

Technical Sessions

Key to Session/Paper Numbers

UNASSIGNED Unassigned Topic

A Coatings for Use at High Temperature

B Hard Coatings and Vapor Deposition Technology

C Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications

D Coatings for Biomedical and Healthcare Applications

E Tribology & Mechanical Behavior of Coatings and Engineered Surfaces

Ex Exhibition

F New Horizons in Coatings and Thin Films

G Applications, Manufacturing, and Equipment

PD Post Deadline Discoveries and Innovations

PL Plenary Talk

TS Topical Symposia

Program numbers are listed with the symposium letter first, the session number second, and the number of the paper last (i.e., A1-1-1=symposium A, session one, paper number one).

Symposium scheduling pointers:

- All morning sessions begin at 8:00 a.m. except for Monday where the sessions begin at 10:00 a.m. following the 8:00 a.m. Plenary Session
- Monday and Thursday afternoon sessions start at 1:30 p.m. Tuesday and Wednesday afternoon sessions begin at 2:10 p.m. All lunch breaks start at 12:00 p.m.
- Invited speakers (marked as such in the program) 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 room used for the Presenter's Preview will be the Dover. 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 p.m. and also Monday – Thursday 8:00 a.m.–5:30 p.m.

If you are making a poster presentation:

Boards will be available for posting materials at approximately noon on Thursday, May 2. Prior to entering the Grand Hall, those presenting a poster will check in at a table located in the doorway. Please be prepared to show photo identification as well as your registration badge. These forms of identification must match the name of the presenter of the poster in the ICMCTF program. A sign listing the paper number, title, and presenting author will aid each presenter in locating the correct board where your poster is to be displayed. The board which is provided is approximately four feet by four feet. All poster materials MUST be posted by 4:50 p.m. All presenters are required to be at their presentation during the entire session; this is in order to promote discussion and for the author to answer attendee questions. Be forewarned, all poster materials will be discarded if not removed from the boards by 9:00 p.m. Thursday evening.

Monday Morning, April 29, 2013

Plenary Lecture
8:00-9:45
Room: Town & Country

8:00 am

Plenary Lecture Session

8:20 am

**Professor
Tobin Marks**

**Professor of Chemistry and Materials Science and
Engineering
Northwestern University**

8:40 am

**"Designer Materials for Unconventional
Electronics"**

9:00 am

Please see full abstract on the
Plenary Session Page

9:20 am

**8:00-9:45 a.m.
Town and Country**

9:40 am

Monday Morning, April 29, 2013

<p>Coatings for Use at High Temperature Room: San Diego - Session A1-1 Coatings to Resist High Temperature Oxidation, Corrosion and Fouling Moderators: L.G. Johansson, Chalmers University of Technology, Sweden, F. Perez Trujillo, Universidad Complutense de Madrid, Spain, M. Weaver, University of Alabama, US</p>		<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B1-1 PVD Coatings and Technologies Moderators: J.H. Huang, Department of Engineering and System Science National Tsing Hua University, Taiwan, S. Weißmantel, University of Applied Sciences Mittweida, Germany</p>	
10:00 am	<p>A1-1-1 Invited Oxidation and Coatings for High Temperature Mo-Si-B Alloys, J. PEREPEZKO, University of Wisconsin-Madison, US, R. SAKIDJA, The University of Alabama, US</p>	B1-1-1 Invited	<p>Laser Assisted and Arc Technologies for Hard Carbon Film Deposition – An Overview from the Beginning up to the Industrial Application, H.-J. SCHEIBE, Fraunhofer-Institut für Werkstoff- und Strahltechnik, IWS Dresden, Germany</p>
10:20 am	Invited talk continued.		Invited talk continued.
10:40 am	<p>A1-1-3 Oxidation Performance Evaluation of Niobium Silicide Coatings for Aeronautical Gas Turbines, S. MATHIEU, L. PORTEBOIS, M. VILASI, Université de Lorraine, France</p>	B1-1-3	<p>Hard DLC Coatings Developed by Using HIPIMS Technology, H. GERDES, R. BANDORF, M. EBERT, M. PETERSEN, G. BRAUER, Fraunhofer Institute for Surface Engineering and Thin Films IST, Germany</p>
11:00 am	<p>A1-1-4 Effect of Water Vapor on Thermally-Grown Alumina Scales on Pt-Modified and Simple Aluminide Bond Coatings, M.J. LANCE, K.A. UNOCIC, J.A. HAYNES, B.A. PINT, Oak Ridge National Laboratory, US</p>	B1-1-4	<p>Tribological Properties of Tetrahedral amorphous Carbon layers on HSS- steel Drillers, K. GUENTHER, S. SCHOLZE, S. WEIBMANTEL, University of Applied Sciences Mittweida, Germany</p>
11:20 am	<p>A1-1-5 Invited NiAl-Based Metallic Coatings for Advanced Single Crystal Superalloys, H.B. GUO, Beihang University, China</p>	B1-1-5	<p>Preparation of Sharp Cutting Edges by Coating Processes in Nanostructured AlCrN Based Films, F. KAULFUSS, O. ZIMMER, Fraunhofer IWS, Germany</p>
11:40 am	Invited talk continued.	B1-1-6	<p>Pulsed Laser Deposition of Fe-SiC Multilayers for Spintronic Applications, M. KUMAR, R. CHANDRA, Indian Institute of Technology Roorkee, India, R. MISHRA, R. TIWARI, A. SAXENA, Division, Defence Materials & Stores Research & Development Establishment (DMSRDE) Kanpur, India</p>
12:00 pm			
12:20 pm	<p>CSM Instruments: Focused Topic Session “High Temperature Nanoindentation Testing and Other Latest Developments at CSM Instruments” 12:15-1:15 p.m. California Room</p>		

Monday Morning, April 29, 2013

<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 1-3 - Session B5-1</p> <p>Hard and Multifunctional Nanostructured Coatings Moderators: J. Paulitsch, Vienna University of Technology, Austria, J. Houska, University of West Bohemia – NTIS, Czech Republic</p>		<p>Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications Room: Sunset - Session C1-1</p> <p>Recent Advances in Optical Thin Films Moderator: J.H. Hsieh, Ming Chi University of Technology, Taiwan</p>	
10:00 am	<p>B5-1-1 Invited Complexity in Characterization of Self Organized Structures in Nitride Nanocomposites, N. GHAFOR, M. ODEN, Linköping University, Sweden</p>	C1-1-1 Invited	<p>Recent Progress in Plasmonics Applied to Optoelectronic Devices, K. OKAMOTO, Kyushu University, Japan</p>
10:20 am	Invited talk continued.		Invited talk continued.
10:40 am	<p>B5-1-3 High Speed Machining of Hardened Steel Using AIP Deposited Nanomultilayer Coating, K. YAMAMOTO, Kobe Steel Ltd., Japan, G. FOX-RABONOVICH, McMaster University, Canada, B BEAKE, Micro Materials Ltd., UK</p>	C1-1-3	<p>Influence of Sputtering Pressure on the Structural, Optical and Hydrophobic Properties of Sputtered Deposited HfO₂ Coatings, V. DAVE, H. GUPTA, R. CHANDRA, Indian Institute of Technology Roorkee, India</p>
11:00 am	<p>B5-1-4 Understanding the Structure of Metastable Multicomponent Nitride Thin Films by First Principles Calculations - Possibilities and Limitations, B. ALLING, Thin Film Physics Division, IFM, Linköping University, Sweden, I. ABRIKOSOV, Theoretical Physics Division, IFM, Linköping University, Sweden, L. HULTMAN, Thin Film Physics Division, IFM, Linköping University, Sweden</p>	C1-1-4	<p>Influence of the Parameters the Fabrication in Optical Properties of Bi_xTi_yO₂ Thin Films, J. ALFONSO, J. OLAYA, M. PINZON, National University of Colombia, Colombia</p>
11:20 am	<p>B5-1-5 High Temperature Wear Resistance of TiCrAlCN/TiAlN Multilayer PVD Coatings on M2 High Speed Steel, I. EFEGLU, E. DEMIRCI, Ataturk University, Turkey, O. BARAN, Erzincan University, Turkey, Y. TOTIK, Ataturk University, Turkey</p>		
11:40 am	<p>B5-1-6 Wear Characteristics of Nitrogen-doped Al-Ti-Ni Nanocomposite Coatings Deposited on Austenitic Stainless Steel, J. LAWAL, M. AUDRONIS, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK</p>		
12:00 pm			
12:20 pm	<p>CSM Instruments: Focused Topic Session “High Temperature Nanoindentation Testing and Other Latest Developments at CSM Instruments” 12:15-1:15 p.m. California Room</p>		

Monday Morning, April 29, 2013

<p>Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D2-1 Coatings for Bio-corrosion, Tribo-corrosion, and Bio-tribology Moderators: M. Stack, University of Strathclyde, UK, M. Mathew, Rush University Medical Center, US, J. Geringer, Ecole Nationale Supérieure des Mines, France</p>		<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E2-1 Mechanical Properties and Adhesion Moderators: M.T. Lin, National Chung Hsing University, Taiwan, R. Chromik, McGill University, Canada D. Bahr, Washington State University, US</p>	
10:00 am	<p>D2-1-1 Why Does Titanium Alloy Wear Cobalt Chrome Alloy Despite Lower Bulk Hardness: a Nanoindentation Study?, S BULL, Newcastle University, UK, O. SAYGINER, Newcastle University, UK, Turkey, N. MOHARRAMI, Newcastle University, UK</p>	E2-1-1	<p>Time Resolved Synchrotron X-ray Strain Measurement in Biaxially Loaded Au Thin Films, D. FAURIE, LSPM-CNRS, Université Paris 13, Sorbonne Paris-Cité, France, P.O. RENAULT, Institut P² - Université de Poitiers, France, G. GEANDIER, Institut Jean Lamour, France, E. LE BOURHIS, Institut P² - Université de Poitiers, France, C. MOCUTA, D. THIAUDIERE, Soleil Synchrotron, France</p>
10:20 am	<p>D2-1-2 Invited Metal - Metal Oxide Thin Film-Biological Interfaces and the Role of Bio-mechano-electro-chemical Processes, J.L. GILBERT, V. SWAMINATHAN, M. HAERI, S. MALI, Syracuse University, US</p>	E2-1-2	<p>Grain Growth in Nanocrystalline Copper During Indentation at Very Low Temperatures, C.C. BATTAILE, B.L. BOYCE, S.M. FOILES, K.M. HATTAR, Sandia National Laboratories, US, E.A. HOLM, Carnegie Mellon University, US, E.R. HOMER, Brigham Young University, US, H. PADILLA, G.J. TUCKER, Sandia National Laboratories, US</p>
10:40 am	Invited talk continued.	E2-1-3 Invited	<p>Inhomogeneous Stresses, Texture Transformations and Anomalous Grain Growth in Thin Metal Films, S. BAKER, Cornell University, US</p>
11:00 am	<p>D2-1-4 Dominant Role of Molybdenum in the Electrochemical Deposition of Biological Macromolecules on Metallic Surfaces, E. MARTIN, Northwestern University, US, R. POURZAL, M. MATHEW, Rush University Medical Center, US, K. SHULL, Northwestern University, US</p>	Invited talk continued.	
11:20 am	<p>D2-1-5 Engineering Nanostructured Cubic Zirconia Coating for Enhanced Biointegration of Orthopaedic Implants, F. NAMAVAR, University of Nebraska Medical Center, US, R. SABIRIANOV, University of Nebraska at Omaha, US, A. RUBENSTEIN, R. MIRALAMI, G.M. THIELE, J.G. SHARP, K.L. GARVIN, University of Nebraska Medical Center, US</p>	E2-1-5	<p>Microstructure and Mechanical Properties of Nanodiamond Enhanced Diamond-like Carbon Thin Films on Ti Alloys, C. ZHANG, H. NIAKAN, L. YANG, Y. LI, Q. YANG, University of Saskatchewan, Canada</p>
11:40 am		E2-1-6	<p>Residual Stress Analysis in Thin Films using Focused Ion Beam and Digital Image Correlation - Stress Analysis by Raman Spectroscopy on Diamond Films, F. AHMED, M. KROTTENTHALER, C. SCHMID, K. DURST, University Erlangen-Nuremberg, Germany</p>
12:00 pm			
12:20 pm	<p>CSM Instruments: Focused Topic Session “High Temperature Nanoindentation Testing and Other Latest Developments at CSM Instruments” 12:15-1:15 p.m. California Room</p>		

Monday Morning, April 29, 2013

<p>Applications, Manufacturing, and Equipment Room: California - Session G4-1+E</p> <p>Coatings for Machining Advanced Materials and for use in Advanced Manufacturing Methods Moderators: M. Arndt, OC Oerlikon Balzers AG, Liechtenstein, X. Nie, University of Windsor, Canada</p>	
10:00 am	<p>G4-1+E-1 Invited Advanced Coatings and Tool Materials for Hobbing - a Major Step Forward in Productivity, P. IMMICH, KRETZSCHMANN, M. ROMMEL, T. FALK, R. FISCHER, LMT Fette Werkzeugtechnik GmbH & Co. KG, Germany</p>
10:20 am	<p>Invited talk continued.</p>
10:40 am	<p>G4-1+E-3 Physicochemical, Mechanical and Tribological Properties of Si₃N₄-MoS₂ Thin Films Deposited by Magnetron Sputtering, R. TRENTIN, A. BANDEIRA, C. AGUZZOLI, I. BAUMVOL, M. MORÉ FARIAS, C.A. FIGUEROA, UCS - Caxias do Sul University, Brazil</p>
11:00 am	<p>G4-1+E-4 Effect of Silicon Content on Pvd Nitride Film Mechanical Properties and Cutting Performance of Coated Cemented Carbide Inserts, K.D. BOUZAKIS, Aristoteles University of Thessaloniki, Greece, E. BOUZAKIS, Fraunhofer Project Center for Coatings in Manufacturing (PCCM), Greece, S. KOMBOGIANNIS, G. SKORDARIS, S. MAKRIMALLAKIS, M. BATSIOLAS, Aristoteles University of Thessaloniki, Greece, R. M'SAOUBI, J. ANDERSSON, Seco Tools AB, Sweden</p>
11:20 am	<p>G4-1+E-5 A Study on Friction and Wear Properties of Carbide Cutting Tools with MoS₂ Coating Deposited by Electrostatic Spray Coating, U. PATURI, S. NARALA, BITS-Pilani, India</p>
11:40 am	<p>G4-1+E-6 Enhanced Cutting Performance of Tools Coated with Al₂O₃ -Based Coatings, M. JILEK, M. SIMA, SHM, Czech Republic, V. MAIXNER, Pramet Tools, Czech Republic</p>
12:00 pm	
12:20 pm	<p>CSM Instruments: Focused Topic Session “High Temperature Nanoindentation Testing and Other Latest Developments at CSM Instruments” 12:15-1:15 p.m. California Room</p>

