POSTER SESSION

WEDNESDAY, JUNE 28TH

Topic #1 - Plasma sources and electrical discharges

#P01-005 Study of light source chemistry in pure Xenon for VUV emission radiation
H. Loukil
Laboratoire de Physique des Plasmas, Matériaux Conducteurs et Leurs Applications, Oran (DZ)

#P01-054 Transition regions of the Ne-based HiPIMS process used for the deposition of DLC thin films
C. Vitelaru, M. Dinu, A.C. Parau, A.E. Kiss
National Institute for Optoelectronics, Magurele (RO)

#P01-071 Caesium-free negative hydrogen ion source using sheet plasma
A. Tonegawa, S. Ishihara, T. Takimoto
Tokai Univ. - Hiratsuka, Kanagawa (JP)

#P01-072 Mobility of ionic lithium atoms diffusing in their parent gas
F. Bouchelaghem
M'hamed Bougara Univ., Boumerdes (DZ)

#P01-098 Fabrication and characterization of microdischarge arrays on silicon
R. Dussart[1], R. Michaud[1], A. Stolz[1], O. Aubry[1], P. Lefaucheux[1], S. Dzikowski[2], V. Schulz-Von Der Gathen[2], L. Overzet[3]
[1] GREMI, Univ. Orléans (FR)
[2] Ruhr-Univ. Bochum (DE)
[3] Univ. Texas, Dallas (USA)

#P01-117 Measuring electron drift velocity in carbon dioxide in high electric field from breakdown curves of RF capacitive discharge
P. Ogloblina[1], V.A. Lisovskiy[2], V.D. Yegorenkov[2]
[1] Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Univ. Lisboa (PT)
[2] Kharkov National Univ., Kharkiv (UA)

#P01-118 Plasma instabilities during low power magnetron sputtering
A. Nominé, R. Romain, N.S.J. Braithwaite
The Open Univ., Milton Keynes (UK)

#P01-134 The relation between the geometry of the race track and the magnetic field in a magnetron cathode
S. Muhl[1], J. Cruz[1], J. Restrepo[2], S. Rodil[1]
[1] Instituto de Investigaciones en Materiales, Univ. Nacional Autónoma de México (MX)
[2] Sadosa S.A. de C.V. - Mexico (MX)

Topic #2 - Plasma and process modeling

#P02-045 Cross sections for electron collisions with carbon monoxide
P. Ogloblina, A. Tejero-Del-Caz, V. Guerra, L.L. Alves
Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Univ. Lisboa (PT)

#P02-079 Computational study of sheath structure in multicomponent plasma-solid interaction at low and medium pressures
S. Novak[1], R. Hrach[1], V. Hrachova[2], P. Cerny[3]
[1] Department of Physics, J.E. Purkinje Univ., Usti Nad Labem (CZ)
[2] Department of Surface and Plasma Science, Charles Univ., Prague (CZ)
[3] FCC Industrial Systems, Prague (CZ)

#P02-088 Selfconsistent vibrational and free electron kinetics in CO_2 plasmas
G. Colonna, D. Pietanza, M. Capitelli
PLASMI Lab at CNR Nanotech, Bari (IT)

#P02-096 Optical broadband monitoring
T. Willemsen, S. Schlichting, M. Jupé, D. Ristau
Laser Zentrum Hannover e.V., Hanover (DE)

#P02-101 Sputter process diagnostics using virtual coating machines
H. Badorreck[1], M. Jupé[1], D. Ristau[1], A. Pflug[2], T. Melzig[2], M. Vergöhl[2], A. Daniel[3], C. Archambeau[3], P. Moskovkin[4], R. Tonneau[4], S. Lucas[4]
[1] Laser Zentrum Hannover e.V., Hannover (DE)
[2] Fraunhofer-Institut für Schicht- und Oberflächentechnik IST - Braunschweig (DE)
[3] CRM Group, Liège (BE)
[4] Univ. Namur (BE)

#P02-127 RF Plasma magnetron in N_2 with Li_3PO_4 target
S. Arbeltier[1], A. Revel[2], C. Ballage[2], F. Sabary[3], C. Secouard[4], T. Minea[2]
[1] LPGP, CNRS-Univ. Paris-Sud, Orsay (FR) / CEA LETI, Grenoble (FR)
[2] LPGP, CNRS-Univ. Paris-Sud, Orsay (FR)
[3] CEA Le Ripault, Monts (FR)
[4] CEA LETI, Grenoble (FR)

