

Technical Sessions

Key to Session/Paper Numbers

- A Coatings for Use at High Temperatures
- B Hard Coatings and Vapor Deposition Technology
- C Fundamentals and Technology of Multifunctional Thin Films
- D Coatings for Biomedical and Healthcare Applications
- E Tribology and Mechanical Behavior of Coatings and Engineered Surfaces
- EX Exhibitors Keynote Lecture
- F New Horizons in Coatings and Thin Films
- G Surface Engineering - Applied Research and Industrial Applications
Symposium G was jointly organized with the Society of Vacuum Coaters (SVC)
- H Advanced Characterization of Coatings and Thin Films
- PL Plenary Lecture
- TS Topical Symposia:
 - TS1-Biointerfaces
 - TS2-Thermal Spray Technologies & Coatings
 - TS3-Self-Healing Materials
 - TS4-Plasma Diagnostics & Modeling
 - TS5-Atmospheric Plasma Applications
 - TS6-Ambient-Coating Interactions

Program numbers are listed with the symposium letter first, the session number second, and the number of the paper last (i.e., A1-2-4= symposium A, session two, paper number four).

Symposium scheduling pointers:

- Most Morning sessions begin at 8:00 am, Monday the technical sessions begin at 10:00 am following the completion of the 8:00 am Plenary Session
- Each day most session lunch breaks start at 12:00 pm
- Most afternoon sessions start at 1:30 pm; Tuesday -Thursday afternoon sessions have varying starting times 1:30 - 2:10 pm.
- Invited speakers (marked as such in the program book) are allotted 40 minutes. Contributed speakers are allotted 20 minutes

If you are making an oral presentation:

All technical session rooms are equipped with computers, LCD projectors, screens, laser pointers and microphones. Please test your presentation materials to be certain that they are compatible with the equipment being provided in the technical session rooms. The Presenter's Preview Screening room is the Terrace Salon Room (TS2). Please allow ample time for the test, preferably the day before your presentation. The Preview Room's hours of operation are Sunday, 3:30-6:30 pm and Monday – Thursday 8:00 am–5:30 pm.

If you are making a poster presentation:

Boards will be available for posting materials at 11:00 am until 3:30 pm on Thursday, April 28. Prior to entering the Grand Hall, authors presenting a poster are required to check in at the table located in the Hall's doorway. Please be prepared to show photo identification as well as your registration badge. These forms of identification must match the name of the poster presenter listed in the ICMCTF program. A sign listing the paper's number, title, and presenting author will aid each presenter in locating the correct board where the poster materials are to be displayed. The board space provided is approximately four feet by four feet. All poster materials MUST be posted by 3:30 pm. Any poster boards that do not have presentation materials posted by 3:30 pm will have their titles removed; their presentation deleted from the program, and the author will be listed as a No-Show. All presenters are required to be at their poster presentation during the entire session (5:00 - 7:00 pm), in order to promote discussion and for the author to answer attendee questions.

A small picture of the presenting author is to be placed on the colored title identification sheet.

Be forewarned, all poster materials will be discarded if not removed from the boards by 9:00 pm Thursday evening.

Reminder: Please turn off CELL PHONES and PAGERS when you are attending the Technical Sessions

Monday Morning, April 25, 2016

Plenary Lecture
Room: Town & Country

8:00-9:45 am

8:00 am

Plenary Lecture Session

Nanogenerators as New Energy Technology and Piezotronics for Smart Systems

Prof. Zhong Lin Wang

Hightower Chair in Materials Science and Engineering and Regents Professor
Georgia Institute of Technology, Atlanta, Georgia, USA

Developing wireless nanodevices and nanosystems is of critical importance for sensing, medical science, environmental/infrastructure monitoring, defense technology and even personal electronics. It is highly desirable for wireless devices to be self-powered without using a battery. Nanogenerators (NGs) have been developed based on piezoelectric, triboelectric and pyroelectric effects, aiming at building self-sufficient power sources for micro/nano-systems. The output of the nanogenerators is now high enough to drive a wireless sensor system and charge a battery for a cell phone, and they are becoming a vital technology for sustainable, independent and maintenance-free operation of micro/nano-systems and mobile/portable electronics. An energy conversion efficiency of 55% and an output power density of 1200 W/m^2 have been demonstrated. This technology is now not only capable of driving portable electronics, but also has the potential for harvesting wind and ocean wave energy for large-scale power application. This lecture will focus on progress in NGs.

For wurtzite and zinc blende structures that have non-central symmetry, such as ZnO, GaN and InN, a piezoelectric potential (*piezopotential*) is created in the crystal by applying a strain. Such piezopotential can serve as a “gate” voltage that can effectively tune/control the charge transport across an interface/junction; electronics fabricated based on such a mechanism are coined *piezotronics*, with applications in force/pressure triggered/controlled electronic devices, sensors, logic units and memory. By using the piezotronic effect, we show that optoelectronic devices fabricated using wurtzite materials can have superior performance as solar cell, photon detectors and light emitting diodes. Piezotronics is likely to serve as a “mechanosensation” for directly interfacing biomechanical action with silicon-based technology and active flexible electronics. This lecture will focus on progress in the field and its expansion to 2D materials.



Monday Morning, April 25, 2016

<p>Coatings for Use at High Temperatures Room: Royal Palm 4-6 - Session A1-1 Coatings to Resist High Temperature Oxidation, Corrosion and Fouling Moderators: Mark Weaver, University of Alabama, USA, Vladislav Kolarik, Fraunhofer-Institut für Chemische Technologie, Germany, Elizabeth Opila, University of Virginia, USA</p>		<p>Hard Coatings and Vapor Deposition Technology Room: Golden West - Session B1-1 PVD Coatings and Technologies Moderators: Alpina Ranade, GE Aviation, USA, Joerg Vetter, Oerlikon Balzers Coating Germany GmbH, Germany, Jyh-Wei Lee, Ming Chi University of Technology, Taiwan, Republic of China</p>	
10:00 am	<p>A1-1-1 Invited The Mechanics of High Temperature Coatings: Mapping In-situ Strain Evolution, A. MANERO, University of Central Florida, USA, C. MEID, J. WISCHEK, German Aerospace Center (DLR), Germany, J. OKASINSKI, J. ALMER, Argonne National Laboratory, USA, A. KARLSSON, Cleveland State University, USA, M. BARTSCH, German Aerospace Center (DLR), Germany, S. RAGHAVAN, University of Central Florida, USA</p>	B1-1-1	<p>A Kinetic Model for Stress in Sputtered Thin Films, E. CHASON, M. KARLSON, Brown University, USA, J.J. COLIN, Institut P⁺, CNRS – ENSMA - Université de Poitiers, France, D. MAGNFALT, Linköping University, IFM, Sweden, K. SARAKINOS, Linköping University, Sweden, G. ABADIAS, Institut P⁺, CNRS – ENSMA - Université de Poitiers, France</p>
10:20 am	<p>Invited talk continued.</p>	B1-1-2	<p>Low Stress Thick PVD Coatings, V. KUMAR, R. PENICH, Kennametal Inc., USA</p>
10:40 am	<p>A1-1-3 Investigation of the Oxidation of Thin Coatings Comprising Ni Aluminides, X. MAEDER, Laboratory for Mechanics of Materials and Nanostructures, Empa, Switzerland, A. NEELS, Center for X-ray Analytics, Empa, Switzerland, M. DÖBELI, Ion Beam Physics, ETH Zurich, Switzerland, A. DOMMANN, Materials meet Life, Empa, Switzerland, B. WIDRIG, J. RAMM, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein</p>	B1-1-3	<p>Relationship between Surface Morphology and Residual Stress in Thin Sputtered Films, E. CHARRAULT, C. HALL, D. EVANS, P. MURPHY, Future Industries Institute, University of South Australia, Australia</p>
11:00 am	<p>A1-1-4 The Tribological Properties and the Adhesion Behaviors of CrN and AlCrN Coatings Deposited using Modulated Pulsed Power Magnetron Sputtering Technologies, B. WANG, G. BOURNE, S. MIDSON, A.L. KORENYI-BOTH, Colorado School of Mines, USA, S. UDVARDY, North American Die Casting Association (NADCA), USA, P. RUDNIK, Plansee USA LLC, USA, M. KAUFMAN, Colorado School of Mines, USA</p>	B1-1-4	<p>Residual Stress Measurement on ZrN Hard Coatings on Si with Zr Interlayer, C.L. HUANG, J.H. HUANG, G.P. YU, National Tsing Hua University, Taiwan, Republic of China</p>
11:20 am	<p>A1-1-5 Influence of Environment and Thermo-Mechanical Loading Conditions on Rumppling, Ductility and Phase Transformation In Aluminide Coating, V. ESIN, V. MAUREL, Mines ParisTech, PSL Research University, France</p>		
11:40 am	<p>A1-1-6 Effect of Titanium Ions Implantation and Deposition on Hydrogenation Behavior of Zr-1Nb Alloy, B. KASHKAROV, N.N. NIKITENKOV, M. SYRTANOV, A.N. SUTYGINA, National Research Tomsk Polytechnic University, Russian Federation, N. KUDIAROV, Tomsk Polytechnic University, Russian Federation</p>		
<p>Anton Paar: Focused Topic Session “Latest Developments in Advanced Surface Mechanical Property Characterization Instrumentation” 12:15-1:15 pm Town & Country Room</p>			

Monday Morning, April 25, 2016

<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B2-1</p> <p>CVD Coatings and Technologies Moderators: Michel Pons, University Grenoble Alpes, SIMAP, CNRS, France, Makoto Kambara, The University of Tokyo, Japan</p>	<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C5-1</p> <p>Thin Films for Active Devices Moderators: Marco Cremona, PUC-Rio, Brazil, Vanya Darakchieva, Linköping University, IFM, Sweden</p>
<p>10:00 am B2-1-1 Growth, Texture and Microstructure of MT-CVD Ti(C,N), L. VON FIEANDT, Uppsala University, Angstrom Laboratory, Sweden, T. LARSSON, O. ALM, J. LAURIDSEN, Seco Tools AB, Fagersta, Sweden, J. PERSSON, Sandvik Coromant R&D Materials and Processes, Sweden, M. BOMAN, Uppsala University, Angstrom Laboratory, Sweden</p>	<p>C5-1-1 Microfabricated Thermal Actuators Based on Sputtered Thin-Film Nitinol, C. KNICK, C. MORRIS, US Army Research Laboratory, USA</p>
<p>10:20 am B2-1-2 Tailored Microstructure and Texture of MTCVD-Ti(C,N) as a result of Combining a Specific Nucleation Surface with Critical Process Parameters, C. BJORMANDER, J. BOHLMARK, AB Sandvik Coromant, Sweden</p>	<p>C5-1-2 Semiconductor Devices from Energetically Deposited Films: Modelling and Characterisation, J. PARTRIDGE, N. MCDUGALL, B. MURDOCH, E. MAYES, M. KRACICA, H. TRAN, A. HOLLAND, D. MCCULLOCH, RMIT University, Australia</p>
<p>10:40 am B2-1-3 Invited Laser-assisted CVD for Hard Coatings, T. KIMURA, Japan Fine Ceramics Center (JFCC), Japan</p>	<p>C5-1-3 Approaching Defect-free Amorphous Silicon Nitride by Plasma-assisted Atomic Beam Deposition for High Performance Gate Dielectric, C.-L. WU, S.-J. TSAI, C.-L. WANG, H.-C. LEE, C.-Y. LIN, J.-W. CHEN, National Cheng Kung University, Taiwan, Republic of China</p>
<p>11:00 am Invited talk continued.</p>	<p>C5-1-4 Growth and Morphology Control of β-Ga₂O₃ Nanostructures by Atmospheric-pressure CVD, T. TERASAKO, Graduate School of Science and Engineering, Ehime University, Japan, Y. KAWASAKI, Faculty of Engineering, Ehime University, Japan, M. YAGI, National Institute of Technology, Kagawa College, Japan</p>
<p>11:20 am B2-1-5 Structural and Thermodynamic Analysis of NbN and Nb_{1-x}Ti_xN Thin Films Growth by High Temperature CVD, N. TSAVDARIS, CNRS/Univ. Grenoble Alpes, SIMaP, France, S. COINDEAU, CMT/CNRS/Grenoble INP, France, F. MERCIER, E. BLANQUET, CNRS/Univ. Grenoble Alpes, SIMaP, France</p>	<p>C5-1-5 Influence of Repeated Uniaxial Mechanical Strain on Amorphous In-Ga-Zn-O Thin Film Transistors Fabricated on Flexible Polyimide Substrates, B.W. CHEN, T.-C. CHANG, S.P. HUANG, Y.J. HUNG, A.K. CHU, National Sun Yat-Sen University, Taiwan, Republic of China, T.J. WANG, T.C. CHANG, Industrial Technology Research Institute, Taiwan, Republic of China</p>
<p>11:40 am B2-1-6 Bulk Growth of Aluminum Nitride by Hydride CVD on Si Substrates, M. CHUBAROV, SIMaP, Grenoble INP, France, G. FERRO, LMI, Université Claud Bernard Lyon I, France, C. DURAND, CEA/CNRS Université Joseph Fourier, France, F. MERCIER, R. BOICHOT, SIMaP, Grenoble INP, France</p>	
<p>Anton Paar: Focused Topic Session “Latest Developments in Advanced Surface Mechanical Property Characterization Instrumentation” 12:15-1:15 pm Town & Country Room</p>	

Monday Morning, April 25, 2016

	<p>Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D2-1 Surface Coatings, Micro/Nano Texturing, Nanotubes, Drug Delivery, Biodegradable Implants Moderators: Sankara Narayanan, Chonbuk National University, Republic of Korea, Yifeng Liao, Argonne National Laboratory, USA</p>	<p>Surface Engineering - Applied Research and Industrial Applications Room: California - Session G5 Application-Driven Cooperations between Industry and Basic Research Institutions Moderators: Denis Kurapov, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, Kirsten Bobzin, Surface Engineering Institute - RWTH Aachen University, Germany, David Glocker, Isoflux, Inc., USA</p>
10:00 am	<p>D2-1-1 Investigation of In-Vitro Properties of NiTi After MAO Coatings, s. SUKUROGLU, Gumushane University, Turkey, Y. TOTIK, Ataturk University, Turkey, E.E. SUKUROGLU, Gumushane University, Turkey, E. ARSLAN, I. EFEUGLU, Ataturk University, Turkey</p>	<p>G5-1 Invited Multisectorial Aspects of Surface Engineering - Win-Win Scenario for the University-Industry Partnership, L. MARTINU, Polytechnique Montreal, Canada</p>
10:20 am	<p>D2-1-2 Surface Modification of Biodegradable Electrospun Scaffolds using Plasma Discharge with Sputter Deposition of a Titanium Target, D.G. PETLIN, Griffith University, Australia, S.I. TVERDOKHLEBOV, E.N. BOLBASOV, E.V. SHESTERIKOV, N. DANILENKO, Tomsk Polytechnic University, Russian Federation, Y.I. KHODYREVSKAYA, L.V. ANTONOVA, V.G. MATVEEVA, E.A. VELIKANOVA, Y.A. KUDRYAVTSEVA, Federal State Budgetary Institution "Research Institute for Complex Issues of Cardiovascular Diseases", Russian Federation, Y.G. ANISSIMOV, Griffith University, Australia, L.S. BARBARASH, Federal State Budgetary Institution "Research Institute for Complex Issues of Cardiovascular Diseases", Russian Federation</p>	<p>Invited talk continued.</p>
10:40 am	<p>D2-1-3 Invited Thin Films for Biomedical Applications: from Sensors to Electrodes, J. BORGES, M. RODRIGUES, D. COSTA, Minho University, Portugal, A. CAVALEIRO, University of Coimbra, Portugal, F. VAZ, Minho University, Portugal</p>	<p>G5-3 Al-Cr-Ti-O Coatings Synthesized by Cathodic Arc, M. HANS, D. MUSIC, Y.T. CHEN, D. HOLZAPFEL, RWTH Aachen University, Germany, D. PRIMETZHOFFER, Uppsala University, Sweden, D. KURAPOV, J. RAMM, M. ARNDT, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, H. RUDIGIER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Switzerland, J.M. SCHNEIDER, RWTH Aachen University, Germany</p>
11:00 am	<p>Invited talk continued.</p>	<p>G5-4 Analysis of CrN/AlN/Al₂O₃ and Two Industrially Used Coatings Deposited on Die Casting Cores after Application in an Aluminum Die Casting Machine, K. BOBZIN, T. BROGELMANN, Surface Engineering Institute - RWTH Aachen University, Germany, U. HARTMANN, Martinrea Honsel Germany GmbH, Germany, N.C. KRUPPE, Surface Engineering Institute - RWTH Aachen University, Germany</p>
11:20 am	<p>D2-1-5 Comparison Study on the Mechanical Property and Biocompatibility of W-contained Ti-based and Zr-based Thin Film Metallic Glasses, P.C. WANG, National Taipei University of Technology, Taiwan, Republic of China, J.W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, Y.C. YANG, National Taipei University of Technology, Taiwan, Republic of China, B.S. LOU, Chang Gung University, Taiwan, Republic of China</p>	<p>G5-5 Invited Advanced Hard Coatings for Cutting Tools: Knowledge-based Design Approaches to Meet Industrial Needs and Requirements, C. MITTERER, Montanuniversität Leoben, Austria, C. CZETTL, CERATIZIT Austria GmbH, Austria</p>
11:40 am	<p>D2-1-6 Camphor DLC Films Deposition in Polyurethane Prevents <i>Candida albicans</i> Biofilm, T. B. SANTOS, E.D. SANTOS, A. VIEIRA, P.A. RADI, S. KHOURI, H. MACIEL, R. PESSOA, Universidade do Vale do Paraiba - UNIVAP - Brazil, L. VIEIRA, Institute of Research and Development -IPD/ UNIVAP and Technological Institute of Aeronautics, ITA/LPP, Brazil</p>	<p>Invited talk continued.</p>
	<p>Anton Paar: Focused Topic Session "Latest Developments in Advanced Surface Mechanical Property Characterization Instrumentation" 12:15-1:15 pm Town & Country Room</p>	

Monday Morning, April 25, 2016

	<p>Topical Symposia Room: Royal Palm 1-3 - Session TS1 Biointerfaces Moderators: Jinju Chen, Newcastle University, UK, Sandra Rodil Posada, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico</p>	
10:00 am	<p>TS1-1 Invited Barnacle Adhesion: Understanding Complex Chemistries in Dynamic Buried Interfaces, K.J. WAHL, Naval Research Laboratory, USA</p>	
10:20 am	<p>Invited talk continued.</p>	
10:40 am	<p>TS1-3 The Combined Effect Of Surface Roughness And Surface Grooves on the Bacteria Adhesion, S.B. CHINNARAJ, J.P. GEDARA, Y. AMMAR, N. JAKUBOVICS, J. CHEN, Newcastle University, UK</p>	
11:00 am	<p>TS1-4 Sensitivity Analysis of an Individual-based Model of Activated Sludge Floc Formation, J. PAHALA GEDARA, P. GUPTA, I.D. OFITERU, S. RUSHTON, T.P. CURTIS, J. CHEN, Newcastle University, UK</p>	
11:20 am	<p>TS1-5 Surface Chemistry and Mechanics of PDMS Films Determined by Coupled Raman Spectrometer with Nanoindentation Instrument, J. LUKES, Hysitron, Inc., Czech Republic, P. NEGRI, Renishaw, Inc., USA, J. RISAN, Hysitron, Inc., USA, S. PRAUZENER-BECHCICKI, M. LEKKA, Polish Academy of Sciences, Poland, J. RACZKOWSKA, Jagiellonian University, Poland, V.L. FERGUSON, University of Colorado, Boulder, USA</p>	
11:40 am	<p>TS1-6 Fabrication and Biocompatible Tests for Poly(methyl methacrylate) Thin Film on Polylactic Acid Nano Fibers by Electrospinning, H.Y. WANG, C. LI, National Yang Ming University, Taiwan, Republic of China, J.H. HSIEH, Ming Chi University of Technology, Taiwan, Republic of China</p>	
12:00 pm	<p>TS1-7 Mixed Poly(methyl methacrylate) and Cyclopropylamine Thin Films by Plasma Polymerization for Cell Culture, Y.H. TSENG, C. LI, National Yang Ming University, Taiwan, Republic of China, J.H. HSIEH, Ming Chi University of Technology, Taiwan, Republic of China</p>	
	<p>Anton Paar: Focused Topic Session “Latest Developments in Advanced Surface Mechanical Property Characterization Instrumentation” 12:15-1:15 pm Town & Country Room</p>	

Monday Afternoon, April 25, 2016

<p>Coatings for Use at High Temperatures Room: Royal Palm 4-6 - Session A1-2 Coatings to Resist High Temperature Oxidation, Corrosion and Fouling Moderators: Mark Weaver, University of Alabama, USA, Vladislav Kolarik, Fraunhofer-Institut für Chemische Technologie, Germany, Elizabeth Opila, University of Virginia, USA</p>		<p>Hard Coatings and Vapor Deposition Technology Room: Golden West - Session B1-2 PVD Coatings and Technologies Moderators: Alpina Ranade, GE Aviation, USA, Joerg Vetter, Oerlikon Balzers Coating Germany GmbH, Germany, Jyh-Wei Lee, Ming Chi University of Technology, Taiwan, Republic of China</p>	
1:30 pm	<p>A1-2-1 Behavior of Uncoated and Coated Pure Fe in Metal Dusting Conditions, A.E. MURILLO, ITESM-CEM, Mexico, D.V. MELO-MÁXIMO, Termoinnova, S.a. De C.v., Mexico, O. SALAS, L. MELO-MÁXIMO, J. OSEGUERA, ITESM-CEM, Mexico</p>	B1-2-1	<p>Grain Size Control of Arc Evaporated (Ti,Al)N: A Study of High Temperature <i>in situ</i> Synchrotron X-Ray Scattering, A. CHAAR, L. ROGSTRÖM, Linköping University, Sweden, M. JOHANSSON-JÖESAAR, Seco Tools AB, Sweden, J. BARRIERO, H. ABOULFADL, Saarland University, Germany, J. ANDERSSON, Seco Tools AB, Sweden, L. JOHNSON, M. SARAIVA, Sandvik Coromant, Sweden, F. MÜCKLICH, Saarland University, Germany, M. ODEN, Linköping University,</p>
1:50 pm	<p>A1-2-2 Metal Dusting Prevention by Combination of Two Protection Systems, Oxide Barrier and Catalytic Inhibition, S. MADLOCH, M.C. GALETZ, M. SCHÜTZE, DECHEMA-Forschungsinstitut, Germany</p>	B1-2-2	<p>Relationship of Macroparticle Emission and Input Power in Coating Process of TiAlN Arc Ion Plating, K. YAMAGUCHI, Mitsubishi Materials Corporation, Japan</p>
2:10 pm	<p>A1-2-3 Invited Deposit-Induced Corrosion of Gas Turbine Alloys and Coatings, G.H. MEIER, University of Pittsburgh, USA</p>	B1-2-3 Invited	<p>Single Element Multilayer Nitride Coatings: A Simple Approach for Tougher Nitride Coatings, Y.H. YANG, F.B. WU, National United University, Taiwan</p>
2:30 pm	Invited talk continued.		Invited talk continued.
2:50 pm	<p>A1-2-5 Investigation of Protective Diffusion Coatings for Refractory Metals, A.S. ULRICH, M.C. GALETZ, DECHEMA-Forschungsinstitut, Germany</p>	B1-2-5	<p>The Correlation between Deposition Parameters and Structure of ARC-PVD Deposited Cr₂AlC- MAX- Phase Films, F. KAULFUSS, Technical University Dresden, Germany, O. ZIMMER, Fraunhofer IWS Dresden, Germany, C. LEYENS, E. BEYER, Technical University Dresden, Germany</p>
3:10 pm	<p>A1-2-6 Microstructure and Mechanical Properties Evaluation of Silicon Nitride-titania Nanocomposite Coatings Grown by Plasma Electrolytic Oxidation, F.C. CHANG, C.J. WANG, National Taiwan University of Science and Technology, Taiwan, Republic of China, J.W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, B.S. LOU, Chang Gung University, Taiwan, Republic of China</p>	B1-2-6	<p>Oxidation Mechanisms in Mo_{1-x}Si_xB_y/Ti_{1-x}Al_xN Multilayer Coatings, H. RIEDL, C. KOLLER, M. BARTOSIK, TU Wien, Austria, S. KOLOZSVÁRI, Plansee Composite Materials GmbH, Germany, M. ARNDT, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, A. LIMBECK, P. MAYRHOFER, TU Wien, Austria</p>
3:30 pm	<p>A1-2-7 Electrical Characterization of Additively Manufactured Silver Nanoparticle Film for Sensor Application at High Temperature, R. PANAT, M. RAHMAN, Washington State University, USA, R. CHINTALAPALLE, University of Texas at El Paso, USA</p>	B1-2-7	<p>Growth and Characterization of Epitaxial Zr(0001) and ZrC(111) Thin Films on Al₂O₃(0001), J. FANKHAUSER, University of California, Los Angeles, USA, M. SATO, Nagoya University, Japan, D. YU, A. EBNONNASIR, University of California, Los Angeles, USA, M. KOBASHI, Nagoya University, Japan, M. GOORSKY, S. KODAMBAKA, University of California, Los Angeles, USA</p>
3:50 pm	<p>A1-2-8 Development of Nanostructured Sol-Gel Coatings for the Protection of AA2024-T3 Alloys for the Aerospace Industry., M.B. CULLEN, B. DUFFY, M. OUBAHA, CREST, Dublin Institute of Technology, Ireland</p>	B1-2-8	<p>Surface Characterization of Various Magnetron Sputtered Cr₂AlC MAX Phase Coatings, A. OBROSOV, Brandenburg University of Technology, Germany, R. GULYAEV, Borekov Institute of Catalysis SB RAS, Russian Federation, B. NAVVED, M. RATZKE, S. WEIß, Brandenburg University of Technology, Germany</p>
4:10 pm		B1-2-9	<p>Vacuum Arc Plasma Generation and Film Deposition from a Tungsten Carbide (WC) Cathode, I. ZHIRKOV, IFM, Linköping University, Sweden, S. KOLOZSVÁRI, P. POLCIK, Plansee Composite Materials GmbH, Germany, J. ROSEN, IFM, Linköping University, Sweden</p>
4:30 pm		B1-2-10	<p>Nano-structured Multicomponent Coatings for Carbide Tools, A. VERESCHAKA, MSTU Stankin, Russian Federation, A. BATAKO, Liverpool John Moores University, UK, A. VERESCHAKA, A. AKSENIENKO, MSTU Stankin, Russian Federation</p>
	<p>Hysitron: Focused Topic Session “Advancements in State-of-the-Art Nanomechanical and Nanotribological Characterization” 5:30-6:30 pm Town & Country Room</p>		<p>Welcome Mixer 6:30-8:00 pm Atlas Foyer</p>

Monday Afternoon, April 25, 2016

	Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B2-2 CVD Coatings and Technologies Moderators: Michel Pons, University Grenoble Alpes, SIMAP, CNRS, France, Makoto Kambara, The University of Tokyo, Japan	Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C5-2 Thin Films for Active Devices Moderators: Marco Cremona, PUC-Rio, Brazil, Vanya Darakchieva, Linköping University, IFM, Sweden
1:30 pm	B2-2-1 Deposition and Texture-Control of CVD α -Al ₂ O ₃ Coatings, S. RUPPI, SR-Consulting, Portugal	C5-2-1 Atomic Layer Deposition of GaN using GaCl ₃ and N ₂ on Si Wafers, B. KUYEL, H. REDONDO, A. ALPHONSE, Nano-Master, Inc., USA
1:50 pm	B2-2-2 Hot Filament CVD-Diamond Coating Technology for Industrial Scale Production, M. FRANK, W. KÖLKER, M. WODA, B. MESIC, C. SCHIFFERS, O. LEMMER, CemeCon AG, Germany	C5-2-2 AlN Buffer Layers for a Selective Growth of GaN by MOCVD on Patterned Sapphire, D. JAEGER, Evatec, Switzerland, J. WAGNER, M. JETTER, IHFG, Germany, H. ROHRMANN, Evatec, Switzerland
2:10 pm	B2-2-3 CVD of Cu for the Metallization of Composites: Chemical Kinetics and Adhesion, F. ADDOU, CIRIMAT, CNRS - University of Toulouse, France, P. BOSSO, University of Bari "Aldo Moro", Italy, T. DUGUET, E. AMIN-CHALHOUB, CIRIMAT, CNRS - University of Toulouse, France, F. FANELLI, National Research Council (CNR)-Institute of Nanotechnology (NANOTEC), Italy, C. VAHLAS, CIRIMAT, CNRS - University of Toulouse, France	C5-2-3 Ytterbium β -diketonate Complexes for Near Infra-Red Organic Light-Emitting Devices, Z. AHMED, R. ADERNE, J. KAI, M. CREMONA, PUC-Rio, Brazil
2:30 pm	B2-2-4 Controlling Phase Formation in FBR-CVD Chromised Layers on AISI304L and AISI 316L Austenitic Stainless Steels, M.G. MANJIAH, Deakin University, Australia	C5-2-4 The Impact of TiN Gate Thickness on Performance and Negative Bias Temperature Instability in p- MOSFET with Hf _x Zr _{1-x} O ₂ High-k Layer, K.J. LIU, T.-C. CHANG, C.Y. LIN, National Sun Yat-Sen University, Taiwan, Republic of China
2:50 pm	B2-2-5 Low Temperature Chemical Vapor Deposition of Carbides Coatings using Direct Liquid Injection of Metalorganic Precursors, A. MICHAU, F. MAURY, CIRIMAT, CNRS/INPT/UPS, France, F. SCHUSTER, CEA Saclay, DEN/DIR, France, R. BOICHOT, M. PONS, University Grenoble Alpes, SIMAP, CNRS, France	C5-2-5 Invited Transition-metal Nitrides as Semiconductors: ScN, CrN, and Related Alloys, D. GALL, Rensselaer Polytechnic Institute, USA
3:10 pm	B2-2-6 Invited Reassessing MOCVD Coating of Polymer Composites for Space Applications, T. DUGUET, F. ADDOU, A. GAVRIELIDES, M. AUFRAY, C. LACAZE-DUFAURE, C. VAHLAS, CIRIMAT, CNRS - University of Toulouse, France	Invited talk continued.
3:30 pm	Invited talk continued.	C5-2-7 Quasi-Ballistic Effect Influence Hot Carrier Degradation in Nanoscale n-MOSFET, H.W. LIU, T.-C. CHANG, J.Y. TSAI, C.Y. LIN, Y.H. LU, C.E. CHEN, National Sun Yat-Sen University, Taiwan, Republic of China
3:50 pm	B2-2-8 Functionalization of Amorphous Magnesium Carbonate by Atomic Layer Deposition(ALD) of (3-Aminopropyl) Triethoxysilane (APTES) and (3-aminopropyl) Trimethoxysilane (APTMS), c. ARHAMMAR, M. VALL, M. STRÖMME, M. BOMAN, Ångström Laboratory, Sweden	C5-2-8 The Investigation on Defect Variation from Nitrogen Diffuse to Hafnium Oxide Layer in Metal-Oxide-Semiconductor Field Effect Transistors by Varying Metal Gate Fabrication, Y.H. LU, T.-C. CHANG, K.J. LIU, H.W. LIU, C.Y. LIN, National Sun Yat-Sen University, Taiwan, Republic of China
4:10 pm	B2-2-9 Al ₁₃ Fe ₄ Coatings Obtained by Chemical Vapor Deposition, I. AVIZIOTIS, National Technical University of Athens, Greece, T. DUGUET, CIRIMAT, CNRS, Université de Toulouse, France, A.G. BOUDOUVIS, National Technical University of Athens, Greece, C. VAHLAS, CIRIMAT, CNRS, Université de Toulouse, France	C5-2-9 Influence of Electrode Thermal Conductivity on Resistive Switching Behavior during Reset Process, T.J. CHU, T.-M. TSAI, T.-C. CHANG, K.C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China
4:30 pm		C5-2-10 Combined Effects of Light Illumination and Negative Gate-Bias on the Instability of a-InGaZnO Thin-Film Transistors, C.Y. YANG, National Chiao Tung University, Taiwan, Republic of China, T.-C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China
4:50 pm		C5-2-11 The Impact of Post-Metal Deposition Annealing Temperature on Performance and Reliability of High-k/Metal-Gate n-FinFETs, C.Y. LIN, T.-C. CHANG, K.J. LIU, X.W. LIU, L.H. CHEN, National Sun Yat-Sen University, Taiwan, Republic of China
5:10 pm		C5-2-12 Investigating Characteristics and Reliability of a Dual Gate a-InGaZnO Thin Film Transistor with Etch Top Layer, P.Y. LIAO, T.-C. CHANG, T.Y. HSIEH, M.Y. TSAI, B.W. CHEN, A.K. CHU, National Sun Yat-Sen University, Taiwan, Republic of China, H.M. CHEN, National Chiao Tung University, Taiwan, Republic of China
	Hysitron: Focused Topic Session "Advancements in State-of-the-Art Nanomechanical and Nanotribological Characterization" 5:30-6:30 pm Town & Country Room	Welcome Mixer 6:30-8:00 pm Atlas Foyer

Monday Afternoon, April 25, 2016

<p>Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D2-2 Surface Coatings, Micro/Nano Texturing, Nanotubes, Drug Delivery, Biodegradable Implants Moderators: Sankara Narayanan, Chonbuk National University, Republic of Korea, Yifeng Liao, Argonne National Laboratory, USA</p>		<p>Surface Engineering - Applied Research and Industrial Applications Room: California - Session G4 Pre-/Post-Treatment and Duplex Technology Moderators: Wan-Yu Wu, Da-Yeh University, Taiwan, Republic of China, Chris Stoessel, Eastman Chemical Company, Inc., USA, Hiroshi Tamagaki, Kobe Steel, Ltd., Japan</p>	
1:30 pm		G4-1 Invited Plasma Processes: A Power System Odyssey, D.J. CHRISTIE, Advanced Energy Industries, Inc., USA	
1:50 pm	D2-2-2 Nanomechanics of Extracellular Matrix Produced by Immortalized Human Mesenchymal Stem Cells at Different Cell Culture Conditions, J. CHEN, P. DUAN, Newcastle University, UK	Invited talk continued.	
2:10 pm	D2-2-3 Morphological Effect Governed by Sandblasting and Anodic Surface Reforming on the Super-hydrophobicity of AISI 304 Stainless Steel, c.w. LIN, Feng Chia University: Central Taiwan University of Science and Technology, Taiwan, Republic of China, C.M. CHOU, Taichung Veterans General Hospital: National Yang-Ming University, Taiwan, Republic of China, C.J. CHUNG, Central Taiwan University of Science and Technology, Taiwan, Republic of China, J.L. HE, Feng Chia University, Taiwan, Republic of China	G4-3 MgO Substrate Surface: Recovery of Pure MgO by Wet Cleaning, A. LE FEBVRIER, G. GRECZYNSKI, J. JENSEN, P. EKLUND, Linköping University, IFM, Sweden	
2:30 pm	D2-2-4 Elaboration and Evaluation of a Variety of Thin Hydrogenated Carbon Coatings on Polyetheretherketone for Biomedical Implants, J. DUFILS, LTDS - Ecole Centrale de Lyon, France, F. FAVERJON, C. HÉAU, IREIS - HEF group, France, C. DONNET, Laboratoire Hubert Curien - Université Jean Monnet, France, S. BENAYOUN, S. VALETTE, LTDS - Ecole Centrale de Lyon, France	G4-4 Dyeing Coloration of the Micro-Arc Oxidized Aluminum Enhanced by Surface Nanozation, C.M. CHEN, H.J. CHU, J.L. HE, Feng Chia University, Taiwan, Republic of China	
2:50 pm	D2-2-5 Sensitivity of Interfaces to Contamination: DLC Coatings on Medical Alloys, K.F. THORWARTH, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, G.B. THORWARTH, DePuy Synthes, Switzerland, U. MÜLLER, B. WEISSE, R. HAUERT, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland	G4-5 Invited Effect of Fine Particle Bombardment to Substrates on Properties of Hard Coatings Including DLC, M. KUMAGAI, Fuji WPC Co., Ltd., Japan	
3:10 pm	D2-2-6 Functional Retention of Phosphatidylcholine Coatings on Titanium and Stainless Steel Implant Surfaces, E.A. MASTERS, M.A. HARRIS, R. PATEL, J.A. JENNINGS, University of Memphis, USA	Invited talk continued.	
3:30 pm	D2-2-7 Enhanced Properties Of Nano-Hydroxyapatite-Coated Magnesium Alloy, R.A. SURMENEV, National Research Tomsk Polytechnic University, Russian Federation, M.A. SURMENEVA, National Research Tomsk Polytechnic University, Russian Federation, A.I. TYURIN, G.R. Derzhavin Tambov State University, Russian Federation, T.M. MUKHAMETKAL IYEV, National Research Tomsk Polytechnic University, Russian Federation	G4-7 Optimized Coatings Obtained by Duplex Treatments Involving Ultrasonic Shot Peening, Pulsed Electron Beam and Nitriding, T. GROSDDIER, Y. SAMIH, T. CZERWIEC, University of Lorraine, France, C. DONG, Dalian University of Technology, China	
3:50 pm	D2-2-8 Evaluating the Electrochemical Corrosion and Immune Cell Activation Behaviour of Nano-crystalline Thin Films of Chromium Nitride Prepared by Reactive Magnetron Sputtering, S. UR-RAHMAN, University of the West of Scotland, UK, A. OGWU, A. CRILLY, M. MIRZAEIAN, University of the West of Scotland, UK	G4-8 Tribological Properties and Aluminum Adhesion Behavior of Femtosecond Laser Surface Treated and AlCrN Coated H13 Tool Steel for Die Casting Applications, B. WANG, N. WARTS, A.L. KORENYI-BOTH, J. SQUIER, G. BOURNE, S. MIDSON, Colorado School of Mines, USA, S. UDVARDY, North American Die Casting Association (NADCA), USA, P. RUDNICK, Plansee USA LLC, USA, M. KAUFMAN, Colorado School of Mines, USA	
4:10 pm	D2-2-9 Fabrication, Characterization, and Biocompatibility of Porous TaOxNy Films with Various O/N Ratio, J.H. HSIEH, Y.C. LIN, S.J. LIAO, Ming Chi University of Technology, Taiwan, Republic of China, C. LI, National Yang Ming University, Taiwan, Republic of China	G4-9 Biological Characteristics of Tantalum and Zinc Oxide Coated Titanium Pretreated by Plasma Electrolytic Oxidation, Y.J. LIN, National Formosa University, Taiwan, Republic of China, H.L. HUANG, China Medical University, Taiwan, Republic of China, Y.Y. CHANG, National Formosa University, Taiwan, Republic of China, M.T. TASI, Hungkuang University, Taiwan, Republic of China, J.T. HSU, China Medical University, Taiwan, Republic of China, Y.J. LIN, National Formosa University, Taiwan, Republic of China	
4:30 pm	D2-2-10 Early Bone Response to Machined, Sandblasting Acid Etching (SLA) and Novel Surface-functionalization (SLAffinity) Titanium Implants: Biomechanical Analysis and Histological Evaluation in Pigs, H.Y. CHENG, H.J. CHIANG, H.J. HSU, K.L. OU, Taipei Medical University, Taiwan, Republic of China	G4-10 Multilayered Coatings of TiB ₂ /TiC on Medium Carbon Steels via Dual Process: CAPVD and CRTD-Bor, C. YELKARASI, G. KARTAL SIRELI, S. TIMUR, M. URGUN, Istanbul Technical University, Turkey	
<p>Hysitron: Focused Topic Session “Advancements in State-of-the-Art Nanomechanical and Nanotribological Characterization” 5:30-6:30 pm Town & Country Room</p>		<p>Welcome Mixer 6:30-8:00 pm Atlas Foyer</p>	

