

Program of the 1st International EJC-PISE Workshop in Riga (Latvia)

June 09, 2009, Tuesday

- 09:00 – 09:15 **Welcome**
Leonids Ribickis, RTU; David Cameron, EJC-PISE; Winfried Blau, EFDS;
Alexander Schwock, BNPT
- Decorative and functional coatings**
- 09:15 – 10:00 **Peculiarities of Metal Coating Deposition on Polymer Fabric**
Opening Lecture Inguna Strazdina, SIDRABE and Riga Technical University, Latvia
- 10:00 – 10:20 **Improving the adhesion of sputtered metal coatings on PMMA using an ALD interlayer**
David Cameron, Advanced Surface Technology Research Laboratory, Finland
- 10:20 – 10:40 **The Effect of a Plasma Pre-treatment on the Quality of Flock Coatings on Polymer Substrates**
Andreas Wego, Deutsches Textilforschungszentrum Nord-West, Germany
- 10:40 – 11:00 **Colour Effects, Surface Protection and - Design by Vacuum Deposition**
Stephan Küper, LEYBOLD OPTICS, Germany:
- 11:00 – 11:20 **Application of plasma processes for functionalization of technical fibers and textiles**
Andrejs Lulis, University of Latvia, Latvia
- 11:20 – 12:00 coffee break
- Wear and surface protection**
- 12:00 – 12:30 **Optimization of wear protective DLC coatings by use of nanoindentation and Raman spectroscopy**
Keynote Lecture Steffen Sønsberby, Danish Technological Institute, Denmark
- 12:30 – 12:50 **Development of Oxidation Protective Coating for Advanced Aero Engines**
Maik Fröhlich, DLR-German Aerospace Center, Germany
- 12:50 – 13:10 **Design of Novel Metallic Corrosion Protective Coating on Steel Sheet by Means of Thin Film Technologies**
Richard Weinhold, Dortmunder Oberflächenzentrum, Germany
- 13:10 – 13:30 **Hard coatings on tools for woodworking-state of the art**
Jerzy Ratajski, Technical University Koszalin, Poland
- 13:30 – 14:30 Lunch
- Biologically and organically active coatings**
- 14:30 – 15:00 **Deposition and physical properties of thin TiO₂ and N-doped TiO₂ films prepared by High Power Impulse Magnetron Sputtering**
Keynote Lecture Vitezslav Stranak, University of Greifswald, Germany, Poland, Czech Republic
- 15:00 – 15:20 **White biogeneered ceramic surface for dental implants**
Torsten Will, O.M.T. GmbH, Germany
- Cooperation / Partnering**
- 15:20 – 16:00 **Financing of international research cooperation**
Marko Häckel, neoplas GmbH & INP Greifswald
- 15:40 – 16:00 **Bilateral and international financing of business cooperation**
Alexander Schwock, BalticNet-PlasmaTec, Western Pomerania Technology Centre
- 16:00 – 17:00 **Poster Session / Exhibition / brokerage event with coffee**
- 19:00 – 23:00 **Social Event in the open air museum**

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June 10, 2009, Wednesday

Deposition processes

- 09:00 – 09:30 **Latest results in HPPMS thin film coatings for cutting tools**
Keynote Lecture Christoph Schiffers, CemeCon AG, Germany
- 09:30 – 09:50 **High frequency electromagnetic resonant method for metals melting and vaporization**
Janis Valdmanis, University of Latvia, Latvia
- 09:50 – 10:10 **Film Stress Relief: A Practical Guide to Adjusting Process Parameters**
Uwe Krause, Advanced Energy Industries, Germany
- 10:10 – 10:30 **The Art of Choosing the Right Power Supply**
Ken Nauman, Advanced Energy Industries, USA
- 10:30 – 10:50 **HiPIMS: An improvement of magnetron sputtering**
Aijaz Asim, Linköping University, Sweden
- 10:50 – 11:30 coffee break

Basics and Characterisation

- 11:30 – 12:00 **Material effects of using of impulse gas valve in IPD device**
Keynote Lecture Krzysztof Zdunek, Warsaw University of Technology, Poland
- 12:00 – 12:20 **Photo-, dual- and exoelectron spectroscopy to characterize Nanocoatings and nanostructures**
Yuri Dekhtyar, Riga Technical University, Latvia
- 12:20 – 12:40 **Sp³ enhancing effects and stress optimisation in hard carbon materials**
Stéphane Neuville, Tetrahedral Carbon Engineering, France
- 12:40 – 13:00 **Novel High-performance Stages of Submersible Electric Centrifugal Pumps for Abnormal Well Operation**
Nikolajs Manastirskis, Mikrolat, Riga, Latvia
- 13:00 – 13:30 **Closing Session – future activities, Closing ceremony**
Yuri Dekhtyar, RTU; David Cameron EJC-PISE
- 13:30 Lunch

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Poster presentations

PECVD-technologies for Silicon- and Carbon based protective coatings

Sebastian Winkler, Roth & Rau AG, Hohenstein-Ernstthal, Germany

High-frequency plasma interaction with SiO₂ glass

A. Skudra, University of Latvia, Riga, Latvia

Design and characterization of a synchronous co-axial double magnetron sputtering system

Daniel Lundin, Linköping University, Sweden

Dilatometric method of testing the thermal stability of the wear-resistance thin films

Piotr Myslinski, Technical University Koszalin, Polen

Deposition of SiO₂ like films with a miniaturized non thermal atmospheric pressure plasma jet (APPJ)

J. Schäfer, INP Leibniz Institute for Plasma Science and Technology, Greifswald, Germany

Metallisation of carbon nanofibres by Physical Vapor Deposition

Volker Brüser, INP Leibniz Institute for Plasma Science and Technology, Greifswald, Germany

Plasma spray deposition on metal oxide and carbon containing coatings for wide range application

Vitas Valincius, Lithuanian Energy Institute, Lithuania

COMBINATION OF ta-C PROPERTIES OF PARTICULAR PRACTICAL INDUSTRIAL APPLICATION INTEREST

Stéphane NEUVILLE, TETRAHEDRAL CARBON ENGINEERING, France

Optimization of plasma electrolytic oxidation process parameters for modification of Ti6-Al4-V structure

Behzad Farshid^{1*}, Mohammad Ali Faghighi Sani¹, S. M. Mir Hosseini¹, M. Meghdari²
1-Department of Materials Science Engineering, Sharif University of Technology, Tehran, Iran
2-Department of materials Science and Engineering, Azad University, Tehran, Iran

MULTIFUNCTIONAL PROTECTIVE TECHNOLOGICAL COVERINGS

Aleksandrs Urbahs, Konstantins Savkovs, Margarita Urbaha, Riga Technical University, Laboratory of Plasma Science and Technology, Latvia

HIGH TEMPERATURE OXIDE RESISTANT COMPONENTS OF PERSPECTIVE HIGH STRENGTH INTERMETALCERAMIC COMPOSITE COATINGS

Aleksandrs Urbahs, Konstantins Savkovs, Vladislavs Nesterovskis, Riga Technical University, Laboratory of Plasma Science and Technology, Latvia