03. Plasma diagnostics and plasma processes

#P03-021 Densities of active species in N_2 / H_2 RF and HF afterglows
A. Ricard[1], J.P. Sarrette[1], Y. Wang[2], Y.K. Kim[2]
[1] Laplace, Univ. Toulouse (FR)
[2] Dept. Phys., Ajou Univ. Suwon (KR)

#P03-024 Plasma deposition of nanocomposite thin films based on ZnO nanoparticles
G. Carnide, Y. Champouret, E. Amin-Chaloub, M.L. Kahn, R. Clergereaux
Laboratoire Chimie de Coordination, CNRS / LPCE, Univ. Toulouse (FR)

#P03-037 Study of the thermal equilibrium of W and Ti sputtered atoms in Ar/He HiPIMS discharge
A. El Farsy, M. Desecures, L. De Poucques, D. Genève, J. Bougdira
Institut Jean Lamour, Univ. Lorraine, Nancy (FR)

#P03-076 Diagnostics of a flowing gas microwave discharge for the sake of optimization of greenhouse gas conversion
N. Britun[1], G. Chen[2], T. Godfroid[3], R. Snyders[4]
[1] Chimie des Interactions Plasma-Surface, Univ. Mons (BE)
[2] Chimie des Interactions Plasma-Surface, Univ. Mons; 4MAT, Univ. Libre de Bruxelles - Mons (BE)
[3] Materia Nova Research Center - Mons (Belgium)
[4] Chimie des Interactions Plasma-Surface, Materia Nova Research Center, Univ. Mons (BE)

#P03-103 Study of a distributed antenna array microwave plasma process used for low temperature nanocrystalline diamond film deposition through plasma diagnostics and material characterization
B. Baudrillart[1], A.S.C. Nave[2], S. Hamann[2], F. Bénédic[1], J.H. Van Helden[2], J. Röpcke[2], J. Achard[1]
[1] LSPM-CNRS, UPR 3407, Univ. Paris 13, Villetaneuse (FR)
[2] Leibniz Institute for Plasma Science and Technology (INP Greifswald), Greifswald (DE)

04. Plasma-deposited protective and tribological coatings

#P04-069 Deposition of organosilicon anticorrosion coatings on carbon steel using cold remote nitrogen plasma
C. Jama, M. Esbayou, F. Bentiss
ENSCL UMET UMR 8207, Lille (FR)

05. Plasma-deposited coatings for optical, electronical and other functionalities

#P05-033 Nitrogen-containing plasma polymer nanoparticles with controlled size and chemical composition
P. Pleskunov[1], A. Choukourov[1], D. Nikitin[1], J. Hanuš[1], A. Shelemin[1], I. Khalakhan[2], D. Slavínská[1], H. Biederman[1]
[1] Charles Univ., Department of Macromolecular Physics, Prague (CZ)
[2] Charles Univ., Department of Surface and Plasma Science, Prague (CZ)

#P05-036 Vanadium and VN thin films grown by high power impulse magnetron sputtering
J. Gudmundsson[1], H. Hajihoseini[2]
[1] KTH-Royal Institute of Technology, Stockholm (SE)
[2] Univ. Iceland, Reykjavik (IS)

#P05-053 Fabrication of aluminum nitride thick layers by modified reactive plasma spraying
C. Dufloux, K. Böttcher, H. Oppermann, J. Wollweber
Institut für Kristallzüchtung, Berlin (DE)

#P05-060 Very thick mixture oxide thin IBS films for investigation of nonlinear material properties
M. Jupé, M. Steinecke, K. Kiedrowski, D. Ristau
Laser Zentrum Hannover e.V., Hannover (DE)

#P05-064 Atmospheric pressure plasma enhanced chemical vapour deposition of nanostructured TiO_2/SiO_2 films: correlations between the film composition and plasma composition
C. Dublanche-Tixier, Y. Gazal, C. Chazelas, P. Tristant
Univ. Limoges, SPCTS, UMR 7315, Limoges (FR)