Tuesday Morning, April 26, 2016

	<p>Coatings for Use at High Temperatures Room: Royal Palm 4-6 - Session A2-2</p> <p>Thermal and Environmental Barrier Coatings Moderators: Kang Lee, Chosun University, Republic of Korea, Prabhakar Mohan, Solar Turbines, USA</p>	<p>Hard Coatings and Vapor Deposition Technology Room: Golden West - Session B1-3</p> <p>PVD Coatings and Technologies Moderators: Alpina Ranade, GE Aviation, USA, Joerg Vetter, Oerlikon Balzers Coating Germany GmbH, Germany, Jyh-Wei Lee, Ming Chi University of Technology, Taiwan, Republic of China</p>
8:00 am	<p>A2-2-1 Silver Coated Fabrics to Prevent Thermal Detection, J. DING, DST Group, Australia, L. LIN, Deakin University, Australia</p>	<p>B1-3-1 Invited Design and Synthesis of Catalytically Active Nanocomposite Coatings: Towards a New Paradigm Shift in Tribological Applications, A. ERDEMIR, O. ERYILMAZ, G. RAMIREZ, Argonne National Laboratory, USA</p>
8:20 am	<p>A2-2-2 Behavior of Chromium Barrier Interconnector Coatings for Steam Electrolysis under Pressure Exposed to Water Vapor and Pure Oxygen, V. KOLARIK, M. JUEZ LORENZO, V. KUCHENREUTHER-HUMMEL, Fraunhofer ICT, Germany, M. POTTSCHKE, D. SCHIMANKE, sunfire GmbH, Germany</p>	<p>Invited talk continued.</p>
8:40 am	<p>A2-2-3 Influence of Embedded MoSi₂ Particles on Microstructure and Heat Transfer in Dense Yttria-stabilised Zirconia, J. KULCZYK-MALECKA, X. ZHANG, J. CARR, The University of Manchester, UK, A. CARABAT, W.G. SLOOF, S. VAN DER ZWAAG, Delft University of Technology, Netherlands, F. CERNUSCHI, RSE SpA – Ricerca sul Sistema Energetico, Italy, F. NOZAHIC, D. MONCEAU, C. ESTOURNÈS, Université de Toulouse, Institut Carnot CIRIMAT, France, P. WITHERS, P. XIAO, The University of Manchester, UK</p>	<p>B1-3-3 Design and Preparation of Superhard Multilayered Carbon Based Coatings with Outstanding Mechanical Properties, R. BERTRAM, M. NIEHER, M. HARTWIG, D. HALDAN, Hochschule Mittweida, Germany</p>
9:00 am	<p>A2-2-4 Silica Depletion of Yttrium Silicates in High-Temperature High-Velocity Water Vapor, R. GOLDEN, E. OPILA, University of Virginia, USA</p>	<p>B1-3-4 c- BN-Based BN Thin Films Synthesis And Investigating The Structural-Mechanical-Tribological Properties, I. EFEGLU, Y. TOTIK, Ataturk University, Turkey, A. KELES, Ataturk University, Turkey, K. ERSOY, FNSS Savunma Sistemleri A.Ş., Turkey, G. DURKAYA, Atılım University, Turkey</p>
9:20 am	<p>A2-2-5 Invited Synthesis and Related Properties of Low K TBCs with Hollow Alumina Particles, F. PEDRAZA, G. BOISSONNET, B. FERNANDEZ, University of La Rochelle, France, B. BOUCHAUD, GE Aviation Czech, Czech Republic, R. PODOR, CEA Marcoule, France</p>	<p>B1-3-5 Electrical Properties of Carbon Film with Top Surface Graphene Nanocrystallite Induced by Low Energy Electron Irradiation, C. WANG, C. CHEN, D.F. DIAO, Shenzhen University, China</p>
9:40 am	<p>Invited talk continued.</p>	<p>B1-3-6 Friction and Wear Characteristics of Me-DLC Coatings Under Different Tribo-Test Conditions, A. KELEŞ, I. EFEGLU, Ataturk University, Turkey, Y. TOTIK, Ataturk University, Turkey, H. ÇICEK, Erzurum Technical University, Turkey, E.E. SUKUROGLU, Gumushane University, Turkey, KV. EZIRMIK, Ataturk University, Turkey</p>
10:00 am	<p>A2-2-7 Progress In Making Higher Temperature Thermal Barrier Coatings Using The Solution Plasma Spray Process, M. GELL, E. JORDAN, J. ROTH, R. KUMAR, University of Connecticut, USA, B. NAIR, C. JIANG, Solution Spray Technologies</p>	
10:20 am	<p>A2-2-8 Microstructure Design for Blended Feedstock and its Thermal Durability in Lanthanum Zirconate Based Thermal Barrier Coatings, D.W. SONG, U.Y. PAIK, Hanyang University, Republic of Korea, J. ZHANG, Indian University-Purdue University, USA, Z. LU, J.H. LEE, Y.G. JUNG, Changwon National University, Republic of Korea</p>	
10:40 am	<p>A2-2-9 Effects of Powder Mixture Condition on the Microstructure and Phase Forming Behavior of Zirconate, Y.S. OH, Korea Institute of Ceramic Engineering & Technology, Republic of Korea, S.A. CHOI, J.M. CHAE, Y.S. HAN, S.W. KIM, S.M. LEE, H.T. KIM, Korea Institute of Ceramic Engineering & Technology, Korea, J.K. AHN, T.H. KIM, Hanwha Techwin, Korea, D.H. KIM, Agency for Defense Development, Korea</p>	
11:00 am		
11:20 am		
11:40 am		
<p>Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>		

Tuesday Morning, April 26, 2016

	<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B7 Computational Design and Experimental Development of Functional Thin Films Moderators: Ferenc Tasnadi, Linköping University, IFM, Sweden, Paul Mayrhofer, TU Wien, Austria</p>	<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C5-3 Thin Films for Active Devices Moderators: Marco Cremona, PUC-Rio, Brazil, Vanya Darakchieva, Linköping University, IFM, Sweden</p>
8:00 am	<p>B7-1 Molecular Simulations of TiN/TiN(001) Growth, D. EDSTRÖM, D.G. SANGIOVANNI, L. HULTMAN, Thin Film Physics Division, IFM, Linköping University, Sweden, I. PETROV, J. GREENE, University of Illinois at Urbana-Champaign, Usa, V. CHIRITA, Thin Film Physics Division, IFM, Linköping University, Sweden</p>	<p>C5-3-1 Resistive Switching Mechanism of Self-protective Compliance Current Characteristic on ITO/CuTe/TiN Conductive-Bridging RAM, c.-c. SHIH, T.-M. TSAI, T.-C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China</p>
8:20 am	<p>B7-2 High-Temperature Evolution of the 3D-Microstructure of Ti_(1-x)Al_xN, J. ULLBRAND, F. TASNADI, M. ODÉN, IFM Linköpings Universitet, Sweden</p>	<p>C5-3-2 Temperature and Humidity Dependent Mechanical Behavior of Ultra-low k Dielectric Materials, A. QIU, D. VODNICK, Hysitron, Inc., USA</p>
8:40 am	<p>B7-3 Nitrogen Vacancies – a Key Factor in Synthesis of c-Mo–Al–N Hard Coatings, F.F. KLIMASHIN, H. EUCHNER, P. MAYRHOFFER, TU Wien, Austria</p>	<p>C5-3-3 Effect Of Oxygen Partial Pressure on Deep-Level Defect Distribution in Sputtered ZnO Thin-Film Transistors, J.H. PARK, Y.S. RIM, C. LI, M.T. HA, H.S. KIM, M. GOORSKY, D. STREIT, University of California, Los Angeles, USA</p>
9:00 am	<p>B7-4 Vacancies as the Key to Excellent Properties Within Mo–Cr–N, P. MAYRHOFFER, F.F. KLIMASHIN, N. KOUTNA, H. EUCHNER, TU Wien, Austria, D. HOLEC, Montanuniversität Leoben, Austria</p>	<p>C5-3-4 Characteristics of Hafnium Oxide Resistance Random Access Memory with Different Resetting Cut Voltage, Y.T. SU, T.-C. CHANG, T.-M. TSAI, K.C. CHANG, H.L. CHEN, J.C. YANG, National Sun Yat-Sen University, Taiwan, Republic of China, S.M. SZE, Stanford University, USA</p>
9:20 am		<p>C5-3-5 Conduction Mechanism in Resistance Random Access Memory with Transparent Electrode under illumination, C.H. PAN, T.-M. TSAI, T.-C. CHANG, K.C. CHANG, P.H. CHEN, National Sun Yat-Sen University, Taiwan, Republic of China, S.M. SZE, Stanford University, USA</p>
9:40 am		<p>C5-3-6 Mechanism of Low Operation Voltage with ITO RRAM, C.H. LIN, National Sun Yat-Sen University, Taiwan, Republic of China, L.-Y. SHIH, National Kaohsiung Normal University, Taiwan, Republic of China, T.-C. CHANG, K.C. CHANG, T.-M. TSAI, C.H. PAN, National Sun Yat-Sen University, Taiwan, Republic of China, J.-H. CHEN, National Kaohsiung Normal University, Taiwan, Republic of China, Y.T. TSENG, National Sun Yat-Sen University, Taiwan, Republic of China, S.M. SZE, National Chiao Tung University, Taiwan, Republic of China</p>
<p>Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>		

Tuesday Morning, April 26, 2016

Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D1 Anti-Bacterial Coatings, Surface Functionalization, Surgical Instruments Moderators: Kerstin Thorwarth, Empa, Swiss Federal Laboratories for Materials Science and Technology, Sweden, Argelia Almaguer-Flores, Universidad Nacional Autonoma de Mexico, Mexico		Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D4 Smart/Intelligent Bio-Surfaces, Biosensors, Metal Ion/Particle Release, Clinical Side Effects Moderators: Jessica Jennings, University of Memphis, USA, Robin Pourzal, Rush University Medical Center, USA	
8:00 am	D1-1 Adhesion Inhibitory Effects of Thin Film Metallic Glass on Various Cancer and Platelet Cells, C.L. LI, National Taiwan University of Science and Technology, Taiwan, Republic of China, M.J. CHEN, S.H. CHANG, MacKay Memorial Hospital Tamsui Campus, Taiwan, Republic of China, J.P. CHU, National Taiwan University of Science and Technology, Taiwan, Republic of China		
8:20 am	D1-2 Effects of Oxygen Concentration on the Anti-bacteria Property of Ag ₂ O and TaON-Ag, J.H. HSIEH, C.Y. LIN, S.J. LIAO, Ming Chi University of Technology, Taiwan, Republic of China, C. LI, National Yang Ming University, Taiwan, Republic of China, Y.C. LIN, Ming Chi University of Technology, Taiwan, Republic of China		
8:40 am	D1-3 <i>Invited</i> Silver Nano Particle Containing Diamond Like Carbon: An Antimicrobial and Wear Resistant Surface Modification, S. BUCHEGGER, C. VOGEL, E. BLAUTH, M. STAMP, A. JOETTEN, C. WESTERHAUSEN, B. STRITZKER, A. WIXFORTH, University of Augsburg, Germany		
9:00 am	Invited talk continued.		
9:20 am			
9:40 am		D4-6 Influences of Niobium Contents on the Mechanical Property, Corrosion Resistance and Biocompatibility of Ternary Fe-Zr-Nb Thin Film Metallic Glasses, T.Y. LIN, J.W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, B.S. LOU, Chang Gung University, Taiwan, Republic of China	
10:00 am		D4-7 <i>Invited</i> Inkjet Printed Thin Film Technology for Wireless Biosensors, B. MORSHED, University of Memphis, USA	
10:20 am		Invited talk continued.	
10:40 am		D4-9 Production of AlN Thin Film Coatings for Biosensors, A.E. MURILLO, L. MELO-MÁXIMO, O. SALAS, J. OSEGUERA, ITESM-CEM, Mexico, D.V. MELO-MÁXIMO, Termoinnova, S.a. De C.v., Mexico, K. GARCÍA, ITESM-CCM, Mexico	
<p>Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>			

Tuesday Morning, April 26, 2016

	<p>Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E1-1 Friction, Wear, Lubrication Effects, and Modeling Moderators: Michael Chandross, Sandia National Laboratories, USA, Albano Cavaleiro, University of Coimbra, Portugal, Giovanni Ramirez, Argonne National Laboratory, USA</p>	<p>New Horizons in Coatings and Thin Films Room: Royal Palm 1-3 - Session F1-1 Nanomaterials and Nanofabrication Moderators: R. Mohan Sankaran, Case Western Reserve University, USA, Sumit Agarwal, Colorado School of Mines, USA</p>
8:00 am	<p>E1-1-1 Role of Third Bodies in Friction and Wear Behavior of Cold Sprayed Ti-TiC Composite Coatings, R. CHROMIK, S. ALIDOKHT, P. MANIMUNDA, H. MYALSKA, V. MUNAGALA, S. IMBRIGLIO, McGill University, Canada</p>	
8:20 am	<p>E1-1-2 New Ag-based Contacts for the Smart Grid: a Combinatorial Materials Science Approach, F. MAO, U. WIKLUND, T. NYBERG, Uppsala University, Angstrom Laboratory, Sweden, A. ANDERSSON, ABB AB, Corporate Research, Sweden, U. JANSSON, Uppsala University, Angstrom Laboratory, Sweden</p>	<p>F1-1-2 Effect of Dopant SB on the Optoelectronic Properties of Thermally Evaporated ZnO Nanowires, C.C. WANG, National Chung Hsing University, Taiwan, H.C. SHIH, Chinese Culture University, Taiwan</p>
8:40 am	<p>E1-1-3 Tribological Behaviour of Plasma Sprayed Zinc-based Alloy Coating onto Mild Steel, O.P. OLADIJO, Botswana International University of Science and Technology, Botswana, H. MATHABATH, A. POPOOLA, Tshwane University of Technology, South Africa, T. NTSOANE, Necs Limited, South Africa</p>	<p>F1-1-3 Carbon-based Nanomaterials for Efficient Hydrogen Adsorption and Storage, N. KOSTOGLU, Montanuniversität Leoben, Austria, Cyprus, G. CHARALAMBOPOULOU, T. STEROTIS, National Center for Scientific Research Demokritos, Greece, B. BABIC, B. MATOVIC, VINCA Institute of Nuclear Sciences, Belgrade, Serbia, I. WALTERS, Perpetuus Advanced Materials, UK, C. MITTERER, Montanuniversität Leoben, Austria, C. REBHOLZ, University of Cyprus, Cyprus</p>
9:00 am	<p>E1-1-4 Mechanical Behavior and Sliding Wear Studies on HVOF Deposited Iron Aluminide Coatings Reinforced with Titanium Carbide, M. AMIRYAN, H. ALAMDARI, C. BLAIS, Université Laval, Canada, R. SCHULZ, Hydro-Quebec Research Institute, Canada, M. GARIÉPY, Weir American Hydro, Weir Canada Inc., Canada</p>	<p>F1-1-4 Crystal Calligraphy: Direct Writing of Flexible 2D Electronic Devices with Light, M.E. MCCONNEY, N.R. GLAVIN, Air Force Research Laboratory, Materials and Manufacturing Directorate, USA, T.E. SHELTON, University of Dayton Research Institute; Air Force Research Laboratory, USA, J.G. COLBORN, University of Dayton; Air Force Research Laboratory, USA, J.J. HU, J.E. BULTMAN, University of Dayton Research Institute; Air Force Research Laboratory, USA, R.E. STEVENSON, University of Dayton; Air Force Research Laboratory, USA, M.L. JESPERSEN, University of Dayton Research Institute; Air Force Research Laboratory, USA, A.T. JUHL, M.F. DURSTOCK, Air Force Research Laboratory, Materials and Manufacturing Directorate, USA, M.K. GUPTA, University of Dayton Research Institute; Air Force Research Laboratory, USA, A. HAQUE, Penn State University, USA, A.A. VOEVODIN, Air Force Research Laboratory/University of North Texas, USA, C. MURATORE, University of Dayton; Air Force Research Laboratory, USA</p>
9:20 am	<p>E1-1-5 Tribological Studies to Analyze the Effect of Solid Lubricant Particle Size on Friction and Wear Behaviour of Hard Material, R. KUMAR, S.K. REDDY, BITS-Pilani Hyderabad Campus, India</p>	<p>F1-1-5 Amorphous Boron Nitride: A Universal, Ultra-thin Dielectric in Next Generation Nanoelectronic and Two-dimensional Material Systems, N.R. GLAVIN, Purdue University; Air Force Research Laboratory, Materials and Manufacturing Directorate, USA, C. MURATORE, University of Dayton; Air Force Research Laboratory, USA, C. GRABOWSKI, UES/Air Force Research Laboratory, Materials and Manufacturing Directorate, USA, M.F. DURSTOCK, Air Force Research Laboratory, Materials and Manufacturing Directorate, USA, T. FISHER, Purdue University, USA, A.A. VOEVODIN, University of North Texas, Materials Engineering, USA</p>
9:40 am	<p>E1-1-6 Tribological Response of Novel Laser-clad TiNiZrO₂ Coatings Sliding Against WC Counterface under Dry and Wet Conditions, B.A. OBADELE, P. OLUBAMBI, University of Johannesburg, South Africa</p>	<p>F1-1-6 Invited Microplasma Synthesis of Structured Nanomaterials, A. PEBLEY, K. MACKIE, M. GORDON, University of California Santa Barbara, USA</p>
10:00 am		Invited talk continued.
10:20 am		<p>F1-1-8 Corrosion Study of Electrophoretically Deposited Graphene Oxide Coatings on Copper Metal, M.A. RAZA, University of the Punjab, Pakistan, Z. UR REHMAN, University of Engineering and Technology, Pakistan, F.A. GHOURI, University of the Punjab, Pakistan, A. AHMAD, University of Engineering and Technology, Pakistan, R. AHMAD, CEET, University of the Punjab, Pakistan</p>
10:40 am		<p>F1-1-9 Enhancement of Sensitivity in Gas Chemiresistors based on Carbon Nanotube Surface Functionalized with Substituted Phthalocyanines, A. SHARMA, R. BEDI, A. MAHAJAN, Guru Nanak Dev University, India</p>
	<p>Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>	

Tuesday Morning, April 26, 2016

Exhibition Keynote Lecture
Room: Town & Country

11:00 am-12:00 pm

11:00 am

Exhibition Keynote Lecture

Prof. Wolfgang Diehl

Functional Coatings Produced by Plasma Processes: Technology and Recent Applications

Deputy-Director of Fraunhofer IST
Braunschweig, Germany

Thin functional coatings are the key to new and superior products in nearly all industrial branches. The most flexible and widely used technologies for the deposition of thin films are plasma processes. These technologies are the first choice for an enormous bandwidth of materials and functions to be realized. This talk will give an overview of functional coatings with recent applications and will focus on the available process technologies for thin film deposition ranging from well-established PVD processes like DC magnetron sputtering and PACVD to new and specialized technologies like atmospheric pressure plasma processes or gas flow sputtering and hot topic technologies such as highly ionized pulse plasma processes (HIPP).

Hard and Superhard Coatings. A well-established class of hard coatings, e.g. for automotive applications, mechanical engineering, or tools are *diamond like carbon coatings (DLC)* and their metal-containing derivatives. They are prepared by plasma processes such as PACVD, DC magnetron sputtering, and plasma activated evaporation. A new approach for the production of multilayer hard coatings for the *protection against erosion* under severe conditions, e.g. in aircraft engines, is the hollow cathode gas flow sputtering technique (GFS). A very promising new superhard material for tools is *cubic boron nitride (cBN)* deposited by RF magnetron sputtering. This coating material offers several advantages like very high hardness, high oxidation resistance, low affinity to iron, and very high wear resistance.

Electrical and Optical Coatings. *Transparent conductive oxides TCOs* are of major importance in photovoltaics or displays and can be deposited by reactive magnetron sputtering. A new, unique patented coat and bend process for the deposition of TCOs on position 1 is the tailored high power impulse magnetron sputtering (HiPIMS) deposition for films with defined nanocrystalline structure. After annealing and bending excellent electrical properties can be realized. For *insulation*, e.g. in thin film sensors, alumina coatings with high deposition rate and breakdown voltage exceeding 1.5 kV/ μm were realized by reactive MF sputtering and modulated pulse power plasma processes MPP. For *force and load measurements*, e.g. in adaptive systems or sensor modules carbon based films with high wear resistance and piezoresistive properties are deposited by PACVD. The application can be realized either as strain gauges on parts experiencing mechanical deformation or as direct contact in force closure. Therefore, force and load measurement without significantly modifying the dimensions of technical parts are accessible as additional information.

Photocatalytically Active Coatings. Photo induced hydrophilicity and photocatalytic decomposition of organic material can be achieved by coatings with *crystalline TiO₂*. These coatings can be deposited by plasma based processes even on temperature sensitive surfaces, for example on polycarbonate. In order to improve the activity in visible light TiO₂ can be doped with different elements.

Surface Modification. *Targeted surface functionalization or coating* can be achieved by means of atmospheric pressure plasma processes. Therefore, adhesion of coatings, inks, or glues is improved and adhesion of biomolecules can be targeted/controlled. Using microplasmas, a patterned surface modification can be created for subsequent processes like selective bonding or fully additive wet chemical metallization for RFID tags or flexible printed circuits.



**Exhibition Hall Opens Today
Grand Hall
12:00-7:00 pm**

Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm

Tuesday Afternoon, April 26, 2016

	<p>Coatings for Use at High Temperatures Room: Royal Palm 4-6 - Session A2-1</p> <p>Thermal and Environmental Barrier Coatings Moderators: Kang Lee, Chosun University, Republic of Korea, Prabhakar Mohan, Solar Turbines, USA</p>	<p>Hard Coatings and Vapor Deposition Technology Room: Golden West - Session B1-4</p> <p>PVD Coatings and Technologies Moderators: Alpina Ranade, GE Aviation, USA, Joerg Vetter, Oerlikon Balzers Coating Germany GmbH, Germany, Jyh-Wei Lee, Ming Chi University of Technology, Taiwan, Republic of China</p>
1:30 pm		
1:50 pm	<p>A2-1-2 Image-Based Modelling of TBC Thermal and Mechanical Properties using Sub-Micron Resolution X-ray Computed Tomography, x. ZHANG, J. CARR, E. BOUSSER, The University of Manchester, UK, A. MATTHEWS, The University of Sheffield, UK, P. XIAO, P. WITHERS, The University of Manchester, UK</p>	<p>B1-4-2 Amorphous Zr/Cu-Based Thin-Film Alloys Prepared by Magnetron Co-Sputtering, P. ZEMAN, M. ZITEK, S. ZUZJAKOVA, R. CERSTVY, S. HAVIAR, University of West Bohemia, Czech Republic</p>
2:10 pm	<p>A2-1-3 The Effects of Temperature and Substrate Curvature on Residual Stress in Alumina Scales Beneath APS TBCs, M. LANCE, J. HAYNES, B. PINT, Oak Ridge National Laboratory, USA</p>	<p>B1-4-3 Magnetron Sputtering Process for Homogeneous Inner Coating of Narrow Cylinders, G. KAUNE, D. HAGEDORN, F. LÖFFLER, Physikalisch-Technische Bundesanstalt (PTB), Germany</p>
2:30 pm	<p>A2-1-4 Thermal Behavior and Mechanical Properties of Y₂SiO₅ Coatings after Isothermal Heat Treatment, B.K. JANG, National Institute for Materials Science, Japan, F.J. FENG, K.S. LEE, Kookmin University, Republic of Korea, E. GARCIA, Institute of Ceramics and Glass, Spain, S.W. KIM, Y.S. OH, Korea Institute of Ceramic Engineering & Technology, Republic of Korea, H.T. KIM, Korea Institute of Ceramic Engineering and Technology, Republic of Korea</p>	<p>B1-4-4 Invited Potential of Rotatable Sputtering, w. DE BOSSCHER, J. OBERSTE-BERGHAAUS, G. GOBIN, Soleras Advanced Coatings, Belgium, A. DAS, Soleras Advanced Coatings, USA, I. VAN DE PUTTE, R. VAN NUFFEL, Soleras Advanced Coatings, Belgium</p>
2:50 pm	<p>A2-1-5 Experimental Measurements of Thermal Barrier Coating Interfacial Fracture Toughness as a Function of Mode-Mix, S.J. LOCKYER-BRATTON, J.A. EL-AWADY, K.J. HEMKER, Johns Hopkins University, USA</p>	Invited talk continued.
3:10 pm	<p>A2-1-6 Invited Internal Stresses in Thermal and Environmental Barrier Coatings, K.T. FABER, California Institute of Technology, USA</p>	<p>B1-4-6 Influencing the Arc and the Mechanical Properties of the Weld Metal of GMA-Welding Process by Thin Film Coatings on Wire-Electrode Surfaces, K. TREUTLER, V. WESLING, TU Clausthal, Germany, A. SCHRAM, TU Clausthal, Germany</p>
3:30 pm	Invited talk continued.	<p>B1-4-7 Structure and Mechanical Properties of Nitrogen-containing Austenitic Manganese Coatings Deposited by Sputter PVD, L. HOPKINS, L. LIU, X. TAO, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK</p>
3:50 pm	<p>A2-1-8 Yttria-rich TBCs as: Candidates for a CMAS Resistant Top Coat, J. GOMEZ, C. RAMANA, The University of Texas at El Paso, USA, R. NARAPARAJU, U. SCHULZ, DLR Institute of Materials Research, Germany</p>	<p>B1-4-8 The Densities and Corrosion Barrier Performance of Tantalum and Titanium Thin Films Deposited by DCMS and HiPIMS, J. MATTHEY, P. JEANNERET, O. OKSANA BANAKH, H. WHITLOW, F. BISOFFI, E. GUIBERT, C. CSEFALVAY, Haute Ecole Arc Ingenierie, Switzerland</p>
4:10 pm	<p>A2-1-9 The Behaviour of TBC System with Al₂O₃ Sol-Gel Intermediate Layer under Thermal Cycling, H.A. ABDELDAIM, Ain Shams University, Egypt</p>	
	<p>Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm</p>	<p>Exhibition Reception Grand Hall 5:30-7:00 pm</p>

Tuesday Afternoon, April 26, 2016

<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B5-1</p> <p>Hard and Multifunctional Nano-Structured Coatings Moderators: Jiri Capek, University of West Bohemia, Czech Republic, Robert Franz, Montanuniversität Leoben, Austria</p>		<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C3</p> <p>Transparent Conducting Oxides and Related Inorganic and Organic Materials Moderators: Junichi Nomoto, Kochi University of Technology, Japan, Martin Allen, University of Canterbury, New Zealand</p>	
1:30 pm			
1:50 pm		C3-2 Invited New Insights into Ion Implantation in ZnO, J. WONG-LEUNG, K. CHAN, Australian National University, Australia, L. VINES, University of Oslo, Norway, C. TON-THAT, S. CHOI, University of Technology Sydney, Australia, M. PHILLIPS, University of Technology, Sydney, Australia, L. LI, Australian National University, Australia, B. SVENSSON, University of Oslo, Norway, C. JAGADISH, Australian National University, Australia	
2:10 pm	B5-1-3 Invited Erosion and Self-Healing of Micro-architected Plasma-Facing Materials for Space Electric Propulsion, N. GHONIEM, University of California Los Angeles, USA	Invited talk continued.	
2:30 pm	Invited talk continued.	C3-4 TCO Grids Development for Semi-Transparent Thin Film Solar Cells, c. DUCROS, F. EMIEUX, A. PEREIRA, CEA Grenoble, France	
2:50 pm	B5-1-5 Toughness-Enhanced Coatings for Demanding High-Performance Tools, M. MORSTEIN, T. SCHAR, G. LAHTZ, A. LUMKEMANN, PLATIT AG, Advanced Coating Systems, Switzerland, B. TORP, PLATIT, Inc., USA	C3-5 Microstructures and Optoelectronic Properties of Nickel Oxide Films Deposited by Reactive Magnetron Sputtering at Various Working Pressures of Pure Oxygen Environment, S.C. CHEN, C.F. LU, Ming Chi University of Technology, Taiwan, Republic of China, C.K. WEN, National Taiwan University, Taiwan, Republic of China, S.W. HSU, Ming Chi University of Technology, Taiwan, Republic of China, T.H. CHUANG, National Taiwan University, Taiwan, Republic of China	
3:10 pm	B5-1-6 Ti4AlN3 Formation by Solid State Reaction of Substoichiometric Solid Solution (Ti0.52Al0.48)N0.45 Thin Films, I.C. SCHRAMM, Linköping University, IFM, Sweden, M.P. JOHANSSON JOESSAR, Seco Tools AB, Fagersta, Sweden, P. EKLUND, Linköping University, IFM, Thin Film Physics Division, Sweden, F. MÜCKLICH, Saarland University, Germany, M. ODÉN, Linköping University, IFM, Nanostructured Materials, Sweden	C3-6 Control of Carrier Transport in Polycrystalline Ga-doped ZnO Transparent Conductive Films, T. YAMAMOTO, H. MAKINO, J. NOMOTO, Kochi University of Technology, Japan	
3:30 pm	B5-1-7 Investigation and Optimization of the Tribo-mechanical Properties of CrAlCN Coatings using Design of Experiments, W. TILLMANN, D. STANGIER, TU Dortmund University, Germany	C3-7 Reactive Magnetron Sputtering of Zn-Sn-O Amorphous Oxide Semiconductors, T. KUBART, Uppsala University, Angstrom Laboratory, Sweden, L. PRUSAKOVA, University of West Bohemia, Czech Republic, A. ALJAZ, Uppsala University, Angstrom Laboratory, Sweden	
3:50 pm		C3-8 Comparative Study of Sintered and Plasma Sprayed Indium Tin Oxide Coatings Deposited Using Full Face Erosion Planar and Rotatable Cathodes, F. PAPA, V. BELLIDO-GONZALEZ, A. AZZOPARDI, Gencoa Ltd., USA	
<p>Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm</p>		<p>Exhibition Reception Grand Hall 5:30-7:00 pm</p>	

Tuesday Afternoon, April 26, 2016

Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D3 Bio-Corrosion, Bio-Tribo-Corrosion and Bio-Tribology Moderators: Jean Geringer, Mines Saint Etienne, France, Anna Igual Muñoz, Universitat Politècnica de València UPV, Spain		Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E1-2 Friction, Wear, Lubrication Effects, and Modeling Moderators: Michael Chandross, Sandia National Laboratories, USA, Albano Cavaleiro, University of Coimbra, Portugal, Giovanni Ramirez, Argonne National Laboratory, USA	
1:30 pm			
1:50 pm	D3-2 Invited Challenges in Evaluation of Wear, Corrosion and Tribocorrosion Behavior of Orthopedic Implants in <i>invitro</i> Conditions. G. MANIVASAGAM , VIT University, India	E1-2-2 Influence of the Chemical Surface Structure on the Nanoscale Friction of Nitrided and Post-oxidized Steel and Iron. C.M. MENEZES , N. BOGONI JR. , F.B. COSTI , M. FREISLEBEN , UCS - Caxias do Sul University, Brazil, J. BARRIRERO , H. ABOULFADL , F. SOLDERA , F. MÜCKLICH , Saarland University, Germany, C.A. FIGUEROA , UCS - Caxias do Sul University, Brazil	
2:10 pm	Invited talk continued.	E1-2-3 Impact-Fretting Wear Response of a Nitrided 316L SS/304L SS Interface under Dry and Lithium/Bore Solution for Equivalent PWR Control Rods Sliding Conditions. E. MARC , S. FOUVRY , Ecole centrale de Lyon, LTDS, France, C. PHALIPPOU , CEA Saclay, DEN, DANS, DM2S, SEMT, DYN, France, H. MAITOURNAM , ENSTA, France	
2:30 pm	D3-4 Fretting-corrosion Behavior of Hip Implant Modular Juncions: Effects of Machining Lines. D. ROYHMAN , Rush University Medical Center, USA, B. PATEL , University of Illinois at Chicago, Rockford, USA, M. WIMMER , J. JACOBS , N. HALLAB , M. MATHEW , Rush University Medical Center, USA	E1-2-4 Insights into the Mechanisms Unraveling Low Friction/Wear in Diamond – Metal Sliding Contacts. P. STOYANOV , Pratt & Whitney, USA, P.A. ROMERO , M. MOSELER , M. DIENWIEBEL , Fraunhofer Institute for Mechanics of Materials IWM, Germany	
2:50 pm	D3-5 Process Parameter Interaction Effect on the Evolving Properties of Laser Metal Deposited Titanium for Biomedical Applications. E. NYONI , E. AKINLABI , University of Johannesburg, South Africa	E1-2-5 In situ Micro Tribology Experiments on DLC Coated and Uncoated Steel Samples. M. GEE , J. NUNN , K. MINGARD , National Physical Laboratory, UK, K. HOLMBERG , VTT Technical Research Centre of Finland, Finland, G. STACHOWIAK , Curtin University, Australia, K.Y. LI , Hong Kong City University, Hong Kong, C. GACHOT , Saarland University, Germany	
3:10 pm	D3-6 Novel Approach of Tribological Improvement on MoM Hip Implant by Carbon-Derived Carbon (CDC). E. LAU , K. CHENG , M. MCNALLAN , University of Illinois at Chicago, USA, M. MATHEW , Rush University Medical Center, USA	E1-2-6 Invited Low Friction Surfaces: 'The-Deck-of-Cards' Theory. T. SCHARF , University of North Texas, USA	
3:30 pm	D3-7 The Effect of Adding Ag Nanoparticles on DLC Films on their Tribocorrosion Behavior for Prosthesis Applications. P.A. RADI , S.F. FISSMER , Instituto Tecnológico de Aeronáutica, ITA / CTA, Brazil, P.M. LEITE , Universidade do Vale do Paraíba, Brazil, L. FERREIRA , Instituto Tecnológico de Aeronáutica, ITA / CTA, Brazil, M. MASSI , Technological Institute of Aeronautics (ITA), Brazil, V. TRAVA-AIROLDI , Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, L. VIEIRA , Universidade do Vale do Paraíba, Brazil	Invited talk continued.	
3:50 pm	D3-8 Tribological Properties of a-C:H:SiO _x Coatings in Ambient and Simulated Body Fluids Environment. D. BATORY , Lodz University of Technology, Poland	E1-2-8 The Effect of Heat Treatment Routes on the Retained Austenite and Tribomechanical Properties of Carburized AISI 8620 Steel. s. roy , s. SUNDARARAJAN , Iowa State University, USA	
4:10 pm	D3-9 Low Temperature Carburised Austenitic Stainless Steel for Metal-on-metal Prosthetic Applications. S. MANISCALCO , M. CALIGARI CONTI , J. CASSAR , C. GRIMA , University of Malta, Malta, A. KARL , Bodycote Hardiff GmbH, Landsberg, Germany, P. SCHEMBRI WISMAYER , B. MALLIA , J. BUHAGIAR , University of Malta, Malta	E1-2-9 Aluminum Adhesion Buildup on PVD Coated Work Rolls during Hot Rolling. B. LI , O. GALI , University of Windsor, Canada, M. SHAFIEI , J. HUNTER , Novelis Global Research and Technology Center, USA, R. RIAHI , University of Windsor, Canada	
4:30 pm	D3-10 Tribocorrosion Behavior of Biofunctional Titanium Oxide Films Produced by Micro-Arc Oxidation: Synergism and Mechanisms. V.A. BARAO , I.S. MARQUES , M.F. MESQUITA , University of Campinas (UNICAMP), Piracicaba Dental School, Brazil, M. MATHEW , Rush University Medical Center, USA, C. SUKOTJO , University of Illinois at Chicago, USA, N.C. CRUZ , University of State of Sao Paulo (UNESP), Brazil, M.F. ALFARO , University of Illinois at Chicago, USA	E1-2-10 The Effect of Shot Peening on the Scuffing Resistance of Cu-Ni Austempered Ductile Iron. A. ZAMMIT , S. ABELA , University of Malta, Malta, L. WAGNER , M. MHAEDE , Clausthal University of Technology, Germany, M. GRECH , University of Malta, Malta	
	Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm	Exhibition Reception Grand Hall 5:30-7:00 pm	

Tuesday Afternoon, April 26, 2016

New Horizons in Coatings and Thin Films
Room: Royal Palm 1-3 - Session F1-2

Nanomaterials and Nanofabrication

Moderators: R. Mohan Sankaran, Case Western Reserve University, USA, Sumit Agarwal, Colorado School of Mines, USA

