POSTER SESSIONS

Poster Session #1 - Tuesday 23 September (17:30 – 19:30)

AMELI / Plasma and/in liquids interaction

#053 Slow pulsed sputtering onto liquid: importance of surface refreshment and of plasma heating
A. Caillard, S. Atmane, A. Diop, E. Millon, P. Brault
GREMI CNRS / Univ. Orléans (FR)

#128 The influence of the discharge parameters on the physicochemical properties of plasma activated water
L. Marcinauskas[1], E. Jankaitytė[2], M. Aikas[1], L. Ragelienė[2], R. Uscila[1], A. Tamošiūnas[1], Z. Naučienė[2], V. Mildažienė[2]
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#146 Exfoliation and functionalization of graphite particles by pulsed plasma discharges in the gas-liquid phase
A. Reguig, R. Chevigny, S. Cuynet, S. Fontana, C. Herold-Mareche, M. Ponçot, L. Adrien
Institut Jean Lamour, UMR 7198 CNRS – Univ. Lorraine - Nancy (FR)

#147 Enhancement of grain quality of brewer's rice cultivar with plasma treatment of caryopsis using "Smart Agriculture System" based on collected data
M. Hori, H. Hashizume
Nagoya Univ. - Nagoya (JP)

#154 Optimizing ammonia decomposition for enhanced hydrogen production in a novel rotating gliding arc reactor
M. Garcia Martinez[1], S. Marin-Meana[2], A. Megías-Sánchez[2], M. Ruiz-Martin[2], J. Cotrino[2], A. González-Elipe[2], M. Oliva-Ramírez[3], A. Gómez-Ramírez[3]
[1] Univ. Cordoba (ES)
[2] Instituto de Ciencia de Materiales de Sevilla (ES)
[3] Univ. Sevilla (ES)

#160 Liquid flow control in a dual-frequency APPJ on water solutions
R. Fiorotto, E. Shakerinasab, M. Pierno, A. Patelli
Department of Physics and Astronomy "G. Galilei", Univ. Padova (IT)

#170 Fixation of nitrogen in water with the use of a multiphase plasma reactor
S. Mouchtouris[1, 2], A. Boudouvis[1], E. Gogolides[2], G. Kokkoris[1]
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[2] Inst. Nanoscience & Nanotechnology, National Ctre of Scientific Research "Demokritos" - Athens (GR)

Poster Session #1 - Tuesday 23 September (17:30 – 19:30)

DEPO / Plasma-assisted deposition, coatings and layers

#013 Elaboration of 316L/Cu composite alloy using a hybrid PVD/SPS process
Y. Pinot[1], A. Besnard[2], M.R. Ardigo-Besnard[3], F. Bussiere[3]
[1] Arts et Métiers Institute of Technology, LaBoMaP - Cluny (FR)
[2] Univ. Marie et Louis Pasteur, SUPMICROTECH, CNRS, Institut FEMTO-ST - Besançon (FR)
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#027 Development and investigation of advanced coatings for high-temperature applications
I. Toumi[1], S. Achache[1], A. Al Hussein[1], B. Panicaud[2]
[1] ICD-LASMIS, UTT, UMR 6281, CNRS, Nogent (FR)
[2] ICD-LASMIS, UTT, UMR 6281, CNRS, Troyes (FR)

#050 Deposition of dielectric, and metal layer solution for TSV integration, innovative sequential process, application of low temperature deposition
M. Segers, P.D. Szkutnik, S. Benkoula
Plasma-Therm Europe - Grenoble (FR)

#068 Development of hydrogen barrier thin films based on silicon carbonitride
M. Tetouani[1], A. Al Hussein[1], S. Achache[1], M. Cherkaoui[2]
[1] UR LASMIS, Univ. Technologie de Troyes - Nogent (FR)
[2] Univ. Ibn Tofaïl - Kenitra (MA)

#072 Study of the impact of different dielectric materials on the performance and optical features of a Micro-Hollow Cathode Discharge (MHCD)
N. Chazapis, B. Menacer, D. Stefas, G. Lombardi, C. Lazzaroni, K. Gazeli
LSPM - CNRS & Univ. Sorbonne Paris Nord, Villetaneuse, Paris (FR)

#140 On thermal stability and oxidation behavior of metastable W–Zr thin-film alloys
M. Červená, J. Houška, R. Čerstvý, P. Zeman
Department of Physics and NTIS - European Centre of Excellence, Univ. West Bohemia, Pilsen (CZ)