Monday Afternoon, April 29, 2013

Coatings for Use at High Temperature Room: San Diego - Session A1-2 Coatings to Resist High Temperature Oxidation, Corrosion and Fouling Moderators: L.G. Johansson, Chalmers University of Technology, Sweden, M. Weaver, University of Alabama, US, F. Perez Trujillo, Universidad Complutense de Madrid, Spain		Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B1-2 PVD Coatings and Technologies Moderators: J.H. Huang, Department of Engineering and System Science National Tsing Hua University, Taiwan, S. Weißmantel, University of Applied Sciences Mittweida, Germany	
1:30 pm	A1-2-1 Oxidation Behavior of Co-Doped NiCrAl Alloys in Dry and Wet Air, K.A. UNOCIC, B.A. PINT, Oak Ridge National Laboratory, US	B1-2-1	Invited Design and Metallurgy of High-performance Sputtering Target Materials, P. POLCIK, PLANSEE Composite Materials GmbH, Germany
1:50 pm	A1-2-2 Platinum Diffusion in Pure Nickel, M. ZAGULA-YAVORSKA, J. ROMANOWSKA, J. SIENIAWSKI, Rzeszów University of Technology, Poland	Invited talk continued.	
2:10 pm	A1-2-3 Microstructure Degradation of EB-PVD TBCs on Pt and Pd/Pt-modified Aluminide Coatings under Cyclic Oxidation Conditions, R. SWADZBA, Institute for Ferrous Metallurgy, Poland	B1-2-3	Synthesis of Very Thick, Sputter-Deposited, Iron and Tantalum Film-Based Targets for Laser Experiments to Understand High Pressure Behavior in Materials, P. MIRKARIMI, K. BETTENCOURT, N. TESLICH, Lawrence Livermore National Laboratory, US
2:30 pm	A1-2-4 Ferritic-Martensitic Steels: Improvement of the Oxidation Behavior in Steam Environments via Diffusion Coatings, D. SCHMIDT, M. GALETZ, M. SCHÜTZE, DECHEMA-Forschungsinstitut, Germany	B1-2-4	Characterization of Al Sputter Process in Multiple Frequency Capacitively Coupled Plasmas (MFCCP), S. BIENHOLZ, N. BIBINOV, P. AWAKOWICZ, Ruhr University Bochum, Germany
2:50 pm	A1-2-5 Invited Oxidation under Pure Steam: Protective Oxides and Coatings, A. AGÜERO, V. GONZÁLEZ, M. GUTIÉRREZ, Instituto Nacional de Técnica Aeroespacial, Spain, R. MUELAS, Ingeniería y Servicios Aeroespaciales, Spain	B1-2-5	Influence of Magnetron Sputtering Conditions on WTi Thin Films, A. LE PRIOL, E. LE BOURHIS, P.O. RENAULT, Institut P ² - Université de Poitiers, France, H. SIK, P. MULLER, SAGEM Défense Sécurité, France
3:10 pm	Invited talk continued.	B1-2-6	Architectural Design of Al-rich Cubic Coating Materials within the AlN-CrN System, C. SABITZER, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, J. PAULITSCH, Vienna University of Technology and Montanuniversität Leoben, Austria, P. POLCIK, PLANSEE Composite Materials GmbH, Germany, M. ARNDT, R. RACHBAUER, OC Oerlikon Balzers AG, Liechtenstein, P.H. MAYRHOFER, Vienna University of Technology, Austria
3:30 pm	A1-2-7 Investigation of the Anti-adhesion Effect of Nano- and Micro-structured Surfaces, M. JUEZ LORENZO, V. KOLARIK, R. ROUSSEL, V. KUCHENREUTHER, Fraunhofer ICT, Germany, F. VELASCO, Universidad Carlos III-Madrid, Spain, S. GUZMAN, Universidad Carlos III- Madrid, Spain, F. PEDRAZA, Université de la Rochelle, France	B1-2-7	Influence of Argon Flow on Growth Rates in Reactive Magnetron Sputtering of Oxides and Production of an Esthetic Coating for Dental Implants, D. MUFF, C. PECNIK, R. SPOLENAK, ETH Zurich, Laboratory for Nanometallurgy, Switzerland
3:50 pm	A1-2-8 Chloride Induced High Temperature Corrosion in Waste and Biomass Fired Boilers – Degradation Mechanisms and Mitigation Measures, T. JONSSON, J. LISKE, J.E. SVENSSON, L.G. JOHANSSON, Chalmers University of Technology, Sweden	B1-2-8	Investigations of Arc-evaporated (Al _{0.7} Cr _{0.3}) ₂ O ₃ Coatings from Al-Cr-Si and Al-Cr-Fe Targets, J. PAULITSCH, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, R. RACHBAUER, J. RAMM, OC Oerlikon Balzers AG, Liechtenstein, P. POLCIK, PLANSEE Composite Materials GmbH, Germany, P.H. MAYRHOFER, Vienna University of Technology, Austria
4:10 pm	A1-2-9 Properties and Performance of Al/Al ₂ O ₃ Coatings on 304 Steel in Metal Dusting Environments, E. URIBE, EGIC, Mexico, O. SALAS, J. OSEGUERA, D. MELO-MAXIMO, ITESM-CEM, Mexico, C. LEPIENSKI, UFPR, Brazil, R. TORRES, PUCPR, Brazil, R. DE SOUZA, Usp, Brazil	B1-2-9	Synthesis of Al-Ti-O-N Thin Films by Reactive Magnetron Sputtering, J.F.T. SIMONET FOTSO, R. DANIEL, C. MITTERER, Montanuniversität Leoben, Austria
4:30 pm	A1-2-10 Microstructural Evolution of Cr/Cr ₂ O ₃ coatings during exposure to Metal Dusting conditions, L. MELO-MAXIMO, Instituto Politécnico Nacional, Mexico, O. SALAS, ITESM-CEM, Mexico, V.M. LOPEZ-HIRATA, Instituto Politécnico Nacional, Mexico, D. MELO-MAXIMO, J. OSEGUERA, ITESM-CEM, Mexico, R. TORRES, PUCPR, Brazil, R. DE SOUZA, Usp, Brazil	B1-2-10	The Optimization of the Deposition Parameters to Prepare the ZnSnO ₃ and Cd ₂ SnO ₄ by RF Magnetron Sputtering from Powder Targets, Y.W. ZHOU, P.F. ZHU, S.L. LI, University of Science and Technology Liaoning, China
4:50 pm	A1-2-11 High-temperature Oxidation Corrosion of Boiler Steel with Al Coating under Co-firing of Biomass Charcoal / Coal Deposits, C.Y. TUNG, National Taiwan University of Science and Technology, Taiwan, Republic of China, C.J. WANG, S.P. WEN, National Taiwan University of Science and Technology, Taiwan, Republic of China	B1-2-11	Structural and Mechanical Properties of Cr-Al-O-N Thin Films Grown by Cathodic Arc Deposition, A. KHATIBI, Linköping University, Sweden, J. SJOLEN, Seco tools AB, Sweden, G. GRECZYNSKI, J. JENSEN, P. EKLUND, L. HULTMAN, Linköping University, Sweden
5:10 pm			
5:30 pm	Elsevier: Focused Topic Session “How to Get Published” California Room 5:30-6:00 p.m.	Welcome Mixer 6:00 - 7:30 p.m. Atlas Foyer Sponsored by Oerlikon Balzers	

Monday Afternoon, April 29, 2013

<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 1-3 - Session B5-2</p> <p>Hard and Multifunctional Nanostructured Coatings Moderators: J. Paulitsch, Vienna University of Technology, Austria, J. Houska, University of West Bohemia – NTIS, Czech Republic</p>		<p>Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D2-2 Coatings for Bio-corrosion, Tribo-corrosion, and Bio-tribology Moderators: M. Stack, University of Strathclyde, UK, J. Geringer, Ecole Nationale Supérieure des Mines, France, M. Mathew, Rush University Medical Center, US</p>	
1:30 pm	<p>B5-2-1 Texture Dependent Elastic Constants of Polycrystalline Zr—Al—N Predicted by <i>Ab Initio</i> Calculations, D. HOLEC, J. KECKES, P. WAGNER, Montanuniversität Leoben, Austria, F. TASNÁDI, Linköping University, Sweden, M. FRIÁK, Max-Planck-Institut für Eisenforschung, Germany, P.H. MAYRHOFER, Vienna University of Technology, Austria</p>	D2-2-1	<p>Evaluation of the Bio-tribocorrosion Processes of Colonized Ti6Al4V Implants in Presence of Organic and Cellular Material, M. RUNA, University of Minho, Portugal, M. MATHEW, Rush University Medical Center, US, M. FERNANDES, University of Porto, Portugal, L. ROCHA, University of Minho, Portugal</p>
1:50 pm	<p>B5-2-2 Influence of Zr on Structure and Properties of Ti-Al-N Coatings, Y. XU, Central South University, China, L. CHEN, Zhuzhou Cemented Carbide Cutting Tools Co., Ltd., China, B. YANG, Y. PENG, Y. DU, Central South University, China</p>	D2-2-2	<p>Tribocorrosion Evaluation of nc-TiN/a-Si₃N₄ Deposited on Ti6Al4V in Sliding Contact in Physiological Saline Solution, J. GARCIA, M. FLORES, Universidad de Guadalajara, Mexico, O. JIMENEZ, Universidad de Guadalajara, Mexico, E. ANDRADE, Universidad Nacional Autónoma de México, Mexico</p>
2:10 pm	<p>B5-2-3 Invited Understanding Stress Development in Nanoscale Sputtered Thin Films from Real-Time Diagnostics, G. ABADIAS, A. MICHEL, A. FILLON, J. COLIN, C. JAOUEN, Institut P' - Université de Poitiers, France</p>	D2-2-3 Invited	<p>Nanotube Surface Modifications For Biomedical Applications, T. SHOKUH FAR, Michigan Technological University, US</p>
2:30 pm	Invited talk continued.		Invited talk continued.
2:50 pm	<p>B5-2-5 Hard Zr-Al-O Films with Enhanced Resistance to Cracking in Bending, J. SKLENKA, J. MUSIL, R. CERSTVY, R. JILEK, University of West Bohemia, Czech Republic</p>	D2-2-5	<p>Predicting Thickness of Passive Films in Order to Prevent Degradations of Implants, J. GERINGER, Ecole Nationale Supérieure des Mines, France, M. TAYLOR, D. MACDONALD, Penn State University, US</p>
3:10 pm	<p>B5-2-6 AlN-based Optically Transparent Hard Nanocomposite Coatings: Going from Si to Sn, E. LEWIN, J. PATSCHEIDER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland</p>	D2-2-6	<p>Electrochemical Behavior of Esthetic Dental Coatings Tested in Sodium Chloride Solution and Artificial Saliva, C. PECNIK, D. MUFF, R. SPOLENAK, ETH Zurich, Laboratory for Nanometallurgy, Switzerland</p>
3:30 pm	<p>B5-2-7 Invited Nanostructure of Plasma CVD Films Containing Nanoparticles, M. SHIRATANI, K. KOGA, G. UCHIDA, N. ITAGAKI, H. SEO, K. KAMATAKI, Kyushu University, Japan</p>	D2-2-7	<p>Submicroporous Ta₂O₅ Coating Enhanced the Initial Biological Responses to Ti Surface, Y.S. SUN, H.H. HUANG, National Yang-Ming University, Taiwan</p>
3:50 pm	Invited talk continued.	D2-2-8	<p>Scanning Electrochemical Microscopy (SECM) Investigation of Tribolayer Formation on a MoM Hip Implant, J. MEYER, Chicago State University, US, C. NAGELLI, M. MATHEW, M. WIMMER, J. JACOBS, Rush University Medical Center, US, R. LESUER, Chicago State University, US</p>
4:10 pm	<p>B5-2-9 Structure and Properties of TiAlSiN Nanocomposite Coatings Deposited by Deep Oscillation Magnetron Sputtering, Y. OU, Dalian University of Technology, China, J. LIN, Colorado School of Mines, US, W. SPROUL, Reactive Sputtering, Inc., US, J. MOORE, Colorado School of Mines, US, M. LEI, Dalian University of Technology, China</p>	D2-2-9	<p>Enhancements in Corrosion Resistance and Biocompatibility of Biomedical Ti-25Nb-25Zr Alloy Using Electrochemical Anodization Treatment, H.H. HUANG, C.P. WU, National Yang-Ming University, Taiwan, T.H. LEE, Chung Shan Medical University, Taiwan</p>
4:30 pm	<p>B5-2-10 Multifunctional Amorphous and Nanocomposite Nb-Si-C Coatings Deposited by dc-magnetron Sputtering, N. NEDFORS, Uppsala University, Sweden, O. TENGSTRAND, P. EKLUND, L. HULTMAN, Linköping University, Sweden, U. JANSSON, Uppsala University, Sweden</p>	D2-2-10	<p>Anti-fish Bacterial Pathogen Effect of Immobilized TiO₂/Fe₃O₄ Powder on Glass, T.C. CHENG, National Pingtung University of Science and Technology, Taiwan, Taiwan, Republic of China, Y.C. LEE, National Pingtung University of Science and Technology, Taiwan, Republic of China, H.C. HSU, National Pingtung University of Science and Technology, Taiwan, Republic of China</p>
4:50 pm	<p>B5-2-11 Nanocomposite Coatings as Protection Layer for PcBN Tools in Hard Machining, E. UHLMANN, J.A. OYANEDEL FUENTES, R. GERSTENBERGER, Technical University Berlin, Germany, H. FRANK, GFE Schmalkalden e.V., Germany</p>	D2-2-11	<p>Novel Functionalization of Anodized Ti6Al4V Nanotubes through Thermal Oxidation Approach, S. PATEL, C. TAKOUDIS, University of Illinois at Chicago, US</p>
5:10 pm		D2-2-12	<p>A Tribocorrosive Investigation of Commonly Used Implant Alloys, D. ROYHMAN, Rush University Medical Center, USA, M. MATHEW, Rush University Medical Center, US, J. YUAN, University of Illinois at Chicago, College of Dentistry, US, M. WIMMER, Rush University Medical Center, US, C. SUKOTJO, University of Illinois at Chicago, College of Dentistry, US</p>
5:30 pm	<p>Elsevier: Focused Topic Session “How to Get Published” California Room 5:30-6:00 p.m.</p>		<p>Welcome Mixer 6:00 - 7:30 p.m. Atlas Foyer Sponsored by Oerlikon Balzers</p>