1:30 pm		
1:50 pm		
2:10 pm	F1-2-3 Invited Plasma Synthesized Si Nanoparticles for Energy Storage and Conversion, L. MANGOLINI, University of California – Riverside, USA	
2:30 pm	Invited talk continued.	
2:50 pm	F1-2-5 Development of Doped Amorphous Carbon Nanocoatings for Easy-to-clean and Antibacterial Textile Application, R. TOLOUEI, L. LEVESQUE, S. TURGEON, P. CHEVALLIER, D. MANTOVANI, Laval University, Canada	
3:10 pm	F1-2-6 Sputter Deposited Solar Selective Absorber Coatings, H.-Y. CHENG, C.-M. HSUEH, Y. TZENG, J.-M. TING, National Cheng Kung University, Taiwan, Republic of China	
3:30 pm	F1-2-7 An Experimental Investigation of the Effects of Nanoparticles on the Mechanical Properties of Epoxy Coatings, M. BOUMAIZA, King Saud University, Saudi Arabia	
3:50 pm	F1-2-8 Tin Particles Made by Plasma-Induced Dewetting, H.J. CHOE, S.-H. KWON, C. CHOE, J.-J. LEE, Seoul National University, Republic of Korea	
4:10 pm	F1-2-9 Metallic Zn Nanospheres, Semiconducting ZnO Nanoballoons, and Concentric Metal-semiconductor Zn/ZnO Nanospheres: Study of the Photoluminescence Mechanisms, R.A. PATIL, National Dong Hwa University, Taiwan, Republic of China, C.-H. HO, National Taiwan University of Science and Technology, Taiwan, Republic of China, Y.-R. MA, National Dong Hwa University, Taiwan, Republic of China	
	Exhibition Hall Opens Today Grand Hall 12:00-7:00 pm	Exhibition Reception Grand Hall 5:30-7:00 pm

Wednesday Morning, April 27, 2016

	Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B5-2 Hard and Multifunctional Nano-Structured Coatings Moderators: Jiri Capek, University of West Bohemia, Czech Republic, Robert Franz, Montanuniversität Leoben, Austria	Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B6 Coating Design and Architectures Moderators: Nina Schalk, Montanuniversität Leoben, Austria, Sven Ulrich, Karlsruhe Institute of Technology (KIT), Germany
8:00 am	B5-2-1 Designer Nanocomposite Coatings for Exceptional Wear Performance in Methane Environment, G. RAMIREZ, O. ERYILMAZ, A. ERDEMIR, Energy Systems Division, Argonne National Laboratory, USA	
8:20 am	B5-2-2 Influence of the Oxygen Content on the Properties of Ta1-xOx Bioactive Coatings: an Experimental and Ab-Initio Study, C.F. ALMEIDA ALVES, L. MARQUES, University of Minho, Portugal, F. PAUMIER, T. GIRARDEAU, Institut P ² , – Université de Poitiers, France, D. SCHNEIDER, Fraunhofer Institut für Werkstoffphysik und Schichttechnologie, Germany, A. CAVALEIRO, University of Coimbra, Portugal, S. CARVALHO, University of Minho, Portugal	
8:40 am	B5-2-3 Invited Functionality of Nano-structures in Hard Diamond Like Carbon Coatings, G.J. VAN DER KOLK, Ionbond Netherlands b.v., Netherlands, I. DOLCHINKOV, IHI Ionbond AG, Switzerland	
9:00 am	Invited talk continued.	
9:20 am	B5-2-5 The Influence of the Metal Phase on the Reduction of the Tensile or Compressive Stresses in Super-hard Nanostructured Ceramic Coatings, A.O. VOLKHONSKII, I.V. BLINKOV, V.S. SERGEVNIN, I.V. SCSHETININ, N. TABACHKOVA, M.V. GORSHENKOV, National University of Science and Technology "MISIS", Russian Federation	
9:40 am		
10:00 am		B6-7 Designing Thermal Stability of TiAlN by Variation of Nitrogen Stoichiometry, M. TO BABEN, RWTH Aachen University, GTT Technologies, Germany, M. HANS, RWTH Aachen University, Germany, D. PRIMETZHOFER, Uppsala University, Sweden, S. EVERTZ, D. HOLZAPFEL, J.M. SCHNEIDER, RWTH Aachen University, Germany
10:20 am		B6-8 Interface Controlled Properties Of Nanolayered Thin Films, M. BARTOSIK, H. RIEDL, C. KOLLER, P. MAYRHOFER, TU Wien, Austria
10:40 am		B6-9 Invited Quantum Mechanically Guided Materials Design Approaches for Industrial Coating Applications, J.M. SCHNEIDER, RWTH Aachen University, Germany
11:00 am		Invited talk continued.
11:20 am		B6-11 Deductive Design of Improved Cubic Self-Organized Nano-Lamellar AlTiN Coating Using Scanning X-Ray Nanodiffraction and Micromechanical Testing, J. TODT, J. ZALESK, Montanuniversität Leoben, Austria, R. PITONAK, A. KÖPF, R. WEIßENBACHER, Böhlerit GmbH & Co. KG, Austria, R. DANIEL, J. KECKES, Montanuniversität Leoben, Austria
	Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm	

Wednesday Morning, April 27, 2016

<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C4-1</p> <p>Thin Films for Energy Related Applications Moderators: Martijn Kemerink, Linköping University, Sweden, James Partridge, RMIT University, Australia</p>		<p>Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E1-3 Friction, Wear, Lubrication Effects, and Modeling Moderators: Michael Chandross, Sandia National Laboratories, USA, Albano Cavaleiro, University of Coimbra, Portugal, Giovanni Ramirez, Argonne National Laboratory, USA</p>
8:00 am		<p>E1-3-1 Comparison of the Tribological Performance of W-S Coatings Alloyed with C or N in Contact with Rubber, A. MANAIA, Instituto Pedro Nunes, Portugal, T. POLCAR, University of Southampton, UK, A. CAVALEIRO, M. EVARISTO, University of Coimbra, Portugal</p>
8:20 am	<p>C4-1-2 Multi-layer Graphene/ SnO₂ Nanocomposites as Negative Electrode Materials for Lithium-ion Batteries, c.c. HOU, National Cheng Kung University, Taiwan, Republic of China, C.C. CHANG, National University of Tainan, Taiwan, Republic of China, S.C. WENG, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China</p>	<p>E1-3-2 Tribological Study of NbN_x, NbSiN_x, and TaSiN_x Thin Films at Room Temperature (RT), 150, 300 and 450 °C, E. GARCIA, Instituto de Investigaciones en Materiales - UNAM, Mexico City, Mexico, M. FIGUEROA, Instituto Politecnico Nacional, Mexico, G. RAMIREZ, Argonne National Laboratory, USA, E. CAMPS, Instituto Nacional de Investigaciones Nucleares, Mexico, S.E. RODIL, S. MUHL, Instituto de Investigaciones en Materiales - UNAM, Mexico, T. POLCAR, Czech Technical University in Prague, UK, R.Y. SATO BERRU, Centro de Ciencias Aplicadas y Desarrollo Tecnológico, UNAM, Mexico, J. CRUZ, Instituto de Investigaciones en Materiales, UNAM, Mexico, O. DE LUCIO, Instituto de Física, UNAM, Mexico</p>
8:40 am	<p>C4-1-3 Improving of BiVO₄ Electrodes for Water Splitting Through Chemical and Electrochemical Treatments, J. PÉREZ ALVAREZ, A. FONSECA GARCÍA, O. DEPABLOS-RIVERA, R. MIRABAL-ROJAS, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico, S. MOULI THALLURI, Politecnico di Torino, Italy, R. BASURTO SANCHEZ, Instituto Nacional de Investigaciones Nucleares, Mexico, S.E. RODIL POSADA, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico</p>	<p>E1-3-3 Self-Lubricant TiSi(V)N Coatings for High Temperature Applications Deposited by HiPIMS in DOMS Mode, F. FERNANDES, M.A. MEKICHA, J.C. OLIVEIRA, University of Coimbra, Portugal, T. POLCAR, University of Southampton, UK, A. CAVALEIRO, University of Coimbra, Portugal</p>
9:00 am	<p>C4-1-4 Effect of Doping on the Structure and Conductivity of Bismuth Oxide Coatings, C.L. GOMEZ, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México, Mexico, S.E. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico</p>	<p>E1-3-4 A New Insight into Hard Low Friction Coatings Intended for Applications in Wide Temperature Range, D.V. SHTANSKY, A.V. BONDAREV, P. KIRYUKHANTSEV-KORNEEV, D.A. SIDORENKO, National University of Science and Technology "MISIS", Russian Federation</p>
9:20 am	<p>C4-1-5 Chromium Nitride Thin Films: Synthesis, Characterization, and Optimization, M.A. GHARAVI, S. KERDSONGPANYA, S. SCHMIDT, F. ERIKSSON, C. PALLIER, P. EKLUND, Linköping University, IFM, Thin Film Physics Division, Sweden</p>	<p>E1-3-5 Invited Towards Frictionless Coating – From Simulation to Industrial Application, T. POLCAR, University of Southampton, UK</p>
9:40 am	<p>C4-1-6 ScN_x Thin Films and Alloys for Potential Thermoelectric Applications, N. TURESON, A. LE FEBVRIER, S. KERDSONGPANYA, P. EKLUND, Linköping University, IFM, Thin Film Physics Division, Sweden</p>	<p>Invited talk continued.</p>
10:00 am	<p>C4-1-7 Invited Organic Thin Films for Thermoelectrics, M. CHABINYC, University of California, Santa Barbara, USA</p>	<p>E1-3-7 Wear and Friction Behavior of PET and PTFE Thermoplastic Semi-Crystalline Polymers, s. TOUMI, M. SALVIA, S. FOUVRY, Ecole centrale de Lyon, LTDS, France</p>
10:20 am	<p>Invited talk continued.</p>	<p>E1-3-8 Ag-Ta-O and Cu-Ta-O Ternaries as High Temperature Solid Lubricants, S.M. AOUADI, J. GU, D. STEINER, University of North Texas, USA, E.R. JOHNSON, National Research Council, Canada, H. GAO, A. MARTINI, University of California Merced, USA</p>
10:40 am		<p>E1-3-9 Toward High-temperature Wear Resistance Enhancement in Self-lubricating CrAlN/VN Multilayer Coatings, Y. WANG, National Tsing Hua University, Taiwan, J.W. LEE, Ming Chi University of Technology, Taiwan, J.G. DUH, National Tsing Hua University, Taiwan</p>
11:00 am		<p>E1-3-10 Tribological Behavior of PVD Coated Cemented Carbide Against Superduplex Stainless Steel, J. PAIVA JUNIOR, Centro Universitário Católica de Santa Catarina, Brazil, F. LACERDA AMORIM, R. DIEGO TORRES, Pontificia Universidade Católica do Paraná, Brazil, S. VELDHIJS, McMaster University, Canada</p>
11:20 am		<p>E1-3-11 Synthesis and Tribological Studies of Titanium Vanadium Nitride (TiVN) Coatings Deposited by Reactive Magnetron Sputtering, v. CHAUHAN, Chandubhai S. Patel Institute of Technology (CSPIT), Charotar University of Science and Technology (CHARUSAT), India, S. RAWAL, Charotar University of Science and Technology, India</p>
<p>Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>		

Wednesday Morning, April 27, 2016

	<p>New Horizons in Coatings and Thin Films Room: Royal Palm 1-3 - Session F4-1 Functional Oxide and Oxynitride Coatings Moderators: Jürgen Ramm, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, Michael Stueber, Karlsruhe Institute of Technology (KIT), Germany</p>	<p>Surface Engineering - Applied Research and Industrial Applications Room: Golden West - Session G1 Advances in Industrial PVD, CVD and PCVD Processes and Equipment Moderators: Mats Ahlgren, Sandvik Coromant, Sweden, Ladislav Bardos, Uppsala University, Sweden, David Christie, Advanced Energy Industries, Inc., USA</p>
8:00 am	<p>F4-1-1 Invited PVD Nitride/Oxide Multilayers as Protective Coatings in Milling, J. KOHLSCHÉEN, C. BAREISS, Kennametal, Germany</p>	<p>G1-1 Invited Open Drift Path Magnetron Sputtering: Theory and Experiment, D. GLOCKER, J. BUSCH, M. ROMACH, Isoflux, Inc., USA</p>
8:20 am	Invited talk continued.	Invited talk continued.
8:40 am	<p>F4-1-3 Influence of Varying Nitrogen Partial Pressures on Microstructure, Mechanical and Optical Properties of Sputtered TiAlON Coatings, N. SCHALK, T.J.F. SIMONET FOTSO, Montanuniversität Leoben, Austria, G. JAKOPIC, A. FIAN, JOANNEUM RESEARCH Forschungsgesellschaft mbH, Austria, V.L. TERZIYSKA, R. DANIEL, C. MITTERER, Montanuniversität Leoben, Austria</p>	<p>G1-3 Pulsed - DC - Advances In Reactive Sputtering, P. LESIUK, W. GAJEWSKI, P. OZIMEK, TRUMPF Huettinger Sp. z o. o., Poland</p>
9:00 am	<p>F4-1-4 The Influence of Oxygen on the Phase Formation at the Al₇₀Cr₃₀ Target Surface and the Synthesized Coatings in Cathodic Arc Evaporation, M. DÖBELI, ETH Zurich, Switzerland, A. DOMMANN, X. MAEDER, A. NEELS, Empa, Switzerland, J. RAMM, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, H. RUDIGIER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Switzerland, B. WIDRIG, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein</p>	<p>G1-4 A Novel Sensor Using Remote Plasma Emission Spectroscopy for Monitoring and Control of Vacuum Processes, J. BRINDLEY, T. WILLIAMS, B. DANIEL, V. BELLIDO-GONZALEZ, F. PAPA, W. SPROUL, Genco Ltd., USA</p>
9:20 am	<p>F4-1-5 The Influence of Fe-doping on Mechanical Properties and Thermal Stability of Arc Evaporated Al-Cr-O Coatings, C. KOLLER, H. RIEDL, M. BARTOSIK, TU Wien, Austria, J. RAMM, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, S. KOLOZSVÁRI, Plansee Composite Materials GmbH, Germany, P. MAYRHOFER, TU Wien, Austria</p>	<p>G1-5 High Rate HiPIMS for Cutting Tool Coatings, T. LEYENDECKER, O. LEMMER, W. KOLKER, C. SCHIFFERS, CemeCon AG, Germany</p>
9:40 am	<p>F4-1-6 Aluminum Oxynitride Thin Films Deposited by Reactive Closed Field Direct Current Magnetron Sputtering, M. FISCHER, M. TRANT, K.F. THORWARTH, H.J. HUG, J. PATSCHEIDER, Empa, Laboratory for Nanoscale Materials Science, Switzerland</p>	<p>G1-6 Process Characteristics and Coating Architectures Based on the Combination of Classical HiPIMS and Arc Evaporation, J. VETTER, J. MÜLLER, Oerlikon Balzers Coating Germany GmbH, Germany, H. RUDIGIER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Switzerland</p>
10:00 am	<p>F4-1-7 Exploration of Various Properties for Chromium Oxide-Nitride Coatings Prepared by Reactive Sputtering, D. DAVE, Charotar Univ. of Sci. and Tech. (CHARUSAT) and Dr. Jivraj Mehta Inst. Of Tech., India, V. CHAUHAN, S. RAWAL, Charotar University of Science and Technology (CHARUSAT), India</p>	<p>G1-7 Combining Plasma and Electron Beam Technology for High Rate Coating of 3D-Parts, H. KLOSTERMANN, F. FIETZKE, B. SCHEFFEL, Fraunhofer FEP, Germany</p>
10:20 am	<p>F4-1-8 Influence of Multilayer Arrangement on Structure and Mechanical Properties of Arc Evaporated Oxide, Nitride, and Oxide/Nitride Coatings within the Systems Al-Cr-N and Al-Cr-O, R. RAAB, TU Wien, Austria, S. KOLOZSVÁRI, Plansee Composite Materials GmbH, Germany, R. RACHBAUER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, P. MAYRHOFER, TU Wien, Austria</p>	<p>G1-8 Invited Advanced CVD Technology - Equipment & Processing, H. STRAKOV, M. AUGER, V. PAPAGEORGIOU, S. VOGIATZIS, IHI Ionbond AG, Switzerland</p>
10:40 am	<p>F4-1-9 Self-healing Mechanisms in Niobium Based Oxides, J. GU, D. STEINER, J.E. MOGONYE, T. SCHARF, S.M. AOUADI, University of North Texas, USA</p>	Invited talk continued.
11:00 am		<p>G1-10 450mm PVD MHM TiN Process Development and Process Chamber Evaluation using DC Power System, P.W. WANG, M.-H. CHEN, TSMC, Taiwan, USA</p>
	<p>Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>	

Wednesday Morning, April 27, 2016

<p>Advanced Characterization of Coatings and Thin Films Room: Royal Palm 4-6 - Session H1 Advanced Microstructural Characterization of Thin Films and Engineered Surfaces Moderators: Luca Lusvardi, Univ. degli Studi di Modena e Reggio Emilia, Italy, Michael Tkadletz, Montanuniversität Leoben, Austria</p>		<p>Topical Symposia Room: Sunrise - Session TS4-1 Plasma Diagnostics and Modeling Moderators: Yolanda Aranda Gonzalvo, Consultant, USA, Ante Hecimovic, Ruhr-Universität Bochum, Germany</p>	
8:00 am	<p>H1-1 Insights on the Early Growth Stages of Sputter-deposited Metallic Thin Films Gained from In Situ and Real-Time Diagnostics, G. ABADIAS, J.J. COLIN, A. MICHEL, C. MASTAIL, Institut P⁺, Université de Poitiers, France</p>	<p>TS4-1-1 Invited Diagnostics of Non-Equilibrium Atmospheric Pressure Plasmas for Biological and Material Processing, P. BRUGGEMAN, University of Minnesota, USA Invited talk continued.</p>	
8:20 am	<p>H1-2 Plasma Assisted Nitriding of the FeAl40 Grade 3 Intermetallic Alloy, J. MARTIN, Institut Jean Lamour, Université de Lorraine, France, A. MARTINAVICIUS, Université de Rouen, France, S. BRUYERE, H.P. VAN LANDEGHEM, Institut Jean Lamour, Université de Lorraine, France, F. DANOIX, R. DANOIX, Université de Rouen, France, T. GROSDIDIER, Laboratoire LEM3 Université de Lorraine, France, T. CZERWIEC, Institut Jean Lamour, Université de Lorraine, France</p>		
8:40 am	<p>H1-3 Design of Multilayer Ti-TiN PVD Coatings with Tailored Residual Stress Profile, M. SEBASTIANI, University of Rome "Roma Tre", Italy</p>	<p>TS4-1-3 Plasma Dynamics of Linear Magnetron Discharges, Y. YANG, J. LIU, A. ANDERS, Lawrence Berkeley National Laboratory, USA</p>	
9:00 am	<p>H1-4 Stress Analysis at Different Length Scales in Thermal Oxide Films Combining Raman Spectroscopy and X-Ray Diffraction, M. GUERAIN, LCMO, CEA Le Ripault, Monts, France, J.-L. GROSSEAU-POUSSARD, LASIE, CNRS-Univ. de La Rochelle, France, P. GOUDEAU, PPRIME, CNRS- Univ. de Poitiers-ENSMA, France, G. GEANDIER, IJL, CNRS-Univ. de Lorraine, France, B. PANICAUD, LASMIS, CNRS- Univ. Tech. de Troyes, France, N. TAMURA, ALS, Lawrence Berkeley National Lab., USA, C. DEJOIE, Lab. of crystallography, ETH, Zurich, Switzerland, J.-S. MICHA, Univ. Grenoble Alpes, CNRS UMR SPRAM, BM32 at ESRF, France</p>	<p>TS4-1-4 Synchronised High Speed Video and Electric Diagnostics on Plasma Electrolytic Oxidation Discharge: Towards an Estimation of Process Efficiency, A. NOMINE, The Open University, UK, S.C. TROUGHTON, University of Cambridge, UK, A.V. NOMINE, The Open University, UK, G. HENRION, Institut Jean Lamour-UMR 7198 CNRS-Université de Lorraine, France, T.W. CLYNE, University of Cambridge, UK</p>	
9:20 am	<p>H1-5 Invited Focused Ion Beam Methods for Micro-scale Residual Stress Assessment in Thin Films, E. BEMPORAD, M. SEBASTIANI, University of Rome "Roma Tre", Italy</p>	<p>TS4-1-5 Modeling of Reactive High Power Impulse Magnetron Sputtering (HiPIMS) Processes, D. LUNDIN, Université Paris-Sud, France, J.T. GUDMUNDSSON, University of Iceland, Iceland, N. BRENNING, M.A. RAADU, Royal Institute of Technology, Sweden, T. MINEA, Université Paris-Sud, France</p>	
9:40 am	<p>Invited talk continued.</p>	<p>TS4-1-6 Influence of Ion Energy and Ion-to-Growth Flux Ratio on PVD Coatings in a Multi-Frequency Capacitively Coupled Plasma, S. RIES, D. GROCHLA, J. TRIESCHMANN, D. EREMIN, C. CORBELLA, T. MUSSENBROCK, A. LUDWIG, A. VON KEUDELL, P. AWAKOWICZ, Ruhr-University Bochum, Germany</p>	
10:00 am	<p>H1-7 Limits of Determining Stress States by FIB Method due to Ga Implantation, D. COURTY, A.S. SOLOGUBENKO, Laboratory for Nanometallurgy, ETH Zurich, Switzerland, S.S.A. GERSTL, Scientific Center for Optical and Electron Microscopy, ETH Zurich, Switzerland, R. SPOLENAK, Lab. for Nanometallurgy, ETH Zurich, Switzerland</p>	<p>TS4-1-7 The Cathodic Arc Plasma from AlCr Composite Cathodes, R. FRANZ, Montanuniversität Leoben, Austria</p>	
10:20 am	<p>H1-8 Advanced Characterization of Thermo-Mechanical Fatigue Mechanisms of Copper Systems for Semiconductor Metallizations, S. BIGL, S. WURSTER, Montanuniversität Leoben, Austria, M.J. CORDILL, Erich Schmid Inst. of Mat. Sci., Austrian Acad. of Sci., Austria, J. ZECHNER, KAI Kompetenzzentrum Automobil- u. Industrielektronik GmbH, Austria, D. KIENER, Montanuniversität Leoben, Austria</p>	<p>TS4-1-8 Invited Kinetic Simulation of Transport Phenomena in Sputtering Discharges, J. TRIESCHMANN, F. SCHMIDT, T. MUSSENBROCK, Ruhr University Bochum, Germany</p>	
10:40 am	<p>H1-9 ZNO Thin Films with Controlled Polarity and their Reactivity with Ti Studied by HAXPES, E. CHERNYSHEVA, Surface du Verre et Interfaces, UMR 125 CNRS/Saint-Gobain Recherche and INSP, UPMC, France, N. BARTOLOMEI, H. MONTIGAUD, S. GRACHEV, Surface du Verre et Interfaces, UMR 125 CNRS/Saint-Gobain Recherche, France, R. LAZZARI, Institut des NanoSciences de Paris, UMR 7588 CNRS/UPMC Paris 6, France, B. DIERRE, NIMS Saint-Gobain Center of Excellence for Advanced Materials, Japan, T. OHSAWA, K. TSUNODA, Optical and Electronic Materials Unit, NIMS, Japan, N. OHASHI, Optical and Electronic Materials Unit, NIMS and NIMS Saint-Gobain Center of Excellence for Advanced Materials, Japan, B. PHILIPPE, H. RENSMO, O. KARIS, Ångströmlaboratoriet, Uppsala Universitet, Sweden, M. GORGOL, Helmholtz-Zentrum Berlin für Materialien und Energie, Germany</p>	<p>Invited talk continued.</p>	
11:00 am	<p>H1-10 FIB-TOF Characterization of Multi-Layer Thin Films, D. CARR, G. FISHER, Physical Electronics, USA, S. IIDA, T. MIYAYAMA, ULVAC-PHI, Japan, S. BRYAN, Physical Electronics, USA</p>	<p>TS4-1-10 Characteristics of Incident Particle Flux Determining Growth Rates of ZnO Films Doped with Ga Atoms by Ion-plating with dc Arc Discharge, H. KITAMI, Sumitomo Heavy Industries, Ltd., Japan, J. NOMOTO, Kochi University of Technology, Japan, T. SAKEMI, Sumitomo Heavy Industries, Ltd., Japan, H. MAKINO, Kochi University of Technology, Japan, Y. AOKI, T. KATO, Sumitomo Heavy Industries, Ltd., Japan, T. YAMAMOTO, Kochi University of Technology, Japan</p>	
11:20 am	<p>H1-11 Diffusion Studies in the TiN/Cu Bilayer System and Beyond, M. MÜHLBACHER, F. MENDEZ-MARTIN, Montanuniversität Leoben, Austria, B. SARTORY, Materials Center Leoben Forschung GmbH, Austria, G. GRECZYNSKI, J. LU, Thin Film Physics Division, IFM, Linköping University, Sweden, N. SCHALK, Montanuniversität Leoben, Austria, L. HULTMAN, Thin Film Physics Division, IFM, Linköping University, Sweden, C. MITTERER, Montanuniversität Leoben, Austria</p>		
<p>Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm Enjoy Light Luncheon Refreshments in the Exhibition Hall 12:15 pm</p>			

Wednesday Afternoon, April 27, 2016

<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B4-1 Properties and Characterization of Hard Coatings and Surfaces Moderators: Uwe Beck, BAM Berlin, Germany, Chau-Chang Chou, National Taiwan Ocean University, Taiwan, Republic of China, Farwah Nahif, eifeler-Vacotec GmbH, Germany</p>		<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C4-2 Thin Films for Energy Related Applications Moderators: Martijn Kemerink, Linköping University, Sweden, James Partridge, RMIT University, Australia</p>	
1:30 pm			
1:50 pm			
2:10 pm	<p>B4-1-3 Elastic Constants of Binary Nitride Epitaxial Thin Films MeN (Me= Ti, Zr, V, Nb and Ta): Thin Film Growth and Ab Initio Calculations, G. ABADIAS, Institut P², CNRS – ENSMA - Université de Poitiers, France, P. DJEMIA, LSPM-CNRS, France, L. BELLARD, UPMC, Paris, France, D. TINGAUD, LSPM-CNRS, France, F. WANG, F. TASNADI, Linköping University, IFM, Sweden</p>	<p>C4-2-3 Invited Growth of Multi-Dimensional Nanostructured h-BN: Vertically Self-ordered Orientation of Nanocrystalline h-BN Thin Films, o. COMETTO, T. TSANG, E. TEO, Nanyang Technological University, Singapore</p>	
2:30 pm	<p>B4-1-4 Influence of Nitrogen Concentration on Hardness and Thermal Properties of Cr-N Thin Films, C. PALLIER, G. GRECZYNSKI, P. EKLUND, Thin Film Physics Division, IFM, Linköping University, Sweden</p>	<p>Invited talk continued.</p>	
2:50 pm	<p>B4-1-5 Invited Ion Assisted Deposition of Thick Multifunctional Tribological Coatings by Deep Oscillation Magnetron Sputtering with Filament Assistance, J. LIN, R. WEI, Southwest Research Institute, USA, W. SPROUL, Reactive Sputtering, Inc. USA</p>	<p>C4-2-5 Creation and Study of Thin ZnS Films Doped During Deposition, A. AXELEVITCH, B. APTER, Holon Institute of Technology (HIT), Israel</p>	
3:10 pm	<p>Invited talk continued.</p>	<p>C4-2-6 <i>In-situ</i> Scanning Tunneling Microscopy Studies of Chemical Vapor Deposition of Hexagonal Boron Nitride Monolayers on Pd(111), P. ARIAS, A. EBNONNASIR, J. FANKHAUSER, University of California, Los Angeles, USA, C. CIOBANU, Colorado School of Mines, USA, S. KODAMBAKA, University of California, Los Angeles, USA</p>	
3:30 pm	<p>B4-1-7 Composition, Morphology and Mechanical Properties of B-C-W and B-C-Ti Thin Films Prepared by Pulse Magnetron Sputtering, M. FRIEDEMANN, H. KLOSTERMANN, Fraunhofer FEP, Germany</p>	<p>C4-2-7 Thin Metallic Films on Porous Structures for Surface Protection in Fusion Research, F. TABARES, E. OYARZABAL, A. MARTIN-ROJO, Ciemat. Fusion Division, Spain</p>	
3:50 pm	<p>B4-1-8 Effect of Grain Size on Surface Evolution of Ti_{0.5}Al_{0.5}-Cathode during Cathodic Arc Deposition of TiAlN Coatings, B. SYED, J. ZHU, Linköping University, IFM, Nanostructured Materials, Sweden, G. GRECZYNSKI, Linköping University, IFM, Thin Film Physics Division, Sweden, S. KOLOZSVARI, P. POLCIK, Plansee Composite Materials GmbH, Germany, G. HÅKANSSON, Ionbond, Sweden, L. JOHNSON, M. AHLGREN, Sandvik Coromant, Sweden, M. JOHANSSON, Seco Tools AB, Sweden, M. ODÉN, Linköping University, IFM, Nanostructured Materials, Sweden</p>	<p>C4-2-8 Influence of PTB7 Molecular Weight and Polydispersity Index on the Optical Properties of PTB7:PC₇₁BM Blend Films and their Solar Cell Efficiency, C.H. TO, The University of Hong Kong, A. NG, The Hong Kong Polytechnic University, Hong Kong, Q. DONG, A.B. DJURIŠIĆ, The University of Hong Kong, Hong Kong, J.A. ZAPIEN, Center of Super Diamond and Advanced Films (COSDAF), Hong Kong, W.K. CHAN, The University of Hong Kong, Hong Kong, C. SURYA, The Hong Kong Polytechnic University, Hong Kong</p>	
4:10 pm	<p>B4-1-9 Systematic Investigation of X₂BC Phases, H. BOLVARDI, M. ARNDT, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, J. EMMERLICH, RWTH Aachen University, Germany (Until September 2011), S. MRÁZ, D. MUSIC, RWTH Aachen University, Germany, M. TO BABEN, RWTH Aachen University, Germany (Until January 2016), K.G. PRADEEP, RWTH Aachen University, Germany, H. RUDIGIER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, J.M. SCHNEIDER, RWTH Aachen University, Germany</p>	<p>C4-2-9 WAIN/WAION/Al₂O₃-Based Spectrally Selective Absorber Coating for High Temperature Solar Thermal Applications, A. DAN, Indian Institute of Science Bangalore, India, J. JAMBU, National Aerospace Laboratories, India, K. CHATTOPADHYAY, B. BASU, Indian Institute of Science Bangalore, India, H. BARSHILIA, National Aerospace Laboratories, India</p>	
4:30 pm	<p>B4-1-10 Tribological Behavior of MoBCN Coatings Synthesized by Ion Beam Enhanced Deposition, X.D. ZHU, Xi'an Jiaotong University, China, C. SHANG, L.S. QIU, Xi'an Jiaotong University, China, G.Y. HE, Air Force Engineering University, China, K.W. XU, Xi'an Jiaotong University, China</p>	<p>C4-2-10 Silt Erosion Behavior of Magnetron Sputtered Nanocrystalline Zr_{1-x}W_x-N Coatings on 13Cr4Ni Steel, V. ARYA, SCT, BHEL R&D, India, P. DUBEY, R. CHANDRA, IIT Roorkee, India</p>	
4:50 pm	<p>B4-1-11 The Effect of Pulse Bias Voltage on the Temperature Dependent Structural Stability of TiN Coatings Produced via Cathodic Arc Method, G. TAGHAVI POURIAN AZAR, S. AKKAYA, M. URGEN, Istanbul Technical University, Turkey</p>		
5:10 pm	<p>B4-1-12 Gas Flow Ratio and RF Input Power Effects on Characteristics and Protective Behavior of Sputtering TaN Multilayer Film, Y.H. YANG, F.B. WU, National United University, Taiwan, Republic of China</p>		
<p>Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm</p>		<p>Awards Convocation 5:45 pm Town & Country Room Honorary Lecturer: Boris A. Movchan “Electron Beam Technologies (EB-PVD) for Nanostructured Composites” Awards Reception will follow the Convocation at 7:30 pm Poolside</p>	

Wednesday Afternoon, April 27, 2016

<p>Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E1-4 Friction, Wear, Lubrication Effects, and Modeling Moderators: Michael Chandross, Sandia National Laboratories, USA, Albano Cavaleiro, University of Coimbra, Portugal, Giovanni Ramirez, Argonne National Laboratory, USA</p>		<p>New Horizons in Coatings and Thin Films Room: Royal Palm 1-3 - Session F4-2 Functional Oxide and Oxynitride Coatings Moderators: Jürgen Ramm, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, Michael Stueber, Karlsruhe Institute of Technology (KIT), Germany</p>
1:30 pm	<p>E1-4-1 Tribochemical Aspects of Superlubricity on Hydrogen-free Amorphous Carbon and Diamond, S. MAKOWSKI, F. SCHALLER, V. WEHNACHT, G. ENGLBERGER, Fraunhofer Institute for Material and Beam Technology IWS, Dresden, Germany, M. BECKER, Fraunhofer USA – Center for Coatings and Diamond Technology, East Lansing, MI, USA, A. LESON, Fraunhofer Institute for Material and Beam Technology IWS, Dresden, Germany</p>	
1:50 pm	<p>E1-4-2 Ultralow Friction of a-C:H Coating Lubricated with a Mesogenic Fluid, T. AMANN, B. BLUG, A. KAILER, S. SCHNAKENBERG, N. OBERLE, Fraunhofer Institute for Mechanics of Materials IWM, Germany</p>	
2:10 pm	<p>E1-4-3 Invited Molecular Dynamics Study of Triboinitiated Chemistry and Graphene Coatings on Iron Surfaces, D. SCHALL, Oakland University, USA</p>	<p>F4-2-3 Plasma Electrolytic Fabrication of Dielectric Surface Layers for Insulated Metal Substrates, N. YAAKOP, A. YEROKHIN, A. MATTHEWS, University of Sheffield, UK</p>
2:30 pm	<p>Invited talk continued.</p>	<p>F4-2-4 On the Intrinsic Wettability of Rare Earth Oxide Ceramics, H. LIU, University of Pittsburgh, USA</p>
2:50 pm	<p>E1-4-5 Numerical Modelling of Thermal Fatigue Damage in Coatings with Heterogeneous Microstructure, N.K. FUKUMASU, I.F. MACHADO, University of São Paulo, Brazil, M. BOCCALINI JR., Institute for Technological Research, Brazil, R. SOUZA, University of São Paulo, Brazil</p>	<p>F4-2-5 Structural and Optical Properties of Bi_xNb_yO_z Films Deposited by Co-sputtering, O. DEPABLOS-RIVERA, Instituto de Investigaciones en Materiales - UNAM, Mexico City, Mexico; Posgrado en Ciencia e Ingeniería de Materiales - UNAM, Mexico City, Mexico, S.E. RODIL, Instituto de Investigaciones en Materiales - UNAM, Mexico City, Mexico</p>
3:10 pm	<p>E1-4-6 High Temperature Tribology of Plasma Nitrided T91 Alloy Steel, H. KAUSAR, Bandung Institute of Technology, Indonesia, L. CVRCEK, Czech Technical University in Prague, Czech Republic, H. ARDY, Bandung Institute of Technology, Indonesia</p>	<p>F4-2-6 HIPIMS Plasma Diagnostic and Low Temperature Deposition of Photoactive Titania Thin Films in an Industrial-scale Rig, B. DELFOUR-PEYRETHON, G. WEST, P. KELLY, M. RATOVA, Manchester Metropolitan University, UK</p>
3:30 pm	<p>E1-4-7 Modeling Intrinsic Residual Stresses Built-up during Growth of Nanostructured Multilayer NbN/CrN Coatings, A. ARAUJO, University of Sao Paulo, Brazil, A.R. GIORJAO, J. BETTINI, CNPEM, Brazilian National Center for Research on Energy and Materials, Brazil, R. SOUZA, A. TSCHIPTSCHIN, University of São Paulo, Brazil</p>	<p>F4-2-7 Invited Phase Stability of Oxide Overgrowths on Metals, Alloys and Metallic Coatings, L. JEURGENS, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland</p>
3:50 pm	<p>E1-4-8 Topographical Orientation Effects on Friction and Wear in Sliding DLC and Steel Gear Contacts, T.J. HAKALA, A. LAUKKANEN, K. HOLMBERG, H. RONKAINEN, VTT Technical Research Centre of Finland Ltd, Finland, G. STACHOWIAK, P. PODSIADLO, M. WOLSKI, Curtin University, Australia, M. GEE, National Physical Laboratory, UK, C. GACHOT, Saarland University, Germany, L. LI, Hong Kong City University, China</p>	<p>Invited talk continued.</p>
4:10 pm	<p>E1-4-9 Crumpled Graphene Balls for Efficient Lubrication, X. DOU, A. KOLTONOW, X. HE, Northwestern University, USA, H.D. JANG, Korea Institute of Geoscience & Mineral Resources, Korea, Q. WANG, Y.-W. CHUNG, J. HUANG, Northwestern University, USA</p>	<p>F4-2-9 Characterization of Zinc Oxide Films Deposited in Helium-oxygen and Argon-helium-oxygen Atmospheres by Sputtering, K. PATEL, S. RAWAL, Chandubhai S. Patel Institute of Technology (CSPIT), Charotar University of Science and Technology (CHARUSAT), India</p>
4:30 pm		<p>F4-2-10 Growth of Fe-doped ZnO Film by E-beam Evaporation from Self-made Target Source, Y.C. CHENG, National Cheng Kung University, Taiwan, Republic of China, S. WU, Tung-Fang Design University, Taiwan, Republic of China, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China, D.F. LI, Cheng Shiu University, Taiwan, Republic of China, W.K. YEH, National Nano Device Laboratories, Taiwan, Republic of China</p>
4:50 pm		<p>F4-2-11 Ultraviolet Photodetectors Based on MgZnO Thin Film Grown by RF Magnetron Sputtering, J.S. SHIAU, C.P. LIU, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China</p>
5:10 pm		<p>F4-2-12 Wastewater Remediation Using Titanium Dioxide-Graphene Composite Material, C. BASHEER, King Fahd University of Petroleum and Minerals, Saudi Arabia</p>
<p>Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm</p>		<p>Awards Convocation 5:45 pm Town & Country Room Honorary Lecturer: Boris A. Movchan “Electron Beam Technologies (EB-PVD) for Nanostructured Composites” Awards Reception will follow the Convocation at 7:30 pm Poolside</p>