#148 Influence of substrate bias on the properties and conformality of TiN thin films deposited by High Power Impulse Magnetron Sputtering (HiPIMS)
L. Seigneur[1], J. Barbé[1,2], M.P. Besland[1]
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[2] Réseau sur le Stockage Electrochimique de l'Energie (RS2E), CNRS FR 3459, Amiens (FR)

#149 Plasma-grown vertically oriented graphene for supercapacitor electrodes
A. Vesel, R. Zaplotnik, G. Primc
Jozef Stefan Institute - Ljubljana (SI)

#158 Utilizing gas rarefaction to optimize preferential metal ion acceleration for epitaxial AlN growth on Silicon(111)
N. Behravan[1], T. Pitonakova[2], T. Terzic[3], A. Farhadizadeh[1], M. Deluca[4], M. Moridi[4], D. Solonenko[4], D. Lundin[1]
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[2] Masaryk Univ. - Brno (CZ)
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[4] Silicon Austria Labs GmbH - Villach (AT)

Poster Session #1 - Tuesday 23 September (17:30 – 19:30)

DEPO / Plasma-assisted deposition, coatings and layers *(following)*

#161 Aerosols as an innovating route for thin film deposition by PECVD
R. Clergereaux[1], P.A. Goutal[1, 2, 3], M. Feron[1, 4], P. Raynaud[1], V. Rouessac[2], S. Roualdes[2], S. Devautour-Vinot[3], M.L. Kahn[4], J. Chevet[5], A. Goullet[5], A. Granier[5], M. Richard-Plouet[5]
[1] Laplace - Toulouse (FR)
[2] IEM - Montpellier (FR)
[3] ICGM - Montpellier (FR)
[4] LCC - Toulouse (FR)
[5] IMN - Nantes (FR)

#162 Cu-substitution in lanthanum-deficient $LaFeO_3$ perovskites for enhanced photoelectrochemical solar hydrogen production
T. Gries[1], V. Guigoz[1, 2], S. Migot[1], S. Bruyère[1], R. Schneider[2]
[1] Univ. Lorraine, CNRS, IJL - Nancy (FR)
[2] Univ.Lorraine, CNRS, LRGP - Nancy (FR)

#164 Deposition and characterisation of nitride thin films for data-driven optimisation of oxidation resistance
L. Mereaux[1], C. Jaoul[1], E. Menou[2], T. Vaubois[2], M. Cavarroc[2]
[1] IRCER - Limoges (FR)
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#168 Fe:CH thin film deposition using an iron acetate solution in a Dielectric Barrier Discharge
S. Hekking[1, 2], A. Goullet[2], A. Granier[2], C. Maheu[2], M. Richard-Plouet[2], L. Stafford[1]
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ITEC / Innovative applications, solutions and technologies

#062 Functionalized amorphous carbon coatings for low secondary electron yield and controlled surface resistance in particle accelerators
W. Vollenberg[1], P. Costa Pinto[1], L. Mourier[1], Y. Rabetsimialona[1], N. Bundaleski[2], I.M. Marrucho Ferreira[2], J. Deuermeier[2]
[1] CERN - Genève (CH)
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#064 A low-temperature synthesis of strongly thermochromic VO_2-based coatings for energy-saving smart windows
M. Kaufman, E. M. Nia, J. Vlcek
Department of Physics and NTIS - European Centre of Excellence, Univ. West Bohemia, Pilsen (CZ)

#085 Magnetron deposition of chromogenic thin films for smart windows
J. Purans, M. Zubkins
Institute of Solid State Physics, Univ. Latvia - Riga (LT)

#129 Transforming leak detection in vacuum environment with remote plasma optical emission spectroscopy
B. Daniel, D. Monaghan
Gencoa Ltd - Liverpool (UK)

Poster Session #1 - Tuesday 23 September (17:30 – 19:30)

ITEC / Innovative applications, solutions and technologies *(following)*

#171 New QCM-Based diagnostic for quantitative time-resolved measurement of the ion flux in HiPIMS
C. Ballage[1], A. Kapran[2], O. Vasilovici[1], A. Bennacef[3], T. Minea[4]
[1] CNRS - LPGP - Orsay (FR)
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[4] Univ. Paris-Saclay - LPGP - Orsay (FR)

MODIDD / Modelling, diagnostics and data-driven optimization of plasma processes

#036 Open-source modeling of gas phase dynamics in industrial magnetron sputtering processes
J. Beyer, P. Nizenkov, S. Copplestone, A. Mirza
boltzplatz - numerical plasma dynamics GmbH - Stuttgart (DE)