Monday Afternoon, April 29, 2013

<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E1-1</p> <p>Friction, Wear, and Lubrication; Effects & Modeling Moderators: V. Fridrici, Ecole Centrale de Lyon, France, O. Eryilmaz, Argonne National Laboratory, US, S.M. Aouadi, University of North Texas, US</p>		<p>Applications, Manufacturing, and Equipment Room: California - Session G4-2+E</p> <p>Coatings for Machining Advanced Materials and for use in Advanced Manufacturing Methods Moderators: M. Arndt, OC Oerlikon Balzers AG, X. Nie, University of Windsor</p>
1:30 pm	<p>E1-1-1 Tribological Comparison Between a Commercial DLC and an Experimental TaSiN Thin Films, M. FIGUEROA, E. GARCÍA, SEPI, ESIME-Zacalenco, Instituto Politécnico Nacional, Mexico, G. RAMÍREZ, Instituto de Investigaciones en Materiales, S. MUHL, S. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, A. CAVALEIRO, A. RAMALHO, Univ. of Coimbra, Portugal</p>	<p>G4-2+E-1 Invited Facing Challenge of Stamping Advanced High Strength Steels, B.J. JANOSS, Ionbond, US</p>
1:50 pm	<p>E1-1-2 Tribological Behavior of DLC Films with Various sp³/sp² Ratios Deposited by Pulsed Laser Ablation and Lubricated by Base Oils, c. CHOUMAD-OULD, HEF, LaHC, LTDS, France, C. HÉAU, HEF, France, T. TITTE, A.S. LOIR, C. DONNET, F. GARRELIE, LAHC, France</p>	<p>Invited talk continued.</p>
2:10 pm	<p>E1-1-3 Invited In-situ Synthesis of DLC Boundary Films From Base Lubricating Oils at Sliding Tribological Interfaces, A. ERDEMIR, O. ERYILMAZ, Argonne National Laboratory, US</p>	<p>G4-2+E-3 Substrate Effects on Failure Behavior of Hard Coatings Under Inclined Cyclic Loading Conditions, J.F. SU, X. NIE, H. HU, University of Windsor, Canada, D. YOUNG, FORD Motor Company, US, D. ADAMSKI, General Motors, US, D.J. ZHOU, Chrysler Corporation, US, E. MCCARTY, Materials Technology Consulting, US</p>
2:30 pm	<p>Invited talk continued.</p>	<p>G4-2+E-4 Invited Manufacturing of Metal-based Microparts: Fabrication Strategies and Application of Coatings to Engineering of Tool Surfaces, Y. MU, K. CHEN, B. LU, W.J. MENG, Louisiana State University, US, G.L. DOLL, University of Akron, US Invited talk continued.</p>
2:50 pm	<p>E1-1-5 Critical Role of Tribofilm in the Performance of Electrical Contacts Involving Cu-DLC Nanocomposite Coating, R. HOMBO, Denso Corporation, Japan, T. TAKENO, Tohoku University, Japan, J. FONTAINE, LTDS, France, H. MIKI, Tohoku University, Japan, N. KATO, T. NOZU, N. INAYOSHI, Denso Corporation, Japan, M. BELIN, Ecole Centrale de Lyon, France</p>	
3:10 pm	<p>E1-1-6 Influence of the Coating Structure of a-C:H-W Coatings on their Wear-performance: a Theoretical Approach and its Practical Confirmation, A. GIES, OC Oerlikon Balzers AG, Liechtenstein, T. CHUDOBA, ASMEC GmbH, Germany, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany, J. BECKER, Oerlikon Balzers Coating Germany GmbH, Germany</p>	<p>G4-2+E-6 Effects of Thin Film Metallic Glass Coating on Sharpness Improvements of Cutting Tools, C.L. LI, T.Y. LIU, J.P. CHU, National Taiwan Univ. of Science and Technology (NTUST), Taiwan, Republic of China, J.-W. LEE, Ming Chi Univ. of Technology, Taiwan, Republic of China, J.S.C. JANG, National Central University, Taiwan, Republic of China, M.J. CHEN, S.H. CHANG, Mackay Memorial Hospital, Taiwan, Republic of China</p>
3:30 pm	<p>E1-1-7 From Predictive Modelling via Optimized Testing to Applied Coating Development: DLC Coatings Durability under Nano-fretting Conditions, T. LISKIEWICZ, Leeds University, UK, B BEAKE, Micro Materials Ltd., UK, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany, M. DAVIES, Micro Materials Ltd, UK</p>	<p>G4-2+E-7 Decomposition of Ti-Cr-Al-N/Ti-Cr-N Multilayer Coatings, R. FORSÉN, Linköping University, IFM, Thin Film Physics Division, Sweden, M. JOHANSSON, Seco Tools AB, Sweden, N. GHAFOR, Linköping University, Sweden, M. ODÉN, Linköping University, IFM, Nanostructured Materials, Sweden</p>
3:50 pm	<p>E1-1-8 Microwear Investigations of DLC Coatings with Nanometer Resolution in Normal and Lateral Direction, T. CHUDOBA, K. MAYEKAR, ASMEC Advanced Surface Mechanics GmbH, Radeberg, Germany</p>	<p>G4-2+E-8 The Characteristics of Titanium Nitride Thin Films deposited by Reactive Plasma Deposition System and their Dependence on the Output Power of Plasma Gun, K. TANAKA, M. TAKAHASHI, Y. TANAKA, A. OSADA, Mitsubishi Materials Corporation, Japan</p>
4:10 pm	<p>E1-1-9 Failure Mechanisms of DLC and TiN Biomedical Coatings on SS316L and M2 Substrates under Cyclic Impact-sliding Loads, Y. CHEN, X. NIE, University of Windsor, Canada, J. HOUSDEN, Tecvac, Ltd., UK, A. MATTHEWS, University of Sheffield, UK</p>	<p>G4-2+E-9 Influence of PVD (Cr,Al)N Coatings and Surface Topography on Adhesion Behaviour towards PMMA, K. BOBZIN, N. BAGCIVAN, R.H. BRUGNARA, T. MÜNSTERMANN, Surface Engineering Institute - RWTH Aachen University, Germany</p>
4:30 pm	<p>E1-1-10 Tribological Behavior of the Superhard Coatings of Ta-N-Si and Nb-N-Si, G. RAMIREZ, Argonne National Laboratory, US, S. RODIL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, A. ERDEMIR, O. ERYILMAZ, Argonne National Laboratory, US, S. MUHL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico</p>	<p style="text-align: center;">Welcome Mixer 6:00 - 7:30 p.m. Atlas Foyer Sponsored by Oerlikon Balzers</p>
4:50 pm	<p>E1-1-11 Friction Reduction by Thermal Post-deposition Treatment of Arc Evaporated TiAlTaN Coatings in Methane, N. SCHALK, Materials Center Leoben Forschung GmbH, Austria, C. MITTERER, Montanuniversität Leoben, Austria, C. CZETTL, CERATIZIT Austria GmbH, Austria, B. SARTORY, Materials Center Leoben Forschung GmbH, Austria, M. PENOY, C. MICHOTTE, CERATIZIT Luxembourg S.à.r.l., Luxembourg</p>	
5:10 pm	<p>E1-1-12 Dangling Bonds Induced Cross-linking Model in Nanoscratched Graphene Layers, Q. ZHANG, Key Laboratory of Education Ministry for Modern Design and Rotor-Bearing System, School of Mechanical Engineering, Xi'an Jiaotong University, China, D.F. DIAO, Shenzhen University and Key Lab. Of Ed. Ministry for Modern Design and Rotor-Bearing Sys., Xi'an Jiaotong Univ., China, L. YANG, Key Laboratory of Education Ministry for Modern Design and Rotor-Bearing System, School of Mechanical Engineering, Xi'an Jiaotong University, China</p>	
5:30 pm		<p style="text-align: center;">Elsevier: Focused Topic Session "How to Get Published" California Room 5:30-6:00 p.m</p>

Monday Afternoon, April 29, 2013

<p>Topical Symposia Room: Sunset - Session TS4-1</p> <p>Graphene and 2D Nanostructures Moderators: C. Teichert, Montanuniversität Leoben, Austria, M. Chhowalla, Rutgers University, US, J. Huang, Northwestern University, US</p>		
1:30 pm	<p>TS4-1-1 Invited Self-Assembly of Two-Dimensional Nanosheets Induced by Interfacial Polyionic Complexation, F. KIM, J. ZOU, Kyoto University, Japan</p>	
1:50 pm	Invited talk continued.	
2:10 pm	<p>TS4-1-3 Synthesis of Mono- to Few-layer Graphene on Cu-Ni Alloy for Transparent Conducting Electrodes, L.Z. HUANG, P.K. NAYAK, National Cheng Kung University, Taiwan, Republic of China, S.C. WANG, Southern Taiwan University of Science and Technology, Taiwan, Republic of China, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China</p>	
2:30 pm	<p>TS4-1-4 Invited Soft Materials with Hard Skin: Synthesis, Assembly and Applications, F. CAVALLO, M. LAGALLY, University of Wisconsin-Madison, US</p>	
2:50 pm	Invited talk continued.	
3:10 pm	<p>TS4-1-6 The Effects of Electron Irradiation Conditions on the Formation of Embedded Graphene Sheets During Carbon Film Deposition in ECR Plasma, C. WANG, D.F. DIAO, Shenzhen University, Xian Jiaotong University, China</p>	
3:30 pm	<p>TS4-1-7 Invited Intrinsic Wettability of Graphene, H. LIU, University of Pittsburgh, US</p>	
3:50 pm	Invited talk continued.	
4:10 pm	<p>TS4-1-9 AFM Based Investigation of Organic Semiconductor Nanostructures Grown on Graphene Electrodes, M. KRATZER, Institute of Physics, Montanuniversität Leoben, Austria, B. VASIĆ, A. MATKOVIĆ, U. RALEVIĆ, R. GAJIĆ, Institute of Physics, University of Belgrade, Serbia, C. TEICHERT, Montanuniversität Leoben, Austria</p>	
4:30 pm	<p>TS4-1-10 Large-Scale Synthesis of Graphene Films by Pulsed Laser Deposition, T. TITE, A.S. LOIR, C. DONNET, F. BOURQUARD, S. REYNAUD, J.-Y. MICHALON, Laboratoire Hubert Curien, UMR 5516, Université de Lyon, Université Jean Monnet, France, J.P. CHATELON, Laboratoire Télécom Claude Chappe, EA 3523, France, F. GARRELIE, Laboratoire Hubert Curien, UMR 5516, Université de Lyon, Université Jean Monnet, France</p>	
4:50 pm		
5:10 pm		
5:30 pm	<p>Elsevier: Focused Topic Session “How to Get Published” California Room 5:30-6:00 p.m</p>	<p>Welcome Mixer 6:00 - 7:30 p.m. Atlas Foyer Sponsored by Oerlikon Balzers</p>

Tuesday Morning, April 30, 2013

Exhibitors Keynote Lecture
11:00 a.m.-12:00 p.m.
Room: Town & Country

Coatings for Use at High Temperature
Room: San Diego - Session A2-1

Thermal and Environmental Barrier Coatings
Moderators: R. Trice, Purdue University, US, D. Litton, Pratt & Whitney, US, V. Maurel, Mines-ParisTech, France