Wednesday Afternoon, April 27, 2016

<p>New Horizons in Coatings and Thin Films Room: Royal Palm 4-6 - Session F6</p> <p>Thin Films and Coatings for Fuel Cells and Batteries Moderators: Chintalapalle Ramana, The University of Texas at El Paso, USA, Sanjay Khare, University of Toledo, USA</p>		<p>Surface Engineering - Applied Research and Industrial Applications Room: Golden West - Session G2 Components Coatings Moderators: Kenji Yamamoto, Kobe Steel Ltd., Japan, Osman Eryilmaz, Argonne National Laboratory, USA, Jolanta Klemberg-Sapieha, École Polytechnique de Montréal, Canada</p>
1:30 pm		
1:50 pm		
2:10 pm	<p>F6-3 Invited Creating Active Electrocatalysts for the Oxygen Evolution Reaction by Atomic Layer Deposition, K.L. PICKRAHN, J.G. BAKER, S.F. BENT, Stanford University, USA</p>	<p>G2-3 Invited PVD Equipment and Coating for Automotive Components, s. HIROTA, Kobe Steel Ltd., Japan</p>
2:30 pm	Invited talk continued.	Invited talk continued.
2:50 pm	<p>F6-5 Plasma-Activated High-Rate Deposition of Ytria-Stabilized Zirconia Layers using Electron Beam Evaporation, B. SCHEFFEL, C. METZNER, O. ZYWITZKI, Fraunhofer FEP, Germany</p>	<p>G2-5 How to Obtain a Smooth Surface on Arc Deposited Superhard ta-C Coatings, V. WEIHNACHT, S. MAKOWSKI, G. ENGLBERGER, A. BRUECKNER, A. LESON, Fraunhofer IWS Dresden, Germany</p>
3:10 pm	<p>F6-6 Invited Atomic Environments and Energy Density in Lithium- and Manganese-Rich Nickel-Manganese-Cobalt Oxide Cathodes for Lithium-Ion Batteries, J. BARENO, D.P. ABRAHAM, Z. CHEN, I.D. BLOOM, Argonne National Laboratory, USA</p>	<p>G2-6 Efficiency Improvement in Automobile Bucket Tappet/Camshaft Contacts by DLC Coatings - Influence of Engine Oil, Temperature and Camshaft Speed, L. DOBRENIZKI, S. TREMMEL, S. WARTZACK, Engineering Design - FAU Erlangen-Nürnberg, Germany, T. BRÖGELMANN, K. BOBZIN, Surface Engineering Institute - RWTH Aachen University, Germany, N. BAGCIVAN, Y. MUSAYEV, Schaeffler Technologies AG & Co. KG, Germany</p>
3:30 pm	Invited talk continued.	<p>G2-7 Invited Additional Functionalities by Surface-Integrated Sensors, H. GERDES, R. BANDORF, M. VERGÖHL, G. BRÄUER, Fraunhofer Institute for Surface Engineering and Thin Films IST, Germany</p>
3:50 pm	<p>F6-8 Influence of Deposition Angle on the Microstructure and Electrochemical Behaviour of Li-Ni-Mn-Co-O Thin Film Cathodes for Lithium-Ion Batteries, M. STRAFELA, H. LEISTE, T. BERGFELDT, H.J. SEIFERT, S. ULRICH, Karlsruhe Institute of Technology (KIT), Germany</p>	Invited talk continued.
4:10 pm	<p>F6-9 Development of Nickel-Copper Alloy Electrode in Microbial Fuel Cell by the Thermal Spray, Y.H. CHEN, Y.C. YANG, National Taipei University of Technology, Taiwan, Republic of China</p>	<p>G2-9 Tungsten Oxide Thin Layers in Plasma Facing Materials and Components, H. HIJAZI, Aix-Marseille Université, France</p>
4:30 pm	<p>F6-10 Pseudo-capacitance and Electrochemical Stability of Silver Oxide Thin Film Electrodes for Electrochemical Energy Storage in an Aqueous NaCl Electrolyte, A. OGWU, I. OJE, University of the West of Scotland, UK, N. TSENDZUGHUL, M. MIRZAEIAN, UNniversity of the West of Scotland, UK</p>	
4:50 pm	<p>F6-11 TiO₂ Based Inks for Directly Written Solar Cells on Flexible Substrates: Electrical and Mechanical Investigation, M.A. TORRES ARANGO, D.T. CIPOLLONE, L.O. GRANT, K.A. SIERROS, D. KORAKAKIS, West Virginia University, USA</p>	
5:10 pm	<p>F6-12 Coating Electrospun Fiber Mats to Enhance Stability in Battery Anode Applications, V.D. WHEELER, U.S. Naval Research Laboratory, USA, E. SELF, P. PINTAURO, Vanderbilt University, USA, F.J. KUB, C.R. EDDY, JR., U.S. Naval Research Laboratory, USA</p>	
	<p>Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm</p>	<p>Awards Convocation 5:45 pm Town & Country Room Honorary Lecturer: Boris A. Movchan “Electron Beam Technologies (EB-PVD) for Nanostructured Composites” Awards Reception will follow the Convocation at 7:30 pm Poolside</p>

Wednesday Afternoon, April 27, 2016

Topical Symposia Room: Sunrise - Session TS6 Ambient-Coating Interactions Moderators: Jochen Schneider, RWTH Aachen University, Germany, Christoph Czetti, CERATIZIT Austria GmbH, Austria		
1:30 pm		<p style="text-align: center;">2016 R.F. Bunshah Annual Award & Honorary Lecture Prof. Boris A. Movchan</p> <p style="text-align: center;">Electron Beam Technologies (EB-PVD) for Nanostructured Composites</p> <p>Modern progress in application of structural and functional materials is based, primarily, on composite materials, consisting of chemically dissimilar components in the form of solid or liquid matrices with nanosized particles of the second phase.</p> <p>Physical processes of evaporation and condensation of various substances in vacuum in combination with electron beam source of heating and evaporation are a unique technological package of methods to produce new composite materials and coatings.</p> <p>Synthesis of solid thin film structures by controllable arrangement of vapour phase atoms has already allowed creation of miniature devices with dimensions and specific characteristics, which seemed fantastic in the near past.</p> <p>Technologies of "thick films" and coatings of thicknesses from several micrometers up to several millimeters from inorganic and organic substances (matrices) with micro- and nanosized structural elements: particles, pores, and layers, are being developed alongside thin film technologies.</p> <p>The paper presents the results of investigation and development of such materials and technologies producing them at the E.O.Paton Electric Welding Institute of the National Academy of Sciences of the Ukraine. Attention is focused on metal/ceramics and polymer/metal compositions.</p>
1:50 pm		
2:10 pm	TS6-3 Surface Functionalization for Minimized Interaction in Lubrication-free Cold Forming of Aluminum, s. PRÜNTE, D. MUSIC, M. TELLER, G. HIRT, RWTH Aachen University, Germany, P.H. MUTIN, Université Montpellier, France, G. RAMANATH, Rensselaer Polytechnic Institute, USA, J.M. SCHNEIDER, RWTH Aachen University, Germany	
2:30 pm	TS6-4 Application-Oriented Investigation of PVD and CVD Coatings for Milling of Stainless Steel (Martensitic and Austenitic Structure), M. SCHNEEWEIß, M. KOPPER, University of Applied Sciences Zwickau, Germany	
2:50 pm	TS6-5 Surface Chemistry of Air-exposed Polycrystalline $Ti_{1-x}Al_xN$ ($0 \leq x \leq 0.96$) Thin Films Studied by X-ray Photoelectron Spectroscopy, G. GRECZYNSKI, L. HULTMAN, Linköping University, IFM, Sweden	
3:10 pm	TS6-6 Invited Surface Chemistry and Interface Reactivity of (Ti, Cr) Al(O)N Coatings Deposited by Means of High Power Pulsed Magnetron Sputtering, G. GRUNDMEIER, University of Paderborn, Technical and Macromolecular Chemistry, Germany	
3:30 pm	Invited talk continued.	
Exhibition Hall Closes Today Grand Hall Open 10:00 am-2:00 pm		Awards Convocation 5:45 pm Town & Country Room Honorary Lecturer: Boris A. Movchan "Electron Beam Technologies (EB-PVD) for Nanostructured Composites" Awards Reception will follow the Convocation at 7:30 pm Poolside

Thursday Morning, April 28, 2016

<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B4-2 Properties and Characterization of Hard Coatings and Surfaces Moderators: Uwe Beck, BAM Berlin, Germany, Chau-Chang Chou, National Taiwan Ocean University, Taiwan, Republic of China, Farwah Nahif, eifeler-Vacotec GmbH, Germany</p>		<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C2 Novel Aspects in Thin Film Characterization and Data Modeling Moderators: Tino Hofmann, University of Nebraska-Lincoln, USA, Nikolas Podraza, University of Toledo, USA</p>	
8:00 am		<p>C2-1 Invited Ellipsometric Analysis of Graded Layers, G. JELLISON, Oak Ridge National Laboratory (retired), USA</p>	
8:20 am	<p>B4-2-2 Mechanical and Tribological Properties of Diamond Like Carbon Coating Deposited by Round Bar Type Carbon Cathodic Arc Source, S. TANIFUJI, S. HIROTA, H. FUJI, J. MUNEMASA, K. AKARI, Kobe Steel Ltd., Japan</p>	<p>Invited talk continued.</p>	
8:40 am	<p>B4-2-3 Effect of Titanium Doping in the Structure, Intrinsic Stress and Mechanical Properties of WS₂ Thin Films, J.M. GONZALEZ, C. PORTILLA, Universidad Del Valle, Colombia, J.S. RESTREPO, S. MUHL, Universidad Nacional Autonoma de Mexico, Mexico, F. SEQUEDA, Universidad Del valle, Colombia</p>	<p>C2-3 Numerical Ellipsometry: Analysis of Inhomogeneous NiO Thin Films for Metal-Insulator-Metal Tunnel Junction Diodes, F. URBAN, III, S. BHANSALI, A. SINGH, D. BARTON, Florida International University, USA</p>	
9:00 am	<p>B4-2-4 Effect of Interlayer on Wear Resistance and Mechanical Properties of Thick TiZrN Coating on D2 Steel Deposited by Unbalanced Magnetron Sputtering, W.R. CHENG, G.P. YU, J.H. HUANG, National Tsing Hua University, Taiwan, Republic of China</p>	<p>C2-4 Characterization of Atomic Layer Deposited Metal Films and Nanolaminates by Multi-Parametric Surface Plasmon Resonance, A. JOKINEN, N. GRANOVIST, J. KUNCOVA-KALLIO, J. SADOWSKI, BioNavis Ltd., Finland</p>	
9:20 am	<p>B4-2-5 Invited Tribological Properties and Tribo-Tests from the Industrial Perspective, N. BAGCIVAN, E. SCHULZ, W. HOLWEGER, Y. MUSAYEV, T. HOSENFELDT, Schaeffler Technologies AG & Co. KG, Germany</p>	<p>C2-5 Smart Hybrid of Two Different Deposition Technologies to Enhance Carrier Mobility of Highly Transparent Conductive Al-Doped ZnO Films with Well-Defined (0001) Orientation, J. NOMOTO, H. MAKINO, T. YAMAMOTO, Kochi University of Technology, Japan</p>	
9:40 am	<p>Invited talk continued.</p>		
10:00 am	<p>B4-2-7 WEAR Resistance of PIRAC Nitrogen-Diffusion Treated and DUPLEX-Hybrid PAPVD-Coated Ti-6Al-4V Alloy, T. BONELLO, University of Malta, Malta, J.C. AVELAR-BATISTA WILSON, J. HOUSDEN, Wallwork Cambridge Ltd., UK, E.Y. GUTMANAS, I. GOTMAN, Technion IIT, UK, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK, G. CASSAR, University of Malta, Malta</p>		
10:20 am	<p>B4-2-8 CVD Diamond Coating on WC-Co Substrate with Al-based Interlayer, F. YE, Y.S. LI, Q. YANG, University of Saskatchewan, Canada, C.-Y. KIM, Canadian Light Source Inc., Canada</p>		
	<p style="text-align: center;">2017 ICMCTF Informational Meeting 12:00-1:15 pm Sunset Room</p>		<p style="text-align: center;">Elsevier Authors FTS: Focused Topic Session “How to Get Your Paper Published” 12:15-1:15 pm San Diego Room</p>

Thursday Morning, April 28, 2016

<p>Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E2-1 Mechanical Properties and Adhesion Moderators: Johann Michler, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, Etienne Bousser, The University of Manchester, UK, Fan-Bean Wu, National United University, Taiwan, Republic of China</p>		<p>New Horizons in Coatings and Thin Films Room: Royal Palm 1-3 - Session F2 High Power Impulse Magnetron Sputtering (HiPIMS) Moderators: Stephanos Konstantinidis, University of Mons, Belgium, Tomas Kubart, Uppsala University, Angstrom Laboratory, Sweden</p>
8:00 am	<p>E2-1-1 Invited Deformation and Adhesion of Metallic Thin Films, G. DEHM, Max-Planck Institut für Eisenforschung, Germany</p>	<p>F2-1 Invited Reactive High-Power Impulse Magnetron Sputtering: Modeling and Applications, T. KOZAK, J. VLCEK, University of West Bohemia, Czech Republic</p>
8:20 am	Invited talk continued.	Invited talk continued.
8:40 am	<p>E2-1-3 Composition, Structure and Mechanical Properties of Plasma-Thermochemical Zr(N) Barrier Layers on Zircaloy, D. HUSSAIN, The University of Sheffield, UK</p>	<p>F2-3 Property Evaluation of CrSiN Coatings Fabricated by a Superimposed High Power Impulse Magnetron Sputtering System, C.Y. CHENG, J.W. LEE, Ming Chi University of Technology, Taiwan, Republic of China</p>
9:00 am	<p>E2-1-4 Hard Coating Failure on Steel Substrates for Tooling Applications, J. MICHLER, J. BEST, J. WEHRS, J. SCHWIEDRZIK, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, D. ESQUE-DE LOS OJOS, Universitat Autònoma de Barcelona, Spain, M. MORSTEIN, PLATIT AG, Advanced Coating Systems, Switzerland</p>	<p>F2-4 Reactive High-power Impulse Magnetron Sputtering of ZrO₂ Films with Gradient ZrO_x Interlayers on Pretreated Steel Substrates, A. BELOSLUDTSEV, J. VLCEK, J. HOUSKA, S. HAVIAR, R. CERSTVY, J. REZEK, University of West Bohemia, Czech Republic</p>
9:20 am	<p>E2-1-5 New Methodology for the Simultaneous Measurement of Friction, Wear, Hardness, Elastic Modulus, and Plastic Deformation of Coatings at the Micro- and Nano-Scales, E. BROITMAN, Ningbo Institute of Material Technology & Engineering, CAS, Ningbo, China, F. FLORES-RUIZ, Centro de Nanociencias y Nanotecnología - UNAM, Mexico</p>	<p>F2-5 Target Poisoning in Mixed Ar, N₂ and CH₄ Atmosphere in HIPIMS and DC Magnetron Sputtering Modes, A.W. ONISZCZUK, Sheffield Hallam University, UK, C.-F. CARLSTROM, M. AHLGREN, Sandvik Coromant R&D, Sweden, A. EHIASARIAN, Sheffield Hallam University, UK</p>
9:40 am	<p>E2-1-6 Comparative Tribological Studies of Duplex Surface for Cold Stamping Die, A. ALENCAR DE MOURA, J. PAIVA JUNIOR, Centro Universitário Católica de Santa Catarina, Brazil, R. DIEGO TORRES, Pontificia Universidade Católica do Paraná, Brazil, J.F. SCHERER, Instituto Federal de Santa Catarina, Brazil</p>	<p>F2-6 The Origin of the Suppressed Hysteresis in HIPIMS: Experiment and Model, J.Č. ČAPEK, University of West Bohemia, NTIS, Czech Republic, S.K. KADLEC, HVM Plasma Ltd, Czech Republic</p>
10:00 am	<p>E2-1-7 Structural and Mechanical Properties for Nb₂O₅ Coatings as a Function of Si Additions, R. MIRABAL-ROJAS, Instituto de Investigaciones en Materiales - UNAM, Mexico City, Mexico; Posgrado en Ciencia e Ingeniería de Materiales - UNAM, Mexico City, Mexico, E. CAMPS, Instituto Nacional de Investigaciones Nucleares de Mexico, A. ZEINERT, M. LEJEUNE, Laboratoire de Physique de la Matière Condensée, Faculté des Sciences, Université de Picardie Jules Verne, Amiens, France., France, S.E. RODIL, Instituto de Investigaciones en Materiales - UNAM, Mexico City, Mexico, G. RAMIREZ, A. ERDEMIR, Arbonne National Laboratory, USA</p>	<p>F2-7 Feedback Control of Reactive High Power Impulse Magnetron Sputtering by Measuring the Pulse Peak Current and Adjusting the Pulse Frequency, T. SHIMIZU, Tokyo Metropolitan University, Japan, M.M. VILLAMAYOR, R.P. VILOAN, Linköping University, Sweden, D. LUNDIN, CNRS, Université Paris-Sud, France, U. HELMERSSON, Linköping University, Sweden</p>
10:20 am	<p>E2-1-8 Invited Micro-mechanical Testing of Materials for Nuclear Applications, d. ARMSTRONG, University of Oxford, UK</p>	<p>F2-8 Silicon Substrate Measurement In High-Power Impulse Magnetron Sputtering, T. OHTA, K. HATTORI, Meijo University, Japan, A. ODA, Chiba Institute of Technology, Japan, H. KOUSAKA, Nagoya University, Japan</p>
10:40 am	Invited talk continued.	<p>F2-9 Invited Magnetron Sputtering: Illuminating Physics of Spokes in Continuous and Pulsed Discharges, M. PANJAN, Jožef Stefan Institute, Slovenia, A. ANDERS, Lawrence Berkeley National Laboratory, USA, L. MARTINU, Polytechnique Montreal, Canada</p>
11:00 am	<p>E2-1-10 Study of Bauschinger Effect in Thin Metallic Films Submitted to Cyclic Deformation, W. HE, P. GOUDEAU, E. LE BOURHIS, P.O. RENAULT, Université de Poitiers, France</p>	Invited talk continued.
11:20 am	<p>E2-1-11 Mechanical Behavior of Cu-Nb Multilayer Films Evaluated with In-situ Fragmentation Methods, M.J. CORDILL, A. KLEINBICHLER, Erich Schmid Institute of Materials Science, Austrian Academy of Sciences, Austria, D.R. ECONOMY, M.S. KENNEDY, Clemson University, USA</p>	<p>F2-11 HiPIMS - Stable Reactive Process With High Deposition Rate, w. GAJEWSKI, M. BARAN, P. ROZANSKI, A. KLIMCZAK, TRUMPF Huettinger Sp. z o. o., Poland, L. ZAJAC, Warsaw University of Technology, Poland, P. LESIUK, TRUMPF Huettinger Sp. z o. o., Poland</p>
11:40 am	<p>E2-1-12 Interfacial Adhesion of Compositional Gradient Ternary FCC and BCC Alloy Films, R.L. SCHOEPPNER, A.A. TAYLOR, C. GUERRA-NUÑEZ, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland</p>	<p>F2-12 HiPIMS/DCMS Hybrid Co-sputtering of CN_x Thin Films using Heavy Metal Ion Bombardment, K.D. BAKOGLIDIS, S. SCHMIDT, L. HULTMAN, G. GRECZYNSKI, Linköping University, IFM, Thin Film Physics Division, Sweden</p>
12:00 pm		<p>F2-13 Plasma Spokes in Reactive High Power Impulse Magnetron Sputtering, A. HECIMOVIC, C. CORBELLA ROCA, Ruhr-Universität Bochum, Germany, V. SCHULZ-VON DER GATHEN, A. VON KEUDELL, Ruhr Universität Bochum, Germany</p>
	<p>2017 ICMCTF Informational Meeting 12:00-1:15 pm Sunset Room</p>	<p>Elsevier Authors FTS: Focused Topic Session "How to Get Your Paper Published" 12:15-1:15 pm San Diego Room</p>

Thursday Morning, April 28, 2016

<p>Surface Engineering - Applied Research and Industrial Applications Room: Golden West - Session G3 Innovative Surface Engineering for Advanced Cutting and Forming Tool Applications Moderators: Mirjam Arndt, Oerlikon Balzers, Oerlikon Surf. Sol. AG, Liechtenstein, Heidrun Klostermann, Fraunhofer FEP, Holger Gerdes, Fraunhofer Institute for Surf. Eng. and Thin Films IST, Germany</p>		<p>Advanced Characterization of Coatings and Thin Films Room: Royal Palm 4-6 - Session H3 Characterization of Coatings in Harsh Environments Moderators: David Armstrong, University of Oxford, UK, Vineet Bhakhri, University of Western Ontario, Canada</p>
8:00 am	<p>G3-1 Invited Recent Progress of Hard Coatings Deposited by Cathodic Arc and Hybrid Method for Cutting Tool Applications, H. FUKUI, Sumitomo Electric Hardmetal Corp., Japan</p>	
8:20 am	<p>Invited talk continued.</p>	<p>H3-2 Time-lapse Study on Crack Evolution in Air Plasma Sprayed Thermal Barrier Coatings using X-ray Computed Tomography and Digital Volume Correlation, J. CARR, X. ZHANG, J. KULCZYK-MALECKA, The University of Manchester, UK, R. VABEN, D. KOCH, Forschungszentrum Jülich GmbH, Germany, P. WITHERS, P. XIAO, The University of Manchester, UK</p>
8:40 am	<p>G3-3 Hybrid dcMS/HPPMS PVD Nitride and Oxynitride Hard Coatings for Adhesion and Abrasion Reduction in Plastics Processing, K. BOBZIN, T. BRÖGELMANN, C. KALSCHUEER, M. NADERI, RWTH Aachen University, Germany</p>	<p>H3-3 Invited High Temperature Nanoindentation at 25 – 1000 °C – Studying Thermal Activation and High Temperature Properties, J. GIBSON, S. SCHRÖDERS, C. ZEHNDER, RWTH Aachen Univ., Germany, V. MAIER, Erich Schmid Institute of Material Science, Austrian Academy of Science., Austria, H. MATHUR, S. KORTE-KERZEL, RWTH Aachen University, Germany</p>
9:00 am	<p>G3-4 Increasing Mechanical and Tribological Properties of Cathodic Arc Evaporated Ti-Al-N Coatings by Mo- and W-Alloying, S.A. GLATZ, C. KOLLER, TU Wien, Austria, R. RACHBAUER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, S. KOLOZSVARI, Plansee Composite Materials GmbH, Germany, P. MAYRHOFER, TU Wien, Austria</p>	<p>Invited talk continued.</p>
9:20 am	<p>G3-5 Evaluation of Hard Nitride Coatings for High Thermal Load Applications in Gear Hobbing, A. ERIKSSON, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, S. STEIN, Oerlikon Balzers, Oerlikon Surface Solutions AG (until March 2015), Liechtenstein, M. ARNDT, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein</p>	<p>H3-5 Characterization of Coatings and Surface Treatments for Sodium Cooled Nuclear Reactors, G. VETTERICK, TerraPower, LLC, USA</p>
9:40 am	<p>G3-6 Cutting Performance of Low-stress Thick TiAlN Coating Deposited by New AIP Cathode; Comparison to CVD Oxide Coating, K. YAMAMOTO, M. ABE, Kobe Steel Ltd., Japan</p>	<p>H3-6 Probing CVD Growth Mechanisms of SiC with In Operando Synchrotron-based X-ray Diagnostics, P. DEPOND, J.H. YOO, M. BAGGE-HANSEN, J. LEE, S. ELHADJ, I. MATTHEWS, T. VAN BUUREN, Lawrence Livermore National Laboratory, USA</p>
10:00 am	<p>G3-7 Plasma Nitriding-Assisted Printing of Stainless Steel Punch and Die for Micro-Piercing Process, T. AIZAWA, Shibaura Institute of Technology, Japan, T. SHIRATORI, Komatsu Precision, Co. Ltd., Japan</p>	<p>H3-7 Structural, Mechanical and Functional Properties of Irradiated Multilayer Nanocomposites, M. CALLISTI, T. POLCAR, University of Southampton, UK</p>
10:20 am	<p>G3-8 Cutting Performance and Relation to Coating Properties of HiPIMS and Cathodic Arc Coatings, P. ARUMSKOG, Sumitomo Electric Industries, Ltd., Japan, K. TANAKA, M. SETOYAMA, Sumitomo Electric Hardmetal Corp., Japan, Y. UTSUMI, K. TSUDA, Sumitomo Electric Industries, Ltd., Japan</p>	<p>H3-8 Advanced Anticorrosive Coatings Prepared from Polyimide/Alumina-graphene Oxide Nanosheet (Al-GO) Hybrid Nanocomposite Materials, G.H. LAI, T.C. HUANG, M.H. TSAI, National Chin-Yi University of Technology, Taiwan, Republic of China, I.H. TSENG, Feng Chia University, Taiwan, Republic of China, W.M. CHIU, National Chin-Yi University of Technology, Taiwan, Republic of China</p>
10:40 am	<p>G3-9 Influence of Tool Surface Topography on the Material Transfer Tendency in the Turning of 316L Stainless Steel, S. SAKETI, Dalarna University, Sweden, J. ÖSTBY, Sandvik Coromant, Sweden, U. BEXELL, M. OLSSON, Dalarna University, Sweden</p>	<p>H3-9 Processing Developments of Sound Absorption Coating with Corrosion Resistibility Underwater, I.L. CHUNG, Y.C. YANG, National Taipei University of Technology, Taiwan, Republic of China, C.J. HUANG, National Cheng Kung University, Taiwan, Republic of China</p>
11:00 am	<p>G3-10 Invited DLC Coatings and Multilayered Graphene for Manufacturing Lightweight Components in Automotive Industry, S. BHOWMICK, A. BANERJI, University of Windsor, Canada, M.J. LUKITSCH, General Motors R&D Center, USA, A.T. ALPAS, University of Windsor, Canada</p>	<p>H3-10 Microbial Adhesion and Corrosion Mitigation by Electrodeposited ZN-NI-Biocide Composite Film on the Surface of Carbon Steel, X.F. ZHAI, J.Z. DUAN, K. LI, B.R. HOU, Institute of Oceanology, Chinese Academy of Sciences, China</p>
11:20 am	<p>Invited talk continued.</p>	<p>H3-11 Pushing the Envelope in Variable Temperature Nanoindentation: High and Cryogenic Temperature Measurements, G. FAVARO, M. CONTE, Anton Paar TriTec SA, Switzerland, G. MOHANTY, J. SCHWIERDRZIK, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, J.M. WHEELER, Laboratory for Nanometallurgy, ETH Zurich, Switzerland, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, N. RANDALL, B. BELLATON, Anton Paar TriTec SA, Switzerland</p>
11:40 am	<p>G3-12 Supercritical High Pressure Cryogenic Nitrogen Jet for Cutting/Ablating Metals and Cleaning/Stripping Paints, M. YAHIAOUI, B. JACQUES, Lab. d'Etudes des Microstructures et de Mécanique des Matériaux, France, A. TAZIBT, CRITT TJFU Laboratoire Jet Fluide Très Hautes Pressions, France, D. ENTEMEYER, T. GROSDIDIER, Laboratoire d'Etudes des Microstructures et de Mécanique des Matériaux, France</p>	
	<p style="text-align: center;">2017 ICMCTF Informational Meeting 12:00-1:15 pm Sunset Room</p>	<p style="text-align: center;">Elsevier Authors FTS: Focused Topic Session "How to Get Your Paper Published" 12:15-1:15 pm San Diego Room</p>

Thursday Morning, April 28, 2016

Topical Symposia

Room: Sunrise - Session TS4-2

Plasma Diagnostics and Modeling

Moderators: Yolanda Aranda Gonzalvo, University of Minnesota, USA, Ante Hecimovic, Ruhr-Universität Bochum, Germany

8:00 am	<p>TS4-2-1 Invited Ion-Surface Modification Effects: Nonlinearities with Ion Energy, K. NORDLUND, F. DJURABEKOVA, University of Helsinki, Finland</p>	
8:20 am	Invited talk continued.	
8:40 am	<p>TS4-2-3 Invited Average Energy Deposited per Atom: A Universal Parameter for Describing Ion-Assisted Film Growth? – Revisited, I. PETROV, J. GREENE, University of Illinois at Urbana-Champaign, USA, G. GRECZYNSKI, L. HULTMAN, Linköping University, Sweden</p>	
9:00 am	Invited talk continued.	
9:20 am	<p>TS4-2-5 Invited A Review of Ion Energy Distributions in Physical Vapor Deposition Systems, and Indication for the Absence of a Universal Deposition Parameter, A. ANDERS, Lawrence Berkeley National Laboratory, USA</p>	
9:40 am	Invited talk continued.	
10:00 am	<p>TS4-2-7 Invited Film Formation in HiPIMS Plasmas – Energy Distribution Functions and Film Growth, C. MASZL, W. BREILMANN, J. BENEDIKT, M. PRENZEL, A. VON KEUDELL, Ruhr University Bochum, Germany</p>	
10:20 am	Invited talk continued.	
10:40 am	<p>TS4-2-9 Invited The Total Energy Flux: Is it the Sole Parameter Governing the Phase Formation of Transition Metal Oxide Thin Films?, S. KONSTANTINIDIS, University of Mons, Belgium</p>	
11:00 am	Invited talk continued.	
<p>2017 ICMCTF Informational Meeting 12:00-1:15 pm Sunset Room</p>		

Thursday Afternoon, April 28, 2016

<p>Hard Coatings and Vapor Deposition Technology Room: Golden West - Session B3-1 Deposition Technologies and Applications for Diamond-like Coatings Moderators: Klaus Böbel, Robert Bosch GmbH, Germany, Frank Papa, Gencoa Ltd., USA</p>		<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B4-3 Properties and Characterization of Hard Coatings and Surfaces Moderators: Uwe Beck, BAM Berlin, Germany, Chau-Chang Chou, National Taiwan Ocean University, Taiwan, Republic of China, Farwah Nahif, eifeler-Vacotec GmbH, Germany</p>	
1:30 pm	<p>B3-1-1 Invited Amorphous Carbon, DLC, and Carbon Based Nanostructured Composite Coatings - a Resume of Selected Thin Film Design and Process Approaches Towards High Performance Applications, M. STUEBER, Karlsruhe Institute of Technology (KIT), Germany</p>		
1:50 pm	<p>Invited talk continued.</p>		<p>B4-3-2 Thermo-physical Properties of Wear Resistant Hard Coatings, M. TKADLETZ, N. SCHALK, Montanuniversität Leoben, Austria, M. POHLER, C. CZETTL, CERATIZIT Austria GmbH, Austria, C. MITTERER, Montanuniversität Leoben, Austria</p>
2:10 pm	<p>B3-1-3 Improvement of the Properties and the Adherence of the DLC Coatings Deposited using a Modified Pulsed-DC PECVD Technique and an Additional Cathode, G. CAPOTE, Universidad Nacional de Colombia, Colombia, M.A. RAMÍREZ, V. TRAVA-AIROLDI, INPE, Brazil</p>		<p>B4-3-3 Invited Micro-Slurry-Jet Erosion (MSE) Technique to Evaluate the Mechanical Properties of Hard Coatings, Y. IWAI, T. TAKAZAWA, University of Fukui, Japan, K. YAMAMOTO, Kobe Steel Ltd., Japan, T. MATSUBARA, Palmeco Co., Ltd., Japan</p>
2:30 pm	<p>B3-1-4 Synthesis of DLC Coatings by HPPMS using Ar, Ne, and He as Process Gases, K. BOBZIN, T. BRÖGELMANN, C. KALSCHUEER, M. ENGELS, RWTH Aachen University, Germany</p>		<p>Invited talk continued.</p>
2:50 pm	<p>B3-1-5 Design and Industrial Applications of Functionalized DLC Coatings, S. GUIMOND, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, E. BILLOT, Oerlikon Balzers, Oerlikon Balzers Coating Germany GmbH, Germany, F. MEUNIER, Oerlikon Balzers, Oerlikon Balzers, France, O. JARRY, Oerlikon Balzers, Oerlikon Balzers Coating Germany GmbH, Germany</p>		<p>B4-3-5 Characterization of Thermal, Mechanical and Tribological Properties of Fluoropolymer-based Composite Coatings, Y. HE, CanmetMATERIALS, Natural Resources Canada, K. FAROKHZADEH, A. EDRISY, University of Windsor, Canada</p>
3:10 pm	<p>B3-1-6 Deposition of Si-Containing DLC by using Ultra-High Speed PECVD Employing Surface Wave Propagation of 2.45-GHz Microwaves, H. KOUSAKA, Nagoya University, Japan</p>		<p>B4-3-6 Aging Resistance (12 years) of Hard and Oxidation Resistant SiBCN Coatings, J. HOUSKA, University of West Bohemia, Czech Republic</p>
3:30 pm	<p>B3-1-7 The Effect of Substrate Bias Voltage on Mechanical and Tribological Properties of Sputter-deposited Hydrogen-free Amorphous Carbon Coatings, C. LIU, A. MATTHEWS, A. LEYLAND, The University of Sheffield, UK</p>		<p>B4-3-7 The Oxidation Behavior and Corrosion Resistance of Vacuum Annealed ZrN-Coated Stainless Steel, K.-L. KUO, J.H. HUANG, G.P. YU, National Tsing Hua University, Taiwan, Republic of China</p>
3:50 pm	<p>B3-1-8 The Fullerene Structure Control of Diamond-like Carbon Films with Super Low Friction, J. ZHANG, State Key Laboratory of Solid Lubrication, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, China</p>		<p>B4-3-8 Relationship between Scanning Speed and Intermetallic Produced during Laser Metal Deposited TiC/Ti6Al4V Composite and its Effect on the Wear Resistance, R. MAHAMOOD, E. AKINLABI, University of Johannesburg, South Africa</p>
4:10 pm			<p>B4-3-9 Improved Corrosion and Wear Resistance of Laser Alloyed AISI 1015 Steel with Zn-Al-Sn Ternary Coatings, O.S. FATOBA, A. POPOOLA, Tshwane University of Technology, South Africa, S. PITYANA, Council for Scientific and Industrial Research (CSIR), South Africa</p>
<p>Poster Session 5:00-7:00 pm Grand Hall Reception begins at 6:00 pm</p>			

Thursday Afternoon, April 28, 2016

<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C6 Energetic Materials and Micro-Structures for Nanomanufacturing Moderators: Karsten Woll, Karlsruhe Institute of Technology (KIT), Germany, Ibrahim Gunduz, Purdue University, USA</p>		<p>Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E2-2 Mechanical Properties and Adhesion Moderators: Johann Michler, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, Etienne Bousser, The University of Manchester, UK, Fan-Bean Wu, National United University, Taiwan, Republic of China</p>	
<p>C1 presentations will be presented immediately after C6 presentations are concluded at 4:30 pm.</p>			
1:50 pm	<p>C6-2 Microscopic Two Color Infrared Imaging of Reactions in Ball Milled Ni-Al Powders, I. GUNDUZ, S. SON, A. JUSTICE, Purdue University, USA</p>	<p>E2-2-2 Statistical Analysis of Nano-impact Tests on Coated Systems, B. BEAKE, Micro Materials Ltd, UK, J. CHEN, Southeast University, China</p>	
2:10 pm	<p>C6-3 Combustion Characterization of Nano Particle Reactive Materials Suspended in Polymer Binders for use in Additive Manufacturing, J. COX, B. CLARK, M. PANTOYA, Texas Tech University, USA</p>	<p>E2-2-3 Solid Particle Erosion Modeling of Graded Nanocomposite TiSiN Coatings, M. LABERGE, J.E. KLEMBERG-SAPIEHA, L. MARTINU, École Polytechnique de Montréal, Canada</p>	
2:30 pm	<p>C6-4 Thermite Enhanced Reactions in Ni-Al Ball Milled Powder Compacts, c. REBHOLZ, University of Cyprus, Cyprus, C. DOUMANIDIS, Khalifa University, UAE, I. GUNDUZ, Purdue University, USA</p>	<p>E2-2-4 Time and Temperature Mechanical Properties Measurement of Titanium Nitride Thin Film with Different Process Parameters, M.-T. LIN, S.-C. WU, C.-H. CHEN, National Chung Hsing University, Taiwan, Republic of China</p>	
2:50 pm	<p>C6-5 Porous Silicon and On-Chip Energetic Materials, N. PIEKIEL, C. MORRIS, M. ERVIN, Army Research Laboratory, USA</p>	<p>E2-2-5 Invited Analytical Modeling of Residual Stresses in Multi- and Graded-Layer Systems, C.H. HSUEH, National Taiwan University, Taiwan, Republic of China</p>	
3:10 pm	<p>C6-6 Invited Tailoring Material Reactivity using Architecture, K. SULLIVAN, C. ZHU, E. DUOSS, J. KUNTZ, A. GASH, Lawrence Livermore National Laboratory, USA</p>	<p>Invited talk continued.</p>	
3:30 pm	<p>Invited talk continued.</p>	<p>E2-2-7 Investigation of Adhesion and Fatigue Properties of Micro-Arc Oxidation Coatings on AZ91 Magnesium Alloys, E.E. SUKUROGLU, Gumushane University, Turkey, E. ARSLAN, I. EFEÖGLU, Y. TOTIK, Ataturk University, Turkey, S. SUKUROGLU, Gumushane University, Turkey, N.M. DEMERCI, Baskent Public Education Center, Turkey</p>	
<p>Fundamentals and Technology of Multifunctional Thin Films Room: Sunset - Session C1 Recent Advances in Optical Thin Films and Nanomaterials Moderator: Ludvik Martinu, Polytechnique Montreal, Canada</p>			
3:50 pm	<p>C1-1 Invited Visible Light Emission from Silicon-based Thin Film Nanostructures, P. MASCHER, Z. KHATAMI, McMaster University, Canada</p>	<p>E2-2-8 On the Plastic Deformation of Chromium-Based Nitride Hard Coatings Deposited by Hybrid dcMS/HPPMS: A Fundamental Study Using Nanoscratch Test, K. BOBZIN, T. BRÖGELMANN, N.C. KRUPPE, M. ARGHAVANI, Surface Engineering Institute - RWTH Aachen University, Germany, J. MAYER, T.E. WEIRICH, Central Facility for Electron Microscopy - RWTH Aachen University, Germany</p>	
4:10 pm	<p>Invited talk continued.</p>	<p>E2-2-9 Residual Stress Gradient Measurement on Hard Coatings by Combining Average X-ray Strain (AXS) and Layer By Layer Methods, A.N. WANG, G.P. YU, J.H. HUANG, National Tsing Hua University, Taiwan, Republic of China</p>	
4:30 pm	<p>C1-3 Effect of Al on the Optical Properties of (Cu, Al) Thin Films, N. SHAHCHERAGHI, A. GENTLE, University of Technology Sydney (UTS), Australia, V.J. KEAST, University of Newcastle, Australia, M.B. CORTIE, University of Technology Sydney (UTS), Australia</p>		
<p>Poster Session 5:00-7:00 pm Grand Hall Reception begins at 6:00 pm</p>			