#073 Rotational temperature measurements of N_2(C), NO(A), and OH(A) in different micro hollow cathode discharge configurations using Optical Emission Spectroscopy
D. Stefas[1], G. Makrypodi[2], B. Menacer[1], P. Svarnas[2], G. Lombardi[1], C. Lazzaroni[1], K. Gazeli[1]
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[2] High Voltage Lab., Electrical & Computer Eng. Dept., Univ. Patras - Rion (GR)

#081 Assessing actinometry and line ratio techniques for species densities and electric field determination in DC glow discharges
T. Silva[1], L. Kuijpers[2], E. Baratte[3], V. Guerra[1], R. Van De Sanden[2], J.P. Booth[3], O. Guaitella[3]
[1] Institute for Plasmas and Nuclear Fusion (IPFN) - Lisbon (PT)
[2] Dutch Institute for Fundamental Energy Research (DIFFER) - Eindhoven, (NL)
[3] Laboratoire de Physique des Plasmas (LPP) - Paris (FR)

#094 Two dimensional distribution of atomic nitrogen absolute density in three DC MHCD
K. Gazeli[1], A. Remigy[1], B. Menacer[1], K. Kourtzanidis[2], O. Gazeli[3], G. Lombardi[1], C. Lazzaroni[1]
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[3] FOSS Research Centre for Sustainable Energy, Univ. Cyprus - Nicosia (CY)

#095 Analysis of sputtered species transport in High Power Impulse Magnetron Sputtering (HiPIMS) discharge employing magnetized QCM probe
A. Kapran[1], C. Ballage[1], Z. Hubička[2], T. Minea[1]
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#101 Plasma-surface interactions in CO_2 glow discharges
V. Guerra[1], B. Berdugo[2], A. Filipe[1], O. Guaitella[2], A.S. Morillo Candás[2], P. Viegas[1]
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Poster Session #1 - Tuesday 23 September (17:30 – 19:30)

MODIDD / Modelling, diagnostics and data-driven optimization of plasma processes *(following)*

#153 Study of the plasma pyrolysis of methane in a rotating gliding arc for carbon black synthesis
N. Roy[1], **A. Panepinto**[2], **T. Godfroid**[2], **F. Mazeri**[2], **A. Usoltseva**[3], **V. Smits**[3], **R. Snyders**[1, 2]
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#157 Time-resolved measurements of secondary electron emission during ion bombardment
S. Mändl[1], **H. Kersten**[2], **D. Manova**[1]
[1] *Leibniz Institute of Surface Engineering (IOM) - Leipzig (DE)*
[2] *Institut für Experimentelle und Angewandte Physik, Christian-Albrechts-Universität Kiel - Kiel (DE)*

#167 Developing a modeling framework for plasma assisted solvolysis of fiber reinforced polymers
G. Kokkoris[1], **A. Mouzakis**[1], **D. Passaras**[1], **D. Marinis**[2], **E. Farsari**[2], **S. Sfikas**[2], **E. Amanatides**[2]
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POSTER SESSIONS

Poster Session #2 – Wednesday 24 September (16:35 – 18:30)

DEPO / Plasma-assisted deposition, coatings and layers

#002 Influencing the properties of TiN and (Ti,Al)N hard coatings by modifying their composition and structural design
D. Munteanu[1], C. Lopes[2], I. Borsan[1], C. Gabor[1], M.S. Rodrigues[2], A. Ferreira[2], F. Macedo[2], E. Alves[3], N.P. Barradas[3], F. Vaz[2]
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#011 HEA thin films as protective barrier against carbon diffusion during SPS
A. Besnard[1], M. El Garah[2], F. Sanchette[2], Y. Pinot[3], R. Charvet[4], M.R. Ardigo-Besnard[4], F. Herbst[4], N. Geoffroy[4]
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[2] LASMIS, Antenne de Nogent et LRC CEA-LASMIS, NICCI, Nogent (FR)
[3] Arts et Métiers Institute of Technology, LaBoMaP - Cluny (FR)
[4] Laboratoire ICB, UMR 6303 CNRS, Univ. Bourgogne Europe - Dijon (FR)