8:00 am	<p>Exhibition Keynote Session</p> <p>Françoise Massines, CNRS, Perpignan, France</p> <p>“Atmospheric Pressure Plasmas as a Solution for Inline Coatings: Status and Challenges”</p> <p>See Keynote Lecture page for abstract</p> <p>11:00 am – 12:00 pm</p> <p>Town & Country</p>	<p>A2-1-1 Invited Columnar Thermal Barrier Coatings (TBCs) by PS-PVD, R. VASSEN, G. MAUER, S. REZANKA, Forschungszentrum Jülich GmbH, Germany</p>
8:20 am		<p>Invited talk continued.</p>
8:40 am		<p>A2-1-3 PS-PVD - Deposition of Thermal Barrier Coatings, M. GORAL, S. KOTOWSKI, J. SIENIAWSKI, Rzeszów University of Technology, Poland</p>
9:00 am		<p>A2-1-4 Development of Porous TBC Systems with Enhanced Durability using TriplexPro 210 Technology, R. DORFMAN, C. DAMBRA, J. MEDRANO, D. CHEN, M. NESTLER, Sulzer Metco (US) Inc.</p>
9:20 am		<p>A2-1-5 Investigating CeO₂, TiO₂ Stabilized ZrO₂ for Application in Thermal Barrier Coatings (TBCs), C. MACAULEY, University of California, Santa Barbara, D. LIPKIN, General Electric (Global Research Center), US, C. LEVI, University of California, Santa Barbara, US</p>
9:40 am		<p>A2-1-6 Thermal Barrier Effect of Topcoats from Sintered Micro-sized Hollow Spherical Alumina Particles, R. ROUSSEL, V. KOLARIK, M. JUEZ-LORENZO, H. FIETZEK, Fraunhofer ICT, Germany</p>
10:00 am		<p>A2-1-7 Invited Multilayer Thermal Barrier Coatings: Interplay among coating design, processing and properties, S. SAMPATH, Stony Brook University, G. DWIVEDI, Stony Brook University, US, V. VISHWANATHAN, Stony Brook University, Y. CHEN, Stony Brook University, US</p>
10:20 am		<p>Invited talk continued.</p>
10:40 am		<p>A2-1-9 Influence of Temperature on Phase Stability and Thermal Conductivity of Single- and Double-Ceramic-Layer EB-PVD TBC Top Coats consisting of γYSZ, Gd₂Zr₂O₇ and La₂Zr₂O₇, K. BOBZIN, N. BAGCIVAN, T. BRÖGELMANN, B. YILDIRIM, Surface Engineering Institute - RWTH Aachen University, Germany</p>
11:00 am		<p>A2-1-10 Invited Experimental Determination of Mode II Fracture Toughness of TBC's, B. ZHANG, S.J. LOCKYER-BRATTON, J. ELAWADY, K.J. HEMKER, Johns Hopkins University, US</p>
11:20 am	<p>Invited talk continued.</p>	
11:40 am	<p>Exhibition Opens-Grand Hall 12:00-7:00 p.m. Enjoy lunch in the Exhibition Hall, compliments of Sulzer Metaplas</p>	
12:00 pm		

Tuesday Morning, April 30, 2013

	Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B1-3 PVD Coatings and Technologies Moderators: J.H. Huang, Department of Engineering and System Science National Tsing Hua University, Taiwan, S. Weißmantel, University of Applied Sciences Mittweida, Germany	Hard Coatings and Vapor Deposition Technology Room: Royal Palm 1-3 - Session B6-1 Coating Design and Architectures Moderators: R. Daniel, Montanuniversität Leoben, Austria, M. Stüber, Karlsruhe Institute of Technology, Germany
8:00 am	B1-3-1 The Influence of Different Si-Contents of TiAlSiN PVD-Coatings on Mechanical and Tribological Properties at Elevated Temperatures, T. SPRUTE, W. TILLMANN, F. HOFFMANN, Technische Universität Dortmund, Germany, Y.Y. CHANG, National Formosa University, Taiwan, Republic of China, Y.Y. LIOU, Mingdao University, Taiwan, Republic of China	B6-1-1 Invited Flakey Stuff: Pushing the Limits of Engineering Coatings with Layered Atomic Structures, C. MURATORE, Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, US, S.M. AOUADI, Southern Illinois University, US, J.J. HU, UDRI/Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, US, A. VOEVODIN, Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, US
8:20 am	B1-3-2 Compositional, Structural and Mechanical Evolution of Reactively and Non-reactively Sputtered Zr-Al-N Thin Films, P.H. MAYRHOFER, Vienna University of Technology, Austria, D. SONNLEITNER, Montanuniversität Leoben, Austria, J. PAULITSCH, Vienna University of Technology and and Montanuniversität Leoben, Austria,	Invited talk continued.
8:40 am	B1-3-3 Mechanical and Antimicrobial Characteristics in Zr-based Thin Film Metallic Glasses at Various Processing Temperature, J.H. CHU, H.W. CHEN, J.G. DUH, National Tsing Hua University, Taiwan, Republic of China, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, J.S.C. JANG, National Central	B6-1-3 Ab Initio and Experimental Study on the Effect of Si Additives on the Phase Stability of γ - and α -Al ₂ O ₃ , F. NAHIF, D. MUSIC, S. MRÁZ, M. TO BABEN, J. SCHNEIDER, RWTH Aachen University, Germany
9:00 am	B1-3-4 Incorporation of Nano-crystalline TiB ₂ Layers in Zr-Cu-Ni-Al Thin Film Metallic Glasses for Improved Anti-wear Characteristics, Y.C. CHAN, H.W. CHEN, J.G. DUH, National Tsing Hua University, Taiwan, Republic of China, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China	B6-1-4 A Combinatorial Approach to the Synthesis of Cr-Zr Oxynitride Thin Films by Reactive r.f. Magnetron Sputter Deposition, S. SPITZ, M. STÜBER, H. LEISTE, S. ULRICH, Karlsruhe Institute of Technology, Germany
9:20 am	B1-3-5 Corrosion Resistance of Amorphous, Nanocomposite, and Nanocrystalline Cr-C Films Deposited by Magnetron Sputtering, K. NYGREN, M. ANDERSSON, J. HÖGSTRÖM, W. FREDRIKSSON, K. EDSTRÖM, L. NYHOLM, U. JANSSON, Uppsala University, Sweden	B6-1-5 Invited Protective Coatings for Aerospace Applications: From Materials Architecture to Coating Removal, J.E. KLEMBERG-SAPIEHA, Ecole Polytechnique de Montreal, Canada
9:40 am	B1-3-6 Corrosion Resistance and Tribological Properties of CrN, CrN/SiC, and CrN/DLC Coatings Grown by Accelerated Plasma Arc Deposition, D. BELL, Phygen Coatings, Inc., US, C. MULLIGAN, M. SENICK, US Army ARDEC, Benet Laboratories, US, V. KHOMNICH, Z. GAY, Phygen Coatings, Inc., US	Invited talk continued.
10:00 am	B1-3-7 Invited Comparative Study of Transition Metal Boronitride Hard Coatings Fabricated by Reactive Magnetron Sputtering Process, J.-W. LEE, L.W. HO, Ming Chi University of Technology, Taiwan, Republic of China, W.S. LAI, C.J. WANG, National Taiwan University of Science and Technology, Taiwan, Republic of China	B6-1-7 Transformation Toughening as Applied to Coatings, C. WANG, Northwestern Polytechnical University, China, J. HAN, Northwestern University, US, J. PUREZA, Universidade do Estado de Santa Catarina, Brazil, Y.W. CHUNG, Northwestern University, US
10:20 am	Invited talk continued.	B6-1-8 Limits to the Preparation of Super- and Ultrahard Nanocomposites, S. VEPREK, M.G.J. VEPREK-HEIJMAN, Technical University Munich, Germany
10:40 am	B1-3-9 Using Filtered Vacuum-arc Plasma for PIII&D Process of Ti-Al-Y-N Coatings and their Abrasive and Cavitation Resistance, V. BELOUS, V. VASYLIEV, A. LUCHANINOV, V. MARININ, E. RESHETNYAK, V. STREL'NITSKIJ, National Science Center "Kharkov Institute of Physics and Technology", Ukraine, S. GOLTVYANYTSYA, V. GOLTVYANYTSYA, Real Ltd., Ukraine	B6-1-9 A Study of TiAl - powder Metallurgical Target Behaviour in Direct Current and High Power Impulse Magnetron Sputtering PVD Processes, S. KOLOZSVARI, P. POLCIK, PLANSEE Composite Materials GmbH, Germany
11:00 am	B1-3-10 Nanocomposite Mo-Ag-N Self-lubricating Hard Coatings Fabricated by Magnetron Sputtering, J.F. YANG, Institute of Solid State Physics, Chinese Academy of Sciences, China	B6-1-10 The Effect of Droplets in Arc Evaporated Hard Coatings on the Wear Behavior, M. TKADLETZ, Materials Center Leoben Forschung GmbH, Austria, C. MITTERER, Montanuniversität Leoben, Austria, B. SARTORY, Materials Center Leoben Forschung GmbH, Austria, C. MICHOTTE, CERATIZIT Luxembourg S.à.r.l., Luxembourg
11:20 am		B6-1-11 In-situ Micro-fracture-test Investigations in the Influence of Structure and Phase Transformation of CrN/AlN Multilayer Coatings, M. SCHLOEGL, Montanuniversität Leoben and Vienna University of Technology, Austria, J. PAULITSCH, Vienna University of Technology, Austria, J. KECKES, C. KIRCHLECHNER, M.J. CHORDILL, Montanuniversität Leoben, Austria, P.H. MAYRHOFER, Vienna University of Technology, Austria STUDENT AWARD FINALIST
11:40 am		
12:00 pm	Exhibition Opens-Grand Hall 12:00-7:00 p.m. Enjoy lunch in the Exhibition Hall, compliments of Sulzer Metaplas	

Tuesday Morning, April 30, 2013

<p>Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications Room: Sunset - Session C2-1 Fundamentals of Thin Films towards Optoelectronics Devices Moderators: T. Terasako, Graduate School of Science and Engineering, Ehime University, Japan, J.A. Zapien, City University of Hong Kong, Hong Kong Special Administrative Region of China</p>		<p>Coatings for Biomedical and Healthcare Applications Room: Sunrise - Session D1-1 Surface Functionalization, Drug Delivery, and Anti-microbial Coatings Moderators: S. Rodil Posada, Universidad Nacional Autonoma de Mexico, Mexico, D. Shtansky, National University of Science and Technology "MISIS", Russian Federation</p>	
8:00 am	<p>C2-1-1 Carrier Transport and Photoluminescence Properties of Ga-Doped ZnO Films Grown by Ion-Plating and by Atmospheric-Pressure CVD, T. TERASAKO, Y. OGURA, S. FUJIMOTO, Graduate School of Science and Engineering, Ehime University, Japan, H. SONG, H. MAKINO, Kochi University of Technology, Japan, M. YAGI, Kagawa National College of Technology, Japan, S. SHIRAKATA, Graduate School of Sci. and Eng., Ehime Univ., Japan, T. YAMAMOTO, Kochi University of Technology, Japan</p>	D1-1-1	<p>Fabrication and Characterizations of ZnO Nanorods/ Ag Nanoparticle Composite on the Electropolished Ti Substrate., H. CHEN, National Chi-Nan University, Taiwan, Republic of China, Y.M. YEH, S.M. LIU, WuFeng University, Taiwan, B.Y. HUANG, J.Z. CHEN, National Chi-Nan University, Taiwan, Republic of China</p>
8:20 am	<p>C2-1-2 Invited Materials Smart Design of Wide Bandgap ZnO: Function Core, T. YAMAMOTO, H. MAKINO, H. SONG, Kochi University of Technology, Japan</p>	D1-1-2	<p>Evaluations of Biocompatibility and Antibacterial Property: Effects of Various Coatings, T.Y. KAO, J.P. CHU, C.L. LI, National Taiwan University of Science and Technology (NTUST), Taiwan, Republic of China, Y.J. CHANG, National Taipei Municipal University of Education, Taiwan, Republic of China, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, M.J. CHEN, S.H. CHANG, Mackay Memorial Hospital Tamsui Campus, Taiwan, Republic of China, J.C. LIN, Mackay Memorial Hospital Tamsui Campus, Taiwan, Republic of China</p>
8:40 am	Invited talk continued	D1-1-3 Invited	<p>Diamond-like Carbon for Articulation in Joint Replacements - Remaining Issues, G. Thorwarth, DePuy Synthes Companies, Switzerland, K. Thorwarth, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, D. Bernoulli, A. Wyss, ETH Zürich, Switzerland, U. Mueller, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, R. Spolenak, ETH Zürich, Switzerland, R. Hauert, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland</p>
9:00 am	<p>C2-1-4 Electrical Properties of the ZnO Thin Films Grown on a-plane Sapphire Substrates using Catalytically Generated High-energy H₂O, N. YAMAGUCHI, T. TAKEUCHI, E. NAGATOMI, T. KATO, Nagaoka University of Technology, Japan, H. UMEMOTO, Shizuoka University, Japan, K. YASUI, Nagaoka University of Technology, Japan</p>		Invited talk continued.
9:20 am	<p>C2-1-5 PEDOT:PSS Film having High Catalytic Activity for use as a Counter Electrode in Dye-sensitized Solar Cell, C.C. CHANG, L.C. CHEN, D. MISHRA, J.M. TING, National Cheng Kung University, Taiwan</p>	D1-1-5	<p>Bacterial Adhesion and Corrosion Studies on TiO₂ and ZrO₂ Coatings, R. GALICIA, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico, P. SILVA-BERMEDEZ, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México, A. ALMAGUER-FLORES, Universidad Nacional Autónoma de México, Mexico, S. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, Mexico</p>
9:40 am	<p>C2-1-6 Formation and Characterization of CIS Thin Films by Co-sputtering Using CuSe₂ and InSe₂ Targets, E. BLEZA, J. JEON, W. LEE, N. KIM, Chosun University, Korea</p>	D1-1-6 Invited	<p>Surface Properties of Biomaterials and Their Application in Endogenous Tissue Engineering, R. OLIVARES-NAVARRETE, Georgia Institute of Technology, US</p>
10:00 am	<p>C2-1-7 Optical Properties of Sputter-Deposited Germanium Oxide (GeO₂) Films, C. RAMANA, University of Texas at El Paso, US, N. MURPHY, L. SUN, J. JONES, R. JAKUBIAK, Air Force Research Laboratory, Materials and Manufacturing Directorate, US</p>		Invited talk continued.
10:20 am	<p>C2-1-8 Experimental and Theoretical Analysis of Solar Absorbing Mo-SiO₂ Cermet Coating, Z. TAN, J. ZHOU, Tsinghua University, China, D. HE, F. ZHOU, J. YI, Camda Institute of New Energy Technology, China</p>	D1-1-8	<p>Effect of Salivary Protein Adsorption in the Bacterial Adhesion on Microstructured Titanium Surfaces, M. MARTÍNEZ-HERNÁNDEZ, A. ALMAGUER-FLORES, Universidad Nacional Autónoma de México -Facultad de Odontología, Mexico</p>
10:40 am	<p>C2-1-9 Effect of Nitrogen Incorporation on the Optical, Structural and Electrical Properties of Indium Zinc Oxide., J. ORTEGA, Universidad Autónoma de San Luis Potosí, Mexico, M. AGUILAR-FRUTIS, Instituto Politécnico Nacional, Mexico, C. FALCONY, Instituto Politécnico Nacional, Mexico, V. MÉNDEZ-GARCÍA, Universidad Autónoma de San Luis Potosí, Mexico, J. ARAIZA, Universidad Autónoma de Zacatecas, Mexico</p>	D1-1-9	<p>Cell Response to Amorphous-Crystalline TiO₂ Thin Films, P. SILVA-BERMEDEZ, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México, A. ALMAGUER-FLORES, Facultad de Odontología, Universidad Nacional Autónoma de México, Mexico, S.L. HYZY, R. OLIVARES-NAVARRETE, Georgia Institute of Technology, US, S. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México</p>
11:00 am		D1-1-10	<p>Effect of Dielectric Properties of Ceramic Surface on its Binding with Protein in Solvent, R. SABIRIANOV, University of Nebraska at Omaha, US, A. RUBINSTEIN, F. NAMAVAR, University of Nebraska Medical Center, US</p>
11:20 am	<p>Exhibition Opens-Grand Hall</p>		
11:40 am	<p>12:00-7:00 p.m.</p>		
12:00 pm	<p>Enjoy lunch in the Exhibition Hall, compliments of Sulzer Metaplas</p>		