Thursday Afternoon, April 28, 2016

	<p>New Horizons in Coatings and Thin Films Room: Royal Palm 1-3 - Session F3 Layered Materials: Synthesis, Characterization and Tribological Applications Moderators: Haitao Liu, University of Pittsburgh, USA, Jiaying Huang, Northwestern University, USA</p>	<p>Advanced Characterization of Coatings and Thin Films Room: Royal Palm 4-6 - Session H2-1 Advanced In-situ Mechanical Testing of Films and Coatings Moderators: Benoit Merle, Friedrich-Alexander-University Erlangen-Nürnberg (FAU), Germany, Marco Sebastiani, University of Rome "Roma Tre", Italy</p>
1:30 pm	<p>F3-1 Invited Realization of Macroscale Superlubricity through Graphene-nanodiamond Nanoscrolls, D. BERMAN, S. DESHMUKH, S. SANKARANARAYANAN, Center for Nanoscale Materials, Argonne National Laboratory, USA, A. ERDEMIR, Energy Systems Division, Argonne National Laboratory, USA, A. SUMANT, Center for Nanoscale Materials, Argonne National Laboratory, USA</p>	<p>H2-1-1 The Effect Of Ion Implantation on Chemomechanical Behaviour in the Low-Load Indentation Hardness of Ceramic Materials, S.J. BULL, Newcastle University, UK</p>
1:50 pm	<p>Invited talk continued.</p>	<p>H2-1-2 Mechanical Properties of Candidate Materials for High Temperature Nanoindentation Tips, K.E. JOHANNIS, W.C. OLIVER, P.S. PHANI, J.E. SWINDEMAN, Nanomechanics, Inc., USA, G.M. PHARR, University of Tennessee and Oak Ridge National Laboratory, USA, L.A. BOATNER, Oak Ridge National Laboratory, USA</p>
2:10 pm	<p>F3-3 Graphene Oxide Membranes in Water: to Disintegrate or Not to Disintegrate?, C.-N. YEH, K. RAIDONGIA, J. SHAO, Northwestern University, USA, Q.-H. YANG, Tianjin University, China, J. HUANG, Northwestern University, USA</p>	<p>H2-1-3 Strength and Fracture Toughness of Multilayer TiN/CrN Systems: Assessment of Bilayer Thickness Effects by Means of Ex-situ Tests on FIB-milled Micropillars and Microcantilevers, J.J. ROA, CIEFMA, Universitat Politècnica de Catalunya, Spain, R. RODRÍGUEZ, Universidad Pública de Navarra, Spain, V. LAMELA, CIEFMA, Universitat Politècnica de Catalunya, Spain, R. MARTÍNEZ, Centro de Ingeniería Avanzada de Superficies, Spain, E. JIMÉNEZ-PIQUÉ, L. LLANES, CIEFMA, Universitat Politècnica de Catalunya, Spain</p>
2:30 pm	<p>F3-4 Tuning Inorganic Thin Film Interface Properties using Organic Nano Molecular Layers, G. RAMANATH, M. KWAN, T. CARDINAL, Rensselaer Polytechnic Institute, USA, H. MUTIN, Université Montpellier, France, P. KEBLINSKI, T. BORCA-TASCIUC, Rensselaer Polytechnic Institute, USA</p>	<p>H2-1-4 Fracture Behaviour and Internal Stress Gradients in GaN Heterostructures Studied by FIB Techniques, M. REISINGER, Montanuniversität Leoben, Austria, M. MEINDLHUMER, Erich Schmid Institute of Materials Science, Austrian Academy of Sciences, Austria, M. TOMBERGER, Infineon Technologies Austria AG, Austria, J. ZECHNER, KAI Kompetenzzentrum Automobil- u. Industrieelektronik GmbH, Austria, B. SARTORY, Materials Center Leoben Forschung GmbH, Austria, J. KECKES, Montanuniversität Leoben, Austria</p>
2:50 pm	<p>F3-5 Invited Deposition and Characterization of 2D Transition Metal Dichalcogenides, N. KORATKAR, Rensselaer Polytechnic Institute, USA</p>	<p>H2-1-5 In Situ High-Temperature Small-Scale Fracture Mechanics of Hard Ceramic Coatings, J. BEST, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, J. ZECHNER, KAI – Kompetenzzentrum Automobil- und Industrieelektronik GmbH, Austria, J. WEHRS, R.L. SCHOEPPNER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, M. MORSTEIN, PLATIT AG, Advanced Coating Systems, Switzerland, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland</p>
3:10 pm	<p>Invited talk continued.</p>	<p>H2-1-6 Direct Comparison between High Temperature Nanoindentation Creep and Uniaxial Creep Measurements, P.S. PHANI, K.E. JOHANNIS, J.E. SWINDEMAN, Nanomechanics, Inc., USA, R.W. SWINDEMAN, Chromtech, Inc., USA, W.C. OLIVER, Nanomechanics, Inc., USA</p>
3:30 pm		<p>H2-1-7 Invited Cracking in Brittle Materials During Nanoindentation, G.M. PHARR, University of Tennessee and Oak Ridge National Laboratory, USA</p>
3:50 pm		<p>Invited talk continued.</p>
4:10 pm		<p>H2-1-9 Characterization of Carbon-Based Materials with Combined In Situ Raman Spectroscopy and Triboindentation, P. NEGRI, Renishaw Inc., USA, J. LUKES, Hysitron Applications Lab, Czech Republic, J. RISAN, Hysitron, Inc., USA, I. HAYWARD, Renishaw plc, UK, V. FERGUSSON, University of Colorado Boulder, USA</p>
4:30 pm		<p>H2-1-10 The Effects of Core Confinement on the Mechanical Response of Al/a-Si Core-shell Nanostructures, R. FLEMING, M. ZOU, University of Arkansas, USA</p>
	<p>Poster Session 5:00-7:00 pm Grand Hall Reception begins at 6:00 pm</p>	

Thursday Afternoon, April 28, 2016

Topical Symposia

Room: Sunrise - Session TS2-1

Thermal Spray Technologies and Coatings

Moderator: Pylin Sarobol, Sandia National Laboratories, USA

1:30 pm	TS2-1-1 Unique Thick Film Ceramic Microstructures by Aerosol Deposition, P. FUIERER, J. ADAMCZYK, New Mexico Tech, USA, J. EXNER, R. MOOS, University of Bayreuth, Germany
1:50 pm	TS2-1-2 Ferromagnetic Films Deposited at Room Temperature by Aerosol Deposition for Microwave Integrated Circuitry, S. JOHNSON, E. GLASER, Naval Research Laboratory, USA, C. GONZALEZ, California State University Long Beach, USA, S.-F. CHENG, Naval Research Laboratory, USA, Z. ROBINSON, SUNY Brockport, USA, J. CALAME, H. NEWMAN, S. SHIN, E. GORZKOWSKI, Naval Research Laboratory, USA
2:10 pm	TS2-1-3 Invited Room Temperature Deposition of Dense Ceramic Films by Granule Spray in Vacuum, D.-S. PARK, B.-D. HAHN, J. RYU, W.-H. YOON, J.-J. CHOI, J. KIM, Korea Institute of Materials Science, Republic of Korea
2:30 pm	Invited talk continued.
2:50 pm	TS2-1-5 Deformation and Consolidation of Alumina Particles - Basis for Aerosol Deposition, a Room Temperature, Solid-State Deposition Process, P. SAROBOL, M. CHANDROSS, W.M. MOOK, P.G. KOTULA, D.C. BUFFORD, K. HATTAR, B.L. BOYCE, J.D. CARROLL, A.C. HALL, Sandia National Laboratories, USA
3:10 pm	TS2-1-6 Nanocomposite Si-M Particles Produced by Plasma Spray PVD for High-Density Lithium Ion Batteries, M. KAMBARA, N. GERILE, M. KAGA, The University of Tokyo, Japan
3:30 pm	TS2-1-7 Tribo-mechanical Properties of Fe ₃ Al-based Composite HVOF Coatings Containing Boride and Nitride Phases, F. POUGOUM, L. MARTINU, P. DESJARDINS, J.E. KLEMBERG-SAPIEHA, Polytechnique Montreal, Canada, S. GAUDET, S. SAVOIE, R. SCHULZ, Institut de recherche d'Hydro-Québec, Canada
3:50 pm	TS2-1-8 Sliding Wear Behavior Of Wc-Ni Composite Coating Deposited By Cold Spray, S. AHMAD ALIDOKHT, P. MANIMUNDA, P. VO, S. YUE, R. CHROMIK, McGill University, Canada

Poster Session
5:00-7:00 pm
Grand Hall
Reception begins at 6:00 pm

Thursday Afternoon Poster Sessions

Coatings for Use at High Temperatures

Room: Grand Hall - Session AP

Symposium A Poster Session

5:00 pm

AP-3

Influence of Zirconium Alloy Zr-1Nb Surface Layer Modification on Hydrogen Sorption, Diffusion and Desorption Processes, N. PUSHILINA, N. KUDIAROV, B. KASHKAROV, A. TERESOV, Tomsk Polytechnic University, Russian Federation

AP-4

Life Time Analysis of Aluminide Coatings on P92 Substrate at 650° C, P. KRUKOVSKIY, M. METEL, Institute of Engineering Thermophysics, Ukraine, A. AGUERO, R. MUELAS, Instituto Nacional de Técnica Aeroespacial, Spain, V. KOLARIK, Fraunhofer-Institut für Chemische Technologie, Germany

AP-5

Structural Changes in Barrier SiO₂ Films Revealed by In-Situ Stress Measurements up to 1000°C, S. BIGL, Montanuniversität Leoben, Austria, M.J. CORDILL, Erich Schmid Institute of Materials Science, Austrian Academy of Sciences, Austria

AP-6

Investigation of γ / γ' forming Al₁₀Co₂₅Cr₈Fe₁₅Ni₃₆Ti₆ High-entropy Alloy Coatings for use in Oxidizing Environments, T. BUTLER, K. GARRICK, M. WEAVER, The University of Alabama, USA

AP-7

Investigation of the High Temperature Oxidation Behavior of Ni-Al-Hf Coated CMSX-8 Superalloy, R.E. WHITE, T. BUTLER, M. WEAVER, The University of Alabama, USA

AP-8

Microstructural Evolution during Oxidation in Nanocrystalline NiCrAlY Deposited on CMSX-8, B. HUNTER, T. BUTLER, M. WEAVER, University of Alabama, USA

AP-9

High Temperature Degradation Behaviour of Plasma-Thermochemically Induced Zr(N) Barrier Layers on Zircaloy, D. HUSSAIN, The University of Sheffield, UK

AP-10

Plasma Spray- Physical Vapor Deposition (PS-PVD) of Advanced Environmental Barrier Coating Systems, B. HARDER, D. ZHU, NASA Glenn Research Center, USA

AP-11

Mechanical Properties of ZrO₂-4mol% Y₂O₃ Thermal Barrier Coatings Fabricated by Plasma Spraying Coatings, B.K. JANG, National Institute for Materials Science, Japan, K. YASUDA, Tokyo Institute of Technology, Japan, S.W. KIM, Y.S. OH, H.T. KIM, Korea Institute of Ceramic Engineering and Technology, Republic of Korea

AP-15

Thermal Properties of Rare Earth Metal Ions Doped Yttrium Aluminum Perovskite, D. MICHALIK, Silesian University of Technology, Poland, J. PLEWA, University of Applied Science, Germany, D. NIEMIEC, A. IWANIAK, M. SOPICKA-LIZER, Silesian University of Technology, Poland

Hard Coatings and Vapor Deposition Technology

Room: Grand Hall - Session BP

Symposium B Poster Session

5:00 pm

BP-6

Effect of the Distance Between Screen and Sample on Active Screen Plasma Technique for the DLC Films Growth using PECVD-DC Pulsed, M. RAMIREZ RAMOS, V. TRAVA-AIROLDI, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

BP-8

Synthesis and Characterization of Mg-Cr Thin Film Alloys via Magnetron Co-Sputtering, E. JONES, J. ALLER, K. WALLS, M. BABER, P. GANNON, Montana State University, USA, G.L. SONG, Xiamen University, China

BP-9

Effect of Post-Deposition Annealing on the Optical and Mechanical Properties of Amorphous Tungsten Oxynitride Thin Films, O.R. NUNEZ, A. MORENO TARANGO, C. RAMANA, The University of Texas at El Paso, USA

BP-10

Pulsed Laser Deposition of a Non-Stoichiometric CdO Film and the Effect of Annealing, J.G. QUIÑONES-GALVÁN, Universidad de Guadalajara, Mexico, R. LOZADA-MORALES, Benemérita Universidad Autónoma de Puebla, Mexico, S. JIMÉNEZ-SANDOVAL, Centro de Investigación y Estudios Avanzados del I.P.N., Mexico, E. CAMPS, Instituto Nacional de Investigaciones Nucleares, Mexico, V.H. CASTREJÓN-SÁNCHEZ, Tecnológico de Estudios Superiores de Jocotitlán, Mexico, E. CAMPOS-GONZÁLEZ, Universidad Autónoma de Querétaro, Mexico, M. ZAPATA-TORRES, CICATA-IPN, Mexico, A. PÉREZ-CENTENO, M.A. SANTANA-ARANDA, Universidad de Guadalajara, Mexico

BP-12

Mechanical Properties of CrZrSiN/CrZrN/CrN Multilayer Coatings with Various Bilayer Periods, H.K. KIM, J.H. LA, K.T. BAE, S.Y. LEE, Korea Aerospace University, Republic of Korea, O.J. KWON, K.DLC, Republic of Korea, H.D. HAN, DTR, Republic of Korea

BP-14

Effect of the Annealing Treatments on the Corrosion Resistance of the Zn/Mg/Zn Multilayer Coatings, K.T. BAE, J.H. LA, S.Y. LEE, Korea Aerospace University, Republic of Korea, K.H. NAM, POSCO Technical Research Laboratories, Republic of Korea

BP-16

Optimization of the Deposition Procedure of VN Thin Films by Unbalanced Magnetron Sputtering, C.K. WU, J.H. HUANG, G.P. YU, National Tsing Hua University, Taiwan, Republic of China

BP-17

Structure and Mechanical Properties of Magnetron-Sputtered ZrN/SiN_x Multilayered Coatings, G. ABADIAS, Institut P', CNRS - ENSMA - Université de Poitiers, France, V. UGLOV, I.A. SALADUKHIN, S.V. ZLOTSKI, V.Y. SHYMANSKI, Belarusian State University, Belarus, G. TOLMACHOVA, 4Kharkov Institute of Physics and Technology, Ukraine, S.N. DUB, Institute for Superhard Materials, Ukraine, A. MICHEL, Institut P', - Université de Poitiers, France

BP-19

Microstructural Analysis of Self-Organized Nanostructures in Polycrystalline TiAlN Coatings, I. MATKO, Institute of Physics, Slovak Academy of Sciences, Slovakia, J. TODT, Montanuniversität Leoben, Austria, B. SARTORY, Materials Center Leoben Forschung GmbH, Austria, R. PITONAK, Bohlerit GmbH & Co KG, Austria, J. KECKES, Montanuniversität Leoben, Austria

BP-20

Influence of Laser Ablation Plasma Parameters on the Incorporation of Silicon into Al-Si-N Thin Films, L.P. RIVERA, Instituto Nacional de Investigaciones Nucleares, Mexico, J.S. RESTREPO, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico, E. CAMPS, Instituto Nacional de Investigaciones Nucleares, Mexico, S. MUHL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico

BP-21

Structured Metallic Films for Enhanced Mechanical Properties Using Nanoparticle and ALD Strengthening, R.L. SCHOEPPNER, A.A. TAYLOR, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, X. MAEDER, Laboratory for Mechanics of Materials and Nanostructures, Empa, Switzerland, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland

Thursday Afternoon Poster Sessions

- BP-22**
Micromorphology and Mechanical Property of Titania-Silica Hybrid Composite Films Prepared by Sol-Gel Technique as the Interlayers of a DLC-Deposited Ti6Al4V Substrate, N.-E. WU, M.-K. HSU, C.-C. CHOU, National Taiwan Ocean University, Taiwan, Republic of China, R. WU, National Institute for Materials Science, Japan
- BP-23**
Multilayer by Boron-Carbon on a Low Carbon Steel, N. LOPEZ PERRUSQUIA, M.A. DONU RUIZ, MA. ARREDONDO RAMÍREZ, S. LARA RANGEL, Universidad Politécnica del Valle de México, D. SANCHEZ HUERTA, Tecnológico de Estudios Superiores de Cuautitlan Izcalli, México
- BP-24**
Evaluation of the Adhesion Behavior of Aluminum-Based Alloys on Various CrN-based Coatings by using the Aluminum Adhesion Test for Lube Free Die Casting, B. WANG, G. BOURNE, S. MIDSON, A.L. KORENYI-BOTH, Colorado School of Mines, USA, S. UDVARDY, North American Die Casting Association (NADCA), USA, P. RUDNIK, Plansee USA LLC, USA, M. KAUFMAN, Colorado School of Mines, USA
- BP-25**
Diamond-Like Carbon Adhesion Analysis on Ti6Al4V using a Silicon Interlayer by Pulsed DC-PECVD Deposition with Different Pulsed DC Voltages, D. LUGO GONZÁLEZ, P. SANTANA DA SILVA, M. RAMÍREZ RAMOS, E. CORAT, V. TRAVA-AIROLDI, National Institute for Space Research, Brazil
- BP-26**
Cr-Based Coatings for Fine Blanking, T. SCHAR, M. MORSTEIN, PLATIT AG, Advanced Coating Systems, Switzerland, M. DELLER, Fritz Schless AG, Switzerland, T. KLÜNSNER, Materials Center Leoben Forschung GmbH, Austria
- BP-27**
Structure, Mechanical and Adhesion Properties of CuZr Metallic Glass and CuZrON Oxynitride Thin Films, F. CHALLALI, F. TÉTARD, LSPM-CNRS, France, G. ABADIAS, Institut P, Université de Poitiers, France, L. BELLIARD, UPMC, Paris, France, T. CHAUVEAU, D. DUVEAU, S. MERABTINE, LSPM-CNRS, France, M.P. BESLAND, Institut des matériaux jean Rouxel, France, P. DJEMIA, LSPM-CNRS, France
- BP-29**
Microstructure and Mechanical Properties of Cr-Al-Si-N Nanocomposite Films Deposited by Inductively Coupled Plasma-Assisted Magnetron Sputtering, S.B. HEO, J.B. JEON, W. LEE, U.C. JUNG, Korea Institute of Industrial Technology (KITECH), Republic of Korea, D. KIM, University of Ulsan, Republic of Korea, I.W. PARK, Korea Institute of Industrial Technology (KITECH), Republic of Korea, Y. SONG, University of Ulsan, Republic of Korea
- BP-30**
Effect of Interlayers on the Mechanical Properties of Diamond-like Carbon Thin Films, W.R. KIM, K.S. KIM, E. AN, Korea Institute of Industrial Technology (KITECH), Republic of Korea, W. CHUNG, Pusan National University, Republic of Korea, I.W. PARK, J. KIM, Korea Institute of Industrial Technology (KITECH), Republic of Korea
- BP-32**
Formation of Si-doped DLC Film using a Magnetron Sputtering, T. OHTA, S. OHKOCHI, Meijo University, Japan, A. ODA, Chiba Institute of Technology, Japan, H. KOUSAKA, Nagoya University, Japan
- BP-33**
High-rate Magnetron Sputtering with "Hot" Target, D.V. SIDELEV, Tomsk Polytechnic University, Russian Federation
- BP-34**
Spatio-Temporal Behavior of Microwave Sheath Voltage Combination Plasma, S. KAR, H. KOUSAKA, Nagoya University, Japan, L. RAJA, University of Texas at Austin, USA
- BP-35**
Properties and Residual Stress State of Amorphous/Nanocrystalline AlNiZr-based PVD Metallic Nanostructured Coatings, J. LAWAL, A. LEYLAND, A. MATTHEWS, The University of Sheffield, UK, E. BOUSSER, The University of Manchester, UK, B. WINIARSKI, FEI Company, Netherlands, P. WITHERS, The University of Manchester, UK, P. KIRYUKHANTSEV-KORNEEV, National University of Science & Technology (MISIS), Russian Federation
- BP-36**
The Effects of Cu+Ag Contents and Cu/Ag Ratios on the Morphologies and Nanostructure of PVD CrCuAgN Nanocomposite Coatings, X. LIU, C. LIU, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK
- BP-39**
Fatigue and Adhesion Properties of Martensite and Austenite Phases of TiNi Shape Memory Thin Films Deposited by Magnetron Sputtering, H. ÇIÇEK, Erzurum Technical University, Turkey, I. EFEOGLU, Y. TOTIK, KV. EZIRMIK, Ataturk University, Turkey
- BP-40**
Atomic-scale Strengthening Mechanism of ZrN_x Single Phase Films Deposited by Arc Ion Plating, G.Q. LIN, K.C. HAN, A.M. WU, C. DONG, MMLab, Dalian University of Technology, China, K.P. TAI, X. JIANG, Institute of Metals Research, Chinese Academy of Sciences, China
- BP-41**
The Change in Seed Density and Morphology of Nanocrystalline Diamond Powder on W-, Si-based Carbide and Nitride Buffer Layers, S. JANG, Y.-S. SONG, Korea Aerospace University, Republic of Korea, Y.-J. BAIK, W.-S. LEE, J.K. PARK, Korea Institute of Science and Technology, Republic of Korea
- BP-42**
Thermodynamic Modelling of PVD Deposition Processes, M. TO BABEN, GTT-Technologies and Materials Chemistry, RWTH Aachen University, Germany, K. HACK, GTT Technologies, Germany
- BP-43**
The Effect of Alloying Molybdenum to Cathodic Arc Evaporated Ti-Al-N Coatings on their Mechanical Properties and Thermal Stability, S.A. GLATZ, C. KOLLER, TU Wien, Austria, R. RACHBAUER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, S. KOLOZSVÁRI, Plansee Composite Materials GmbH, Germany, P. MAYRHOFER, TU Wien, Austria
- BP-44**
Low Energy Ion Etching Induced Graphene Layer Cross-linking Nanocrystalline Carbon Films with High Hardness, X. FAN, C. WANG, D.F. DIAO, Shenzhen University, China
- BP-45**
Low Temperature Active Screen Plasma Nitriding of 17-4PH Stainless Steel, C.E. PINEDO, Heat Tech Technology for Heat Treatment and Surface Engineering Ltd, Brazil, S. LARROTTA, A. NISHIKAWA, University of São Paulo, Brazil, X.Y. LI, University of Birmingham, UK, H. DONG, University of Birmingham, UK, A. TSCHIPTSCHIN, University of São Paulo, Brazil
- BP-46**
The Investigation Of Corrosion Behavior Of Az91 Magnesium Coated With Micro Arc Oxidation (Mao) Method, M. YUCA, Ataturk University, Turkey, E.E. SUKUROGLU, Gumushane University, Turkey, M. GAVGALI, Ataturk University, Turkey, E. GAVGALI, Eylul University, Turkey, S. SUKUROGLU, Gumushane University, Turkey, Y. TOTIK, E. ARSLAN, Ataturk University, Turkey

Thursday Afternoon Poster Sessions

Fundamentals and Technology of Multifunctional Thin Films

Room: Grand Hall - Session CP

Symposium C Poster Session

5:00 pm

CP-2

Novel Nitride Thin Films in the Sc-Nb-N System for Thermoelectric Applications, A. LE FEBVRIER, S. KERDSONGPANYA, P. EKLUND, Linköping University, IFM, Sweden

CP-3

Development of High Temperature Mold Process for Sand Casting with Thin-Wall and Complex Shape, E.H. KIM, G.H. CHO, H.Y. PARK, H.H. CHOI, Y.G. JUNG, Changwon National University, Republic of Korea

CP-8

Characterization of Cu-meshes Coated by Graphene and Carbon Nanotubes via Electrophoretic Deposition, Y.J. HWANG, B.J. KIM, J.S. PARK, J.S. PARK, Hanyang University, Republic of Korea

CP-9

Effects of Hafnium Doping on the Properties of Aluminum-Zinc-Oxide Films and Characteristics of Thin Film Transistors, S.H. LEE, H.S. JUN, J.H. PARK, J.S. PARK, Hanyang University, Republic of Korea

CP-11

Effect of Ga Content on Optoelectronic and Magnetic Properties of (Ga, Co) Co-doped ZnO Films by Radio Frequency Magnetron Co-sputtering, S.C. CHEN, C.F. LU, C.H. WANG, Ming Chi University of Technology, Taiwan, Republic of China, C.L. TSAI, Industrial Technology Research Institute, Taiwan, Republic of China, C.K. WEN, National Taiwan University, Taiwan, Republic of China, Y.K. FU, Industrial Technology Research Institute, Taiwan, Republic of China, T.H. CHUANG, National Taiwan University, Taiwan, Republic of China

CP-12

C-Sputtering Simulation (CO-SS) of the Sputtering Yield Amplification of Al, C, and Si, J. CRUZ, S. MUHL, Instituto de Investigaciones en Materiales - UNAM, Mexico, E. ANDRADE, Instituto de Física-UNAM, Mexico, O. DE LUCIO, Instituto de Física -UNAM, Mexico, E. GARCÉS, Wolfram Research Inc., Mexico

CP-14

Study of Perovskite Solar Cells Prepared by Low-Temperature Solution Techniques, G.M. WU, Chang Gung University, Taiwan

CP-18

Fabrication of P-type ZnO by Annealing Zn₃N₂ Grown by RF Magnetron Sputtering, M.B. HAIDER, King Fahd University of Petroleum and Minerals, Saudi Arabia

CP-19

Understanding Mechanisms of Adhesion of SiO₂ Thin Film Deposited on a Polymeric Substrate, C. HO, J. ALEXIS, L LACROIX, O. DALVERNY, Laboratoire Génie de Production ENIT-INP, France, A. DEHOUX, F. DE AYGUAVIVES, P. LACAN, Essilor R&D, France

CP-20

Electron-Beam Deposited Multilayered HfO₂/Mo/HfO₂ Devices for Energy Efficient Window Applications, J. GOMEZ, The University of Texas at El Paso, USA

CP-22

Highly Porous Carbon Films for High-rate Supercapacitor Electrodes, A.M. WU, C.C. FENG, J.X. LV, S. GAO, H. HUANG, Dalian University of Technology, China

CP-23

Surface Modified Carbon Nanofibers/MnO₂ Composites for Use in Supercapacitor, J.-M. TING, H.-M. LIN, National Cheng Kung University, Taiwan, Republic of China

CP-24

Flexible and Transparent ITO/Ag Thin Films Fabricated by Using Dual-Facing Targets Sputtering at Room Temperature, S.M. KIM, Gachon University, Republic of Korea, M.J. KEUM, Jusung Engineering Co., Republic of Korea, Y.S. RIM, University of California, Los Angeles, USA, K.H. KIM, Gachon University, Republic of Korea

CP-25

Structure and Photoluminescence of the Pt-coated V₂O₅ Nanowires by ALD Process, C.C. WANG, National Chung Hsing University, Taiwan, Republic of China, H.C. SHIH, Chinese Culture University, Taiwan, Republic of China

CP-26

Characterization of Vanadium Oxide Thin Films with Different Stoichiometry Using Raman Spectroscopy, C. ZHANG, Q. YANG, C. KOUGHIA, F. YE, S. KASAP, University of Saskatchewan, Canada

CP-27

Spin-Glass Behavior and Exchange Bias Observed in YMn_{0.8}Fe_{0.2}O₃ Thin Films, S. CHAUHAN, A.K. SINGH, P. DUBEY, R. CHANDRA, IIT Roorkee, India

CP-29

Effect of Gallium Doping on CdS Buffer Layer Properties and Corresponding CIGS Solar Cell Performance, H.M. JUNG, S.A. ALHAMMADI, H. PARK, W.K. KIM, Yeungnam University, Republic of Korea

CP-30

Effects Of Deposition Conditions On The Characteristics Of Rf-Sputtered Lipon Protective Coatings For Lithium Aluminum Titanium Phosphate Solid Electrolytes, H.-C. LU, Z.-H. LI, C.-Y. LEI, Chang Gung University, Taiwan, Republic of China

CP-31

Pre-formation of MoSe₂ During Three-stage Co-evaporation of Cu(InGa)Se₂ and its Effect on Solar Cell Performance, S. KWON, J. KOO, W.K. KIM, Yeungnam University, Republic of Korea

CP-32

The Effects of Surface Conditions of TiO₂ Thin Film on the UV-Assisted Gas Sensing Response at Room Temperature, T. XIE, University of Maryland, College Park, USA, A. RANI, The George Washington University, USA, B. WEN, A. CASTILLO, B. THOMSON, R. DEBNATH, N5 sensors, Inc., USA, T. MURPHY, R.D. GOMEZ, University of Maryland, College Park, USA, A. MOTAYED, N5 sensors, Inc., USA

CP-33

Fabrication and Study the Performance of Solar Cell made from Newnanostructure Phthalocyanine Complex Thin Film, A. HENDI, King Abdulaziz University, Saudi Arabia

CP-34

Mechanical and Tribological Properties of CdO-TiO₂ Films Obtained by Sol-gel Technique, F. FLORES-RUIZ, CINVESTAV-Unidad Queretaro and CNYN-UNAM, Mexico, C.J. DILIEGROS-GODINES, CINVESTAV-Unidad Queretaro and CNYN-UNAM, Mexico, F.A. HERNÁNDEZ-GARCIA, R. CASTANEDO-PÉREZ, G. TORRES-DELGADO, CINVESTAV-Unidad Queretaro, Mexico, E. BROITMAN, Ningbo Institute of Material Technology & Engineering, CAS, Ningbo, China

Thursday Afternoon Poster Sessions

Coatings for Biomedical and Healthcare Applications
Room: Grand Hall - Session DP

Symposium D Poster Session

5:00 pm

DP-3

In Vitro Study of Ti-Nb-Sn Alloy Surface Modified with RGD Peptide, s.k. HSU, Central Taiwan University of Science and Technology, Taiwan, Republic of China, W.F. HO, National University of Kaohsiung, Taiwan, Republic of China, S.C. WU, Y.S. CHEN, H.C. HSU, Central Taiwan University of Science and Technology, Taiwan, Republic of China

DP-4

Ag-doped TiCaPCON Films: Influence of Ag Content and Surface Roughness on Kinetics of Ag⁺ Ion Release and In Vitro Bioactivity Study, D.V. SHTANSKY, I.V. SUKHORUKOVA, A.N. SHEVEYKO, P. KIRYUKHANTSEV-KORNEEV, National University of Science and Technology "MISIS", Russian Federation

DP-7

Electroactive Films on Titanium Alloys as Bioactive Coatings for Hard Tissue Replacement, P. SPATENKA, L. CVRCEK, J. KRCIL, J. MALEK, Z. TOLDE, V. STARY, Czech Technical University in Prague, Czech Republic

DP-8

Effects of Plasma Electrolytic Oxidation on Pure Magnesium, L.F. BERRIO, J.G. CASTAÑO, Universidad de Antioquia, Colombia, J.P. ALLAIN, University of Illinois at Urbana-Champaign, USA, F. ECHEVERRÍA, Universidad de Antioquia, Colombia

DP-9

Enhancing the Bioactivity of Yttria Stabilized Zirconia by Immobilizing with Adhesive Peptide using L-Dopa as Cross-Linker, s.c. WU, H.C. HSU, Central Taiwan University of Science and Technology, Taiwan, Republic of China, W.F. HO, National University of Kaohsiung, Taiwan, Republic of China, H.J. LIAO, Central Taiwan University of Science and Technology, Taiwan, Republic of China, J. TIAN, Xiamen Medical College, China, S.K. HSU, Central Taiwan University of Science and Technology, Taiwan, Republic of China

DP-10

Hydroxyapatite Film Coating Containing Silicon and Magnesium on the Ti-25Ta-xHf for Dental Applications, H.C. CHOE, J.J. KIM, K. LEE, Chosun University, Republic of Korea

DP-11

Si-doped Hydroxyapatite Coatings on the Ti-6Al-4V for Dental Applications, S.Y. PARK, K. LEE, H.C. CHOE, Chosun University, Republic of Korea

DP-12

Biocompatibility of PEO Treated Ti-6Al-4V in the Solutions Containing Ca, P, and Mn Ions, J.I. KANG, M.K. SON, H.C. CHOE, Chosun University, Republic of Korea

DP-13

Hydroxyapatite Morphology Changes of Ti-6Al-4V ELI with Various Electrochemical Factors, K. LEE, Chosun University, Republic of Korea, D.S. MOON, KJ Meditech Co., Ltd., Republic of Korea, H.C. CHOE, Chosun University, Republic of Korea

DP-14

Plasma Electrolytic Oxidation on Ti-6Al-4V in Solution Containing Ca, P, and Zn Ion, I.J. HWANG, K. LEE, Chosun University, Republic of Korea, D.S. MOON, KJ Meditech Co., Ltd., Republic of Korea, H.C. CHOE, Chosun University, Republic of Korea

DP-16

Diamond-like Carbon Coating Containing Indian Clove Oil Properties, L. VIEIRA, L. C.S. CRUZ, J. S.L. BRANDÃO, T. B. SANTOS, P.A. RADI, R. PESSOA, H. MACIEL, University of Paraíba Valley, Brazil

DP-21

Mg-doped Nano Hydroxyapatite Coated on the Nanotubular Ti-30Ta-xHf for Dental Applications, J. JANG, K. LEE, H.C. CHOE, Chosun University, Republic of Korea

DP-22

Development of a Molecularly Imprinted Polyacrylamide Polymer for Applications in Biosensing, E. WHITE, S. SINGH, R. COLLINS, R. ALMOTIRI, S. CATLEDGE, University of Alabama at Birmingham, USA

DP-24

Research of Biomechanical Properties on Dental Implants With and Without Calcium Phosphate and Calcium Sulfate, C.M. WU, H.Y. CHENG, K.L. OU, M.S. WANG, C.F. HUANG, Taipei Medical University, Taiwan, Republic of China

Tribology and Mechanical Behavior of Coatings and Engineered Surfaces

Room: Grand Hall - Session EP

Symposium E Poster Session

5:00 pm

EP-1

Effect of Zr Power on Tribological Properties of Sputtered TiZrN Coatings, v. CHAUHAN, Chandubhai S. Patel Institute of Technology (CSPIT), Charotar University of Science and Technology (CHARUSAT), India, S. RAWAL, Charotar University of Science and Technology, India

EP-2

On the Hall-Petch Relation for the Metallic Binder Layer in WC-Co Cemented Carbides: Investigation of Microstructural Effects by Using Statistical Nanoindentation Method and Thin Film Models, J.J. ROA, E. JIMÉNEZ-PIQUÉ, J.M. TARRAGÓ, CIEFMA, Universitat Politècnica de Catalunya, Spain, J. FAIR, Sandvik Hyperion, UK, L. LLANES, CIEFMA, Universitat Politècnica de Catalunya, Spain

EP-3

In Situ High-Temperature Nano-Impact Testing of a Hard-Coating System, J. BEST, G. GUILLONNEAU, S. GROP, A.A. TAYLOR, D. FREY, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, O. LONGCHAMP, J-M. BREGUET, Alemnis GmbH, Switzerland, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland

EP-4

Microstructural Evolutions and Wear Behavior of Laser Cladded Single Coat Nickel based Tungsten Carbide (Ni-WC) on the Substrate of a Medium Carbon Steel, M.K. ALAM, A. EDRISY, R.J. URBANIC, University of Windsor, Canada

EP-5

Micro-blasting Effect on Fracture Resistance of PVD-AlTiN Coated Cemented Carbide Cutting Tools, s. TANAKA, T. SHIROCHI, H. NISHIZAWA, K. METOKI, H. MIURA, H. HARA, T. TAKAHASHI, Tungaloy Co., Ltd., Japan

EP-8

Investigation of the Friction and Wear Behavior of DLC Films and Duplex Plasma Nitriding/DLC Coatings under Different Sliding Conditions, H. KOVACI, Ataturk University, Turkey, A.F. YETIM, F. YILDIZ, Erzurum Technical University, Turkey, Ö. BARAN, Erzincan University, Turkey, A. ÇELİK, Ataturk University, Turkey

EP-9

Recent Advances in Adhesion Testing of Superhard PVD Coatings Using the Scratch Test Method, M. ZAWISCHA, S. MAKOWSKI, V. WEIHNACHT, A. LESON, Fraunhofer Institute for Material and Beam Technology IWS, Dresden, Germany

EP-10

Formation and Adhesion of Boride Coatings at the Surface of API X60 Steels, M.A. DOÑU RUIZ, N. LOPEZ PERRUSQUÍA, Universidad Politécnica del Valle de México, Mexico, V.J. CORTÉS SUÁREZ, Universidad Autónoma Metropolitana- Azcapotzalco, Mexico, D. SANCHEZ HUERTA, Tecnológico de Estudios Superiores de Cuautitlán Izcalli, México, M.A. GONZALES GARCÍA, S. RANGEL LARA, Universidad Politécnica del Valle de México, Mexico

EP-17

Mechanical Properties of Bulk YSZ Embedded with MoSi₂ Particles Produced by Spark Plasma Sintering, J. KULCZYK-MALECKA, X. ZHANG, J. CARR, The University of Manchester, UK, F. NOZAHIC, D. MONCEAU, C. ESTOURNÈS, Université de Toulouse, Institut Carnot CIRMAT, France, P. WITHERS, P. XIAO, The University of Manchester, UK

EP-18

Abnormal Adhesion and Mechanical Properties of Si+W thin Films Produced by Co-sputtering from a Single Target, s. MUHL, J. CRUZ, E.D. GARCIA, Instituto de Investigaciones en Materiales, UNAM, Mexico

EP-19

Micro-Tribology Behavior of a TaN/Ta Hierarchical Multilayer Coating in Dry and SBF Conditions, C. RIVERA-TELLO, M. FLORES, Universidad de Guadalajara, Mexico, E. BROITMAN, Linköping University, IFM, Sweden

