
GD Day**



**For surface and
depth profile
analysis**



GD Day
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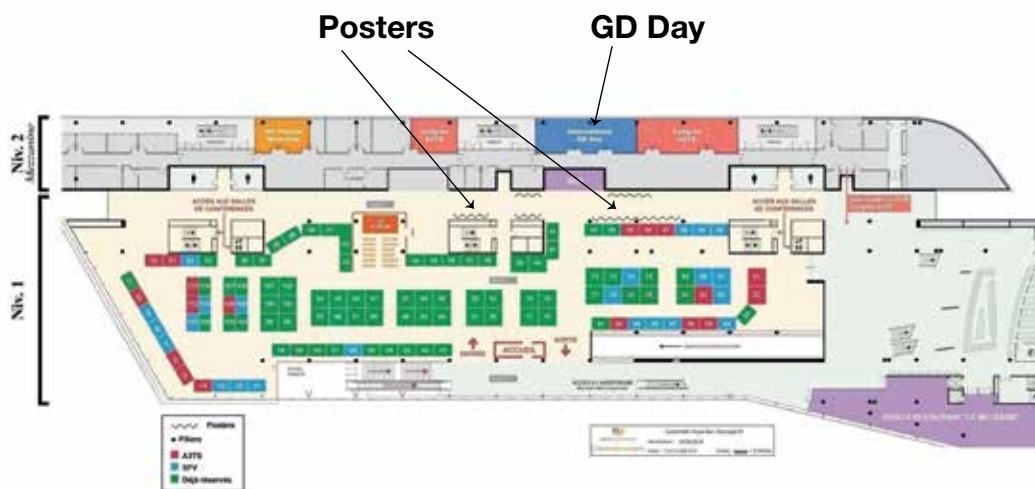
Practical information

Location

Centre des Congrès, 12 bd Général Leclerc - 51722 Reims cedex

Registration <http://www.gd-day.com/register.htm>

The registration will be closed on May, 15th. The invoice will be sent **by the SFV** and you will have the possibility to pay by bank transfer or cheque before the symposium or credit card or cash at door.



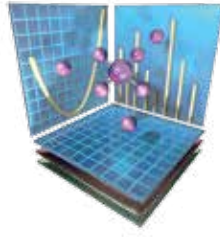
Poster guidelines

Poster boards will be provided for poster presenters to display their posters. Poster format is A0 vertical. Posters will be on display during the whole symposium.

Gala Dinner

The historical tour and the gala Dinner will be held from 8 pm.

Palais du Tau
2 Place du Cardinal Luçon
51100 Reims



GD Day 2014 Symposium

Wednesday 11 June 2014

13:30 Welcome to the participants of the GD day

Tiberiu Minea - SFV, Patrick Chapon - HORIBA Scientific, Rony Snyders - IAP

13:45 GD Day - IAP Plenary session

Chair: T. Minea, University of Orsay, France

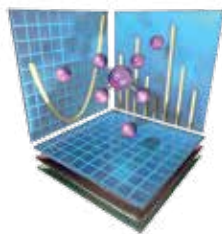
- 13:45 O1 Plasma diagnostics with laser and spectroscopic techniques
N. Sadeghi, University of Grenoble, France
- 14:25 O2 Thin Film and Nanostructured Materials produced by Low Temperature Plasma Processes and their Application to Solar Cells
P. Roca i Cabarrocas, LPICM-CNRS, Ecole Polytechnique, Palaiseau, France
- 15:05 IAP posters presentation & SFV exhibition

15:45 Coffee break and poster session

16:10 GD Day Session 1

Chair: P. Chapon, HORIBA Scientific, Longjumeau, France

- 16:15 O3 Nitrogen incorporation in metallic alloys by plasma immersion surface treatments at moderate temperature.
L. Pichon, Institut P' - CNRS-Université de Poitiers-ENSMA, Chasseneuil-Futuroscope, France
- 16:35 O4 Rare earth doping of oxides and nitrides for photonics and photovoltaics applications
C. Davesne, L. Dumont, P. Benzo, J. Cardin, P. Marie, C. Labbé, C. Dufour, X. Portier, F. Gourbilleau CIMAP/ CNRS/CEA/ENSICAEN/UCBN, Caen, France
- 16h55 O5 GDOES studies of minor alloying elements distribution in the oxide scales and sub-scale areas of high temperature Ni-based superalloys
W. Nowak, A. Jalowicka, D. Naumenko, E. Wessel, L. Niewolak, L. Singheiser, and W.J. Quadackers Institute for Energy and Climate Research, Forschungszentrum Jülich GmbH, Jülich, Germany
- 17h15 O6 GD & SEM A unique approach of GDOES for improving Scanning Electron Microscopy imaging
K. Kawano, K. Shimizu, G.E. Thompson, Keio University Japan and Manchester University UK
- 17h35 O7 Hybrid diffusive/PVD treatments to improve the tribological resistance of Ti-6Al-4V
E. Marin¹, R. Offoia¹, A. Lanzutti¹, M. Regis², S. Fusi², L. Fedrizzi¹
¹Department of Chemistry, Physics and Environment, University of Udine, Udine, Italy
²LimaCorporate Spa, Udine, Italy
- 17h55 Poster talks (5 min/poster)
- P1 Presented within IAP
Endpoint Control Supervision on Dry etch, Cleaning, PECVD processes
E. Bluem, HORIBA Scientific, Longjumeau, France
- P2 Bulk and Thin Films Standards for GDOES
P. Kiryukhantsev-Korneev, E.A Levashov, S. Rupasov, National University «MISIS», Moscow, Russian Federation



