

Poster - Plasma characterization**PO4001 Influence of N₂ and Ar on Charge-state-resolved ion energy distributions of arc plasma from Ti₃SiC₂ cathodes**

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PO4002 Generation of positive and negative ions in magnetron discharge during reactive sputtering of alumina.

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PO4003 Characterization by mass spectrometry of microwave sources for atomic species production

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PO4004 Experimental investigations of silicon tetrafluoride decomposition in ECR discharge plasma

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PO4005 Retarding field analysis of the time averaged and time resolved ion energy distribution at a biased electrode in a plasma discharge.

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PO4006 On the determination of energy fluxes in plasma processing by calorimetric probes

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PO4007 Energy influx measurements with the active thermal probe in several plasma-technological processes

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PO4008 Spatially resolved Langmuir probe measurements of a magnetically enhanced hollow cathode arc plasma

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PO4009 Langmuir probe diagnostics and deposition modelling of a carbon-tungsten thermionic vacuum arc system

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- PO4010 **Automated system for DC and RF plasma parameter determination by guard double electric probes**
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- PO4011 **OES study of PEALD process in low temperature TiO₂ film growth**
Sanna Lehti¹, David Cameron¹, Tommi Kääriäinen¹
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- PO4012 **OES monitoring of combined deposition of C/Al layers by PECVD/Magnetron Sputtering techniques**
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- PO4013 **Optical emission spectroscopy of pulsed magnetron sputtering plasma**
Mariusz ozimek¹, Jan Ziaja¹
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- PO4014 **Time and space-resolved detection of NH and NH₂-Radicals in a RF-driven microdischarge via planar laser induced fluorescence and pulsed cavity ring-down spectroscopy**
Andreas Schenk¹, Martin Visser¹, Eduard Bossauer¹, Karl-Heinz Gericke¹
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- PO4015 **Characterisation of the plasma plume of an IAD plasma source by means of optical emission spectroscopy**
Jens Harhausen¹, Ingo Meyenburg¹, Andreas Ohl¹, Rüdiger Foest¹
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- PO4016 **Plasma characterization of RF magnetron sputtering of silver in Ne, Ar, Kr and Xe discharges**
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- PO4017 **In-Line Analysis of DBD Plasma at Atmospheric Pressure while modifying Polymer Foil Surfaces**
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- PO4018 **Plasma temperature and surface studies of argon-hydrogen containing low-temperature dumbbell form light sources**
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- PO4019 **Plasma diagnostic on arc evaporation processes and influence of arc source design.**
Siegfried Krassnitzer¹, Juerg Hagmann¹, Helmut Rudigier¹
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- PO4020 **Optimisation of the atomic nitrogen production in the hollow cathode arc discharge**
Achim Lunk¹, Igor Vinogradov²
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- PO4021 **Gas temperature measurement and flow dynamic simulation of low temperature atmospheric pressure plasma jet.**
Abdollah Sarani¹, Anton Yu Nikiforov², Christophe Leys²
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- PO4022 **A combined sensor for the diagnostics of plasma und film properties in magnetron sputtering processes**
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- PO4023 **New Concepts of Process Control for Sputtering and magPECVD of Inorganic and Hybrid Coatings**
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- PO4024 **Development of a sensor platform for control and optimization of industrial plasma processes**
Volker Sittinger¹, Oliver Werner¹, Berthold Kühnert¹, Szyszka Bernd¹, Günter Bräuer¹, Ruben Wiese², Nino Voss²
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Poster - Physical Vapour Deposition