EP-21

Effect of Pulse Frequency and Heat Treatment on the Mechanical and Tribological Properties of Ni-P/nanoSiC Coatings, Q. WANG, M. CALLISTI, University of Southampton, UK, T.K. MILICKOVIC, A. ZOIKIS-KARATHANASIS, Centre for Research and Technology Hellas (CERTH/IRETETH), Greece, B. MCKAY, Brunel University, UK, T. POLCAR, University of Southampton, UK, K. HRISSAGIS, Centre for Research and Technology Hellas (CERTH/IRETETH), Greece

EP-23

Mechanical Properties and Adhesion Evaluation of Carbon Based Coatings Deposited by Plasma Enhanced Techniques, T. KASIOROWSKI NEVES, Pontificia Universidade Católica do Paraná, Brazil, J. LIN, Southwest Research Institute, USA, R. IGNÁCIO, R. DIEGO TORRES, P. CESAR SOARES JUNIOR, Pontificia Universidade Católica do Paraná, Brazil

Thursday Afternoon Poster Sessions

EP-24

A Study about the Influence of Grooving Abrasion and Rolling Abrasion on the Friction Coefficient of Thin Films, R.C. COZZA, J. WILCKEN, University Center of FEI, Brazil

EP-25

The Initiation of Roll Coating Buildup during Hot Rolling of Aluminum-Magnesium Alloys, O. GALI, University of Windsor, Canada, M. SHAFIEI, J. HUNTER, Novelis Global Research and Technology Center, USA, R. RIAHI, University of Windsor, Canada

New Horizons in Coatings and Thin Films

Room: Grand Hall - Session FP

Symposium F Poster Session

5:00 pm

FP-1

Preparation of Cu₂O Films by Fe-assisted Chemical Bath Deposition Technique, T. TERASAKO, Graduate School of Science and Engineering, Ehime University, Japan, Y. OHMORI, T. SAEKI, N. MONDEN, Faculty of Engineering, Ehime University, Japan, M. YAGI, National Institute of Technology, Kagawa College, Japan

FP-2

Influence of Power and Temperature on Properties of Sputtered AZO Films, K. PATEL, S. RAWAL, Chandubhai S. Patel Institute of Technology (CSPIT), Charotar University of Science and Technology (CHARUSAT), India

FP-5

Influence of dcMS and HPPMS in a dcMS/HPPMS Hybrid Process on Plasma and Coating Properties, K. BOBZIN, T. BRÖGELMANN, N.C. KRUPPE, M. ENGELS, S. CHROMY, RWTH Aachen University, Germany

FP-7

The Effect of TiO₂ Coating on NiTi Alloys After MAO Treatment for Corrosion Resistance, K. AKAR, Y. TOTIK, I. EFEUGLU, Ataturk University, Turkey, E.E. SUKUROGLU, Gumushane University, Turkey, E. ARSLAN, Ataturk University, Turkey, S. SUKUROGLU, Gumushane University, Turkey

FP-8

Effect Of Doping In Bismuth Oxide Thin Films For Photocatalytic Applications, J.C. MEDINA, M. BIZARRO, A. HERNÁNDEZ-GORDILLO, S.E. RODIL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico

FP-10

Characterization of the MgO/GaSe_{0.5}Se_{0.5} Heterojunction Designed for Visible Light Communications, S.E. ALQARNI, King Abdulaziz University, Saudi Arabia

FP-11

Metallic Nanodots Fabricated by Sputtering in Ultra-thin Ordered Porous Alumina Templates, M. KOKONOU, University of Cyprus, Cyprus, I. GUNDUZ, Purdue University, USA, C. DOUMANIDIS, Khalifa University, UAE, C. REBHOLZ, University of Cyprus, Cyprus

Thursday Afternoon Poster Sessions

Surface Engineering - Applied Research and Industrial Applications

Room: Grand Hall - Session GP

Symposium G Poster Session

5:00 pm

GP-1

High Density Plasma Nitriding of Tantalum, T. AIZAWA, Shibaura Institute of Technology, Japan, S. MATSUMOTO, San-Ei Precision, Co. Ltd., Japan

GP-2

HPPMS ($\text{Cr}_{1-x}\text{Al}_x$)N+MoS_y Coatings for Lubricant-Free Cold Forging of Steel, K. BOBZIN, T. BRÖGELMANN, N.C. KRUPPE, S. BASTURK, F. KLOCKE, P. MATTFELD, R. HILD, D. TRAUTH, RWTH Aachen University, Germany

GP-4

In Situ Nanoindentation of Hard Coatings at Elevated Temperatures, M. HANS, RWTH Aachen University, Germany, U. HANGEN, C. PENG, Hysitron, Inc., Germany, E. ASADI, M. WURZ, Leibniz University Hannover, Germany, J.M. SCHNEIDER, RWTH Aachen University, Germany

GP-5

Evaluation of PVD Hard Coating Deposited on Aluminum Casting Die, M. AVELINO, Faculdade de Tecnologia SENAI Joinville, Brazil, G. CHIQUETTI, A. RABELO, I. OSTROVSKI, Instituto Senai de Inovação em Sistemas de Manufatura, Brazil, J. PAIVA JUNIOR, Instituto Senai de Inovação em Laser, Brazil, W. MATTES, Centro Universitário Católica de Santa Catarina, Brazil

GP-7

Tribological Analysis of Laser Structured Oxynitride Hard Coatings Deposited by Middle Frequency Magnetron Sputtering for Application in Plastics Processing, K. BOBZIN, T. BRÖGELMANN, N.C. KRUPPE, M. NADERI, C. KALSCHUEER, Surface Engineering Institute - RWTH Aachen University, Germany

GP-8

Development of (Cr,Al)N/(Cr, Al)ON Oxynitride Multilayer Coatings Deposited by Hybrid dcMS/HPPMS for Plastics Processing Applications, K. BOBZIN, T. BRÖGELMANN, Surface Engineering Institute - RWTH Aachen University, Germany, G. GRUNDMEIER, T. DE LOS ARCOS, M. WIESING, University of Paderborn, Germany, R.H. BRUGNARA, N.C. KRUPPE, M. ARGHAVANI, Surface Engineering Institute - RWTH Aachen University, Germany

GP-9

Strained Ge Metal Insulator Semiconductor Field Effect Transistor with Ge Thin Film, M.H. LEE, National Taiwan Normal University, Taiwan, Republic of China, S.-T. CHANG, National Chung Hsing University, Taiwan, Republic of China, S. LIU, National Taiwan Normal University, Taiwan, Republic of China

GP-10

Influence of Interlayer Design on the Mechanical Properties of AlTiN/TiBN Multilayered Coatings Synthesized by Cathodic Arc Evaporation, Y.Y. CHANG, Y.C. CHEN, J.H. ZHOU, National Formosa University, Taiwan, Republic of China, C.L. CHANG, MingDao University, Taiwan, Republic of China

GP-11

Dedicated PVD Coating Development for High-Performance Gear Hobbing, A. LÜMKEMANN, PLATIT AG, Advanced Coating Systems, Switzerland, M. BEUTNER, Otto von Guericke University, Germany, M. MORSTEIN, T. CSELLE, PLATIT AG, Advanced Coating Systems, Switzerland, B. KARPUSCHEWSKI, Otto von Guericke University, Germany

GP-12

The Study of Electrical Conductivity and Mechanical Strength on Bipolar Plate via Different Surface Sputtering, A.H. CHIOU, National Formosa University, Taiwan, Republic of China, S.D. WU, MingDao University, Taiwan, Republic of China

Advanced Characterization of Coatings and Thin Films Room: Grand Hall - Session HP

Symposium H Poster Session

5:00 pm

HP-1

X-ray Synchrotron In-Situ Mechanical Study of Nanolayered Gold Thin Films under Continuous Controlled Biaxial Deformation, P. GOUDEAU, R. GUILLOU, P.O. RENAULT, E. LE BOURHIS, P. GODARD, Université de Poitiers, Institut Pprime, France, D. FAURIE, LSPM-CNRS, France, G. GEANDIER, Institut Jean Lamour-UMR 7198 CNRS-Université de Lorraine, France, C. MOCUTA, D. THIAUDIÈRE, synchrotron SOLEIL, France

HP-4

Electrical and Chemical Domains Maps Promoted by TiO₂ Incorporated in a DLC Multilayer using Kelvin Probe Force Microscopy (KPFM) and Confocal Raman Analyses, L. VIEIRA, University of Paraíba Valley, UNIVAP/IP&D, Brazil, T. B. SANTOS, University of Paraíba Valley, Brazil, C. COSTA, E.M. LANZONI, C. DENEKE, National Nanotechnology Laboratory, CNPEM/LN Nano, Brazil, R. PESSOA, L.P. OTAVIANO, University of Paraíba Valley, UNIVAP/IP&D, Brazil, P.A. RADU, Technological Institute of Aeronautics, ITA/LPP, Brazil

HP-5

High Throughput Combinatorial Thin-film Synthesis of Co-based Superalloys, J. THAPA, C. GROSS, Y.-W. CHUNG, M. BEDZYK, Northwestern University, USA

Thursday Afternoon Poster Sessions

Topical Symposia

Room: Grand Hall - Session TSP

Symposium TS Poster Session

5:00 pm

TSP-2

Effects of Pulse Repetition Frequency on Gas Barrier Properties of SiOC (-H) Films Synthesized by Atmospheric Pressure Dielectric Barrier Discharge, H.

SAWA, T. MORI, A. SHIRAKURA, T. SUZUKI, Keio University, Japan

TSP-3

Cathodic Discharges in Plasma Electrolytic Oxidation: Influence of Frequency and Electrolyte Composition, A. NOMINE, A.V. NOMINE, The Open University, UK, S.C.

TROUGHTON, T.W. CLYNE, University of Cambridge, UK, G. HENRION, Institut Jean Lamour-UMR 7198 CNRS-Université de Lorraine, France

TSP-4

Stabilisation of β -ZrO₂ by Combined Magnetron Sputtering and Plasma Electrolytic Oxidation, A. NOMINE, The Open University, UK, J.F. PIERSON, G. HENRION,

Institut Jean Lamour-UMR 7198 CNRS-Université de Lorraine, France

TSP-5

Microstructure Characterization and Corrosion Behaviour of a Nano Hydroxyapatite Coating Deposited on AZ31 Magnesium Alloy using Radio Frequency Magnetron Sputtering, R.A. SURMENEV, National Research Tomsk Polytechnic

University, Russian Federation, M.A. SURMENEVA, National Research Tomsk Polytechnic University, Russian Federation

TSP-6

Investigating the Self-Healing Behaviour of Under-aged and 60Sn-40Pb Alloy Reinforced Aluminium Hybrid Composites, O.P. OLADIJO, Botswana International

University of Science and Technology, Botswana, B. MALEDI, University of the Witwatersrand, South Africa, M. BODUNRIN, Federal University of Technology Akure, Nigeria, K. SOBIYI, University of the Witwatersrand, South Africa, K. ALANEME, Federal University of Technology Akure, Nigeria

TSP-10

Spatial Distribution of Excited Species in Magnetron Sputtering Plasmas and Sheaths: an Experimental and Numerical Approach, A. NOMINE, The Open

University, UK, D. MONAHAN, Cobham Technical Services, UK, D. FULGONI, Teer Coatings Ltd, UK, N. BRAITHWAITE, The Open University, UK, H. SUN, Teer Coatings Ltd., UK

TSP-11

Compositional Study of Aluminium-Based PVD Metallic Thin Films Deposited by Closed-field Unbalanced Magnetron Sputtering on AISI 304 and Silicon

Wafer, J. LAWAL, University of Sheffield, UK, P. KIRYUKHANTSEV-KORNEEV, National University of Science and Technology, Russian Federation, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK

TSP-12

Extraction of Lignin from Sugar Cane Bagasse using Plasma Discharge in Liquid at Atmospheric Pressure, P.A. RADI, Instituto Tecnológico de Aeronáutica (ITA),

Brazil, C. ALBERTO DE OLIVEIRA FILHO, Laboratório Nacional de Ciência e Tecnologia do Bioetanol (CTBE-CNPEM) and Instituto Tecnológico de Aeronáutica (ITA), Brazil, B.N. SISMANOGLU, Instituto Tecnológico de Aeronáutica (ITA), Brazil, R. SÁVIO PESSOA, H. SANTIAGO MACIEL, L. VIEIRA, Universidade do Vale do Paraíba (UNIVAP), Brazil

Friday Morning, April 29, 2016

<p>Hard Coatings and Vapor Deposition Technology Room: Golden West - Session B3-2 Deposition Technologies and Applications for Diamond-like Coatings Moderators: Klaus Böbel, Robert Bosch GmbH, Germany, Frank Papa, Gencoa Ltd., USA</p>		<p>Hard Coatings and Vapor Deposition Technology Room: San Diego - Session B4-4 Properties and Characterization of Hard Coatings and Surfaces Moderators: Uwe Beck, BAM Berlin, Germany, Chau-Chang Chou, National Taiwan Ocean University, Taiwan, Republic of China, Farwah Nahif, eifeler-Vacotec GmbH, Germany</p>	
8:00 am	<p>B3-2-1 Fabrication and Characterization of Adherent Diamond-Like Carbon Based Thin Films on Polyethylene Terephthalate, P. ASHTIJOO, S. BHATTACHERJEE, University of Saskatchewan, Canada, R. SUTARTO, Y.F. HU, Canadian Light Source Inc., Canada, Q. YANG, University of Saskatchewan, Canada</p>	<p>B4-4-1 Electrodeposition of Titanium Diboride from Oxide Based Melts, P. OZKALAFAT, G. KARTAL SIRELI, S. TIMUR, Istanbul Technical University, Turkey</p>	
8:20 am	<p>B3-2-2 Industrial Microwave DLC Coatings on Polymer Substrates, I. KOLEV, D. DOERWALD, IHI Hauzer Techno Coating B.V., Netherlands, H. ZHAO, University of Leeds, UK, R. TIETEMA, J. LANDSBERGEN, IHI Hauzer Techno Coating B.V., Netherlands</p>	<p>B4-4-2 Microstructure and Multi-Scale Mechanical Behaviour of Plasma Electrolytic Oxidation (PEO) Coatings on 6082 Aluminium Alloy, E. BOUSSER, The University of Manchester, UK, A. YEROKHIN, The University of Sheffield, UK, B. WINIARSKI, FEI Company, Netherlands, P. WITHERS, The University of Manchester, UK, A. MATTHEWS, The University of Sheffield, UK</p>	
8:40 am	<p>B3-2-3 Evaluation of Stoney Equation for Determining Internal Stress of DLC Thin Films on Substrates with Different Shapes, S. SHIRI, P. ASHTIJOO, Q. YANG, A. ODESHI, University of Saskatchewan, Canada</p>	<p>B4-4-3 Invited Hybrid Coatings for Load Bearing Capacity and Wear Resistance Enhancement of Austenitic Stainless Steel, W. GULBINSKI, T. SUSZKO, Koszalin University of Technology, Poland</p>	
9:00 am	<p>B3-2-4 Optical and Structural Properties of Diamond Like Carbon Coating on Glass Substrate with Nanodiamond Interlayer, Y.S. CHUN, G.Y. PARK, D.S. LIM, Korea University, Republic of Korea</p>	<p>Invited talk continued.</p>	
9:20 am	<p>B3-2-5 The Effect of Multilayer Structure on the Mechanical Properties of Tetrahedral Amorphous Carbon Films, M. ROUHANI, National Chung Cheng University, Taiwan, Republic of China, F.C.N. HONG, National Cheng Kung University, Taiwan, Republic of China, Y.R. JENG, National Chung Cheng University, Taiwan, Republic of China</p>	<p>B4-4-5 On the Potential of Magnetron Sputtering in the Manufacture of High Manganese TWIP Steel Foils, J. KOVAC, J. EPP, A. MEHNER, B. KÖHLER, B. CLAUSEN, H.-W. ZOCH, Stiftung Institut fuer Werkstofftechnik Bremen, Germany</p>	
9:40 am	<p>B3-2-6 Microstructure and Piezoelectric Properties of Reactively Sputtered Highly C-axis ScAlN Thin Films on Diamond-Like Carbon, W.J. LIAUH, National Cheng Kung University, Taiwan, Republic of China, S. WU, Z.X. LIN, Tung-Fang Design University, Taiwan, Republic of China, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China, D.F. LIU, Cheng Shiu University, Taiwan, Republic of China, W.K. YEN, National Nano Device Laboratories, Taiwan, Republic of China</p>	<p>B4-4-6 Nano Structured Metallurgical Coatings for Hydrogen Permeation Barrier, M. TAMURA, The University of Electro-Communications, Japan</p>	
10:00 am		<p>B4-4-7 A New Fracture Toughness Model for Brittle Coating on Ductile Substrate, X.J. WU, National Research Council Canada, R. LIU, Carleton University, Canada</p>	
<p style="text-align: center;">2017 ICMCTF April 24-28, 2017</p>		<p style="text-align: center;">2017 Abstract Submission Deadline October 1, 2016</p>	
		<p style="text-align: center;">Thank You & See You Next Year Party Trellis Courtyard Near Pool 12:00-1:00 pm</p>	

Friday Morning, April 29, 2016

<p>Tribology and Mechanical Behavior of Coatings and Engineered Surfaces Room: California - Session E3 Tribology of Coatings for Automotive and Aerospace Applications Moderators: Sébastien Guimond, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, Nicolas Argibay, Sandia National Laboratories, USA, Pantcho Stoyanov, Pratt & Whitney, USA</p>		
8:00 am	<p>E3-1 Invited New Coating Materials for Automotive Applications, J. BECKER, Oerlikon Balzers Coating Germany GmbH, Germany, N. BEGANOVIC, J. KARNER, M. LUICHTL, F. SEIBERT, Oerlikon Surface Solutions AG, Liechtenstein, T. STELZIG, Oerlikon Balzers Coating Germany GmbH, Germany</p>	
8:20 am	Invited talk continued.	
8:40 am	<p>E3-3 Tribological Behavior of WC/C Coating in Rolling-sliding Contact for PRS Application in Aeronautics, V. FRIDRICI, Ecole centrale de Lyon, LTDS, France, G. AUREGAN, Ecole centrale de Lyon, LTDS - Messier Bugatti Dowty, France, P. KAPSA, Ecole centrale de Lyon, LTDS, France, F. RODRIGUES, A. BERTINOTTI, Messier Bugatti Dowty - Safran group, France</p>	
9:00 am	<p>E3-4 Directed Co₂ Laser Writing of MoS₂ and DLC under Ambient Condition, L. VIEIRA, A. VIEIRA, L. MANFROI, P.A. RADI, University of Paraíba Valley, Brazil, G. VASCONCELOS, Institute for Advanced Studies, Brazil, R. PESSOA, H. MACIEL, University of Paraíba Valley, Brazil</p>	
9:20 am	<p>E3-5 Erosion Resistance of Balinit PVD Coatings, C. ACIKGOZ, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, S. MOSER, G. SZYNDELMAN, Oerlikon Metco AG, Switzerland, V. DERFLINGER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein, O. JARRY, Oerlikon Balzers, Oerlikon Balzers Coating Germany GmbH, Germany, H. RUDIGIER, Oerlikon Balzers, Oerlikon Surface Solutions AG, Liechtenstein</p>	
9:40 am	<p>E3-6 Invited Influence of Subsurface Microstructure on the Running-in Behavior of an AISi Alloy, D. LINSLER, M. SCHERGE, Fraunhofer IWM MikroTribologie Centrum, Germany</p>	
10:00 am	Invited talk continued.	
10:20 am	<p>E3-8 Low Friction Behaviour of Boron Carbide (B₄C) at High Humidity and Alcohol Environments Against Ti-6Al-4V, S. BHOWMICK, G. SUN, A.T. ALPAS, University of Windsor, Canada</p>	
10:40 am	<p>E3-9 Microstructural And Erosion And Abrasion Resistance Of Ultra-Thick Tiscn-Based Nanocomposite Coatings, R. WEI, J. LIN, Southwest Research Institute, USA</p>	
11:00 am	<p>E3-10 Formation of Glaze Layer in a Ceramic-Metallic Contact under Fretting Wear: Mechanical and Chemical Characterization, A. VIAT, S. FOUVRY, M.-I. DE BARROS BOUCHET, Ecole Centrale Lyon, France, J.-F. HENNE, Herakles groupe Safran, France</p>	
	<p>2017 ICMCTF April 24-28, 2017</p>	<p>2017 Abstract Submission Deadline October 1, 2016</p>
	<p>Thank You & See You Next Year Party Trellis Courtyard Near Pool 12:00-1:00 pm</p>	<p>2017 Awards Nominations Deadline October 1, 2016</p>

Friday Morning, April 29, 2016

Advanced Characterization of Coatings and Thin Films Room: Royal Palm 4-6 - Session H2-2		Topical Symposia Room: Sunrise - Session TS2-2	
Advanced In-situ Mechanical Testing of Films and Coatings Moderators: Benoit Merle, Friedrich-Alexander-University Erlangen-Nürnberg (FAU), Germany, Marco Sebastiani, University of Rome "Roma Tre", Italy		Thermal Spray Technologies and Coatings Moderator: Pylin Sarobol, Sandia National Laboratories, USA	
8:00 am	H2-2-1 Stress Relaxation during FIB Milling assessed by Digital Image Correlation and In Situ Micro-Raman Spectroscopy, C. SCHMID, Physical Metallurgy, TU Darmstadt, Germany, J. DLUHOŠ, R. VÁNA, TESCAN Brno, Czech Republic, K. DURST, Physical Metallurgy, TU Darmstadt, Germany	TS2-2-1 Invited Microstructure and Properties of Plasma Spray- Physical Vapor Deposition (PS-PVD) Coatings, B. HARDER, NASA Glenn Research Center, USA	
8:20 am	H2-2-2 Capacitive Sensing Scheme for Independent Measurements of Stress and Strain During in-situ Nanomechanical Testing, S. GUPTA, O. PIERRON, Georgia Institute of Technology, USA	Invited talk continued.	
8:40 am	H2-2-3 A Novel Stiffness-Based Method for Point Deflection Measurements on Rectangular Membranes, B. MERLE, K. NICHOLSON, Friedrich-Alexander-University Erlangen-Nürnberg (FAU), Germany, E.G. HERBERT, Michigan Technological University, USA, M. GÖKEN, Friedrich-Alexander-University Erlangen-Nürnberg (FAU), Germany	TS2-2-3 Fe-based Amorphous Coatings: Structures, Properties and Applications, L. LIU, Huazhong University of Science and Technology, China	
9:00 am	H2-2-4 In-situ Methods to Study the Electro-Mechanical Properties of Mo Thin Films on Polymer Substrates, T. JÖRG, M.J. CORDILL, R. FRANZ, O. GLUSHKO, Montanuniversität Leoben, Austria, J. WINKLER, PLANSEE SE, Austria, C. MITTERER, Montanuniversität Leoben, Austria	TS2-2-4 HVOF Chrome Replacement Coating - Effect of Process Conditions, S. DIXIT, Plasma Technology Inc., USA, R. DIXIT, DRS Research, USA	
9:20 am	H2-2-5 Mechanical Adhesion of SiO ₂ Thin Films Evaporated by CVD on a Polymeric Substrate, C. HO, J. ALEXIS, L. LACROIX, O. DALVERNY, Laboratoire Génie de Production ENIT-INP, France, A. DEHOUX, F. DE AYGUAVIVES, P. LACAN, Essilor R&D, France	TS2-2-5 Sliding Wear Resistance of WCCoCr HVOF Coatings Obtain From Different Grain Size, A. IWANIAK, D. MICHALIK, J. WIECZOREK, B. IWANIAK, Silesian University of Technology, Poland	
9:40 am	H2-2-6 Effect of Ion Species during FIB Machining on Micromechanics of Aluminum, Y. XIAO, Laboratory for Nanometallurgy, ETH Zurich, Switzerland, T. AL SAMMAN, S. KORTE-KERZEL, RWTH Aachen University, Germany, R. SPOLENAK, J.M. WHEELER, Laboratory for Nanometallurgy, ETH Zurich, Switzerland		
10:00 am	H2-2-7 Effect of Fretting Wear Damages in RF Signal Transmission: Influence of Gold Plated Coating Thickness on Phase Noise Degradation, R. ENQUEBECQ, S. FOUVRY, Ecole centrale de Lyon, LTDS, France, E. RUBIOLA, FEMTO-ST, France, M. COLLET, Ecole centrale de Lyon, LTDS, France, L. PETIT, Radiall, France		
2017 ICMCTF April 24-28, 2017		2017 Abstract Submission Deadline October 1, 2016	
Thank You & See You Next Year Party Trellis Courtyard Near Pool 12:00-1:00 pm		2017 Awards Nominations Deadline October 1, 2016	

Authors Index

Bold page numbers indicate the presenter

— A —

Abadias, G.: B1-1-1, 3; B4-1-3, 24; BP-17, **36**; BP-27, 37; H1-1, **23**
AbdelDaim, H.A.: A2-1-9, **16**
Abe, M.: G3-6, 30
Abela, S.: E1-2-10, 18
Aboufadh, H.: B1-2-1, 7; E1-2-2, 18
Abourayana, H.M.: TS5-4, **10**
Abraham, D.P.: F6-6, 26
Acikgoz, C.: E3-5, **44**
Adamczyk, J.: TS2-1-1, 35
Addou, F.: B2-2-3, **8**; B2-2-6, 8
Aderme, R.: C5-2-3, 8
Agüero, A.: AP-4, 36
Ahlgren, M.: B4-1-8, 24; F2-5, 29
Ahmad Alidokht, S.: TS2-1-8, **35**
Ahmad, A.: F1-1-8, 14
Ahmad, R.: F1-1-8, 14
Ahmed, Z.: C5-2-3, 8
Ahn, J.K.: A2-2-9, 11
Aijaz, A.: C3-7, 17
Aizawa, T.: G3-7, **30**; GP-1, **41**
Akar, K.: FP-7, 40
Akari, K.: B4-2-2, 28
Akinlabi, E.: B4-3-8, **32**; D3-5, 18
Akkaya, S.: B4-1-11, 24
Aksenenko, A.: B1-2-10, 7
Al Samman, T.: H2-2-6, 45
Alam, M.K.: EP-4, 39
Alamdari, H.: E1-1-4, 14
Alaneme, K.: TSP-6, 42
Alberto de Oliveira Filho, C.: TSP-12, 42
Alencar de Moura, A.: E2-1-6, **29**
Alexis, J.: CP-19, 38; H2-2-5, 45
Alfaro, M.F.: D3-10, 18
Alhammadi, S.A.: CP-29, 38
Alidokht, S.: E1-1-1, 14
Allain, J.P.: DP-8, 1
Aller, J.: BP-8, 36
Alm, O.: B2-1-1, 4
Almeida Alves, C.F.: B5-2-2, 20
Almer, J.: A1-1-1, 3
Almotiri, R.: DP-22, **39**
Alpas, A.T.: E3-8, 44; G3-10, **30**
Alphonse, A.: C5-2-1, 8
Alqarni, S.E.: FP-10, **40**
Amann, T.: E1-4-2, **25**
Amin-Chalhoub, E.: B2-2-3, 8
Amiriyani, M.: E1-1-4, **14**
Ammar, Y.: TS1-3, 6
An, E.: BP-30, 37
Anders, A.: F2-9, 29; TS4-1-3, 23; TS4-2-5, **31**
Andersson, A.: E1-1-2, 14
Andersson, J.: B1-2-1, 7
Andrade, E.: CP-12, 38
Anissimov, Y.G.: D2-1-2, 5
Antonova, L.V.: D2-1-2, 5
Aoki, Y.: TS4-1-10, 23
Aouadi, S.M.: E1-3-8, **21**; F4-1-9, 22
Apter, B.: C4-2-5, 24
Araujo, A.: E1-4-7, 25
Ardy, H.: E1-4-6, 25
Arghavani, M.: E2-2-8, **33**; GP-8, **41**
Århammar, C.: B2-2-8, **8**
Arias, P.: C4-2-6, **24**
Armstrong, D.: E2-1-8, **29**
Arndt, M.: B1-2-6, 7; B4-1-9, 24; G3-5, 30; G5-3, 5
Arredondo Ramírez, M.A.: BP-23, 37
Arslan, E.: BP-46, 37; D2-1-1, 5; E2-2-7, 33; FP-7, 40
Arumskog, P.: G3-8, **30**
Arya, V.: C4-2-10, 24
Asadi, E.: GP-4, 41
Ashtijoo, P.: B3-2-1, **43**; B3-2-3, 43
Aufrey, M.: B2-2-6, 8

Auger, M.: G1-8, 22
Aurégan, G.: E3-3, 44
Avelar-Batista Wilson, J.C.: B4-2-7, 28
Avelino, M.: GP-5, 41
Aviziotis, I.: B2-2-9, **8**
Awakowicz, P.: TS4-1-6, 23
Axelevitch, A.: C4-2-5, **24**
Azzopardi, A.: C3-8, 17

— B —

B. Santos, T.: D2-1-6, **5**; DP-16, 39; HP-4, **41**
Baber, M.: BP-8, 36
Babic, B.: F1-1-3, 14
Bae, K.T.: BP-12, 36; BP-14, 36
Bagcivan, N.: B4-2-5, **28**; G2-6, 26
Bagge-Hansen, M.: H3-6, 30
Baik, Y.-J.: BP-41, 37
Baker, J.G.: F6-3, 26
Bakoglidis, K.D.: F2-12, **29**
Bandorf, R.: G2-7, 26
Banerji, A.: G3-10, 30
Baran, M.: F2-11, 29
Baran, Ö.: EP-8, 39
Barankova, H.: TS5-3, 10
Barao, V.A.: D3-10, **18**
Barbarash, L.S.: D2-1-2, 5
Bardos, L.: TS5-3, **10**
Bareiss, C.: F4-1-1, 22
Bareño, J.: F6-6, **26**
Barrirero, J.: B1-2-1, 7; E1-2-2, 18
Barshilia, H.: C4-2-9, 24
Bartolomei, N.: H1-9, 23
Barton, D.: C2-3, 28
Bartosik, M.: B1-2-6, 7; B6-8, **20**; F4-1-5, 22
Bartsch, M.: A1-1-1, 3
Basheer, C.: F4-2-12, **25**
Basturk, S.: GP-2, 41
Basu, B.: C4-2-9, 24
Basurto Sánchez, R.: C4-1-3, 21
Batako, A.: B1-2-10, 7
Batory, D.: D3-8, **18**
Beake, B.: E2-2-2, **33**
Becker, J.: E3-1, **44**
Becker, M.: E1-4-1, 25
Bedi, R.: F1-1-9, 14
Bedzyk, M.: HP-5, 41
Beganovic, N.: E3-1, 44
Bellaton, B.: H3-11, 30
Belliard, L.: B4-1-3, 24; BP-27, 37
Bellido-Gonzalez, V.: C3-8, 17; G1-4, 22
Belmonte, T.: TS5-10, 10
Belosludtsev, A.: F2-4, **29**
Bemporad, E.: H1-5, **23**
Benayoun, S.: D2-2-4, 9
Benedikt, J.: TS4-2-7, 31
Bent, S.F.: F6-3, **26**
Bergfeldt, T.: F6-8, 26
Berman, D.: F3-1, 34
Berrio, L.F.: DP-8, **39**
Bertinotti, A.: E3-3, 44
Bertram, R.: B1-3-3, **11**
Besland, M.P.: BP-27, 37
Best, J.: E2-1-4, 29; EP-3, **39**; H2-1-5, **34**
Bettini, J.: E1-4-7, 25
Beutner, M.: GP-11, 41
Bexell, U.: G3-9, 30
Beyer, E.: B1-2-5, 7
Bhansali, S.: C2-3, 28
Bhattacharjee, S.: B3-2-1, 43
Bhowmick, S.: E3-8, 44; G3-10, 30
Bigl, S.: AP-5, **36**; H1-8, **23**
Billot, E.: B3-1-5, 32
Bisoffi, F.: B1-4-8, 16
Bizarro, M.: FP-8, 40
Bjormander, C.: B2-1-2, **4**
Blais, C.: E1-1-4, 14

Blanquet, E.: B2-1-5, 4
Blauth, E.: D1-3, 13
Blinkov, I.V.: B5-2-5, 20
Bloom, I.D.: F6-6, 26
Blug, B.: E1-4-2, 25
Boatner, L.A.: H2-1-2, 34
Bobzin, K.: B3-1-4, 32; E2-2-8, 33; FP-5, 40; G2-6, 26; G3-3, 30; G5-4, 5; GP-2, 41; GP-7, 41; GP-8, 41
Boccalini Jr., M.: E1-4-5, 25
Bodumrin, M.: TSP-6, 42
Bogoni Jr., N.: E1-2-2, 18
Bohlmark, J.: B2-1-2, 4
Boichot, R.: B2-1-6, 4; B2-2-5, 8
Boissonnet, G.: A2-2-5, 11
Bolbasov, E.N.: D2-1-2, 5
Bolvardi, H.: B4-1-9, **24**
Boman, M.: B2-1-1, 4; B2-2-8, 8
Bondarev, A.V.: E1-3-4, 21
Bonello, T.: B4-2-7, 28
Borca-Tasciuc, T.: F3-4, 34
Borges, J.: D2-1-3, 5
Bosso, P.: B2-2-3, 8
Bouchaud, B.: A2-2-5, 11
Boudouvis, A.G.: B2-2-9, 8
Boumaza, M.: F1-2-7, **19**
Bourne, G.: A1-1-4, 3; BP-24, 37; G4-8, 9
Bousser, E.: A2-1-2, 16; B4-4-2, **43**; BP-35, 37
Boyce, B.L.: TS2-1-5, 35
Brady, M.P.: TS5-6, 10
Braithwaite, N.: TSP-10, 42
Bräuer, G.: G2-7, 26
Breguet, J.-M.: EP-3, 39
Breilmann, W.: TS4-2-7, 31
Brenning, N.: TS4-1-5, 23
Brindley, J.: G1-4, 22
Brögelmann, T.: B3-1-4, 32; E2-2-8, 33; FP-5, 40; G2-6, **26**; G3-3, 30; G5-4, 5; GP-2, 41; GP-7, 41; GP-8, 41
Broitman, E.: CP-34, **38**; E2-1-5, **29**; EP-19, 39
Brueckner, A.: G2-5, 26
Bruggeman, P.: TS4-1-1, **23**
Brugnara, R.H.: GP-8, 41
Bruyère, S.: H1-2, 23
Bryan, S.: H1-10, **23**
Buchegger, S.: D1-3, 13
Bufford, D.C.: TS2-1-5, 35
Buhagiar, J.: D3-9, **18**
Bull, S.J.: H2-1-1, **34**
Bultman, J.E.: F1-1-4, 14
Busch, J.: G1-1, 22
Butler, T.: AP-6, 36; AP-7, 36; AP-8, 36

— C —

C.S.Cruz, L.: DP-16, 39
Calame, J.: TS2-1-2, 35
Caligari Conti, M.: D3-9, 18
Callisti, M.: EP-21, **39**; H3-7, **30**
Campos-González, E.: BP-10, 36
Camps, E.: BP-10, 36; BP-20, 36; E1-3-2, 21; E2-1-7, 29
Čapek, J.Č.: F2-6, **29**
Capote, G.: B3-1-3, 32
Carabat, A.: A2-2-3, 11
Cardinal, T.: F3-4, 34
Carlstrom, C.-F.: F2-5, 29
Carr, D.: H1-10, 23
Carr, J.: A2-1-2, 16; A2-2-3, 11; EP-17, 39; H3-2, **30**
Carroll, J.D.: TS2-1-5, 35
Carvalho, S.: B5-2-2, **20**
Cassar, G.: B4-2-7, **28**
Cassar, J.: D3-9, 18
Castanedo-Pérez, R.: CP-34, 38
Castaño, J.G.: DP-8, 39
Castillo, A.: CP-32, 38