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- P3 Sample of Science: a peer-sharing platform for material scientists
R. Melet, O. Acher, Sample of Science Editorial Office, Palaiseau, France
- P4 Dedicated measurement test bench for study of RF discharge parameters of the GD-source in GD-TOFMS
P. Bulkin, LPICM-CNRS, Ecole Polytechnique, Palaiseau, France
- P5 Plasma and gas flow modeling for GD TOFMS instrument
T. Novikova, LPICM-CNRS, Ecole Polytechnique, Palaiseau, France
- P6 New insights on the understanding of Cu(In,Ga)Se₂ /CBD-ZnS/ Windows interfaces for high efficiencies solar cells using advanced composition profiling techniques
T. Hildebrandt¹, C. Olivero², P. Chapon², D. Lincot¹, N. Naghavi¹
¹Institute of Research & Development on Photovoltaic Energy (IRDEP), EDF CNRS Chimie ParisTech, Chatou, France, ²HORIBA Scientific, Longjumeau, France
- P7 Glow-Discharge Time of Flight Mass Spectrometry as a new powerful analytical tool for characterization of materials
R. Pereiro, B. Fernandez, University of Oviedo, Spain

18:15

End of session

18:30



Cocktail SFV-A3TS-GD Day-IAP

20:00

Walk through the historical Palais du Tau

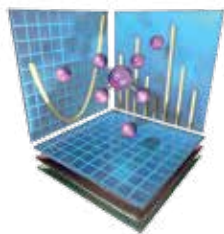
20:30 Gala Dinner at the Palais du Tau

Thursday 12 June 2014

8:30 GD Day Session 2

Chair: Y. Popov, HORIBA, Moscow, Russian Federation

- 8:35 O8 Detection of hydrogen absorbed in Mg-based alloys using GD spectrometer.
V. Knotek, Institute of Chemical Technology Prague, Czech Republic
- 8:55 O9 Depth profiling analysis of thin film composite membranes by pulsed glow discharge mass spectrometry: Layer modifications due to oxidation in seawater
N. Bordel, University of Oviedo, Spain
- 9:15 O10 Is GD sputtering modifying the composition of the material ? An XPS study of the surface composition of GD craters
D. Mercier¹, M. Bouttemy¹, J. Vigneron¹, I. Gérard¹, P. Chapon², A. Etcheberry¹
¹Institut Lavoisier de Versailles, Versailles, France, ²HORIBA Scientific, Longjumeau, France
- 9:35 O11 Composition depth profile of electrodeposited alloy and multilayer films
L. Peter, K. Vad, A. Csik, K. Neuróhr, I. Bakonyi and G. Molnár
Wigner Research Centre for Physics, Hungarian Academy of Sciences, Budapest, Hungary.



GD Day 2014 Symposium

9h55 Poster talks (5 min/poster)

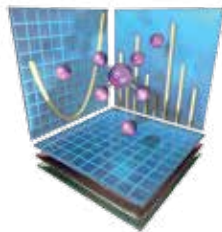
- P8 Development of method for preparation calibration samples of Titanium with Hydrogen for GDOES
N.S. Pushilina, V.N. Kudiyarov, A.M. Lider, National Research Tomsk Polytechnic University, Tomsk, Russia
- P9 Quantitative Depth Profile analysis of Magnetostrictive FeGa Thin Films using Rf-GDOES.
S. S. Kalyan Kamal¹, N. D. V. Prasad¹, L. Durai¹ and V. Naik², ¹DMRL India, ²ASE India
- P10 Depth Profile analysis of Bi-layer thermal barrier surface coating on steel substrate using Rf-GDOES.
P. K. Sahoo, N. D. V. Prasad, L. Durai, DMRL India
- P11 Development of a new GD micro-plasma for analysis of low sample volumes
M. Tabarant, S. Manani, F. Chartier, CEA Saclay, Saclay, France
- P12 Rf-GDOES analyses of swelling and Ce migration, on ZrO₂ based sol gel coatings, after different immersion times in no-aggressive media.
*A. Lanzutti, F. Andreatta, L. Paussa, E. Marin and L. Fedrizzi
University of Udine, Department of Chemistry, Physics and Environment, Udine, Italy*
- P13 Odd Samples and preparation techniques
C. Olivero, HORIBA Scientific, Longjumeau, France
- P14 Continuous Wave Micro-plasma excited by microwaves in capillary tubes. Comparison between noble gas and molecular mixture operation
*O. Leroy¹, G.D. Stancu², F. Bacque¹, V. Guerra³, L.L. Alves³, P. Coche³, P. Leprince¹, T. Minea¹
¹ LPGP, UMR 8578: CNRS-University Paris-Sud, Orsay, France, ²Ecole Centrale Paris, Châtenay-Malabry, France, ³Instituto de Plasmas et Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal*
- P15 RF GDOES analyses of optical multilayers
O. Zywitzki, R. Belau, Fraunhofer Institute for Electron Beam and Plasma Technology FEP, Dresden, Germany,