- PO4025 **Managing Arcs in Large Area Sputtering Applications**
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- PO4026 **Deposition of Large Area Multilayer Coatings for High End Optics**
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Andreas Leson², Peter Gawlitza², Maik Menzel²
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- PO4027 **Alpha PVD deposition systems (Eifeler/Vacotec) as a basis for research and industry**
Hynek Hrubý¹, Milan Ruzicka¹, Marcus Lartz¹, Susanne Meyer¹, Jürgen Anklam²
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- PO4028 **Deposition of complex materials using powder targets**
Francis Boydens¹, Stijn Mahieu¹, Diederik Depla¹
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- PO4029 **Analysis of the behaviour of the reactive species in reactive magnetron sputtering of oxides**
Wouter Leroy¹, Stijn Mahieu¹, Rosita Persoons², Diederik Depla¹
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- PO4030 **Suppressed hysteresis behaviour of Ti sputtering in acetylene gas**
Petr Vasina¹, Tereza Schmidtova¹, Marek Eliáš¹
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- PO4031 **Suppression of arcing in DC pulse reactive magnetron sputtering**
Michal Meissner¹, Pavel Baroch¹, Jindrich Musil¹
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- PO4032 **Influence of the oxygen flow rate and substrate temperature on the deposition of crystallised TixO2x-1 coatings**
Frédéric Lapostolle¹, Yunfang Gui¹, Alain Billard¹
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- PO4033 **The Effects of Varying Process Gas on the Growth of Thin Conducting Films**
Glen West¹, Peter Kelly¹
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- PO4034 **Effect of the deposition process and the substrate nature on the properties of sputtered lanthanum cuprate films**
Nolwenn Tranvouez¹, Jean-Francois Pierson², Fabien Capon², Jean-Philippe Bauer²
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- PO4035 **Effect of substrate material on surface morphology of thin films prepared by nonreactive magnetron sputtering**
Pavel Baroch¹, Tomas Kozak¹, Jindrich Musil¹
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PO4036 **Gravitational approach of the structure of droplets in an arc evaporation PVD process: a telluric model**

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PO4037 **Effects of dual arc source coatings on PVD process**

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PO4038 **Plasma deposition effect on laser melted Ti coated substrate**

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Poster - Conductive and Catalytic Oxides

PO4039 **Influence of Al concentration on structure and electrical properties of polycrystalline and epitaxial Al-doped ZnO films grown by reactive pulsed magnetron sputtering**

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PO4040 **Comparative study of the optical an electrical performance of transparent conductive ZnO deposited by sol-gel and reactive magnetron sputtering**

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PO4041 **Influence of the impinging angle and of the Aluminium content on the electrical resistivity of transparent ZnO coating elaborated by DC magnetron sputtering**

Pascal BRIOIS¹, Alain BILLARD¹

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PO4042 **Pretreatment of glass substrates by low energy ion beam for as-sputtered textured zinc oxide thin films**

Wendi Zhang¹, Eerke Bunte¹, Astrid Besmehn², Florian Ruske³, Dominik Köhl⁴, Janine Worbs¹, Hilde Siekmann¹, Jürgen Hüpkes¹