- Castrejón-Sánchez, V.H.: BP-10, 36
 Catledge, S.: DP-22, 39
 Cavaleiro, A.: B5-2-2, 20; D2-1-3, 5; E1-3-1, 21; E1-3-3, 21
 Çelik, A.: EP-8, 39
 Cernusch, F.: A2-2-3, 11
 Cerstvy, R.: B1-4-2, 16; F2-4, 29
 Cesar Soares Junior, P.: EP-23, 39
 Chaar, A.: B1-2-1, 7
 Chabinye, M.: C4-1-7, 21
 Chae, J.M.: A2-2-9, 11
 Challali, F.: BP-27, 37
 Chan, K.: C3-2, 17
 Chan, W.K.: C4-2-8, 24
 Chandra, R.: C4-2-10, 24; CP-27, 38
 Chandross, M.: TS2-1-5, 35
 Chang, C.C.: C4-1-2, 21
 Chang, C.L.: GP-10, 41
 Chang, F.C.: A1-2-6, 7
 Chang, K.C.: C5-2-9, 8; C5-3-4, 12; C5-3-5, 12; C5-3-6, 12
 Chang, S.H.: D1-1, 13
 Chang, S.-T.: GP-9, 41
 Chang, T.C.: C5-1-5, 4
 Chang, T.-C.: C5-1-5, 4; C5-2-4, 8; C5-2-7, 8; C5-2-8, 8; C5-2-9, 8; C5-2-10, 8; C5-2-11, 8; C5-2-12, 8; C5-3-1, 12; C5-3-4, 12; C5-3-5, 12; C5-3-6, 12
 Chang, Y.Y.: G4-9, 9; GP-10, 41
 Charalambopoulou, G.: F1-1-3, 14
 Charrault, E.: B1-1-3, 3
 Chason, E.: B1-1-1, 3
 Chattopadhyay, K.: C4-2-9, 24
 Chauhan, S.: CP-27, 38
 Chauhan, V.: E1-3-11, 21; EP-1, 39; F4-1-7, 22
 Chauveau, T.: BP-27, 37
 Chen, B.W.: C5-1-5, 4; C5-2-12, 8
 Chen, C.: B1-3-5, 11
 Chen, C.E.: C5-2-7, 8
 Chen, C.-H.: E2-2-4, 33
 Chen, C.M.: G4-4, 9
 Chen, H.L.: C5-3-4, 12
 Chen, H.M.: C5-2-12, 8
 Chen, J.: D2-2-2, 9; E2-2-2, 33; TS1-3, 6; TS1-4, 6
 Chen, J.-H.: C5-3-6, 12
 Chen, J.-W.: C5-1-3, 4
 Chen, L.H.: C5-2-11, 8
 Chen, M.-H.: G1-10, 22
 Chen, M.J.: D1-1, 13
 Chen, P.H.: C5-3-5, 12
 Chen, S.C.: C3-5, 17; CP-11, 38
 Chen, Y.C.: GP-10, 41
 Chen, Y.H.: F6-9, 26
 Chen, Y.S.: DP-3, 39
 Chen, Y.T.: G5-3, 5
 Chen, Z.: F6-6, 26
 Cheng, C.Y.: F2-3, 29
 Cheng, H.-Y.: D2-2-10, 1; DP-24, 39; 1, F1-2-6, 19
 Cheng, K.: D3-6, 18
 Cheng, S.-F.: TS2-1-2, 35
 Cheng, W.R.: B4-2-4, 28
 Cheng, Y.C.: F4-2-10, 25
 Chernysheva, E.: H1-9, 23
 Chevallier, P.: F1-2-5, 19
 Chiang, H.J.: D2-2-10, 1
 Chinnaraj, S.B.: TS1-3, 6
 Chintalapalle, R.: A1-2-7, 7
 Chiou, A.H.: GP-12, 41
 Chiquetti, G.: GP-5, 41
 Chirita, V.: B7-1, 12
 Chiu, W.M.: H3-8, 30
 Cho, G.H.: CP-3, 38
 Choe, C.: F1-2-8, 19
 Choe, H.C.: DP-10, 39; DP-11, 39; DP-12, 39; DP-13, 39; DP-14, 39; DP-21, 39
 Choe, H.J.: F1-2-8, 19
 Choi, H.H.: CP-3, 38
 Choi, J.-J.: TS2-1-3, 35
 Choi, S.: C3-2, 17
 Choi, S.A.: A2-2-9, 11
 Chou, C.-C.: BP-22, 37
 Chou, C.M.: D2-2-3, 9
 Christie, D.J.: G4-1, 9
 Chromik, R.: E1-1-1, 14; TS2-1-8, 35
 Chromy, S.: FP-5, 40
 Chu, A.K.: C5-1-5, 4; C5-2-12, 8
 Chu, H.J.: G4-4, 9
 Chu, J.P.: D1-1, 13
 Chu, T.J.: C5-2-9, 8
 Chuang, T.H.: C3-5, 17; CP-11, 38
 Chubarov, M.: B2-1-6, 4
 Chun, Y.S.: B3-2-4, 43
 Chung, C.J.: D2-2-3, 9
 Chung, I.L.: H3-9, 30
 Chung, W.: BP-30, 37
 Chung, Y.-W.: E1-4-9, 25; HP-5, 41
 Çicek, H.: B1-3-6, 11
 Çiçek, H.: BP-39, 37
 Ciobanu, C.: C4-2-6, 24
 Cipollone, D.T.: F6-11, 26
 Clark, B.: C6-3, 33
 Clausen, B.: B4-4-5, 43
 Clyne, T.W.: TS4-1-4, 23; TSP-3, 42
 Coindeau, S.: B2-1-5, 4
 Colborn, J.G.: F1-1-4, 14
 Colin, J.J.: B1-1-1, 3; H1-1, 23
 Collet, M.: H2-2-7, 45
 Collins, R.: DP-22, 39
 Cometto, O.: C4-2-3, 24
 Conte, M.: H3-11, 30
 Corat, E.: BP-25, 37
 Corbella Roca, C.: F2-13, 29
 Corbella, C.: TS4-1-6, 23
 Cordill, M.J.: AP-5, 36; E2-1-11, 29; H1-8, 23; H2-2-4, 45
 Cortés Suárez, V.J.: EP-10, 39
 Cortie, M.B.: C6-10, 33
 Costa, C.: HP-4, 41
 Costa, D.: D2-1-3, 5
 Costi, F.B.: E1-2-2, 18
 Coulter, K.: TS5-5, 10
 Courty, D.: H1-7, 23
 Cox, J.: C6-3, 33
 Cozza, R.C.: EP-24, 40
 Cremona, M.: C5-2-3, 8
 Crilly, A.: D2-2-8, 9
 Cruz, J.: CP-12, 38; E1-3-2, 21; EP-18, 39
 Cruz, N.C.: D3-10, 18
 Csefalvay, C.: B1-4-8, 16
 Cselle, T.: GP-11, 41
 Cullen, M.B.: A1-2-8, 7
 Curtis, T.P.: TS1-4, 6
 Cvrcek, L.: DP-7, 39; E1-4-6, 25
 Czerwicz, T.: G4-7, 9; H1-2, 23
 Czettel, C.: B4-3-2, 32; G5-5, 5
- D —
 Dalverny, O.: CP-19, 38; H2-2-5, 45
 Dan, A.: C4-2-9, 24
 Daniel, B.: G1-4, 22
 Daniel, R.: B6-11, 20; F4-1-3, 22
 Danilenko, N.: D2-1-2, 5
 Danoix, F.: H1-2, 23
 Danoix, R.: H1-2, 23
 Das, A.: B1-4-4, 16
 Dauskardt, R.: TS5-8, 10
 Dave, D.: F4-1-7, 22
 de Ayguavives, F.: CP-19, 38; H2-2-5, 45
 De Barros Bouchet, M.-I.: E3-10, 44
 De Bosscher, W.: B1-4-4, 16
 de los Arcos, T.: GP-8, 41
 de Lucio, O.: CP-12, 38; E1-3-2, 21
 Dean, J.: TS5-7, 10
 Debnath, R.: CP-32, 38
 Dehm, G.: E2-1-1, 29
 Dehoux, A.: CP-19, 38; H2-2-5, 45
 Dejoie, C.: H1-4, 23
 Delfour-Peyrethon, B.: F4-2-6, 25
 Deller, M.: BP-26, 37
 Demerci, N.M.: E2-2-7, 33
 Deneke, C.: HP-4, 41
 Depablos-Rivera, O.: C4-1-3, 21; F4-2-5, 25
 DePond, P.: H3-6, 30
 Derflinger, V.: E3-5, 44
 Deshmukh, S.: F3-1, 34
 Desjardins, P.: TS2-1-7, 35
 Diao, D.F.: B1-3-5, 11; BP-44, 37
 Diego Torres, R.: E1-3-10, 21; E2-1-6, 29; EP-23, 39
 Diehl, W.: EX1, 15
 Dienwiebel, M.: E1-2-4, 18
 Dierre, B.: H1-9, 23
 Diliegros-Godines, C.J.: CP-34, 38
 Ding, J.: A2-2-1, 11
 Dixit, R.: TS2-2-4, 45
 Dixit, S.: TS2-2-4, 45
 Djemia, P.: B4-1-3, 24; BP-27, 37
 Djurabekova, F.: TS4-2-1, 31
 Djurišić, A.B.: C4-2-8, 24
 Dluhoš, J.: H2-2-1, 45
 Dobbyn, P.: TS5-4, 10
 Döbeli, M.: A1-1-3, 3; F4-1-4, 22
 Dobrenizki, L.: G2-6, 26
 Doerwald, D.: B3-2-2, 43
 Dolchinkov, I.: B5-2-3, 20
 Dommann, A.: A1-1-3, 3; F4-1-4, 22
 Dong, C.: BP-40, 1; G4-7, 9
 Dong, H.: BP-45, 37
 Dong, Q.: C4-2-8, 24
 Dong, S.: TS5-8, 10
 Donnet, C.: D2-2-4, 9
 Doñu Ruiz, M.A.: BP-23, 37; EP-10, 39
 Dou, X.: E1-4-9, 25
 Doumanidis, C.: C6-4, 33; FP-11, 40
 Dowling, D.P.: TS5-4, 10
 Duan, J.Z.: H3-10, 30
 Duan, P.: D2-2-2, 9
 Dub, S.N.: BP-17, 36
 Dubey, P.: C4-2-10, 24; CP-27, 38
 Ducros, C.: C3-4, 17
 Duffy, B.: A1-2-8, 7
 Dufils, J.: D2-2-4, 9
 Duguet, T.: B2-2-3, 8; B2-2-6, 8; B2-2-9, 8
 Duh, J.G.: E1-3-9, 21
 Duoss, E.: C6-6, 33
 Durand, C.: B2-1-6, 4
 Durkaya, G.: B1-3-4, 11
 Durst, K.: H2-2-1, 45
 Durstock, M.F.: F1-1-4, 14; F1-1-5, 14
 Duveau, D.: BP-27, 37
- E —
 Ebnonnasir, A.: B1-2-7, 7; C4-2-6, 24
 Echeverría, F.: DP-8, 39
 Economy, D.R.: E2-1-11, 29
 Eddy, Jr., C.R.: F6-12, 26
 Edrisky, A.: B4-3-5, 32; EP-4, 39
 Edström, D.: B7-1, 12
 Efeoglu, I.: B1-3-4, 11; B1-3-6, 11; BP-39, 37; D2-1-1, 5; E2-2-7, 33; FP-7, 40
 Ehiasarian, A.: F2-5, 29
 Eklund, P.: B4-1-4, 24; B5-1-6, 17; C4-1-5, 21; C4-1-6, 21; CP-2, 38; G4-3, 9
 El-Awady, J.A.: A2-1-5, 16
 Elhadj, S.: H3-6, 30
 Emieux, F.: C3-4, 17
 Emmerlich, J.: B4-1-9, 24
 Engels, M.: B3-1-4, 32; FP-5, 40
 Englberger, G.: E1-4-1, 25; G2-5, 26
 Enquebecq, R.: H2-2-7, 45
 Entemeyer, D.: G3-12, 30
 Epp, J.: B4-4-5, 43
 Erdemir, A.: B1-3-1, 11; B5-2-1, 20; E2-1-7, 29; F3-1, 34
 Eremin, D.: TS4-1-6, 23
 Eriksson, A.: G3-5, 30
 Eriksson, F.: C4-1-5, 21
 Ersoy, K.: B1-3-4, 11
 Ervin, M.: C6-5, 33

Eryilmaz, O.: B1-3-1, 11; B5-2-1, 20
Esin, V.: A1-1-5, 3
Esqué-de los Ojos, D.: E2-1-4, 29
Estournès, C.: A2-2-3, 11; EP-17, 39
Euchner, H.: B7-3, 12; B7-4, 12
Evans, D.: B1-1-3, 3
Evaristo, M.: E1-3-1, 21
Evertz, S.: B6-7, 20
Exner, J.: TS2-1-1, 35
Ezirmik, K.V.: B1-3-6, 11; BP-39, 37

— F —

Faber, K.T.: A2-1-6, 16
Fair, J.: EP-2, 39
Fan, X.: BP-44, 37
Fanelli, F.: B2-2-3, 8
Fankhauser, J.: B1-2-7, 7; C4-2-6, 24
Farokhzadeh, K.: B4-3-5, 32
Fatoba, O.S.: B4-3-9, 32
Faurie, D.: HP-1, 41
Favaro, G.: H3-11, 30
Faverjon, F.: D2-2-4, 9
Feng, C.C.: CP-22, 38
Feng, F.J.: A2-1-4, 16
Ferguson, V.: TS1-5, 6; H2-1-9, 34
Fernandes, F.: E1-3-3, 21
Fernandez, B.: A2-2-5, 11
Ferreira, L.: D3-7, 18
Ferro, G.: B2-1-6, 4
Fian, A.: F4-1-3, 22
Fietzke, F.: G1-7, 22
Figueroa, C.A.: E1-2-2, 18
Figueroa, M.: E1-3-2, 21
Fischer, M.: F4-1-6, 22
Fisher, G.: H1-10, 23
Fisher, T.: F1-1-5, 14
Fissmer, S.F.: D3-7, 18
Fleming, R.: H2-1-10, 34
Flores, M.: EP-19, 39
Flores-Ruiz, F.: CP-34, 38; E2-1-5, 29
Fonseca García, A.: C4-1-3, 21
Fouvry, S.: E1-2-3, 18; E1-3-7, 21; E3-10, 44; H2-2-7, 45
Frank, M.: B2-2-2, 8
Franz, R.: H2-2-4, 45; TS4-1-7, 23
Freisleben, M.: E1-2-2, 18
Frey, D.: EP-3, 39
Fridrici, V.: E3-3, 44
Friedemann, M.: B4-1-7, 24
Fu, Y.K.: CP-11, 38
Fuierer, P.: TS2-1-1, 35
Fuji, H.: B4-2-2, 28
Fukui, H.: G3-1, 30
Fukumasu, N.K.: E1-4-5, 25
Fulgoni, D.: TSP-10, 42

— G —

Gachot, C.: E1-2-5, 18; E1-4-8, 25
Gajewski, W.: F2-11, 29; G1-3, 22
Galez, M.C.: A1-2-2, 7; A1-2-5, 7
Gali, O.: E1-2-9, 18; EP-25, 40
Gall, D.: C5-2-5, 8
Gannon, P.: BP-8, 36
Gao, H.: E1-3-8, 21
Gao, S.: CP-22, 38
Garcés, E.: CP-12, 38
García, E.: E1-3-2, 21, EP-18, 39
García, K.: D4-9, 13
Gariépy, M.: E1-1-4, 14
Garrick, K.: AP-6, 36
Gash, A.: C6-6, 33
Gaudet, S.: TS2-1-7, 35
Gavgali, E.: BP-46, 37
Gavgali, M.: BP-46, 37
Gavrieliades, A.: B2-2-6, 8
Geandier, G.: H1-4, 23; HP-1, 41
Gedara, J.P.: TS1-3, 6
Gee, M.: E1-2-5, 18; E1-4-8, 25
Gell, M.: A2-2-7, 11
Gentle, A.: C6-10, 33

Gerdes, H.: G2-7, 26
Gerile, N.: TS2-1-6, 35
Gerstl, S.S.A.: H1-7, 23
Ghanbaja, J.: TS5-10, 10
Gharavi, M.A.: C4-1-5, 21
Ghauri, F.A.: F1-1-8, 14
Ghoniem, N.: B5-1-3, 17
Gibson, J.: H3-3, 30
Giorjao, A.R.: E1-4-7, 25
Girardeau, T.: B5-2-2, 20
Glaser, E.: TS2-1-2, 35
Glatz, S.A.: BP-43, 37; G3-4, 30
Glavin, N.R.: F1-1-4, 14; F1-1-5, 14
Glocker, D.: G1-1, 22
Glushko, O.: H2-2-4, 45
Gobin, G.: B1-4-4, 16
Godard, P.: HP-1, 41
Göken, M.: H2-2-3, 45
Golden, R.: A2-2-4, 11
Gomez, C.L.: C4-1-4, 21
Gomez, J.: A2-1-8, 16; CP-20, 38
Gomez, R.D.: CP-32, 38
Gonzales García, M.A.: EP-10, 39
Gonzalez, C.: TS2-1-2, 35
Gonzalez, J.M.: B4-2-3, 28
Goorsky, M.: B1-2-7, 7; C5-3-3, 12
Gordon, M.: F1-1-6, 14
Gorgoi, M.: H1-9, 23
Gorshenkov, M.V.: B5-2-5, 20
Gorzowski, E.: TS2-1-2, 35
Gotman, I.: B4-2-7, 28
Goudeau, P.: E2-1-10, 29; H1-4, 23; HP-1, 41
Grabowski, C.: F1-1-5, 14
Grachev, S.: H1-9, 23
Granqvist, N.: C2-4, 28
Grant, L.O.: F6-11, 26
Grech, M.: E1-2-10, 18
Greczynski, G.: B4-1-4, 24; B4-1-8, 24; F2-12, 29; G4-3, 9; H1-11, 23; TS4-2-3, 31; TS6-5, 27
Greene, J.: B7-1, 12; TS4-2-3, 31
Grima, C.: D3-9, 18
Grochla, D.: TS4-1-6, 23
Grop, S.: EP-3, 39
Grosdidier, T.: G3-12, 30; G4-7, 9; H1-2, 23
Gross, C.: HP-5, 41
Grosseau-Poussard, J.-L.: H1-4, 23
Grundmeier, G.: GP-8, 41; TS6-6, 27
Gu, J.: E1-3-8, 21; F4-1-9, 22
Gudmundsson, J.T.: TS4-1-5, 23
Guerain, M.: H1-4, 23
Guerra-Núñez, C.: E2-1-12, 29
Guibert, E.: B1-4-8, 16
Guillonneau, G.: EP-3, 39
Guillou, R.: HP-1, 41
Guimond, S.: B3-1-5, 32
Gulbinski, W.: B4-4-3, 43
Gulyaev, R.: B1-2-8, 7
Gunduz, I.: C6-2, 33; C6-4, 33; FP-11, 40
Gupta, M.K.: F1-1-4, 14
Gupta, P.: TS1-4, 6
Gupta, S.: H2-2-2, 45
Gutmanas, E.Y.: B4-2-7, 28

— H —

Ha, M.T.: C5-3-3, 12
Hack, K.: BP-42, 37
Hagedorn, D.: B1-4-3, 16
Hahn, B.-D.: TS2-1-3, 35
Haider, M.B.: CP-18, 38
Hakala, T.J.: E1-4-8, 25
Håkansson, G.: B4-1-8, 24
Haldan, D.: B1-3-3, 11
Hall, A.C.: TS2-1-5, 35
Hall, C.: B1-1-3, 3
Hallab, N.: D3-4, 18
Han, H.D.: BP-12, 36
Han, K.C.: BP-40, 1
Han, Y.S.: A2-2-9, 11
Hangen, U.: GP-4, 41
Hans, M.: B6-7, 20; G5-3, 5; GP-4, 41

Haque, A.: F1-1-4, 14
Hara, H.: EP-5, 39
Harder, B.: AP-10, 36; TS2-2-1, 45
Harris, M.A.: D2-2-6, 9
Hartmann, U.: G5-4, 5
Hartwig, M.: B1-3-3, 11
Hattar, K.: TS2-1-5, 35
Hattori, K.: F2-8, 29
Hauert, R.: D2-2-5, 9
Haviar, S.: B1-4-2, 16; F2-4, 29
Haynes, J.: A2-1-3, 16
Hayward, I.: H2-1-9, 34
He, G.Y.: B4-1-10, 24
He, J.L.: D2-2-3, 9; G4-4, 9
He, W.: E2-1-10, 29
He, X.: E1-4-9, 25
He, Y.: B4-3-5, 32
Héau, C.: D2-2-4, 9
Hecimovic, A.: F2-13, 29
Helmersson, U.: F2-7, 29
Hemker, K.J.: A2-1-5, 16
Hendi, A.: CP-33, 38
Henne, J.-F.: E3-10, 44
Henrion, G.: TS4-1-4, 23; TS5-10, 10; TSP-3, 42; TSP-4, 42
Heo, S.B.: BP-29, 37
Herbert, E.G.: H2-2-3, 45
Hernández-García, F.A.: CP-34, 38
Hernández-Gordillo, A.: FP-8, 40
Hijazi, H.: G2-9, 26
Hild, R.: GP-2, 41
Hirota, S.: B4-2-2, 28; G2-3, 26
Hirt, G.: TS6-3, 27
Ho, C.: CP-19, 38; H2-2-5, 45
Ho, C.-H.: F1-2-9, 19
Ho, W.F.: DP-3, 39; DP-9, 39
Holec, D.: B7-4, 12
Holland, A.: C5-1-2, 4
Holmberg, K.: E1-2-5, 18; E1-4-8, 25
Holweger, W.: B4-2-5, 28
Holzapfel, D.: B6-7, 20; G5-3, 5
Hong, F.C.N.: B3-2-5, 43
Hopkins, L.: B1-4-7, 16
Hosenfeldt, T.: B4-2-5, 28
Hou, B.R.: H3-10, 30
Hou, C.C.: C4-1-2, 21
Housden, J.: B4-2-7, 28
Houska, J.: B4-3-6, 32; F2-4, 29
Hovich, M.: TS5-8, 10
Hrissagis, K.: EP-21, 39
Hsieh, J.H.: D1-2, 13; D2-2-9, 9; TS1-6, 6; TS1-7, 6
Hsieh, T.Y.: C5-2-12, 8
Hsu, H.C.: DP-3, 39; DP-9, 39
Hsu, H.J.: D2-2-10, 1
Hsu, J.T.: G4-9, 9
Hsu, M.-K.: BP-22, 37
Hsu, S.K.: DP-3, 39; DP-9, 39
Hsu, S.W.: C3-5, 17
Hsueh, C.H.: E2-2-5, 33
Hsueh, C.-M.: F1-2-6, 19
Hu, J.J.: F1-1-4, 14
Hu, Y.F.: B3-2-1, 43
Huang, C.F.: DP-24
Huang, C.J.: H3-9, 30
Huang, C.L.: B1-1-4, 3
Huang, H.: CP-22, 38
Huang, H.L.: G4-9, 9
Huang, J.: E1-4-9, 25; F3-3, 34
Huang, J.H.: B1-1-4, 3; B4-2-4, 28; B4-3-7, 32; BP-16, 36; E2-2-9, 33
Huang, J.L.: B3-2-6, 43; C4-1-2, 21; F4-2-10, 25; F4-2-11, 25
Huang, S.P.: C5-1-5, 4
Huang, T.C.: H3-8, 30
Hug, H.J.: F4-1-6, 22
Hultman, L.: B7-1, 12; F2-12, 29; H1-11, 23; TS4-2-3, 31; TS6-5, 27
Hung, Y.J.: C5-1-5, 4
Hunter, B.: AP-8, 36

Hunter, J.: E1-2-9, 18; EP-25, 40
Hussain, D.: AP-9, **36**; E2-1-3, **29**
Hwang, L.J.: DP-14, **39**
Hwang, Y.J.: CP-8, **38**
— **I** —
Ignácio, R.: EP-23, 39
Iida, S.: H1-10, 23
Imbriglio, S.: E1-1-1, 14
Iwai, Y.: B4-3-3, **32**
Iwaniak, A.: AP-15, **36**; TS2-2-5, **45**
Iwaniak, B.: TS2-2-5, 45
— **J** —
Jacobs, J.: D3-4, 18
Jacques, B.: G3-12, 30
Jaeger, D.: C5-2-2, **8**
Jagdish, C.: C3-2, 17
Jakopic, G.: F4-1-3, 22
Jakubovics, N.: TS1-3, 6
Jambu, J.: C4-2-9, 24
Jang, B.K.: A2-1-4, **16**; AP-11, **36**
Jang, H.D.: E1-4-9, 25
Jang, J.: DP-21, **39**
Jang, S.: BP-41, 37
Jansson, U.: E1-1-2, 14
Jarry, O.: B3-1-5, 32; E3-5, 44
Jeanneret, P.: B1-4-8, 16
Jellison, G.: C2-1, **28**
Jeng, Y.R.: B3-2-5, 43
Jennings, J.A.: D2-2-6, **9**
Jensen, J.: G4-3, 9
Jeon, J.B.: BP-29, 37
Jespersen, M.L.: F1-1-4, 14
Jetter, M.: C5-2-2, 8
Jeurgens, L.: F4-2-7, **25**
Jiang, C.: A2-2-7, 11
Jiang, X.: BP-40, 1
Jiménez-Piqué, E.: EP-2, 39; H2-1-3, 34
Jiménez-Sandoval, S.: BP-10, 36
Joetten, A.: D1-3, 13
Johanns, K.E.: H2-1-2, **34**; H2-1-6, 34
Johansson, M.: B4-1-8, 24
Johansson-Jöesaar, M.: B1-2-1, 7; B5-1-6, 17
Johnson, E.R.: E1-3-8, 21
Johnson, L.: B1-2-1, 7; B4-1-8, 24
Johnson, S.: TS2-1-2, **35**
Jokinen, A.: C2-4, **28**
Jones, E.: BP-8, **36**
Jordan, E.: A2-2-7, 11
Jörg, T.: H2-2-4, **45**
Juez Lorenzo, M.: A2-2-2, 11
Juhl, A.T.: F1-1-4, 14
Jun, H.S.: CP-9, **38**
Jung, H.M.: CP-29, **38**
Jung, U.C.: BP-29, 37
Jung, Y.G.: A2-2-8, **11**; CP-3, 38
Justice, A.: C6-2, **33**
— **K** —
Kadlec, S.K.: F2-6, 29
Kaga, M.: TS2-1-6, 35
Kai, J.: C5-2-3, 8
Kailer, A.: E1-4-2, 25
Kalscheuer, C.: B3-1-4, 32; G3-3, **30**; GP-7, **41**
Kambara, M.: TS2-1-6, **35**
Kang, J.I.: DP-12, **39**
Kapsa, P.: E3-3, 44
Kar, S.: BP-34, 1
Karis, O.: H1-9, 23
Karl, A.: D3-9, 18
Karlson, M.: B1-1-1, 3
Karlsson, A.: A1-1-1, 3
Karner, J.: E3-1, 44
Karpuschewski, B.: GP-11, 41
Kartal Sireli, G.: B4-4-1, 43; G4-10, 9
Kasap, S.: CP-26, 38
Kashkarov, B.: A1-1-6, **3**; AP-3, **36**
Kasiorowski Neves, T.: EP-23, **39**
Kato, T.: TS4-1-10, 23
Kaufman, M.: A1-1-4, 3; BP-24, 37; G4-8, 9

Kaulfuss, F.: B1-2-5, **7**
Kaune, G.: B1-4-3, **16**
Kausar, H.: E1-4-6, 25
Kawasaki, Y.: C5-1-4, 4
Keast, V.J.: C6-10, 33
Keblinski, P.: F3-4, 34
Keckes, J.: B6-11, 20; BP-19, 36; H2-1-4, 34
Keleş, A.: B1-3-4, 11; B1-3-6, **11**
Kelly, P.: F4-2-6, 25
Kennedy, M.S.: E2-1-11, 29
Kerdsongpanya, S.: C4-1-5, 21; C4-1-6, 21; CP-2, 38
Keum, M.J.: CP-24, 38
Khatami, Z.: C1-1, **33**
Khodyrevskaya, Y.I.: D2-1-2, 5
Khouri, S.: D2-1-6, 5
Kiener, D.: H1-8, 23
Kim, B.J.: CP-8, 38
Kim, C.-Y.: B4-2-8, 28
Kim, D.: BP-29, 37
Kim, D.H.: A2-2-9, 11
Kim, E.H.: CP-3, 38
Kim, H.K.: BP-12, **36**
Kim, H.S.: C5-3-3, 12
Kim, H.T.: A2-1-4, 16; A2-2-9, 11; AP-11, 36
Kim, J.: BP-30, 37; TS2-1-3, 35
Kim, J.J.: DP-10, 39
Kim, J.W.: TS5-1, 10
Kim, K.H.: CP-24, 38
Kim, K.S.: BP-30, 37
Kim, S.M.: CP-24, 38; TS5-1, 10
Kim, S.W.: A2-1-4, 16; A2-2-9, 11; AP-11, 36
Kim, T.H.: A2-2-9, 11
Kim, W.K.: CP-29, 38; CP-31, 38
Kim, W.R.: BP-30, **37**
Kimura, T.: B2-1-3, **4**
Kiryukhantsev-Korneev, P.: BP-35, 37; DP-4, 39; E1-3-4, 21; TSP-11, 42
Kitami, H.: TS4-1-10, **23**
Kleinbichler, A.: E2-1-11, 29
Klemberg-Sapieha, J.E.: E2-2-3, 33; TS2-1-7, 35
Klimashin, F.F.: B7-3, **12**; B7-4, 12
Klimczak, A.: F2-11, 29
Klocke, F.: GP-2, 41
Klostermann, H.: B4-1-7, 24; G1-7, **22**
Klünsner, T.: BP-26, 37
Knick, C.: C5-1-1, **4**
Kobashi, M.: B1-2-7, 7
Koch, D.: H3-2, 30
Kodambaka, S.: B1-2-7, 7; C4-2-6, 24
Köhler, B.: B4-4-5, 43
Kohlscheen, J.: F4-1-1, **22**
Kokonou, M.: FP-11, 40
Kolarik, V.: A2-2-2, **11**; AP-4, 36
Kolev, I.: B3-2-2, **43**
Kölker, W.: B2-2-2, **8**; G1-5, 22
Koller, C.: B1-2-6, 7; B6-8, 20; BP-43, 37; F4-1-5, **22**; G3-4, 30
Koložvári, S.: B1-2-6, 7; B1-2-9, 7; BP-43, 37; B4-1-8, 24; F4-1-5, 22; F4-1-8, 22; G3-4, 30
Koltonow, A.: E1-4-9, 25
Konstantinidis, S.: TS4-2-9, **31**
Koo, J.: CP-31, 38
Köpf, A.: B6-11, 20
Kopper, M.: TS6-4, **27**
Korakakis, D.: F6-11, 26
Koratkar, N.: F3-5, **34**
Korenyi-Both, A.L.: A1-1-4, 3; BP-24, 37; G4-8, **9**
Korte-Kerzel, S.: H2-2-6, 45; H3-3, **30**
Kostoglou, N.: F1-1-3, **14**
Kotula, P.G.: TS2-1-5, 35
Koughia, C.: CP-26, 38
Kousaka, H.: B3-1-6, **32**; BP-32, 37; BP-34, **1**
F2-8, 29
Koutna, N.: B7-4, 12
Kovac, J.: B4-4-5, **43**
Kovaci, H.: EP-8, 39
Kozak, T.: F2-1, **29**
Kracica, M.: C5-1-2, 4

Krcil, J.: DP-7, 39
Krukovskiy, P.: AP-4, **36**
Kruppe, N.C.: E2-2-8, 33; FP-5, 40; G5-4, 5; GP-2, **41**; GP-7, 41; GP-8, 41
Kub, F.J.: F6-12, 26
Kubart, T.: C3-7, **17**
Kuchenreuther-Hummel, V.: A2-2-2, 11
Kudiiarov, N.: A1-1-6, 3; AP-3, 36
Kudryavtseva, Y.A.: D2-1-2, 5
Kulczyk-Malecka, J.: A2-2-3, **11**; EP-17, **39**; H3-2, 30
Kumagai, M.: G4-5, **9**
Kumar, R.: A2-2-7, 11; E1-1-5, **14**
Kumar, V.: B1-1-2, **3**
Kuncova-Kallio, J.: C2-4, 28
Kuntz, J.: C6-6, 33
Kuo, K.-L.: B4-3-7, 32
Kurapov, D.: G5-3, 5
Kuyel, B.: C5-2-1, **8**
Kwan, M.: F3-4, 34
Kwon, O.J.: BP-12, 36
Kwon, S.: CP-31, **38**
Kwon, S.-H.: F1-2-8, 19
— **L** —
La, J.H.: BP-12, 36; BP-14, 36
Laberge, M.: E2-2-3, **33**
Lacan, P.: CP-19, 38; H2-2-5, 45
Lacaze-Dufaire, C.: B2-2-6, 8
Lacerda Amorim, F.: E1-3-10, 21
Lacroix, L.: CP-19, 38; H2-2-5, 45
Lahtz, G.: B5-1-5, 17
Lai, G.H.: H3-8, **30**
Lamela, V.: H2-1-3, 34
Lance, M.: A2-1-3, **16**
Landsbergen, J.: B3-2-2, 43
Langa, E.: TS5-5, 10
Lanzoni, E.M.: HP-4, 41
Lara Rangel, S.: BP-23, 37
Larrotta, S.: BP-45, 37
Larsson, T.: B2-1-1, 4
Lau, E.: D3-6, 18
Laukkanen, A.: E1-4-8, 25
Lauridsen, J.: B2-1-1, 4
Lawal, J.: BP-35, 37; TSP-11, **42**
Lazzari, R.: H1-9, 23
Le Bourhis, E.: E2-1-10, 29; HP-1, 41
Le Febvrier, A.: C4-1-6, 21; CP-2, **38**; G4-3, **9**
Lee, H.-C.: C5-1-3, 4
Lee, J.: H3-6, 30
Lee, J.H.: A2-2-8, 11
Lee, J.-J.: F1-2-8, 19
Lee, J.W.: A1-2-6, 7; D2-1-5, 5; D4-6, 13; E1-3-9, 21; F2-3, 29
Lee, K.: DP-10, 39; DP-11, 39; DP-13, **39**; DP-14, 39; DP-21, 39
Lee, K.S.: A2-1-4, 16
Lee, M.H.: GP-9, **41**
Lee, S.H.: CP-9, 38
Lee, S.M.: A2-2-9, 11
Lee, S.Y.: BP-12, 36; BP-14, **36**; TS5-1, **10**
Lee, W.: BP-29, 37
Lee, W.-S.: BP-41, 37
Lei, C.-Y.: CP-30, 38
Leiste, H.: F6-8, 26
Leite, P.M.: D3-7, 18
Lejeune, M.: E2-1-7, 29
Lekka, M.: TS1-5, 6
Lemmer, O.: B2-2-2, 8; G1-5, 22
Leonard, D.N.: TS5-6, **10**
Lesiuk, P.: F2-11, 29; G1-3, **22**
Leson, A.: E1-4-1, 25; EP-9, 39; G2-5, 26
Levesque, L.: F1-2-5, 19
Leyendecker, T.: G1-5, 22
Leyens, C.: B1-2-5, 7
Leyland, A.: B1-4-7, 16; B3-1-7, 32; B4-2-7, 28; BP-35, **37**; BP-36, 37; TSP-11, 42
Li, B.: E1-2-9, 18
Li, C.: C5-3-3, 12; D1-2, 13; D2-2-9, 9; TS1-6, 6; TS1-7, 6

Li, C.L.: D1-1, 13
 Li, K.: H3-10, 30
 Li, K.Y.: E1-2-5, 18
 Li, L.: C3-2, 17; E1-4-8, 25
 Li, X.Y.: BP-45, 37
 Li, Y.S.: B4-2-8, 28
 Li, Z.-H.: CP-30, 38
 Liao, H.J.: DP-9, 39
 Liao, P.Y.: C5-2-12, **8**
 Liao, S.J.: D1-2, 13; D2-2-9, 9
 Liauh, W.J.: B3-2-6, **43**
 Lii, D.F.: B3-2-6, 43; F4-2-10, 25
 Lim, D.S.: B3-2-4, **43**
 Limbeck, A.: B1-2-6, 7
 Lin, C.H.: C5-3-6, 12
 Lin, C.W.: D2-2-3, **9**
 Lin, C.Y.: C5-2-11, **8**; C5-2-4, 8; C5-2-7, 8; C5-2-8, 8; D1-2, **13**
 Lin, C.-Y.: C5-1-3, 4
 Lin, G.Q.: BP-40, **1**
 Lin, H.-M.: CP-23, 38
 Lin, J.: B4-1-5, **24**; E3-9, 44; EP-23, 39
 Lin, L.: A2-2-1, 11
 Lin, M.-T.: E2-2-4, **33**
 Lin, T.Y.: D4-6, **13**
 Lin, Y.C.: D1-2, 13; D2-2-9, 9
 Lin, Y.J.: G4-9, 9
 Lin, Z.X.: B3-2-6, 43
 Linsler, D.: E3-6, **44**
 Liu, C.: B3-1-7, **32**; BP-36, 37
 Liu, C.P.: F4-2-11, 25
 Liu, H.: F4-2-4, **25**
 Liu, H.W.: C5-2-7, **8**; C5-2-8, 8
 Liu, J.: TS4-1-3, 23
 Liu, K.J.: C5-2-11, 8; C5-2-4, **8**; C5-2-8, 8
 Liu, L.: B1-4-7, 16; TS2-2-3, **45**
 Liu, R.: B4-4-7, 43
 Liu, S.: GP-9, 41
 Liu, X.: BP-36, **37**
 Liu, X.W.: C5-2-11, 8
 Llanes, L.: EP-2, 39; H2-1-3, 34
 Lockyer-Bratton, S.J.: A2-1-5, **16**
 Löffler, F.: B1-4-3, 16
 Longchamp, Q.: EP-3, 39
 Lopez Ferrusquia, N.: BP-23, **37**; EP-10, 39
 Lou, B.S.: A1-2-6, 7; D2-1-5, 5; D4-6, 13
 Lozada-Morales, R.: BP-10, 36
 Lu, C.F.: C3-5, **17**; CP-11, **38**
 Lu, H.-C.: CP-30, **38**
 Lu, J.: H1-11, 23
 Lu, Y.H.: C5-2-7, 8; C5-2-8, **8**
 Lu, Z.: A2-2-8, 11
 Ludwig, A.: TS4-1-6, 23
 Lugo González, D.: BP-25, 37
 Luichtl, M.: E3-1, 44
 Lukes, J.: H2-1-9, 34; TS1-5, **6**
 Lukitsch, M.J.: G3-10, 30
 Lümckemann, A.: B5-1-5, 17; GP-11, **41**
 Lundin, D.: F2-7, 29; TS4-1-5, **23**
 Lv, J.X.: CP-22, 38

— **M** —

Ma, Y.-R.: F1-2-9, 19
 Machado, I.F.: E1-4-5, 25
 Maciel, H.: D2-1-6, 5; DP-16, 39; E3-4, 44
 Mackie, K.: F1-1-6, 14
 Madloch, S.: A1-2-2, **7**
 Maeder, X.: A1-1-3, **3**; BP-21, 36; F4-1-4, 22
 Magnfalt, D.: B1-1-1, 3
 Mahajan, A.: F1-1-9, 14
 Mahamood, R.: B4-3-8, 32
 Maier, V.: H3-3, 30
 Maitournam, H.: E1-2-3, 18
 Makino, H.: C2-5, 28; C3-6, 17; TS4-1-10, 23
 Makowski, S.: E1-4-1, **25**; EP-9, **39**; G2-5, 26
 Maledi, B.: TSP-6, 42
 Malek, J.: DP-7, 39
 Mallia, B.: D3-9, 18
 Manaia, A.: E1-3-1, **21**
 Manero, A.: A1-1-1, 3