#014 Thermodynamic modeling and experimental investigation of Ti PVD coatings as protective barriers against carbon diffusion during SPS
Y. Pinot[1], R. Charvet[2], M.R. Ardigo-Besnard[2], F. Baras[2], S. Le Gallet[2], F. Herbst[2], N. Geoffroy[2], A. Besnard[3]
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#066 Nanostructuring of bismuth oxyfluoride thin films by oblique angle deposition for CO_2 photoconversion
A.E. Kabouia[1], A. Bousquet[1], S. Roth[2], A. Bonduelle[2], M. Richard-Plouet[3], M. Le Granvalet[3], R. Smaali[4], E. Centeno[4]
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#134 Discriminating between morphological and chemical effects on the antibacterial properties of metal thin films through laser surface structuring
A-L. Thomann[1], P. Birnal[1], F. Brule-Morabito[2], B. Aspe[1], N. Semmar[1], P. Andreazza[3], E. Bourhis[3], P. Brault[1], M. Cavarroc[4], A. Sauldubois[1], T. Vaubois[4], E. Menou[4], A. Caillard[1], C. Andreazza[3]
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#142 Nanostructure engineering and properties enhancement of Cu-based films by Zr and Ta alloying
M. Zhadko, A. Benediktová, J. Houška, R. Čerstvý, P. Baroch, P. Zeman
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Last update: 15 September 2025

Poster Session #2 – Wednesday 24 September (16:35 – 18:30)

DEPO / Plasma-assisted deposition, coatings and layers *(following)*

#151 Atomic Layer Deposition of ZnO on fullerene: comparing thermal and plasma-enhanced approaches towards a photoactive nanocomposite
R. Del Sole[1, 2], **A. Milella**[1, 2], **F. Fracassi**[1, 2], **P. Parlanti**[3], **M. Gemmi**[3], **A.M. Coclite**[4, 5], **F. Palumbo**[2]
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[4] *Univ. Bari Aldo Moro, Department of Physics - Bari (IT)*
[5] *Institute of Solid State Physics, NAWI Graz, Graz Univ. of Technology, - Graz (AT)*

#159 Recyclable thin coatings deposited by mean of plasma-assisted techniques on polymer foils for food packaging applications
F. Delfin[1,2], **C. Forsich**[1], **M. Schachinger**[1], **S. Augl**[1], **S. Brühl**[2], **C. Burgstaller**[1], **D. Heim**[1]
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#163 A new solution to remove macro-particles during reactive metal nitride arc Physical Vapour Deposition
D. Monaghan[1], **P. Mccarthy**[1], **V. Bellido**[1], **T. Sgrilli**[1], **C. Bamber**[2]
[1] *Gencoa - Liverpool (UK)*
[2] *Univ. Liverpool (UK)*

#173 Plasma deposition of III-V semiconductors: sputtering and RPVPE approaches
K. Ouaras[1], **P. Roca I Cabarrocas**[1, 2], **L. Watrin**[1, 2], **L. Srinivasan**[1, 2], **A. Eurosi**[1, 2], **D. Meurice**[1]
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GROM / Thin films growth and modelling

#043 Influence of discharge parameters on the properties of TiO_2 films grown by reactive Bipolar HiPIMS discharges
S. Debnarova[1], **M. Michiels**[1,2], **S. Konstantinidis**[1]
[1] *Plasma-Surface Interaction Chemistry, Univ. Mons, Mons (BE)*
[2] *Haute École en Heinaut, Mons (BE)*

#127 Multisource deposition conditions prediction towards required composition of thin films
J. Gutwirth[1], **T. Halenkovič**[1], **S. Šlang**[1], **V. Nazabal**[2, 1], **P. Němec**[1]
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Poster Session #2 – Wednesday 24 September (16:35 – 18:30)

MODIDD / Modelling, diagnostics and data-driven optimization of plasma processes

#009 Pure ammonia microwave discharges: a global model
T. Belmonte[1], M.Y. Awaji[1,2], L. Pentecoste[1], C. Noel[1], M. Belmahi[1], T. Gries[1]
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#017 Rate coefficients of the N + H + M(Ar, N_2) → NH + M recombination reaction in flowing afterglows of microwave plasmas
A. Ricard, V. Ferrer, J.P. Gardou, F. Marchal, J.P. Sarrette
LAPLACE, Univ. Toulouse, CNRS, UPS, INPT, Toulouse (FR)