Tuesday Morning, April 30, 2013

<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E2-2</p> <p>Mechanical Properties and Adhesion Moderators: M.T. Lin, National Chung Hsing University, Taiwan, R. Chromik, McGill University, CanadaD. Bahr, Washington State University, US</p>		<p>Applications, Manufacturing, and Equipment Room: California - Session G1-1</p> <p>Innovations in Surface Coatings and Treatments Moderators: L. Bardos, Uppsala University, Sweden, R. Cremer, KCS Europe GmbH, Germany</p>	
8:00 am	<p>E2-2-1 Effects of Copper on the Microstructural and Functional Properties of Sputter-Deposited Ni-Ti Thin Films, M. CALLISTI, B.G. MELLOR, T. POLCAR, University of Southampton, UK</p>	G1-1-1	<p>High Density Plasma Nitriding of Dualumn Alloys for Automotive Parts, T.A. ZHO, K.M. MATSUBARA, Shibaura Institute of Technology, Japan, Y.S. SUGITA, YS Electric Industry, Co. Ltd., Taiwan</p>
8:20 am	<p>E2-2-2 Invited Mechanical Response of Nanotwinned Metallic Coatings, x. ZHANG, D. BUFFORD, Y. LIU, H. WANG, Texas A&M University, US</p>	G1-1-2	<p>Indentation Recovery of Thin Film Metallic Glass: Effects of Annealing Conditions, A. TESFAYE, J.P. CHU, National Taiwan University of Science and Technology (NTUST), Taiwan, Republic of China</p>
8:40 am	Invited talk continued.	G1-1-3 Invited	<p>Influence of Deposition Technology and Process Parameters on the Formation of Growth Defects in PVD Hard Coatings, P. PANJAN, Jožef Stefan Institute, Slovenia</p>
9:00 am	<p>E2-2-4 Structural and Mechanical Properties of Al-Cu-Fe Quasicrystalline Thin Films, S. OLSSON, F. ERIKSSON, E. BROITMAN, M. GARBRECHT, J. BIRCH, Thin Film Physics Division, IFM, Linköping University, Sweden, L. HULTMAN, Thin Film Physics Division, IFM, Linköping University, Sweden</p>	Invited talk continued.	
9:20 am	<p>E2-2-5 The Microstructure and Mechanical Properties of Nitrogen and Boron Contained ZrCuAlNi Thin Film Metallic Glasses, T.P. HSIAO, 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, C.L. LI, J.P. CHU, National Taiwan University of Science and Technology (NTUST), Taiwan, Republic of China</p>	G1-1-5	<p>Suppression of Intermetallic Compounds through Microstructural Tunability in DC-sputtered Ni under Bump Metallization, Y.H. WU, J.G. DUH, National Tsing Hua University, Taiwan, Republic of China</p>
9:40 am	<p>E2-2-6 Comparison of Nanoindentation and Micro-tensile Measurements on the Strain-hardening Ability of Nano-scale Metallic Multilayers, R. SCHOEPPNER, Washington State University, US, D. BAHR, Purdue University, US, H. ZBIB, Washington State University, US</p>	G1-1-6	<p>Influence of the Application Technology on the Corrosion Resistance of DLC-Coatings, J. ELLERMEIER, U. DEPNER, M. OECHSNER, TU Darmstadt, Germany</p>
10:00 am	<p>E2-2-7 High Temperature Instrumented Indentation System: Characterization and Optimization, M. FAJFROWSKI, V. JARDRET, Michalex, France</p>	G1-1-7	<p>Cold Shield Production for Optoelectronic Applications, G. DEMIRCI, Aselsan Inc., Turkey, I. KARAKAYA, M. ERDOĞAN, MS. ARAS, B. ARSLAN, F. ULU, Middle East Technical University, Turkey</p>
10:20 am	<p>E2-2-8 High-temperature Mechanical Behaviour of TiAlN Coatings, C. CIUREA, V. BHAKHRI, Imperial College London - South Kensington Campus, UK, P.H. MAYRHOFER, Vienna University of Technology, Austria, F. GIULIANI, Imperial College London - South Kensington Campus, UK</p>	G1-1-8	<p>Silicides Coating for Fuel Cladding in Gen IV Nuclear Reactors, S. MATHIEU, N. CHAIA, Universite de Lorraine, France, F. ROUILLARD, CEA Saclay, France, M. VILASI, Universite de Lorraine, France, M. LEFLEM, CEA, France</p>
10:40 am	<p>E2-2-9 Magnetron Sputtered W-V-N Superhard Nanocomposite Coatings, H. SHARMA, D. KAUR, Indian Institute of Technology Roorkee, India</p>	G1-1-9	<p>Multiscale Characterization of Physico-chemical Properties of an AISI 304L Surface Melted with a Nanopulsed Laser: Application to the Enhancement of the Corrosion Resistance After Laser Surface Melting, W. PACQUENTIN, N. CARON, C. BLANC, M. TABARANT, F. MISERQUE, CEA, France, R. OLTRA, CNRS, France</p>
11:00 am	<p>E2-2-10 Microstructure and Mechanical Properties of Copper-tin Shape Memory Alloy Deposited from an Ionic Liquid Electrolyte, N. MOHARRAMI, S. GHOSH, S. ROY, S BULL, Newcastle University, UK</p>	G1-1-10	<p>Novel Preparation of Single-layer and Few-layer Mica Nanosheets, D.S. KWAK, Y.J. KWON, H.Y. CHO, T.V. KHAI, H.W. KIM, Hanyang University, Republic of Korea</p>
11:20 am			
11:40 am	<p>Exhibition Opens-Grand Hall</p>		
12:00 pm	<p>12:00-7:00 p.m.</p> <p>Enjoy lunch in the Exhibition Hall, compliments of Sulzer Metaplas</p>		

Tuesday Afternoon, April 30, 2013

<p>Coatings for Use at High Temperature Room: San Diego - Session A2-2</p> <p>Thermal and Environmental Barrier Coating Moderators: D. Litton, Pratt & Whitney, US, R. Trice, Purdue University, US, V. Maurel, Mines-ParisTech, France</p>		<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B4-1</p> <p>Properties and Characterization of Hard Coatings and Surfaces Moderators: J. Lin, Colorado School of Mines, ACSEL, US, B. Zhao, Exxon Mobile, US</p>	
2:10 pm	A2-2-1 Thermal Barrier Coating Lifetimes for High Temperature, Low Density Superalloys, J. NESBITT, R. MACKAY, K. REAMY, NASA Glenn Research Center, US	B4-1-1 Invited Low-temperature Plasma Surface Hardening of Austenitic and Martensitic Stainless Steels, M. LEI, Dalian University of Technology, China, X.M. ZHU, Dalian Jiaotong University, China	
2:30 pm	A2-2-2 Ultra-Low Thermal Conductivity Yttria Stabilized Zirconia Thermal Barrier Coatings Using the Solution Precursor Plasma Spray Process, M. GELL, E. JORDAN, J. ROTH, C. JIANG, University of Connecticut	Invited talk continued.	
2:50 pm	A2-2-3 Invited Observations of Ferroelastic Switching by Raman Spectroscopy, M. GENTLEMAN, SUNY - Stony Brook, US	B4-1-3 Microstructural Origins of Stress Gradients in Nanocrystalline Thin Films: the Dominant Role of Grain Evolution Against Texture, R. DANIEL, J. KECKES, C. MITTERER, Montanuniversität Leoben, Austria	
3:10 pm	Invited talk continued.	B4-1-4 Effect of Tetramethylsilane Gas on the Fabrication of CrZrSiN Coatings by Cathodic Arc Deposition System, T.C. TSENG, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, S.H. HUANG, National Chiao Tung University, Taiwan, Republic of China	
3:30 pm	A2-2-5 Impact of Superalloy Composition and Bond Coat Roughness on Plasma-Sprayed TBCs with HVOF NiCoCrAlX Bond Coatings, J.A. HAYNES, K.A. UNOCIC, B.A. PINT, Oak Ridge National Laboratory, US	B4-1-5 Toughness Measurement of Nanocomposite Coatings by a Micro Double Cantilever Beam Method, S. LIU, University of Cambridge, UK, X.Z. DING, X.T. ZENG, Singapore Institute of Manufacturing Technology, Singapore, W. CLEGG, University of Cambridge, UK	
3:50 pm	A2-2-6 A New Approach to Protect Thermal Barrier Coatings Against CMAS Corrosion using Sol-gel Process, G. PUJOL, F. ANSART, J.P. BONINO, CIRIMAT, France, A. MALIE, S. HAMADI, Snecma, SAFRAN Group, France	B4-1-6 Microstructure and Characterization of TaN Protective Coatings, K.Y. LIU, F.B. WU, National United University, Taiwan, Republic of China	
4:10 pm	A2-2-7 Interaction of CMAS with MOCVD Coatings in the System $Y_2O_3-Al_2O_3$, N.K. EILS, P. MECHNICH, W. BRAUE, German Aerospace Center (DLR), Germany	B4-1-7 Structure and Residual Stress Analysis of Titanium Nitride Coatings Produced by DC Magnetron Sputtering, G. MARTINEZ, C. RAMANA, University of Texas at El Paso, US	
4:30 pm	A2-2-8 Examination of CMAS-induced TBC Failure in Typical Service Conditions, V.K. TOLPYGO, Honeywell Aerospace, US	B4-1-8 Surface Directed Spinodal Decomposition at TiAlN / TiN Interfaces, A. KNUTSSON, I. SCHRAMM, K. GRÖNHAGEN, Linköping University, IFM, Nanostructured Materials, Sweden, F. MUCKLICH, Saarland University, Functional Materials, Germany, M. ODÉN, Linköping University, IFM, Nanostructured Materials, Sweden	
4:50 pm			
5:10 pm			
5:30 pm	<p>Exhibition Reception-Grand Hall 5:30-7:00 p.m. Reception drinks compliments of Plansee</p>		