Manfroi, L.: E3-4, 44
 Mangolini, L.: F1-2-3, **19**
 Manimunda, P.: E1-1-1, 14; TS2-1-8, 35
 Maniscalco, S.: D3-9, 18
 Manivasagam, G.: D3-2, **18**
 Manjajiah, M.G.: B2-2-4, **8**
 Mantovani, D.: F1-2-5, 19
 Mao, F.: E1-1-2, **14**
 Marc, E.: E1-2-3, **18**
 Marques, I.S.: D3-10, 18
 Marques, L.: B5-2-2, 20
 Martín, J.: H1-2, **23**; TS5-10, 10
 Martinavicius, A.: H1-2, 23
 Martínez, R.: H2-1-3, 34
 Martini, A.: E1-3-8, 21
 Martin-Rojo, A.: C4-2-7, 24
 Martinu, L.: E2-2-3, 33; F2-9, 29; G5-1, **5**; TS2-1-7, 35
 Mascher, P.: C6-8, 33
 Massi, M.: D3-7, 18
 Mastail, C.: H1-1, 23
 Masters, E.A.: D2-2-6, 9
 Maszl, C.: TS4-2-7, 31
 Mathabath, H.: E1-1-3, 14
 Mathew, M.: D3-10, 18; D3-4, **18**; D3-6, 18
 Mathur, H.: H3-3, 30
 Matko, I.: BP-19, **36**
 Matovic, B.: F1-1-3, 14
 Matsubara, T.: B4-3-3, 32
 Matsumoto, S.: GP-1, 41
 Mattes, W.: GP-5, 41
 Mattfeld, P.: GP-2, 41
 Matthews, A.: A2-1-2, 16; B1-4-7, 16; B3-1-7, 32; B4-2-7, 28; B4-4-2, 43; BP-35, 37; BP-36, 37; F4-2-3, 25; TS5-7, 10; TSP-11, 42
 Matthews, I.: H3-6, 30
 Matthey, J.: B1-4-8, **16**
 Matveeva, V.G.: D2-1-2, 5
 Maurel, V.: A1-1-5, **3**
 Maury, F.: B2-2-5, 8
 Mayer, J.: E2-2-8, 33
 Mayes, E.: C5-1-2, 4
 Mayrhofer, P.: B1-2-6, 7; B6-8, 20; B7-3, 12; B7-4, **12**; BP-43, 37; F4-1-5, 22; F4-1-8, 22; G3-4, 30
 McConney, M.E.: F1-1-4, 14
 McCulloch, D.: C5-1-2, 4
 McDougall, N.: C5-1-2, 4
 McKay, B.: EP-21, 39
 McNallan, M.: D3-6, 18
 Medina, J.C.: FP-8, 40
 Mehner, A.: B4-4-5, 43
 Meid, C.: A1-1-1, 3
 Meier, G.H.: A1-2-3, **7**
 Meindlhummer, M.: H2-1-4, 34
 Mekicha, M.A.: E1-3-3, 21
 Melo-Máximo, D.V.: A1-2-1, 7; D4-9, 13
 Melo-Máximo, L.: A1-2-1, 7; D4-9, 13
 Mendez-Martin, F.: H1-11, 23
 Menezes, C.M.: E1-2-2, 18
 Merabtine, S.: BP-27, 37
 Mercier, F.: B2-1-5, 4; B2-1-6, 4
 Merle, B.: H2-2-3, **45**
 Mesic, B.: B2-2-2, 8
 Mesquita, M.F.: D3-10, 18
 Metel, M.: AP-4, 36
 Metoki, K.: EP-5, 39
 Metzner, C.: F6-5, 26
 Meunier, F.: B3-1-5, 32
 Mhaede, M.: E1-2-10, 18
 Micha, J.-S.: H1-4, 23
 Michalik, D.: AP-15, 36; TS2-2-5, 45
 Michau, A.: B2-2-5, **8**
 Michel, A.: BP-17, 36; H1-1, 23
 Michler, J.: BP-21, 36; E2-1-12, 29; E2-1-4, **29**; EP-3, 39; H2-1-5, 34; H3-11, 30
 Midson, S.: A1-1-4, 3; BP-24, 37; G4-8, 9
 Milickovic, T.K.: EP-21, 39
 Minea, T.: TS4-1-5, 23
 Mingard, K.: E1-2-5, 18

Mirabal-Rojas, R.: C4-1-3, 21; E2-1-7, **29**
 Mirzaeian, M.: D2-2-8, 9; F6-10, 26
 Mitterer, C.: B4-3-2, 32; F1-1-3, 14; F4-1-3, 22; G5-5, **5**; H1-11, 23; H2-2-4, 45
 Miura, H.: EP-5, 39
 Miyayama, T.: H1-10, 23
 Mocuta, C.: HP-1, 41
 Mogonye, J.E.: F4-1-9, 22
 Mohanty, G.: H3-11, 30
 Monahan, D.: TSP-10, 42
 Monceau, D.: A2-2-3, 11; EP-17, 39
 Monden, N.: FP-1, 40
 Montigaud, H.: H1-9, 23
 Mook, W.M.: TS2-1-5, 35
 Moon, D.S.: DP-13, 39; DP-14, 39
 Moos, R.: TS2-1-1, 35
 Moreno Tarango, A.: BP-9, 36
 Mori, T.: TSP-2, 42
 Morris, C.: C5-1-1, 4; C6-5, 33
 Morshed, B.: D4-7, **13**
 Morstein, M.: B5-1-5, **17**; BP-26, 37; E2-1-4, 29; GP-11, 41; H2-1-5, 34
 Moseler, M.: E1-2-4, 18
 Moser, S.: E3-5, 44
 Motayed, A.: CP-32, 38
 Mouli Thalluri, S.: C4-1-3, 21
 Mráz, S.: B4-1-9, 24
 Mücklich, F.: B1-2-1, 7; B5-1-6, 17; E1-2-2, 18
 Muelas, R.: AP-4, 36
 Müeller, J.: G1-6, 22
 Muhl, S.: B4-2-3, 28; BP-20, 36; CP-12, 38; E1-3-2, 21; EP-18, **39**
 Mühlbacher, M.: H1-11, **23**
 Mukhametkaliyev, T.M.: D2-2-7, 9
 Müller, U.: D2-2-5, 9
 Munagala, V.: E1-1-1, 14
 Munemasa, J.: B4-2-2, 28
 Muratore, C.: F1-1-4, **14**; F1-1-5, 14
 Murdoch, B.: C5-1-2, 4
 Murillo, A.E.: A1-2-1, **7**; D4-9, 13
 Murphy, P.: B1-1-3, 3
 Murphy, T.: CP-32, 38
 Musayev, Y.: B4-2-5, 28; G2-6, 26
 Music, D.: B4-1-9, 24; G5-3, 5; TS6-3, 27
 Mussenbrock, T.: TS4-1-6, 23; TS4-1-8, **23**
 Mutin, P.H.: F3-4, 34; TS6-3, 27
 Myalska, H.: E1-1-1, 14

— **N** —

Naderi, M.: G3-3, 30; GP-7, 41
 Nair, B.: A2-2-7, 11
 Nam, K.H.: BP-14, 36
 Naraparaju, R.: A2-1-8, 16
 Naveed, B.: B1-2-8, 7
 Neels, A.: A1-1-3, 3; F4-1-4, 22
 Negri, P.: H2-1-9, **34**; TS1-5, 6
 Newman, H.: TS2-1-2, 35
 Ng, A.: C4-2-8, 24
 Nicholson, K.: H2-2-3, 45
 Nieher, M.: B1-3-3, 11
 Niemiec, D.: AP-15, 36
 Nikitenkov, N.N.: A1-1-6, 3
 Nishikawa, A.: BP-45, 37
 Nishizawa, H.: EP-5, 39
 Nomine, A.: TS4-1-4, **23**; TS5-10, 10; TSP-10, 42; TSP-3, **42**; TSP-4, 42
 Nomine, A.V.: TS4-1-4, 23; TSP-3, 42
 Nomoto, J.: C2-5, **28**; C3-6, 17; TS4-1-10, 23
 Nordlund, K.: TS4-2-1, **31**
 Nozahic, F.: A2-2-3, 11; EP-17, 39
 Ntsoane, T.: E1-1-3, 14
 Nunez, O.R.: BP-9, 36
 Nunn, J.: E1-2-5, 18
 Nyberg, T.: E1-1-2, 14
 Nyoni, E.: D3-5, **18**

— **O** —

Obadele, B.A.: E1-1-6, **14**
 Oberle, N.: E1-4-2, 25
 Oberste-Berghaus, J.: B1-4-4, 16

Obrosof, A.: B1-2-8, 7
Oda, A.: BP-32, 37; F2-8, 29
Odén, M.: B1-2-1, 7; B4-1-8, 24; B5-1-6, 17; B7-2, 12
Odeshi, A.: B3-2-3, 43
Ofiteru, I.D.: TS1-4, 6
Ogwu, A.: D2-2-8, 9; F6-10, 26
Oh, Y.S.: A2-1-4, 16; A2-2-9, 11; AP-11, 36
Ohashi, N.: H1-9, 23
Ohkochi, S.: BP-32, 37
Ohmori, Y.: FP-1, 40
Ohsawa, T.: H1-9, 23
Ohta, T.: BP-32, 37; F2-8, 29
Oje, I.: F6-10, 26
Okasinski, J.: A1-1-1, 3
Oksana Banakh, O.: B1-4-8, 16
Oladijo, O.P.: E1-1-3, 14; TSP-6, 42
Oliveira, J.C.: E1-3-3, 21
Oliver, W.C.: H2-1-2, 34; H2-1-6, 34
Olsson, M.: G3-9, 30
Olubambi, P.: E1-1-6, 14
Oniszczyk, A.W.: F2-5, 29
Opila, E.: A2-2-4, 11
Oseguera, J.: A1-2-1, 7; D4-9, 13
Östby, J.: G3-9, 30
Ostrowski, I.: GP-5, 41
Otvianao, L.P.: HP-4, 41
Ou, K.L.: D2-2-10, 1; DP-24, 39
Oubaha, M.: A1-2-8, 7
Oyarzabal, E.: C4-2-7, 24
Ozimek, P.: G1-3, 22
Ozkalfat, P.: B4-4-1, 43

— P —

Pahala Gedara, J.: TS1-4, 6
Paik, U.Y.: A2-2-8, 11
Paiva Junior, J.: E1-3-10, 21; E2-1-6, 29; GP-5, 41
Pallier, C.: B4-1-4, 24; C4-1-5, 21
Pan, C.H.: C5-3-5, 12; C5-3-6, 12
Panat, R.: A1-2-7, 7
Panicaud, B.: H1-4, 23
Panjan, M.: F2-9, 29
Pantoya, M.: C6-3, 33
Papa, F.: C3-8, 17; G1-4, 22
Papageorgiou, V.: G1-8, 22
Park, D.-S.: TS2-1-3, 35
Park, G.Y.: B3-2-4, 43
Park, H.: CP-29, 38
Park, H.Y.: CP-3, 38
Park, I.W.: BP-29, 37; BP-30, 37
Park, J.H.: C5-3-3, 12; CP-9, 38
Park, J.K.: BP-41, 37
Park, J.S.: CP-8, 38; CP-9, 38
Park, S.Y.: DP-11, 39
Partridge, J.: C5-1-2, 4
Patel, B.: D3-4, 18
Patel, K.: F4-2-9, 25; FP-2, 40
Patel, R.: D2-2-6, 9
Patil, R.A.: F1-2-9, 19
Patscheider, J.: F4-1-6, 22
Paumier, F.: B5-2-2, 20
Pebley, A.: F1-1-6, 14
Pedraza, F.: A2-2-5, 11
Peng, C.: GP-4, 41
Penich, R.: B1-1-2, 3
Pereira, A.: C3-4, 17
Pérez Alvarez, J.: C4-1-3, 21
Pérez-Centeno, A.: BP-10, 36
Persson, J.: B2-1-1, 4
Pessoa, R.: D2-1-6, 5; DP-16, 39; E3-4, 44; HP-4, 41
Petit, L.: H2-2-7, 45
Petlin, D.G.: D2-1-2, 5
Petrov, I.: B7-1, 12; TS4-2-3, 31
Phalippou, C.: E1-2-3, 18
Phani, P.S.: H2-1-2, 34; H2-1-6, 34
Pharr, G.M.: H2-1-2, 34; H2-1-7, 34
Philippe, B.: H1-9, 23
Phillips, M.: C3-2, 17
Pickrahn, K.L.: F6-3, 26

Pickiel, N.: C6-5, 33
Pierron, O.: H2-2-2, 45
Pierson, J.F.: TSP-4, 42
Pinedo, C.E.: BP-45, 37
Pint, B.: A2-1-3, 16
Pintauro, P.: F6-12, 26
Pitonak, R.: B6-11, 20; BP-19, 36
Pityana, S.: B4-3-9, 32
Plewa, J.: AP-15, 36
Podor, R.: A2-2-5, 11
Podsiadlo, P.: E1-4-8, 25
Poenitzsch, V.Z.: TS5-5, 10
Pohler, M.: B4-3-2, 32
Polcar, T.: E1-3-1, 21; E1-3-2, 21; E1-3-3, 21; E1-3-5, 21; EP-21, 39; H3-7, 30
Polcik, P.: B1-2-9, 7; B4-1-8, 24
Pons, M.: B2-2-5, 8
Popoola, A.: B4-3-9, 32; E1-1-3, 14
Portilla, C.: B4-2-3, 28
Pötschke, M.: A2-2-2, 11
Pougoum, F.: TS2-1-7, 35
Pradeep, K.G.: B4-1-9, 24
Prazener-Bechcicki, S.: TS1-5, 6
Prenzel, M.: TS4-2-7, 31
Primetzhofer, D.: B6-7, 20; G5-3, 5
Prünthe, S.: TS6-3, 27
Prusakova, L.: C3-7, 17
Pushilina, N.: AP-3, 36

— Q —

Qiu, A.: C5-3-2, 12
Qiu, L.S.: B4-1-10, 24
Quiñones-Galván, J.G.: BP-10, 36

— R —

Raab, R.: F4-1-8, 22
Raadu, M.A.: TS4-1-5, 23
Rabelo, A.: GP-5, 41
Rachbauer, R.: BP-43, 37; F4-1-8, 22; G3-4, 30
Raczkowska, J.: TS1-5, 6
Radi, P.A.: D2-1-6, 5; D3-7, 18; DP-16, 39; E3-4, 44; HP-4, 41; TSP-12, 42
Raghavan, S.: A1-1-1, 3
Rahman, M.: A1-2-7, 7
Raidongia, K.: F3-3, 34
Raja, L.: BP-34, 1
Ramana, C.: A2-1-8, 16; BP-9, 36
Ramanath, G.: F3-4, 34; TS6-3, 27
Ramirez Ramos, M.: BP-25, 37; BP-6, 36
Ramirez, G.: B1-3-1, 11; B5-2-1, 20; E1-3-2, 21; E2-1-7, 29
Ramírez, M.A.: B3-1-3, 32
Ramm, J.: A1-1-3, 3; F4-1-4, 22; F4-1-5, 22; G5-3, 5
Randall, N.: H3-11, 30
Rangel Lara, S.: EP-10, 39
Rani, A.: CP-32, 38
Ratova, M.: F4-2-6, 25
Ratzke, M.: B1-2-8, 7
Rawal, S.: E1-3-11, 21; EP-1, 39; F4-1-7, 22; F4-2-9, 25; FP-2, 40
Raza, M.A.: F1-1-8, 14
Rebholz, C.: C6-4, 33; F1-1-3, 14; FP-11, 40
Reddy, S.K.: E1-1-5, 14
Redondo, H.: C5-2-1, 8
Reisinger, M.: H2-1-4, 34
Renault, P.O.: E2-1-10, 29; HP-1, 41
Rensmo, H.: H1-9, 23
Restrepo, J.S.: B4-2-3, 28; BP-20, 36
Rezek, J.: F2-4, 29
Riahi, R.: E1-2-9, 18; EP-25, 40
Riedl, H.: B1-2-6, 7; B6-8, 20; F4-1-5, 22
Ries, S.: TS4-1-6, 23
Rim, Y.S.: C5-3-3, 12; CP-24, 38
Risan, J.: H2-1-9, 34; TS1-5, 6
Rivera, L.P.: BP-20, 36
Rivera-Tello, C.: EP-19, 39
Roa, J.J.: EP-2, 39; H2-1-3, 34
Robinson, Z.: TS2-1-2, 35

Rodil, S.E.: C4-1-3, 21; C4-1-4, 21; E1-3-2, 21; E2-1-7, 29; F4-2-5, 25; FP-8, 40
Rodrigues, F.: E3-3, 44
Rodrigues, M.: D2-1-3, 5
Rodríguez, R.: H2-1-3, 34
Rogström, L.: B1-2-1, 7
Rohrmann, H.: C5-2-2, 8
Romach, M.: G1-1, 22
Romero, P.A.: E1-2-4, 18
Ronkainen, H.: E1-4-8, 25
Rosen, J.: B1-2-9, 7
Roth, J.: A2-2-7, 11
Rouhani, M.: B3-2-5, 43
Roy, S.: E1-2-8, 18
Royhman, D.: D3-4, 18
Rozanski, P.: F2-11, 29
Rubiola, E.: H2-2-7, 45
Rudigier, H.: B4-1-9, 24; E3-5, 44; F4-1-4, 22; G1-6, 22; G5-3, 5
Rudnik, P.: A1-1-4, 3; BP-24, 37; G4-8, 9
Ruppi, S.: B2-2-1, 8
Rushton, S.: TS1-4, 6
Ryu, J.: TS2-1-3, 35

— S —

S.L. Brandão, J.: DP-16, 39
Sadowski, J.: C2-4, 28
Saeki, T.: FP-1, 40
Sakemi, T.: TS4-1-10, 23
Saketi, S.: G3-9, 30
Saladukhin, I.A.: BP-17, 36
Salas, O.: A1-2-1, 7; D4-9, 13
Salvia, M.: E1-3-7, 21
Samih, Y.: G4-7, 9
Sanchez Huerta, D.: BP-23, 37; EP-10, 39
Sangiovanni, D.G.: B7-1, 12
Sankaranarayanan, S.: F3-1, 34
Santana da Silva, P.: BP-25, 37
Santana-Aranda, M.A.: BP-10, 36
Santiago Maciel, H.: TSP-12, 42
Santos, E.D.: D2-1-6, 5
Saraiva, M.: B1-2-1, 7
Sarakinis, K.: B1-1-1, 3
Sarobol, P.: TS2-1-5, 35
Sartory, B.: BP-19, 36; H1-11, 23; H2-1-4, 34
Sato Berrú, R.Y.: E1-3-2, 21
Sato, M.: B1-2-7, 7
Sávio Pessoa, R.: TSP-12, 42
Savoie, S.: TS2-1-7, 35
Sawa, H.: TSP-2, 42
Schalk, N.: B4-3-2, 32; F4-1-3, 22; H1-11, 23
Schall, D.: E1-4-3, 25
Schaller, F.: E1-4-1, 25
Schär, T.: B5-1-5, 17; BP-26, 37
Scharf, T.: E1-2-6, 18; F4-1-9, 22
Scheffel, B.: F6-5, 26; G1-7, 22
Schembri Wismayer, P.: D3-9, 18
Scherer, J.F.: E2-1-6, 29
Scherge, M.: E3-6, 44
Schiffers, C.: B2-2-2, 8; G1-5, 22
Schimanke, D.: A2-2-2, 11
Schmid, C.: H2-2-1, 45
Schmidt, F.: TS4-1-8, 23
Schmidt, S.: C4-1-5, 21; F2-12, 29
Schnakenberg, S.: E1-4-2, 25
Schneeweiß, M.: TS6-4, 27
Schneider, D.: B5-2-2, 20
Schneider, J.M.: B4-1-9, 24; B6-7, 20; B6-9, 20; G5-3, 5; GP-4, 41; TS6-3, 27
Schoeppner, R.L.: BP-21, 36; E2-1-12, 29; H2-1-5, 34
Schram, A.: B1-4-6, 16
Schramm, I.C.: B5-1-6, 17
Schröders, S.: H3-3, 30
Schulz, E.: B4-2-5, 28
Schulz, R.: E1-1-4, 14; TS2-1-7, 35
Schulz, U.: A2-1-8, 16
Schulz-von der Gathen, V.: F2-13, 29
Schuster, F.: B2-2-5, 8
Schütze, M.: A1-2-2, 7

Schwierdzik, J.: E2-1-4, 29; H3-11, 30
 Scshetinin, I.V.: B5-2-5, 20
 Sebastiani, M.: H1-3, 23; H1-5, 23
 Seibert, F.: E3-1, 44
 Seifert, H.J.: F6-8, 26
 Self, E.: F6-12, 26
 Sequeda, F.: B4-2-3, 28
 Sergevin, V.S.: B5-2-5, 20
 Setoyama, M.: G3-8, 30
 Shafiei, M.: E1-2-9, 18; EP-25, 40
 Shahcheraghi, N.: C1-3, 33
 Shang, C.: B4-1-10, 24
 Shao, J.: F3-3, 34
 Sharma, A.: F1-1-9, 14
 Shelton, T.E.: F1-1-4, 14
 Shesterikov, E.V.: D2-1-2, 5
 Sheveyko, A.N.: DP-4, 39
 Shiau, J.S.: F4-2-11, 25
 Shih, C.-C.: C5-3-1, 12
 Shih, H.C.: CP-25, 38; F1-1-2, 14
 Shih, L.-Y.: C5-3-6, 12
 Shimizu, T.: F2-7, 29
 Shin, S.: TS2-1-2, 35
 Shirakura, A.: TSP-2, 42
 Shiratori, T.: G3-7, 30
 Shiri, S.: B3-2-3, 43
 Shirochi, T.: EP-5, 39
 Shtansky, D.V.: DP-4, 39; E1-3-4, 21
 Shymanski, V.Y.: BP-17, 36
 Sidelev, D.V.: BP-33, 37
 Sidorenko, D.A.: E1-3-4, 21
 Sierros, K.A.: F6-11, 26
 Simonet Foto, T.J.F.: F4-1-3, 22
 Singh, A.: C2-3, 28
 Singh, A.K.: CP-27, 38
 Singh, S.: DP-22, 39
 Sismanoglu, B.N.: TSP-12, 42
 Sloof, W.G.: A2-2-3, 11
 Sobiyi, K.: TSP-6, 42
 Soldera, F.: E1-2-2, 18
 Sologubenko, A.S.: H1-7, 23
 Son, M.K.: DP-12, 39
 Son, S.: C6-2, 33
 Song, D.W.: A2-2-8, 11
 Song, G.L.: BP-8, 36
 Song, Y.: BP-29, 37
 Song, Y.-S.: BP-41, 37
 Sopicka-Lizer, M.: AP-15, 36
 Souza, R.: E1-4-5, 25; E1-4-7, 25
 Spatenka, P.: DP-7, 39
 Spolenak, R.: H1-7, 23; H2-2-6, 45
 Sproul, W.: B4-1-5, 24; G1-4, 22
 Squier, J.: G4-8, 9
 Stachowiak, G.: E1-2-5, 18; E1-4-8, 25
 Stamp, M.: D1-3, 13
 Stangier, D.: B5-1-7, 17
 Stary, V.: DP-7, 39
 Stein, S.: G3-5, 30
 Steiner, D.: E1-3-8, 21; F4-1-9, 22
 Stelzig, T.: E3-1, 44
 Steriotis, T.: F1-1-3, 14
 Stevenson, R.E.: F1-1-4, 14
 Stoyanov, P.: E1-2-4, 18
 Strafela, M.: F6-8, 26
 Strakov, H.: G1-8, 22
 Streit, D.: C5-3-3, 12
 Stritzker, B.: D1-3, 13
 Strømme, M.: B2-2-8, 8
 Stueber, M.: B3-1-1, 32
 Su, Y.T.: C5-3-4, 12
 Sukhorukova, I.V.: DP-4, 39
 Sukotjo, C.: D3-10, 18
 Sukuroglu, E.E.: B1-3-6, 11; BP-46, 37; D2-1-1, 5; E2-2-7, 33; FP-7, 40
 Sukuroglu, S.: BP-46, 37; D2-1-1, 5; E2-2-7, 33; FP-7, 40
 Sullivan, K.: C6-6, 33
 Sumant, A.: F3-1, 34
 Sun, G.: E3-8, 44

Sun, H.: TSP-10, 42
 Sundararajan, S.: E1-2-8, 18
 Surmenev, R.A.: D2-2-7, 9; TSP-5, 42
 Surmeneva, M.A.: D2-2-7, 9; TSP-5, 42
 Surya, C.: C4-2-8, 24
 Suszko, T.: B4-4-3, 43
 Sutarto, R.: B3-2-1, 43
 Sutygina, A.N.: A1-1-6, 3
 Suzuki, T.: TSP-2, 42
 Svensson, B.: C3-2, 17
 Swindeman, J.E.: H2-1-2, 34; H2-1-6, 34
 Swindeman, R.W.: H2-1-6, 34
 Syed, B.: B4-1-8, 24
 Syrtanov, M.: A1-1-6, 3
 Sze, S.M.: C5-3-4, 12; C5-3-5, 12; C5-3-6, 12
 Szyndelman, G.: E3-5, 44

— T —
 Tabachkova, N.: B5-2-5, 20
 Tabares, F.: C4-2-7, 24
 Taghavi Pourian Azar, G.: B4-1-11, 24
 Tai, K.P.: BP-40, 1
 Takahashi, T.: EP-5, 39
 Takazawa, T.: B4-3-3, 32
 Tamura, M.: B4-4-6, 43
 Tamura, N.: H1-4, 23
 Tanaka, K.: G3-8, 30
 Tanaka, S.: EP-5, 39
 Tanifuji, S.: B4-2-2, 28
 Tao, X.: B1-4-7, 16
 Tarragó, J.M.: EP-2, 39
 Tasi, M.T.: G4-9, 9
 Tasnádi, F.: B4-1-3, 24; B7-2, 12
 Taylor, A.A.: BP-21, 36; E2-1-12, 29; EP-3, 39
 Tazibt, A.: G3-12, 30
 Teller, M.: TS6-3, 27
 Teo, E.: C4-2-3, 24
 Terasako, T.: C5-1-4, 4; FP-1, 40
 Teresov, A.: AP-3, 36
 Terziyska, V.L.: F4-1-3, 22
 Tétard, F.: BP-27, 37
 Thapa, J.: HP-5, 41
 Thiaudière, D.: HP-1, 41
 Thomson, B.: CP-32, 38
 Thorwarth, G.B.: D2-2-5, 9
 Thorwarth, K.F.: D2-2-5, 9; F4-1-6, 22
 Tian, J.: DP-9, 39
 Tietema, R.: B3-2-2, 43
 Tillmann, W.: B5-1-7, 17
 Timur, S.: B4-4-1, 43; G4-10, 9
 Ting, J.-M.: CP-23, 38; F1-2-6, 19
 Tingaud, D.: B4-1-3, 24
 Tkadletz, M.: B4-3-2, 32
 to Baben, M.: B4-1-9, 24; B6-7, 20; BP-42, 37
 To, C.H.: C4-2-8, 24
 Todt, J.: B6-11, 20; BP-19, 36
 Tolde, Z.: DP-7, 39
 Tolmachova, G.: BP-17, 36
 Tolouei, R.: F1-2-5, 19
 Tomberger, M.: H2-1-4, 34
 Ton-That, C.: C3-2, 17
 Torp, B.: B5-1-5, 17
 Torres Arango, M.A.: F6-11, 26
 Torres-Delgado, G.: CP-34, 38
 Totik, Y.: B1-3-4, 11; B1-3-6, 11; BP-39, 37; BP-46, 37; D2-1-1, 5; E2-2-7, 33; FP-7, 40
 Toumi, S.: E1-3-7, 21
 Tran, H.: C5-1-2, 4
 Trant, M.: F4-1-6, 22
 Trauth, D.: GP-2, 41
 Trava-Airoldi, V.: B3-1-3, 32; BP-25, 37; BP-6, 36; D3-7, 18
 Tremmel, S.: G2-6, 26
 Treutler, K.: B1-4-6, 16
 Trieschmann, J.: TS4-1-6, 23; TS4-1-8, 23
 Troughton, S.C.: TS4-1-4, 23; TSP-3, 42
 Tsai, C.L.: CP-11, 38
 Tsai, J.Y.: C5-2-7, 8
 Tsai, M.H.: H3-8, 30
 Tsai, M.Y.: C5-2-12, 8

Tsai, S.-J.: C5-1-3, 4
 Tsai, T.-M.: C5-2-9, 8; C5-3-1, 12; C5-3-4, 12; C5-3-5, 12; C5-3-6, 12
 Tsang, T.: C4-2-3, 24
 Tsavdaris, N.: B2-1-5, 4
 Tschiptschin, A.: BP-45, 37; E1-4-7, 25
 Tsendzughul, N.: F6-10, 26
 Tseng, I.H.: H3-8, 30
 Tseng, Y.H.: TS1-7, 6
 Tseng, Y.T.: C5-3-6, 12
 Tsuda, K.: G3-8, 30
 Tsunoda, K.: H1-9, 23
 Tureson, N.: C4-1-6, 21
 Turgeon, S.: F1-2-5, 19
 Tverdokhlebov, S.I.: D2-1-2, 5
 Tyurin, A.I.: D2-2-7, 9
 Tzeng, Y.: F1-2-6, 19

— U —
 Udvardy, S.: A1-1-4, 3; BP-24, 37; G4-8, 9
 Ugllov, V.: BP-17, 36
 Ullbrand, J.: B7-2, 12
 Ulrich, A.S.: A1-2-5, 7
 Ulrich, S.: F6-8, 26
 Ur Rehman, Z.: F1-1-8, 14
 Urban, III, F.: C2-3, 28
 Urbanic, R.J.: EP-4, 39
 Urgen, M.: B4-1-11, 24; G4-10, 9
 Ur-Rahman, S.: D2-2-8, 9
 Utsumi, Y.: G3-8, 30

— V —
 Vahlas, C.: B2-2-3, 8; B2-2-6, 8; B2-2-9, 8
 Valette, S.: D2-2-4, 9
 Vall, M.: B2-2-8, 8
 van Buuren, T.: H3-6, 30
 Van de Putte, I.: B1-4-4, 16
 van der Kolk, G.J.: B5-2-3, 20
 van der Zwaag, S.: A2-2-3, 11
 Van Landeghem, H.P.: H1-2, 23
 Van Nuffel, R.: B1-4-4, 16
 Váňa, R.: H2-2-1, 45
 Vasconcelos, G.: E3-4, 44
 Vaßen, R.: H3-2, 30
 Vaz, F.: D2-1-3, 5
 Veldhuis, S.: E1-3-10, 21
 Velikanova, E.A.: D2-1-2, 5
 Vereschaka, A.: B1-2-10, 7
 Vergöhl, M.: G2-7, 26
 Vetter, J.: G1-6, 22
 Vetterick, G.: H3-5, 30
 Viat, A.: E3-10, 44
 Vieira, A.: D2-1-6, 5; E3-4, 44
 Vieira, L.: D2-1-6, 5; D3-7, 18; DP-16, 39; E3-4, 44; HP-4, 41; TSP-12, 42
 Villamayor, M.M.: F2-7, 29
 Viloan, R.P.: F2-7, 29
 Vines, L.: C3-2, 17
 Vlcek, J.: F2-1, 29; F2-4, 29
 Vo, P.: TS2-1-8, 35
 Vodnick, D.: C5-3-2, 12
 Voevodin, A.A.: F1-1-4, 14; F1-1-5, 14
 Vogel, C.: D1-3, 13
 Vogiatzis, S.: G1-8, 22
 volkhonskii, A.O.: B5-2-5, 20
 von Fieandt, L.: B2-1-1, 4
 von Keudell, A.: F2-13, 29; TS4-1-6, 23; TS4-2-7, 31

— W —
 Wagner, J.: C5-2-2, 8
 Wagner, L.: E1-2-10, 18
 Wahl, K.J.: TS1-1, 6
 Walls, K.: BP-8, 36
 Walters, I.: F1-1-3, 14
 Wang, A.N.: E2-2-9, 33
 Wang, B.: A1-1-4, 3; BP-24, 37; G4-8, 9
 Wang, C.: B1-3-5, 11; BP-44, 37
 Wang, C.C.: CP-25, 38; F1-1-2, 14
 Wang, C.H.: CP-11, 38
 Wang, C.J.: A1-2-6, 7

- Wang, C.-L.: C5-1-3, 4
Wang, F.: B4-1-3, 24
Wang, H.Y.: TS1-6, **6**
Wang, M.S.: DP-24, 39
Wang, P.C.: D2-1-5, **5**
Wang, P.W.: G1-10, 22
Wang, Q.: E1-4-9, 25; EP-21, 39
Wang, T.J.: C5-1-5, 4
Wang, Y.: E1-3-9, 21
Wang, Z.L.: PL1, **2**
Warts, N.: G4-8, 9
Wartzack, S.: G2-6, 26
Weaver, M.: AP-6, 36; AP-7, 36; AP-8, 36
Wehrs, J.: E2-1-4, 29; H2-1-5, 34
Wei, R.: B4-1-5, 24; E3-9, **44**; TS5-5, 10
Weihnacht, V.: E1-4-1, 25; EP-9, 39; G2-5, **26**
Weirich, T.E.: E2-2-8, 33
Weiß, S.: B1-2-8, 7
Weisse, B.: D2-2-5, 9
Weissenbacher, R.: B6-11, 20
Wen, B.: CP-32, 38
Wen, C.K.: C3-5, 17; CP-11, 38
Weng, S.C.: C4-1-2, 21
Wesling, V.: B1-4-6, 16
West, G.: F4-2-6, 25
Westerhausen, C.: D1-3, 13
Wheeler, J.M.: H2-2-6, **45**; H3-11, 30
Wheeler, V.D.: F6-12, 26
White, E.: DP-22, 39
White, R.E.: AP-7, **36**
Whitlow, H.: B1-4-8, 16
Widrig, B.: A1-1-3, 3; F4-1-4, 22
Wieczorek, J.: TS2-2-5, 45
Wiesing, M.: GP-8, 41
Wiklund, U.: E1-1-2, 14
Wilcken, J.: EP-24, 40
Williams, T.: G1-4, 22
Wimmer, M.: D3-4, 18
Winiarski, B.: B4-4-2, 43; BP-35, 37
Winkler, J.: H2-2-4, 45
Wischek, J.: A1-1-1, 3
Withers, P.: A2-1-2, 16; A2-2-3, 11; B4-4-2, 43;
BP-35, 37; EP-17, 39; H3-2, 30
Wixforth, A.: D1-3, **13**
Woda, M.: B2-2-2, 8
- Wolski, M.: E1-4-8, 25
Wong-Leung, J.: C3-2, **17**
Wu, A.M.: BP-40, 1; CP-22, **38**
Wu, C.K.: BP-16, **36**
Wu, C.-L.: C5-1-3, **4**
Wu, C.M.: DP-24, 39
Wu, F.B.: B1-2-3, **7**; B4-1-12, 24
Wu, G.M.: CP-14, **38**
Wu, N.-E.: BP-22, **37**
Wu, R.: BP-22, 37
Wu, S.: B3-2-6, 43; F4-2-10, 25
Wu, S.C.: DP-3, 39; DP-9, **39**
Wu, S.-C.: E2-2-4, 33
Wu, S.D.: GP-12, 41
Wu, X.J.: B4-4-7, **43**
Wurster, S.: H1-8, 23
Wurz, M.: GP-4, 41
- **X** —
Xiao, P.: A2-1-2, 16; A2-2-3, 11; EP-17, 39; H3-2,
30
Xiao, Y.: H2-2-6, 45
Xie, T.: CP-32, **38**
Xu, K.W.: B4-1-10, 24
- **Y** —
Yaakop, N.: F4-2-3, **25**
Yagi, M.: C5-1-4, 4; FP-1, 40
Yahiaoui, M.: G3-12, **30**
Yamaguchi, K.: B1-2-2, **7**
Yamamoto, K.: B4-3-3, 32; G3-6, **30**
Yamamoto, T.: C2-5, 28; C3-6, **17**; TS4-1-10, 23
Yancey, P.: TS5-6, 10
Yang, C.Y.: C5-2-10, **8**
Yang, J.C.: C5-3-4, 12
Yang, Q.: B3-2-1, 43; B3-2-3, 43; B4-2-8, 28; CP-
26, 38
Yang, Q.-H.: F3-3, 34
Yang, Y.: TS4-1-3, **23**
Yang, Y.C.: D2-1-5, 5; F6-9, 26; H3-9, 30
Yang, Y.H.: B1-2-3, 7; B4-1-12, **24**
Yasuda, K.: AP-11, 36
Ye, F.: B4-2-8, **28**; CP-26, **38**
Yeh, C.-N.: F3-3, **34**
Yeh, W.K.: F4-2-10, 25
Yelkarasi, C.: G4-10, **9**
- Yen, W.K.: B3-2-6, 43
Yerokhin, A.: B4-4-2, 43; F4-2-3, 25; TS5-7, **10**
Yetim, A.F.: EP-8, **39**
Yeung, W.K.: TS5-7, 10
Yoo, J.H.: H3-6, 30
Yoon, W.-H.: TS2-1-3, 35
Yu, D.: B1-2-7, 7
Yu, G.P.: B1-1-4, 3; B4-2-4, 28; B4-3-7, 32; BP-16,
36; E2-2-9, 33
Yuca, M.: BP-46, 37
Yue, S.: TS2-1-8, 35
- **Z** —
Zajac, L.: F2-11, 29
Zalesak, J.: B6-11, 20
Zammit, A.: E1-2-10, **18**
Zapata-Torres, M.: BP-10, 36
Zapien, J.A.: C4-2-8, **24**
Zawischa, M.: EP-9, 39
Zechner, J.: H1-8, 23; H2-1-4, 34; H2-1-5, 34
Zehnder, C.: H3-3, 30
Zeinert, A.: E2-1-7, 29
Zeman, P.: B1-4-2, **16**
Zhai, X.F.: H3-10, 30
Zhang, C.: CP-26, 38
Zhang, J.: A2-2-8, 11; B3-1-8, **32**
Zhang, X.: A2-1-2, **16**; A2-2-3, 11; EP-17, 39; H3-
2, 30
Zhao, H.: B3-2-2, 43
Zhirkov, I.: B1-2-9, **7**
Zhou, J.H.: GP-10, 41
Zhu, C.: C6-6, 33
Zhu, D.: AP-10, 36
Zhu, J.: B4-1-8, 24
Zhu, X.D.: B4-1-10, **24**
Zimmer, O.: B1-2-5, 7
Zitek, M.: B1-4-2, 16
Zlotski, S.V.: BP-17, 36
Zoch, H.-W.: B4-4-5, 43
Zoikis-Karathanasis, A.: EP-21, 39
Zou, M.: H2-1-10, 34
Zuzjakova, S.: B1-4-2, 16
Zywitzki, O.: F6-5, 26