#059 Experimental investigations on the impact of gas flow on the propagation dynamics of a pulsed-driven µm-scale plasma jet
Y. Agha[1], K. Giotis[1, 2], D. Stefas[1], L. Invernizzi[1], H. Hoeft[3], P. Svarnas[2], K. Gazeli[1], G. Lombardi[1]
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#098 Modelling N_2-H_2 for ammonia production
C. Pintassilgo[1, 2], S. Baghel[1], M. Budde[3], A. Gonçalves[1], O. Guaitella[3], L. Marques[4], P. Pereira[1], N. Pinhão[1], L.L. Alves[1]
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#100 Ion energy distribution function measurement in hybrid HiPIMS with carbon target
I. Naiko[1, 2], M. Čada[1], A. Ostapenko[1], Z. Hubička[1]
[1] Institute of Physics, Academy of Sciences of the Czech Republic - Prague (CZ)
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#126 Optimizing ECR plasma ashing for high yield during spintronic sensor fabrication on 200mm wafers
F. Favita[1], S. Cardoso[1,2]
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#137 Enhancing surface emission in micro-gap atmospheric discharge via harmonic excitation
Y. Liu[1], N. Le Thomas[2,3], C. Leys[1], A. Nikiforov[1]
[1] RUPT, Dpt. Applied Physics, Faculty of Engineering and Architecture, Ghent Univ., Ghent (BE)
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[3] Center for Nano- and Biophotonics, Ghent Univ., Ghent (BE)

#156 Spectroscopy study of the LTE condition in the Laser Induced Breakdown used for the chlorine ion determination in building materials
M. Garcia Martinez, J. Mateo Calvo, A. Rodero Serrano
Univ. Cordoba (ES)

#165 TIA plasma characterization by optical emission spectroscopy in the presence of a substrate
B. Ganleu Monte[1], C. Chazelas[1], C. Dublanche-Tixier[1], P. Tristant[1], T. Belmonte[2]
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Poster Session #2 – Wednesday 24 September (16:35 – 18:30)

MODIDD / Modelling, diagnostics and data-driven optimization of plasma processes *(following)*

#172 Line-specific radiation transport simulation in spatially non-uniform argon plasmas for self-consistent collisional-radiative modeling
S. Chouteau[1], H.C. Tsai[2], Z. Donko[3], T.V. Tsankov[4], P. Hartmann[3], J.S. Wu[2], S. Hamaguchi[5]
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NANO / Plasma nanotechnologies

#012 Photoluminescent ZnO-SiO_2 nanocomposites prepared by a hybrid process coupling aerosol and Plasma Enhanced Chemical Vapour Deposition
M. Richard-Plouet[1], J. Chevet[1], M. Feron[2,3], A. Granier[1], M. Kahn[3], R. Clergereaux[2], A. Goullet[1]
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#087 Pulsed laser sources for nanometer-scaled complex materials and devices
M. Gireau[1], F. Du[2], J. Youssef[3, 4], S. Vergnole[4], G. Humbert[3], S. Zeng[2], C. Champeaux[1], F. Dumas-Bouchiat[1]
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PSURF / Plasma surface processing

#032 Stability of expanded austenite during annealing in vacuum
S. Mändl, D. Manova
Leibniz Institute of Surface Engineering (IOM) - Leipzig (DE)

#074 Atomic Layer Etching of SiO_2 using CF_4 plasma in deposition regime at cryogenic temperature
T. Tillocher[1], M. Adjabi[1], J. Nos[1], S. Iseni[1], G. Cunge[2], M. Kogelschatz[2], P. Lefaucheux[1], L. Becerra[1], E. Despiau-Pujo[2], R. Dussart[1]
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#079 Novel atmospheric-pressure plasma curing of anti-corrosion transparent silicon-based coating
P. Ghourchi Beigi, L. Zahedi, R. Krumpolec, D. Kováčik
Dpt. Plasma Physics and Technology, CEPLANT, Faculty of Science, Masaryk Univ. - Brno (CZ)

#133 Enhancing fiber/matrix interface in bio-based composites by cold plasma treatment: a step towards better fluid sealing
F. Perrier-Michon[1], S.A.E. Boyer[2], A. Burr[2], V. Rohani[1]
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Poster Session #2 – Wednesday 24 September (16:35 – 18:30)

PSURF / Plasma surface processing *(following)*

#144 Regulation of peripheral plasma characteristics via engineered alterations in electrode shielding materials under a direct current-biased power configuration

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#150 Optimizing active screen plasma nitriding of AISI 316L through alternative approaches: reactor conditioning and argon addition

A. Adami Vidal, R. Hugon, C. Noël, T. Czerwiec, G. Marcos

Univ. Lorraine, CNRS, Institut Jean Lamour - Nancy (FR)

#166 Performance optimization of metallic bipolar plates for PEMFCs by post-discharge plasma

L. Jacob[1, 2], **G. Marcos**[1], **T. Gries**[1], **M. Hautier**[2], **T. Czerwiec**[1]

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#169 Comparison between filamentary and diffuse dielectric barrier discharges at atmospheric pressure for the treatment of monolayer graphene films

L. Stafford[1], **C. Moderie**[1], **N. Naudé**[2], **R. Martel**[1]

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