10:30 Coffee break and poster session

10:50 GD Day Session 3

Chair: A. Tempez, HORIBA Scientific, Palaiseau, France

- 10h55 O12 Atom probe tomography: a mass spectrometry technique for 3D characterization of nanomaterials
*D. Mangelinck¹, Y. Collignon¹, F. Panciera^{1,2}, K. Hoummada¹, M. El Kousseifi¹, H. Benallali¹, C. Perrin¹, M. Descoins¹, A. Portavoce¹, and X. Tan¹
¹IM2NP, Aix Marseille Université, CNRS, Marseille, France, ²STMICROELECTRONICS, Crolles, France*
- 11h15 O13 Ion-plasma modification of reed switch blades
A. Tosltoguzov, CeFITec, New University of Lisbon, Portugal
- 11h35 O14 Morphological changes of tungsten surfaces by low-flux helium plasma treatment and helium incorporation via magnetron sputtering
L. Marot, University of Basel, Department of Physics, Basel, Switzerland
- 11h55 Poster talks (5 min/poster)
- P16 Raman Spectroscopy applied to thin layers analysis
R. Lewandowska, HORIBA Scientific, Lille, France



GD Day 2014 Symposium

- P17 New Developments in application of micro-wave discharges to surface treatments
R. Valledor-Gonzalez¹, L. Latrasse², R. Verhoef³, Patrice Raynaud³, Th. Nelis¹
¹Berner Fachhochschule, Technik und Informatik, Bienne, Suisse, ²Sairem, Neyron, France, ³LAPLACE, Toulouse, France

12:05 Lunch and poster session

13:30 GD Day Session 4

Chair: S. Legendre, HORIBA Scientific, Palaiseau, France

- 13h35 O15 Depth profile analysis on Cu(In,Ga)Se₂ solar cells by SIMS/SNMS and GDOES
W. Hempel, ZSW,, Stuttgart, Germany
- 13h55 O16 GDOES of Materials for Biomedical Applications
P. Kiryukhantsev-Korneev, , D.V. Shtansky, National University «MISIS», Moscow, Russian Federation
- 14h15 O17 Effect of annealing temperature on antibacterial activity of silver doped hydroxyapatite thin films
C. S. Ciobanu¹, C.L. Popa^{1,2}, S. L. Iconaru¹, P. Chapon³, R.V. Ghita¹, D. Predoi¹
- O18 Characterization and antibacterial activity of samarium doped hydroxyapatite thin films
C.L. Popa^{1,2}, C. S. Ciobanu¹, S. L. Iconaru¹, P. Chapon³, P. Le Coustumer⁴, D. Predoi¹
¹National Institute of Materials Physics, Magurele, Romania, ²Faculty of Physics, University of Bucharest, Bucharest, Romania, ³HORIBA Jobin Yvon S.A., Longjumeau Cedex, France, ⁴Universite Bordeaux, EA 4592 Géoresources & Environnement, ENSEGID, Pessac Cedex, France
- 14h40 O19 DBD atmospheric pressure plasma source coupled to OES and a MS
L. Chauvet, P. Guillot, CUFR JF Champollion, Laboratoire DPHE, Albi, France
- 15h00 Poster talks (5 min/poster)
- P18 Spatiotemporal characterization of a DBD atmospheric pressure plasma source
P. Guillot, L. Chauvet, CUFR JF Champollion, Laboratoire DPHE, Albi, France
- P19 Chemical analysis of CdTe solar cells by glow discharge techniques
G. Kartopu¹, A. J. Clayton¹, V. Barrioz¹, S.J.C. Irvine¹, A. Tempez², C. Olivero², P. Chapon², J. Cooper²
¹CSEr, Glyndwr University, UK, ²HORIBA Scientific, Palaiseau, France
- P20 & P21 Characterisation of CZTSSe using Spectroscopic Ellipsometry and pulsed RF Glow discharge Optical Emission Spectroscopy -
Optical Characterisation of CIGS using Spectroscopic Ellipsometry and Glow Discharge Optical Emission Spectrometry
J.P. Gaston, HORIBA Scientific, Palaiseau, France

15:15 GD Day Final session

Chair: C. Olivero, HORIBA Scientific, Palaiseau, France

- 15h20 O20 Reserved presentation
S. Richard, HORIBA Scientific, Palaiseau, France
- 15h40 O21 Dynamic scaling study of the GDOES induced roughness in metal interfaces: material and ion dose effects
R. Escobar Galindo and L. Vazquez, ICMM-CSIC, Spain
- 16h00 O22 The multiple facets of GD
R. Escobar Galindo, ICMM-CSIC, Spain

16:10 End of the GD Day