Tuesday Afternoon, April 30, 2013

<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 1-3 - Session B6-2</p> <p>Coating Design and Architectures Moderators: R. Daniel, Montanuniversität Leoben, Austria, M. Stüber, Karlsruhe Institute of Technology, Germany</p>		<p>Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications Room: Sunset - Session C3-1</p> <p>Optical Characterization Of Thin Films, Surfaces and Devices Moderators: J. Krueger, BAM Berlin, Germany, T. Hofmann, University of Nebraska-Lincoln, US</p>	
2:10 pm	<p>B6-2-1 Invited Design of Novel Protective Coatings for High Temperature Applications, M. SCHÜTZE, DECHEMA-Forschungsinstitut, Germany</p>	C3-1-1 Invited	<p>In Situ Observation of Sub-monolayer Films and Surface Reconstructions by Polarization Optical Spectroscopy, C. COBET, Johannes Kepler University, Austria</p>
2:30 pm	Invited talk continued.		Invited talk continued.
2:50 pm	<p>B6-2-3 Design of Diffusion Coatings Developed via Pack Cementation, A. NAJI, M. GALETZ, M. SCHÜTZE, DECHEMA-Forschungsinstitut, Germany</p>	C3-1-3	<p>The Surface Morphology and Optical Properties of Refining Glass Inorganic Nano-molecules, M. DRAJEWICZ, Rzeszow University of Technology, Poland, M. PYTEL, Rzeszów University of Technology, Poland</p>
3:10 pm	<p>B6-2-4 Invited Inhomogeneous Structural and Mechanical Properties of Thin Films and Coatings Revealed at the Micro- and Nano-Scale, J. KECKES, R. DANIEL, Montanuniversität Leoben, Austria, A. RIEDL, M. STEFENELLI, Materials Center Leoben Forschung GmbH, Austria, C. MITTERER, Montanuniversität Leoben, Austria</p>	C3-1-4	<p>Optical Constants of Uranium Trioxide Thin Films, 1.25 to 6 eV, W. BELL, D. ALLRED, Brigham Young University, US</p>
3:30 pm	Invited talk continued.	C3-1-5 Invited	<p>Infrared Ellipsometry for Characterization of Thin Films, KH. HINRICHS, Leibniz-Institut für Analytische Wissenschaften - ISAS - e.V., Germany</p>
3:50 pm	<p>B6-2-6 The Effects of Bilayer Periods on the Mechanical Properties of Cr-B-N/Ti-B-N Multilayered Thin Films., W.T.. TSAI, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China</p>		Invited talk continued.
4:10 pm	<p>B6-2-7 Ion Energy Distributions in Cathodic Arc Plasma of AlCr Composite Cathodes in Inert and Reactive Atmosphere, R. FRANZ, Montanuniversität Leoben, Austria, P. POLCIK, PLANSEE Composite Materials GmbH, Germany, A. ANDERS, Lawrence Berkeley National Laboratory, US</p>	C3-1-7	<p>Thickness Optimization of OLED Encapsulation, J.A. ZAPIEN, C.H. TO, C.S. LEE, F.L. WONG, City University of Hong Kong, Hong Kong Special Administrative Region of China</p>
4:30 pm		C3-1-8	<p>Effect of Oxygen Gas Flow Rate on the Structure and Optical Properties of Sputter-deposited Gallium Oxide Thin Films, E. RUBIO, S. SAMALA, C. RAMANA, University of Texas at El Paso, US</p>
4:50 pm		C3-1-9	<p>Optical Emission Spectroscopic Determination of Most Suitable Region for Micro-arc Oxidation on Metal Titanium, H.J. CHU, C.H. CHEN, J.L. HE, Feng Chia University, Taiwan, Republic of China</p>
5:10 pm		C3-1-10	<p>Deposition of Nanocrystalline SnSe Thin Films by Spin Coating Technique for their Application in Fabrication and Characterization of n-MoSe₂/Nc p-SnSe Heterojunction Diode, K. HINGARAJIYA, G.K. SOLANKI, K. PATEL, N. GOSAI, Sardar Patel University, India</p>
5:30 pm	<p>Exhibition Reception-Grand Hall 5:30-7:00 p.m. Reception drinks compliments of Plansee</p>		

Tuesday Afternoon, April 30, 2013

<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E1-2</p> <p>Friction, Wear, and Lubrication; Effects & Modeling Moderators: V. Fridrici, Ecole Centrale de Lyon, O. Eryilmaz, Argonne National Laboratory, US, S.M. Aouadi, University of North Texas</p>		<p>New Horizons in Coatings and Thin Films Room: Sunrise - Session F1-1</p> <p>Nanomaterials, Nanofabrication, and Diagnostics Moderators: Y. Yamada-Takamura, Japan Advanced Institute of Science and Technology, Y. Gonzalvo, Hiden Analytical Ltd.</p>	
2:10 pm	<p>E1-2-1 Invited Tribology of Hard Carbon Coatings under Ultra- und Super-low Friction Conditions, V. WEIHNACHT, S. MAKOWSKI, F. SCHALLER, A. LESON, Fraunhofer IWS, Germany</p>	F1-1-1	<p>The influence of Reaction Temperature and Volume of Oleic Acid to Synthesize SnS Nano Crystals by using Thermal Decomposition Method, B. LIANG, National Cheng Kung University, Taiwan, Republic of China, S.C. WANG, Southern Taiwan University of Science and Technology, Taiwan, Y.M. SHEN, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China</p>
2:30 pm	<p>Invited talk continued.</p>	F1-1-2	<p>Nanoparticles Deposition by Temporally Shaped Femtosecond Pulsed Laser: In Situ Plasma and Nanoparticles Diagnostic, F. BOURQUARD, J.P. COLOMBIER, A.S. LOIR, C. DONNET, R. STOIAN, F. GARRELIE, Laboratoire Hubert Curien, UMR 5516, Université de Lyon, Université Jean Monnet, France</p>
2:50 pm	<p>E1-2-3 Mechanical Properties and Tribological Behavior of a Silica and/or Alumina Coating Prepared by Sol- gel Route on Stainless Steel, A. MARSAL, F. ANSART, V. TURO, J.P. BONINO, CIRMAT, France, JM. SOBRINO, YM. CHEN, J. GARCIA, Cetim, France</p>	F1-1-3 Invited	<p>Nanoparticle Synthesis via Laser-induced Plasma in Liquid Environment, T. ITO, Osaka University, Japan</p>
3:10 pm	<p>E1-2-4 Tribochemically Active Ti-C-S Nanocomposites - a New Concept for Self-lubricating Coatings, J. SUNDBERG, H. NYBERG, E. SÄRHAMMAR, K. KÄDAS, Uppsala University, Sweden, L. WANG, Lanzhou Institute of Chemical Physics, China, O. ERIKSSON, T. NYBERG, S. JACOBSON, U. JANSSON, Uppsala University, Sweden</p>	<p>Invited talk continued.</p>	
3:30 pm	<p>E1-2-5 Lubricious Silver Tantalate Films For Extreme Temperature Applications, D. STONE, A. HARBIN, Southern Illinois University, US, H. MOHSENI, J.-E. MOGONYE, T. SCHARF, University of North Texas, US, C. MURATORE, Air Force Research Laboratory, Thermal Sciences and Materials Branch, US, A. VOEVODIN, Air Force Research Laboratory, Materials and Manufacturing Directorate, US, A. MARTINI, University of California Merced, US, S.M. AOUADI, Southern Illinois University, US STUDENT AWARD FINALIST</p>	F1-1-5	<p>Bonding of Metallic Nanoparticles, M. CHANDROSS, T. BOYLE, B. CLARK, P. LU, Sandia National Laboratories, US</p>
3:50 pm	<p>E1-2-6 Lubricious Zinc Titanate Films for High Temperature Applications, v. AGEH, H. MOHSENI, T. SCHARF, University of North Texas, US</p>	F1-1-6	<p>The Preparation of FeS₂ Pyrite Nanocrystal Inks for Photovoltaic Thin Film, S.C. HSIAO, K.W. WU, S.H. HUANG, S.H. CHIU, L.H. CHOU, National Tsing Hua University, Taiwan, Republic of China</p>
4:10 pm	<p>E1-2-7 Study of the Friction Coefficient and Wear of Boride Coating Film on Stainless Steel AISI 410 at Different Temperatures, E. GARCÍA, M. FIGUEROA, G. RAMÍREZ-CASTRO, I. CAMPOS-SILVA, Instituto Politécnico Nacional, Mexico, S. MUHL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, A. CAVALEIRO, University of Coimbra, Portugal, T. POLCAR, Czech Technical University in Prague, Czech Republic</p>	F1-1-7	<p>Morphological and Optical Properties of AlN Nano-islands Prepared by Plasma Enhanced Chemical Vapor Deposition, Z. BOUCHKOUR, Université de Limoges - CNRS, France, E. THUNE, ENSCI-CNRS, France, C. JAOU, J.C. ORLIANGES, Université de Limoges - CNRS, France, R. GUINEBRETIERE, ENSCI-CNRS, France, P. TRISTANT, C. DUBLANCHE-TIXIER, Université de Limoges - CNRS, France</p>
4:30 pm	<p>E1-2-8 Plasma Diffusion Treatments to improve the Tribological Performance of Ti-4Al-4Mo-2Sn, G. CASSAR, B. ATTARD, University of Malta, Malta, A. MATTEWS, A. LEYLAND, University of Sheffield, UK</p>	F1-1-8	<p>Effect of Indium Concentration on Luminescence and Electrical Property of Indium Doped ZnO Nanowires, S.Y. LIM, National Cheng Kung University, Taiwan, Republic of China, R.C. WANG, National University of Kaohsiung, Taiwan, C.P. LIU, S. BRAHMA, J.L. HUANG, National Cheng Kung University, Taiwan, Republic of China</p>
4:50 pm	<p>E1-2-9 Tribological Behavior of Pvd Coated Cemented Carbide Against Superduplex Stainless Steel, J.M. PAIVA JR., Faculdade de Tecnologia SENAI Joinville, Brazil, R. TORRES, F.L. AMORIM, P.C. SOARES JR., Pontifícia Universidade Católica do Paraná, Brazil</p>	F1-1-9	<p>Carbon Monoxide-induced Reduction and Healing of Graphene Oxide, B. NARAYANAN, S.L. WEEKS, Colorado School of Mines, US, B. MACCO, Eindhoven University of Technology, Netherlands, J.-W. WEBER, Eindhoven University of Technology, Netherlands, M.C.M. VAN DE SANDEN, Dutch Institute for Fundamental Energy Research, Netherlands, S. AGARWAL, C. CIOBANU, Colorado School of Mines, US</p>
5:10 pm	<p>E1-2-10 Influence of the Normal Force and Abrasive Slurry Concentration on the Coefficient of Friction of Thin Films in Micro-abrasive Wear Tests, B. GUERREIRO, R.C. COZZA, Centro Universitário da FEI - Fundação Educacional Inaciana "Padre Sabóia de Medeiros", Brazil</p>	F1-1-10	<p>Studies on the Optoelectronic Characteristics of the V₂O₅-PtO₂ Core-shell Nanowires, K.Y. PAN, National Tsing Hua University, Taiwan, Republic of China, K.C. CHEN, Chinese Culture University, Taiwan, Republic of China, H.C. SHIH, National Tsing Hua University, Taiwan, Republic of China</p>
5:30 pm	<p>Exhibition Reception-Grand Hall 5:30-7:00 p.m. Reception drinks compliments of Plansee</p>		

Tuesday Afternoon, April 30, 2013

Applications, Manufacturing, and Equipment
Room: California - Session G3-1

Atmospheric and Hybrid Plasma Technologies

Moderators: H. Barankova, Uppsala University, Sweden, D. Pappas, EP Technologies, LLC, US

2:10 pm	G3-1-1 High Performance Thin Films for Aerospace Applications, A. RANADE, M.A. MATOS, The Boeing Company, US	
2:30 pm	G3-1-2 The Effect of Processing Parameters and Substrate Composition on the Corrosion Resistance of Plasma Electrolytic Oxidation (PEO) Coated Magnesium Alloys, R. HUSSEIN, D. NORTHWOOD, X. NIE, University of Windsor, Canada	
2:50 pm	G3-1-3 Invited PVD-Quality Coatings at Atmospheric Pressure, D.N. RUZIC, Y.L. WU, Z. OUYANG, P. RAMAN, T.S. CHO, University of Illinois at Urbana-Champaign, US	
3:10 pm	Invited talk continued.	
3:30 pm	G3-1-5 Atmospheric Plasma Treatment Inside Hollow Substrates, H. BARANKOVÁ, L. BARDOS, Uppsala University, Sweden	
3:50 pm	G3-1-6 ICP Dual Frequency Discharges: A Potential Tool for Large Area Plasma Processing, A. MISHRA, T.H. KIM, K.N. KIM, G.Y. YEOM, Sungkyunkwan University, South Korea	
4:10 pm	G3-1-7 Effects of Low Energy Plasma Immersion Ion Implantation of Nitrogen on Titanium, R. RAO, GITAM Institute of Technology, GITAM University, India	
4:30 pm		
4:50 pm		
5:10 pm		
5:30 pm	Exhibition Reception-Grand Hall 5:30-7:00 p.m. Reception drinks compliments of Plansee	