#P05-089 Metal buffer layer and coating stress with sputtering conditions
Y. Song[1], S.C. Lim[2], J. Kim[3]
[1] KITECH, Incheon (KR)
[2] KITECH, Siheung (KR)
[3] Hanyang Univ., Ansan (KR)

#P05-092 On the advantages of HiPIMS deposition for modifying structural and electrical properties of copper ultra-thin films
F. Cemin[1], T. Minea[1], G. Abadias[2], C. Furgeaud[2], A. Michel[2], T. Maroutian[3], P. Lecoeur[3], D. Lundin[1]
[1] Univ. Paris-Sud, LPGP, Orsay (FR)
[2] Univ. Poitiers, Institut Pprime, Poitiers (FR)
[3] Univ. Paris-Sud, C2N, Orsay (FR)

#P05-109 Study of SiCN:H thin films deposition using a microwave plasma enhanced chemical vapor discharge in tetramethylsilane, argon nitrogen and hydrogen mixture
R. Hugon[1], Z. Al Hallak[1], A. Thouvenin[1], A. Ahmad[2], B. Plujat[3], A. Naja[2], L. Thomas[3], M. Belmahi[1]
[1] Institut Jean Lamour, UMR 7198 CNRS, Univ. Lorraine, Nancy (FR)
[2] Laboratoire de Physique et Modélisation, Univ. Libanaise, Tripoli (LY)
[3] Laboratoire Promes UPR 8521 CNRS, Univ. Perpignan (FR)

#P05-124 Plasma assisted oblique angle deposition of transparent and conducting anisotropic ITO thin films
A. Barranco[1], J. Parra-Barranco[1], J.R. Sanchez-Valencia[1], F.J. Aparicio[1], F. Garcia-Garcia[1], F.J. Ferrer[2], V. Rico[2], C. Loperz-Santos[2], A. Borras[2], A.R. Gonzalez-Elipe[2]
[1] ICMS-CSIC, Univ. Sevilla (ES)
[2] CNA-CSIC, Univ. Sevilla (ES)

06. Plasma for surface engineering

#P06-034 Chiral patterning of extended nanometric structures produced by colloidal lithography
C. Corbella[1], S. Portal[1], O. Arteaga[2], A. Martin[3], B. Kahr[3], T. Mandal[3]
[1] Ruhr-Univ. Bochum (DE)
[2] Univ. Barcelona (ES)
[3] New York Univ. (USA)

~~#P06-056 Structural, chemical and corrosion properties of Ti and TiN coated stainless steel wires~~
~~**S. Grosso[1], T. Le Coz[2], G. Berthomé[1], L. Latu-Romain[1], M. Mantel[2]**~~
~~*[1] Univ. Grenoble Alpes, SIMAP, Grenoble (FR)*~~
~~*[2] Ugitech SA, Ugine (FR)*~~
canceled

#P06-073 Fabrication of nanocomposite thin films assisted by plasma polymerization: how to control the morphology and the distribution of metallic nanoparticles within plasma polymer?
S. Wolak, S. Jebali, V. Roucoules, F. Bally-Le Gall
IS2M, Mulhouse (FR)

#P06-110 The impact of RF power over the synthesis of copper particles obtained with an atmospheric pressure plasma jet
A. Lazea-Stoyanova, V. Marascu, C. Stancu, G. Dinescu
National Institute for Laser, Plasma and Radiation Physics, Magurele-Bucharest (RO)

#P06-111 A multihollow micro-plasma discharge for remote-plasma atmospheric pressure surface treatments
R. Krumpolec, T. Homola, J. Kelar, M. Zemánek, M. Cernák
R&D Center for Low-Cost Plasma and Nanotechnology Surface Modifications (CEPLANT), Department of Physical Electronics, Masaryk Univ., Brno (CZ)

#P06-113 Hard coatings deposited by ion beam assisted deposition and modificated with ion implantation
B. Skoric, A. Miletic, P. Terek, L. Kovacevic, D. Kukuruzovic Dragan
Univ. Novi Sad (RS)

#P06-119 Surface modification of silica glass using atmospheric pressure dielectric barrier discharge and mechanical behavior of asphalts reinforced with the glass fibers
Y. Kim[1], J.K. Lee[1], S.Y. Kang[1], Y.I. Kim[2]
[1] Department of Advanced Materials Engineering, Hanbat National Univ., Daejeon (KR)
[2] Hansunatech. Co. Ltd, Daejeon (KR)