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- PO4044 **Improvement of Transparent Conductive Oxide films by low-temperature, atmospheric-pressure plasma annealing**
Hans Winands¹, Mirjam Theelen¹, Ariël de Graaf¹, Joop van Deelen¹, Paul Poodt¹
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- PO4045 **TiOx films as transparent self-cleaning oxidation protection coatings on metals**
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- PO4046 **Effect of Spray Parameters on Photocatalytic Properties of Plasma Sprayed Nanostructured TiO2 Coating**
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- PO4047 **Production of Photocatalytically Active Titania Layers onto Textiles at Ambient Temperature**
Eva Maria Moser¹, Sidney Chappuis¹, Vincent Rivest¹, Steve Röthlisberger¹
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- PO4048 **Self- Cleaning and Anti- Microbial Transparent Photocatalytic Thin Films Prepared by Ion Assisted Deposition**
Redouan Boughaled¹, Henrik Ehlers¹, Detlev Ristau¹, Michael Wark²
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- PO4049 **Plasma Deposited Ytria stabilized Zirconia thin films for solid oxide fuel cells**
Dimitrios Mataras¹, Stelios Voyatzis¹, Eleftherios Amanatides¹, Dimitrios Mataras¹
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- PO4050 **BaCe0.9-xZrxY0.1O3 thin film elaborated by reactive magnetron sputtering**
mohammad Arab Pour Yazdi¹, Pascal Briois¹, Alain Billard²
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- PO4051 **Structural investigations of novel catalysts for oxygen reduction reaction produced by a dual plasma process**
Christian Walter¹, Volker Brüser¹, Antje Quade¹, Klaus-Dieter Weltmann¹
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- PO4052 **THE EFFECT OF ANNEALING ON THE PROPERTIES OF ZnO:Al FILMS GROWN BY RF MAGNETRON SPUTTERING.**
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- PO4053 **Pulsed Reactive DC magnetron sputtered Tantalum Oxide (Ta2O5) thin films: Photocatalytic properties**
Jagadeesh Kumar¹, N Ravi Chandra Raju¹, A Subrahmanyam¹
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- PO4054 **Optimization and up-scaling of hollow cathode gas flow sputter processes in the field of photocatalytic active coatings**
Jens Mahrholz¹, Jens Mahrholz¹, Denise Koeßler¹, Sergey Shikolenko¹, Kai Ortner¹, Frank Neumann¹, Tobias Graumann¹, Markus Höfer¹, Bernd Szyszka¹
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- PO4055 **Structure and photocatalytic properties of Ti1-xWxO2 sputtered thin films**
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- PO4056 **Stability of TiO2 films modified by Ag and Pt nanoparticles**
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- Poster - Nanostructures and Nanoparticles**
- PO4057 **Nanostructured surfaces via atmospheric pressure glow discharge**
Ian Cook¹, David Sheel¹, John Hodgkinson¹
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- PO4058 **Deposition of nanostructures by chemical vapour deposition enhanced with an atmospheric pressure remote Ar-O2 plasma.**
Grégory ARNOULT¹, Thierry BELMONTE², Gérard HENRION²
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- PO4059 **Deposition of superhydrophobic structures by magnetron discharge**
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- PO4060 **Optimisation of PECVD parameters in order to obtain aluminium nitride nano-dots**
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- PO4061 **Analytical model for electrical resistivity of GLAD thin films**
Aurélien Besnard¹, Nicolas Martin¹
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- PO4062 **Engineering and Characterization of Si Nano-Columns by Oblique Angle Deposition**
Levent Trabzon¹, Sebahattin Guvendik¹, Huseyin Kizil¹
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- PO4063 **On the role of supporting material and catalyst for growth of carbon nanotubes in microwave torch**
Lenka Zajickova¹, Ondrej Jasek², Petr Synek², Marek Elias², Vit Kudrle², Jaroslav Hubalek³, Jan Prasek³, Renata Hanzlikova⁴, Nadezda Pizurova⁵
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- PO4064 **Growth and plasma surface modifications of vertically aligned carbon nanotube forests**
Jean-François Colomer¹, Moreau Nicolas², Thomas Godfroid³, Rony Snyders³, Carla Bittencourt³, Jean Pol Vigneron², Stéphane Lucas²
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- PO4065 **Surface modification of Multi Wall Carbon Nanotubes by a hollow cathode discharge.**
Christophe Rigaux¹, Stéphane Lucas²
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- PO4066 **Carbon nanotube functionalization with a cold atmospheric pressure plasma jet and post-plasma reactions**
Daniel Kolacnyak¹, Jörg Ihde¹, Uwe Lommatzsch¹
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- PO4067 **Functionalization of CNT arrays and ribbons by atmospheric pressure plasma**
David DUDAY¹, Rémy MAURAU¹, Nicolas BOSCHER¹, Jérôme GUILLOT¹, Gilles FRACHE¹, Patrick CHOQUET¹, Jean Christophe LAMBRECHTS¹, Mark SCHULZ², Vesselin SHANOV²
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- PO4068 **Synthesis and characterization of carbon nanowalls layers with metallic nanoparticles inclusions**
Sorin Vizireanu¹, Silviu Daniel Stoica², Bogdana Mitu², Catalin Romeo Luculescu², Gheorghe Dinescu²
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- PO4069 **TiO₂ Coatings with Au Nanoparticles Analyzed by Photothermal Methods**
Francisco Macedo¹, Filipe Vaz², Roberto Faria Jr.², Marc Torrell², Albano Cavaleiro³, Klaus Junge⁴, Bruno Bein⁴
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- PO4070 **Plasma functionalization of multi-scale structured surfaces to control the formation of ice crystals**
Michael Haupt¹, Stefan Jung², Volker Weiss³, Markus Rullich³, Christof Koehler³, Thomas Frauenheim³, Hannelore Benien², Franz Gammel², Heinz Hilgers⁴, Christian Oehr¹
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- PO4071 ¹
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- PO4072 **Particle agglomeration in dusty plasmas, numerical modeling and experiments**
Simon DAP¹, David LACROIX², Robert HUGON¹, Fabrice PATISSON³, Frédéric BROCHARD¹, Ludovic de POUQUES¹, Jamal BOUGDIRA¹
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- PO4073 **In-situ diagnostics during nano-particle generation in process plasmas**
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PO4074 **Gas aggregation nanocluster source - reactive depositions of copper and titanium nanoclusters**