Wednesday Morning, May 1, 2013

<p>Coatings for Use at High Temperature Room: San Diego - Session A2-3</p> <p>Thermal and Environmental Barrier Coatings Moderators: R. Trice, Purdue University, US, D. Litton, Pratt & Whitney, US, V. Maurel, Mines-ParisTech, France</p>		<p>Hard Coatings and Vapor Deposition Technology Room: California - Session B3-1</p> <p>Deposition Technologies for Diamond Like Coatings Moderators: K Böbel, Bosch GmbH, Germany, C. Engdahl, Crystallume, US</p>	
8:00 am	<p>A2-3-1 Invited Environmental Barrier Coatings for Turbine Engines: Current Status and Future Directions, D. ZHU, NASA Glenn Research Center, US</p>	B3-1-1	<p>Physical Vapor Partial Filtering for Chemical Composition Control in Hybrid PECVD / EB-PVD Process, C. JAOU, Université de Limoges - CNRS, France, F. MEUNIER, Sulzer Sorevi, France, P. TRISTANT, J.P. LAVOUTE, C. DUBLANCHE-TIXIER, Université de Limoges - CNRS, France</p>
8:20 am	Invited talk continued.	B3-1-2	<p>A Multi Source PECVD Technology for Extremely Planar, Thick and Large-scale DLC Coatings, S. MEIER, S. SCHNAKENBERG, Fraunhofer Institute for Mechanics of Materials, IWM, Germany</p>
8:40 am	<p>A2-3-3 Y₂SiO₅ Coatings Fabricated by RF Magnetron Sputtering, P. MECHNICH, German Aerospace Center (DLR), Germany</p>	B3-1-3	<p>A Comparison on the Influence of Different Inert Gases for Reactive HiPIMS and DCMS CN_x Deposition Processes, S. SCHMIDT, Linköping University, IFM, Thin Film Physics Division, Sweden, ZS. CZIGANY, Hungarian Academy of Sciences, Research Centre for Natural Sciences, Hungary, G. GRECZYNSKI, J. JENSEN, L. HULTMAN, Linköping University, IFM, Thin Film Physics Division, Sweden</p>
9:00 am	<p>A2-3-4 Invited Optimum Design of High Temperature Thermal Radiation Energy Reflection Coatings for SiC/SiC Components, Y. KAGAWA, National Institute for Materials Science, Japan</p>	B3-1-4	<p>Deposition and Characterization of Advanced DLC Coatings Deposited by Low Frequency Plasma Enhanced Chemical Vapour Deposition (LF PECVD), C. CHOUQUET, DMX sas, France, C. DUCROS, CEA/Liten/DTNM/LTS, France, F. SCHUSTER, CEA Cross-Cutting Programme on Advanced Materials, France, A. BILLARD, LERMPS-IRTES, France, F. SANCHETTE, ICD-LASMIS, Nicci, UTT Antenne de Nogent, France</p>
9:20 am	Invited talk continued.	B3-1-5 Invited	<p>State-of-the-Art of DLC Coatings: Industrial Deposition Methods and Tribological Applications 60 Years after the Discovery of DLC, J. VETTER, Sulzer Metaplas, Germany</p>
9:40 am	<p>A2-3-6 Tridimensional Analysis of Interfacial Defects Consequences on Delamination of Thermal Barrier Coatings, R. SOULIGNAC, Mines-ParisTech, France</p>		Invited talk continued.
10:00 am	<p>A2-3-7 Adsorption of Various REs Atoms on NiAl and Al₂O₃ Surface: An Implication for Grain Boundary Diffusion in Thermal Barrier Coatings, T. ZHANG, H.B. GUO, Beihang University, China</p>	B3-1-7	<p>Modification of Femtosecond-Pulsed Laser Deposited Diamond-Like Carbon films by Temporal Pulse Shaping, F. BOURQUARD, T. TITE, A.S. LOIR, C. DONNET, Laboratoire Hubert Curien, UMR 5516, Université de Lyon, Université Jean Monnet, France, H. FTOUNI, O. BOURGEOIS, Institut Néel, UPR 2940 CNRS, France, F. GARRELIE, Laboratoire Hubert Curien, UMR 5516, Université de Lyon, Université Jean Monnet, France</p>
10:20 am	<p>A2-3-8 Microstructure and Thermal Oxidation Behavior of Yttria-Stabilized Hafnia Coatings, E. RUBIO, M. NOOR-A-ALAM, S. STAFFORD, C. RAMANA, University of Texas at El Paso, US</p>	B3-1-8	<p>Thermal Stability of DLC-MoS₂ Thin Films in Different Environments, H. NIAKAN, C. ZHANG, J. SZPUNAR, Q. YANG, University of Saskatchewan, Canada</p>
10:40 am	<p>A2-3-9 Tribocorrosion Mechanisms in Laser Deposited Titanium-based Smart Tribological Composite Smart Coating, P. OLUBAMBI, M.L. LEPULE, B. OBADELE, Tshwane University of Technology, South Africa, J.O. BORODE, Federal University of Technology, Nigeria</p>	B3-1-9	<p>Advanced PECVD Process Control through the use of RF and Plasma Key Parameters for Transfer of Layer Properties, T. GROTHJAHN, S. SCHNAKENBERG, Fraunhofer IWM, Germany, R. PLOTZE, P.H.F. Beratung, Germany, R. ROTHE, Plasmetrex GmbH, Germany, S. MEIER, Fraunhofer IWM, Germany</p>
11:00 am		B3-1-10	<p>High-rate Deposition of Dense Hydrogenated Amorphous Carbon Thin Films using High Power Impulse Magnetron Sputtering Based Process, A. AJAZ, K. SARAOKOS, M. RAZA, U. HELMERSSON, Linköping University, IFM, Plasma and Coatings Physics, Sweden</p>
11:20 am			
11:40 am			
12:00 pm	<p>Exhibition Closes Today 2:00 p.m.</p>		

Wednesday Morning, May 1, 2013

Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B4-2 Properties and Characterization of Hard Coatings and Surfaces Moderators: J. Lin, Colorado School of Mines, US, ACSEL, B. Zhao, Exxon Mobile, US		Hard Coatings and Vapor Deposition Technology Room: Royal Palm 1-3 - Session B7-1 Computational Design and Experimental Development of Functional Thin Films Moderators: B. Alling, Thin Film Physics Division, IFM, Linköping University, Sweden, D. Holec, Montanuniversität Leoben, Austria	
8:00 am	B4-2-1 Invited Plasma Immersion Ion Deposition of Diamond-like Carbon Coatings on Inner Surface of Long Pipes for Industry Applications, K. COULTER, R.H. WEI, Southwest Research Institute	B7-1-1 Invited Nanoengineered Oxide and Nitride Thin Films with Unique Functionalities, H. WANG, J. LEE, A. CHEN, M. MYERS, C. TSAI, Q. SU, Y. ZHU, L. CHEN, L. JIAO, J. JIAN, W. ZHANG, F. KHATKATTY, C. JACOB, Texas A&M University, US, Q. JIA, Los Alamos National Laboratory, US, J. DRISCOLL, University of Cambridge, UK, J. GAN, J. COLE, Idaho National Lab, US Invited talk continued.	
8:20 am	Invited talk continued.		
8:40 am	B4-2-3 Microstructural Investigation of Erosion Resistant TiN-TiAlN Laminated Coatings Deposited by Arc Ion Plating, T. TAKAHASHI, R. CREMER, P. JASCHINSKI, KCS Europe GmbH, Germany	B7-1-3 Invited Modeling Amorphous Materials from First Principles, E. HOLMSTROM, R. LIZARRAGA, Instituto de Fisica, Universidad Austral de Chile, Valdivia, Chile Invited talk continued.	
9:00 am	B4-2-4 Shake-up Features in Titanium Nitride Bilayer Systems used to Model Ultra-hard TiN/ Si ₃ N ₄ Nanocomposites, D. JAEGER, J. PATSCHEIDER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland STUDENT AWARD FINALIST		
9:20 am	B4-2-5 Diamond Coatings' Adhesion and Residual Stresses Assessment by Inclined Impact Tests, K.D. BOUZAKIS, G. SKORDARIS, Aristoteles University of Thessaloniki, Greece, S. MAKRIMALLAKIS, Fraunhofer Project Center for Coatings in Manufacturing (PCCM), Germany, E. BOUZAKIS, Fraunhofer Project Center for Coatings in Manufacturing (PCCM), Greece, S. KOMBOGIANNIS, Aristoteles University of Thessaloniki, Greece, O. LEMMER, CemeCon AG, Germany	B7-1-5 Advanced Modelling of Amorphous Ceramics, J. HOUSKA, University of West Bohemia - NTIS, Czech Republic	
9:40 am	B4-2-6 Study Of Structural and Mechanical Properties Of CrAlYN/CrY Multilayer Thin Film Deposited On M2 Steel, M.T. TAHMASEBIAN MYANDOAB, I. EFEOGLU, V. EZIRMIK, Y. TOTIK, E. DEMIRCI, Ataturk University, Turkey, O. BARAN, Erzinan University, Turkey	B7-1-6 Dynamics of Ti, N, and TiN _x (x = 1 - 3) Admolecule Transport on TiN(001) Islands and Surfaces, D. EDSTROM, D. SANGIOVANNI, V. CHIRITA, L. HULTMAN, Linköping University, IFM, Thin Film Physics Division, Sweden, I. PETROV, J. GREENE, University of Illinois at Urbana-Champaign, US	
10:00 am	B4-2-7 Growth of ZrO ₂ by Heat Treating ZrN Thin Film in Vacuum, J.H. HUANG, J.-W. HSIEH, G.P. YU, National Tsing Hua University, Taiwan, Republic of China	B7-1-7 <i>Ab Initio</i> Study of the Effect of Al Addition on Surface Kinetics of Ti, Hf and Zr Nitrides, C. THOLANDER, B. ALLING, F. TASNADI, Linköping University, Sweden, I. PETROV, J. GREENE, University of Illinois at Urbana-Champaign, US, L. HULTMAN, Linköping University, Sweden	
10:20 am	B4-2-8 Structural and Elastic Properties of Ternary Metal Nitride Zr _{1-x} Ta _x N Alloys Thin Films: Relationship with the Working Gas Pressure, P. DJEMIA, LSPM-CNRS, Université Paris 13, Sorbonne Paris-Cité, France, L. BELLARD, UPMC-Institut des NanoSciences de Paris, France, G. ABADIAS, Institut P' - Université de Poitiers, France	B7-1-8 First-principles Study of Electronic, Elastic and Thermodynamic Properties of CrN, L. ZHOU, Vienna University of Technology and Montanuniversität Leoben, Austria, D. HOLEC, Montanuniversität Leoben, Austria, P.H. MAYRHOFER, Vienna University of Technology, Austria	
10:40 am	B4-2-9 High Temperature Tribological Properties of CrAlTiN Coating, T. POLCAR, University of Southampton, UK, A. CAVALEIRO, University of Coimbra, Portugal	B7-1-9 Invited Importance of Finite Temperature Effects in <i>AB INITIO</i> Simulations of Materials for Hard Coating Applications, I. ABRIKOSOV, P. STENETEG, O. HELLMAN, L. HULTBERG, F. TASNADI, N. SHULUMBA, O. VEKILOVA, B. ALLING, Linköping University, Sweden	
11:00 am	B4-2-10 On Hardness and its Benefit to the Characterization and Optimization of Coatings, M. FUCHS, Chemnitz University of Technology, Germany, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany	Invited talk continued.	
11:20 am	B4-2-11 Microstructure, Properties and Microtribological Performance of Magnetron-sputtered V-C Coatings, M. STÜBER, Karlsruhe Institute of Technology, Germany, P. STOYANOV, Karlsruhe Institute of Technology, and Fraunhofer-Institute for Mechanics of Materials IWM, Germany, E. NOLD, Fraunhofer-Institute for Mechanics of Materials IWM, Germany, M. DIENWIEBEL, Karlsruhe Institute of Technology, and Fraunhofer-Institute for Mechanics of Materials IWM, Germany, S. ULRICH, Karlsruhe Institute of Technology, Germany		
11:40 am	B4-2-12 Adherent Amorphous Hydrogenated Carbon Coatings on Steel Surfaces Deposited by Enhanced Asymmetrical Bipolar Pulsed-DC PECVD Method and Hexane as Precursor, G. CAPOTE, J. OLAYA, National University of Colombia, Colombia, G. FARIA, G. MARTINS, E. CORAT, V. TRAVA-AIROLDI, Institute for Space Research, Brazil		
12:00 pm	Exhibition Closes Today 2:00 p.m.		