08. Plasma and nanoscience

#P08-042 Morphology-controlled synthesis of ZnO nanostructures by oxidation of Cu/Zn stacks in low-pressure afterglow
T. Gries, T. Perez, A. Imam, P. Miska, T. Belmonte
Institut Jean Lamour, CNRS, Univ. Lorraine, Nancy (FR)

#P08-116 Bi-metallic and alloyed Cu-Ag nanoparticles formed by combined plasma-in-liquid and laser treatments
N. Tarasenka[1], H. Kabbara[2], J. Ghanbaja[2], A. Nevar[1], A. Nominé[2], T. Belmonte[2], N. Tarasenko[1]
[1] B.I. Stepanov Institute of Physics, National Academy of Sciences of Belarus, Minsk (BY)
[2] Institut Jean Lamour, Univ. Lorraine, Nancy (FR)

09. Plasma for solar energy conversion and environmental applications

#P09-058 Study on properties of solar selective absorbing coatings deposited by magnetron sputtering for concentrated solar power

E. Tomasella[1], P. Song[2], Y. Sun[2], Y. Wu[2], Y. Ning[2], Y. Zhang[2], B. Dai[2], L. Wang[2], A. Bousquet[1], C. Wang [2]
[1] Univ. Clermont Auvergne-ICCF, Clermont-Ferrand (FR)
[2] Center for Condensed Matter and Materials Physics, Beijing (CN)

#P09-063 Converting Carbon dioxide into formic acid in a surface-wave sustained microwave discharge

G. Chen[1], T. Godfroid[2], N. Britun[3], M.P. Delplancke-Ogletree[4], R. Snyders[5]
[1] Univ. Mons; Univ. Libre Bruxelles, Mons, Bruxelles (BE)
[2] Materia Nova Research Center, Mons (BE)
[3] Univ. Mons (BE)
[4] Univ. Libre Bruxelles (BE)
[5] Univ. Mons; Materia Nova Research Center, Bruxelles (BE)

#P09-106 Two steps roll-to-roll plasma processing for optimize inkjet printed TiO_2 photoanode on flexible materials

M. Shekargoftar[1], R. Krumpolec[1], J. Kelar[1], P. Dzik[2], T. Homola[2]
[1] R&D Centre for Low-Cost Plasma and Nanotechnology Surface Modifications (CEPLANT), Department of Physical Electronics, Masaryk Univ. (CZ)
[2] Brno Univ. Technology, Brno (CZ)

#P09-125 Study on gadolinia doped ceria deposits manufactured by reactive magnetron sputtering

A-L. Thomann[1], P. Coddet[1], J. Vuillet[2], C. Richard[3], A. Caillard[4], T. Sauvage[5]
[1] GREMI / CNRS / Univ. Orléans (FR)
[2] CEA Le Ripault, Monts (FR)
[3] LMR / Univ. Tours (FR)
[4] GREMI / CNRS / Univ. Orléans (FR)
[5] CEMHTI / CNRS Orléans (FR)

#P09-140 Spectroscopic analysis of a CO_2 plasma discharge

A. Hecimovic[1], F. D'isa[1], E. Carbone[1], S. Gaiser[2], A. Schulz[2], M. Walker[2], U. Fantz[1]
[1] Max-Planck-Institute for plasma physics, Garching (DE)
[2] Institute of Interfacial Process Engineering and Plasma Technology, Stuttgart (DE)

10. Plasma and liquids

#P10-008 Synthesis of cadmium oxide microcubes by nanosecond-pulsed discharges in liquid nitrogen

H. Kabbara[1], M. Trad[1], G. Jaafar[1], N. Cédric[1], T. Malek[2], B. Thierry[1]
[1] Institut Jean Lamour, Univ. Lorraine (FR)
[2] Department of Physics, American Univ. Beirut (LY)

#P10-120 Decomposition of methylene blue in aqueous solution using atmospheric pressure dielectric barrier discharge

Y. Kim, J.H. Seo
Department of Advanced Materials Engineering, Hanbat National Univ., Daejeon (KR)