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PO4076 **Self-assembled Ag nanoparticles on ion sputtered GaSb dot pattern**

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Poster - Mechanical Film Properties

PO4077 **Modeling of Residual Stresses in TBC Coated Gas Turbine Blades**

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PO4079 **Investigation of the application of plasticity size effects for practical tribological advantage.**

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PO4080 **Evaluation of Mechanical Properties of DLC Layers using the Resonant Ultrasound Spectroscopy and AFM tip**

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PO4081 **Mechanical properties and fatigue behavior of Co-depleted WC-Co surface prepared for diamond coating deposition**

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- PO4083 **Correcting time dependent displacements effects in nanoindentation analysis**
Norbert Schwarzer¹, Michael Davies², Nicola Everitt², Ben Beake³
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- PO4084 **Advanced scratch test methods in combination with elastic stress calculations - a new tool for the failure analysis of coatings**
Thomas Chudoba¹, Norbert Schwarzer²
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- PO4085 **Instrumentational developments in triboanalysis of PVD coatings**
Alexander Minewitsch¹, Maxim Krasnensky¹
¹ TTZH GmbH, Garbsen, Germany
- PO4086 **ON MEASUREMENT UNIFORMITY AT CHARACTERIZATION OF MECHANICAL AND TRIBOLOGICAL PROPERTIES OF NANOSTRUCTURED FILMS**
Mikhail Petrzhiik¹, Marina Tyurina¹, Nina Kozlova¹, Eugeny Levashov¹
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- PO4087 **Influence of substrate hardness on deformation mechanisms in TiN plastically deformed by nanoindentation analyzed by TEM**
Magdalena Parlinska-Wojtan¹, Dominik Jaeger², Michael Stiefel³, Kilian Wasmer⁴, Joerg Patscheider²
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- PO4088 **Innovative Method for examining multiple thin film properties.**
Wolfgang P. Weinhold¹, Andreas M. Zoll¹
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- PO4089 **Depth profile of mechanical properties for plasma-polymerized tetravinylsilane films evaluated by cyclic nanoindentation**
Rutul Trivedi¹, L. Hoferek¹, V. Cech¹
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- PO4090 **Mechanical Surface Stability and Reliability under High Temperature Fields**
Nick Bierwisch¹, Norbert Schwarzer¹
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- PO4091 **Crack resistance of hard coatings**
Manfred Schlögl¹, Florian Rovere¹, Paul H. Mayrhofer¹
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Poster - Plasma Modelling and Simulation**PO4092 Kinetic modelling of plasma enhanced chemical vapour deposition (PECVD) of BN-films**

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PO4093 Electron Monte Carlo model for a dual magnetron discharge, used for the sputter deposition of complex oxide layers

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PO4094 Particle-in-cell simulation of a magnetized sheet plasma using a magnetron for sputtering enhancement

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PO4095 Fluid modelling of the DC magnetron plasma under low pressure conditions

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PO4096 Fixing the parameter set for reactive sputtering modelling

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PO4097 Material Processing in Chemically Active Plasmas

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PO4098 Detailed study of plasma-substrate interaction in plasma-assisted technologies

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PO4099 Interaction of low-temperature plasma with fabric: study by computer simulations

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