Wednesday Morning, May 1, 2013

<p>Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications Room: Sunset - Session C4-1 Thin Film Growth and Characterization for Optoelectronic Devices Moderators: K. Yu, Lawrence Berkeley National Laboratory, US, A. Ranade, The Boeing Company, US</p>		<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E2-3 Mechanical Properties and Adhesion Moderators: R. Chromik, McGill University, Canada, D. Bahr, Washington State University, US, M.T. Lin, National Chung Hsing University, Taiwan</p>	
8:00 am	<p>C4-1-1 Fabrication and Characterizations of CIGS Films Using One-step Electrochemical Co-deposition Methods, Y.M. YEH, WuFeng University, Taiwan, H. CHEN, National Chi-Nan University, Taiwan, Republic of China, S.M. LIU, WuFeng Univ., Taiwan, S.T. HUANG, Y.J. CHEN, National Chi-Nan Univ., Taiwan, Republic of China</p>	E2-3-1	<p>Deformation and Fracture of Wear-Resistant Laser Oxide Coatings on Metallic Substrates, S. LAWRENCE, Washington State University, US, D. ADAMS, Sandia National Laboratories, US, H. ZBIB, D. BAHR, Washington State University, US, N. MOODY, Sandia National Laboratories, US</p>
8:20 am	<p>C4-1-2 Preparation of CdMnS Thin Film: Applications in Photoelectrochemical Cell, J.S. DARGAD, Dayanand Science College, Latur, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, India</p>	E2-3-2	<p>Influence of Film Thickness on Fragmentation and Contact Damage of Diamond-Like Carbon (DLC) Coated Titanium Substrates, D. BERNOULLI, A. WYSS, K. HÄFLIGER, ETH Zurich, Laboratory for Nanometallurgy, Switzerland, K. THORWARTH, R. HAUERT, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, G. THORWARTH, DePuy Synthes Companies, Switzerland, R. SPOLENAK, ETH Zurich, Laboratory for Nanometallurgy, Switzerland</p>
8:40 am	<p>C4-1-3 Invited Fabrication and Characterization of High-efficiency CdTe-based Thin-Film Solar Cells, Y. YAN, N. PAUDEL, The University of Toledo, US</p>	E2-3-3	<p>Influence of Application Technology on the Erosion Resistance of DLC-Coatings, U. DEPNER-MILLER, H. SCHEERER, J. ELLERMEIER, M. OECHSNER, Technische Universität Darmstadt, Germany, K. BOBZIN, N. BAGCIVAN, T. BRÖGELMANN, R. WEIB, RWTH Aachen University, Germany, K. DURST, C. SCHMID, Friedrich-Alexander-University Erlangen-Nuernberg, Germany</p>
9:00 am	Invited talk continued.	E2-3-4	<p>Elevated Temperature Nanoindentation of Multilayered Coatings, G. MOHANTY, J. WHEELER, R. RAGHAVAN, EMPA Swiss Federal Laboratories for Materials Science and Technology, Switzerland, B. BELLATON, P. KEMPE, CSM Instruments SA, Switzerland, J. MICHLER, EMPA Swiss Federal Laboratories for Materials Science and Technology, Switzerland</p>
9:20 am	<p>C4-1-5 The Optimization of Indium Codoping Concentration in 100-nm-thick GZO Films for Low Resistivity and High Humidity Resistance Properties, H. SONG, H. MAKINO, N. YAMAMOTO, Kochi University of Technology, Japan, S. KISHIMOTO, Kochi National College of Technology, Japan, T. YAMAMOTO, Kochi University of Technology, Japan</p>	E2-3-5	<p>Energy Loss and Internal Frictions Study of Nanocrystalline Metal Thin Films, M.T. LIN, C.-J. TONG, Y.-T. WANG, National Chung Hsing University, Taiwan, Republic of China</p>
9:40 am	<p>C4-1-6 Effects of Native Defects on the Electrical and Optical Properties of Cadmium Oxide, K. YU, Lawrence Berkeley National Laboratory, US, L. REICHERTZ, RoseStreet Laboratories, US, S. GRANKOWSKA, Warsaw University, Poland, D. DETERT, O. DUBON, University of California, Berkeley; Lawrence Berkeley National Laboratory, USA, A. ANDERS, W. WALUKIEWICZ, Lawrence Berkeley National Laboratory, US</p>	E2-3-6	<p>Effect of the Anisotropic Growth on the Fracture Toughness Measurements Obtained in the Fe₂B Layer, E. HERNANDEZ-SANCHEZ, G. RODRIGUEZ-CASTRO, Instituto Politecnico Nacional, Mexico, M. ROMERO-ROMO, UAM-A, Mexico, I. ARZATE-VAZQUEZ, I. CAMPOS-SILVA, Instituto Politecnico Nacional, Mexico</p>
10:00 am	<p>C4-1-7 Study of the Instability of Amorphous InGaZnO Thin Film Transistor under the DC and AC Drain-bias Stress, L.W. LIN, T.C. CHANG, S.Y. HUANG, M.C. YANG, National Sun Yat-Sen University, Taiwan, Republic of China, K.H. YANG, University of Toronto, Canada, M.H. WU, M.C. CHEN, K. MAI, Y.J. CHIU, National Sun Yat-Sen University, Taiwan, Republic of China, B.L. YEH, Advanced Display Technology Research Center, AU Optronics, Taiwan</p>	E2-3-7 Invited	<p>Characterising Micromechanical Deformation of Commercially Pure Zirconium, T.B. BRITTON, University of Oxford and Imperial College London, UK, J. GONG, D. LLOYD, A. WILKINSON, S. ROBERTS, University of Oxford, UK</p>
10:20 am	<p>C4-1-8 Microwave-assisted Hydrothermal Synthesized Nitrogen-doped TiO₂ Photocatalysts for Enhanced Visible Light Response, W.C. HUANG, J.M. TING, National Cheng Kung University, Taiwan</p>	Invited talk continued.	
10:40 am	<p>C4-1-9 Effect of Thermal Annealing on Nickel Oxide Doped AZO Transparent Conducting Thin Films Prepared by DC Magnetron Sputtering System, Y.D. JO, Pusan National University, Republic of Korea</p>	E2-3-9	<p>Super-hard or Super-tough? - Nanomechanics for Improving the Toughness and Durability of Hard Nanocomposite Films, B. BEAKE, Micro Materials Ltd., UK, V. VISHYNAKOV, Manchester Metropolitan University, UK, A.J. HARRIS, Micro Materials Ltd, UK, J.S. COLLIGON, Manchester Metropolitan University, UK, J. SMITH, M. DAVIES, Micro Materials Ltd, UK</p>
11:00 am	<p>C4-1-10 Characteristics of Plasma Generated by ICP-CVD with Various H₂/SiH₄ Ratios and the Resultant Properties of nc-Si-H Thin Films, J.H. HSIEH, Y.L. LAI, Ming Chi University of Technology, Taiwan, Republic of China, C. LI, National Central University, Taiwan, Republic of China, J. SETSUHARA, Osaka University, Japan</p>	E2-3-10	<p>Fatigue Property Improvements of Ti Alloys by Metallic Glass and TiN Thin Films, C.M. LEE, Department of Materials Science and Engineering and Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei 10607, Taiwan, Taiwan, Republic of China, J.P. CHU, National Taiwan University of Science and Technology, Taiwan, Republic of China, J.-W. LEE, Ming Chi University of Technology, Taiwan, Taiwan, Republic of China</p>
11:20 am	<p>C4-1-11 Optoelectronic Characterization of p-type NiO_x and n-type TiO₂ Thin Films Deposited by Laser Ablation, A. HIRATA, CNyN-UNAM, US</p>	E2-3-11	<p>Microstructure and Properties Characterization of WC-Co HVOF Coatings Obtained From Standard, Superfine and Modified by Nanocarbidess Feedstock Powders, G. MOSKAL, K. SZYMAŃSKI, H. MYLASKA, Silesian University of Technology, Poland</p>
11:40 am	Exhibition Closes Today		
12:00 pm	2:00 p.m.		

Wednesday Morning, May 1, 2013

New Horizons in Coatings and Thin Films
Room: Sunrise - Session F2-1

High Power Impulse Magnetron Sputtering

Moderators: D. Lundin, Université Paris-Sud 11, France, J. Sapieha, Ecole Polytechnique de Montreal, Canada

8:00 am	<p>F2-1-1 Invited Applications of HIPIMS Metal Oxides, v. SITTINGER, O. LENCK, S.K. GURRAM, D. NIEWERTH, G. BRAUER, Fraunhofer IST, Germany</p>	
8:20 am	Invited talk continued.	
8:40 am	<p>F2-1-3 Optical Coatings Prepared by HIPIMS – Does this Technology Meet our Expectations?, M. HALA, R. VERNHES, O. ZABEIDA, J.E. KLEMBERG-SAPIEHA, L. MARTINU, Polytechnique Montreal, Canada</p>	
9:00 am	<p>F2-1-4 Epitaxial (001) Oriented Mo/V Superlattice Grown on MgO(100) by HIPIMS, S. SHAYESTEHAMINZADEH, H.P. GISLASON, S. ÖLAFSSON, University of Iceland</p>	
9:20 am	<p>F2-1-5 High Power Impulse Magnetron Sputtering of Compound Targets, A. ANDERS, Lawrence Berkeley National Laboratory, US, E. OKS, High Current Electronics Institute, Russian Federation, R. FRANZ, C. CLAVERO, R. MENDELSBERG, Lawrence Berkeley National Laboratory, US</p>	
9:40 am	<p>F2-1-6 TiO₂ Coatings Deposited by Arc Free Deep Oscillation Magnetron Sputtering, J. LIN, Colorado School of Mines, ACSEL, US, B. WANG, Colorado School of Mines, US, W. SPROUL, Reactive Sputtering, Inc., US, Y. OU, Colorado School of Mines, US, I. DAHAN, Nuclear Research Center, Beer-Sheva, Israel</p>	
10:00 am	<p>F2-1-7 Deposition Rate Enhancement in HiPIMS at Preserved Ionized Fraction of the Deposition Flux, J. CAPEK, University of West Bohemia, Czech Republic, M. HALA, O. ZABEIDA, Ecole Polytechnique de Montreal, Canada, J.E. KLEMBERG-SAPIEHA, Ecole Polytechnique de Montréal, Canada, L. MARTINU, École Polytechnique de Montréal, Canada</p>	
10:20 am	<p>F2-1-8 Optimization of the Substrate Conditions by Monte Carlo Modeling of Sputtered Particle Transport, D. LUNDIN, C. VITELARU, Université Paris-Sud 11, France, N. BRENNING, Royal Institute of Technology, Sweden, T. MINEA, Université Paris-Sud 11, France</p>	
10:40 am	<p>F2-1-9 Temporal Characterization of Ion Dynamics in High Power Impulse Magnetron Plasma by Means of Plasma Monitor, Ridded Retarding Field Energy Analyzer and Modified Katsumata Probe, M. CADA, P. ADAMEK, J. OLEJNICEK, Z. HUBICKA, Institute of Physics of the ASCR, v.v.i., Czech Republic</p>	
11:00 am	<p>F2-1-10 Mechanism of the Instabilities in HiPIMS Discharge and Correlation with Deposition Conditions, A. HECIMOVIC, T. DE LOS ARCOS, V. SCHULZ VON DER GATHEN, J. WINTER, Institute for Experimental physics 2, Ruhr University Bochum, Germany</p>	
11:20 am	<p>F2-1-11 Influence of High Power Impulse Magnetron Sputtering (HIPIMS) Pulse Shape Regarding Voltage and Current Time Evolution on Plasma Characteristics, Deposition Rate and Ionization for Titanium Aluminum, F. PAPA, Hauzer Techno Coating, BV, Netherlands, H. GERDES, R. BANDORF, F. LENZ, G. BRAEUER, Fraunhofer Institute für Schicht und Oberflächentechnik, Germany, T. KRUG, Hauzer Techno Coating, BV, Netherlands</p>	
11:40 am		
12:00 pm	<p>Exhibition Closes Today 2:00 p.m.</p>	

Wednesday Afternoon, May 1, 2013

Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B4-3 Properties and Characterization of Hard Coatings and Surfaces Moderators: J. Lin, Colorado School of Mines, ACSEL, US, B. Zhao, Exxon Mobile, US		Hard Coatings and Vapor Deposition Technology Room: Royal Palm 1-3 - Session B7-2 Computational Design and Experimental Development of Functional Thin Films Moderators: B. Alling, Thin Film Physics Division, IFM, Linköping University, Sweden, D. Holec, Montanuniversität Leoben, Austria	
2:10 pm	B4-3-1 Invited Novel Method for Deposition of Protective Coatings on Internal Surfaces, T. CASSERLY, J. BAE, J. WICKERSHAM, Sub-One Technology, US, B. WILLIAMS, URS Flint, US	B7-2-1	On the Structure and Growth of Reactive Magnetron Sputtered Ta ₂ O ₅ , R. HOLLERWEGER, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, M. BARTOSIK, Vienna University of Technology, Austria, M. ARNDT, R. RACHBAUER, OC
2:30 pm	Invited talk continued.	B7-2-2	Probing Temperature-induced Ordering in Ti _{0.33} Al _{0.67} N Coatings, c. ÅRHAMMAR, Sandvik Coromant R&D S-126 80 Stockholm, Sweden, J. ENDRINO, Instituto Abengoa Research S. L., Spain, M. RAMZAN, Uppsala University, Sweden, D. HORWAT, Université de Lorraine, Institut Jean Lamour, CNRS, Institut Jean Lamour, UMR 7198,
2:50 pm	B4-3-3 Prediction of DLC Friction Lifetime Based on a Local Archard Factor Density Approach, F. ALKELAE, S. FOUVRY, LTDS - Ecole Centrale de Lyon, France	B7-2-3	Lattice Ordering Effects on Toughness Enhancement in Transition Metal Nitride Thin Films, D. SANGIOVANNI, D. EDSTRÖM, V. CHIRITA, L. HULTMAN, Linköping University, IFM, Thin Film Physics Division, Sweden
3:10 pm	B4-3-4 Time- and Space-resolved High-throughput Characterization of Stresses during Sputtering and Thermal Processing of Al-Cr-N Thin Films, d. GROCHLA, Ruhr-Universität Bochum, Germany	B7-2-4 Invited	Plasticity in Complex Crystals, c. WALTER, University of Cambridge, UK, J. WHEELER, R. RAGHAVAN, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, W. CLEGG, University of Cambridge, UK
3:30 pm	B4-3-5 Mechanical Properties and Microstructures of Cr-O-N Coatings Deposited by Arc Ion Plating Method, T. MINAMI, S. NISHIO, Kanefusa Corporation, Japan, Y. MURATA, Nagoya University, Japan	Invited talk continued.	
3:50 pm	B4-3-6 Effect of Bias Voltage on the Mechanical-tribological Properties of AlCrN Coatings, F. LOMELLO, DEN/DANS/DPC/SEARS/LISL CEA Saclay, France, A. BILLARD, IRTES-LERMPS-UTBM, France, F. SANCETTE, LRC CEA-ICD LASMIS, Nogent International Center for CVD Innovation (Nicci), France, F. SCHUSTER, CEA Cross-Cutting	B7-2-6	Oxygen-deficient Zirconia Thin Films Synthesized by Reactive Magnetron Sputtering, s. KONSTANTINIDIS, G. GEUMEZ, T. VAN REGEMORTER, J. CORNIL, R. SNYDERS, University of Mons, Belgium
4:10 pm	B4-3-7 Influence of Substrate Bias on the Structure and Mechanical Properties of ZrN Thin Films Deposited by Arc Ion Plating, M. ZHANG, Liaoning Normal University, China, K. KWANG HO, Pusan National University, Republic of Korea, H. YE, H. XIAOGANG, P. YUNLI, Liaoning Normal University, China		
4:30 pm	B4-3-8 Effect of Cr/Al Content on Creep Resistance of AlCrN Coatings Applied by Reactive Magnetron Sputtering, Z. GASEM, S. ALAM, King Fahd University of Petroleum and Minerals, Saudi Arabia, A. MATTHEWS, University of Sheffield, UK		
4:50 pm			
5:10 pm			
5:30 pm	Awards Convocation-5:45 p.m. San Diego Room Honorary Lecturer-William D. Sproul “40 Years of Advancement in PVD Technology” Awards Reception will follow the Convocation at 7:30 p.m. Poolside		

Wednesday Afternoon, May 1, 2013

<p>Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications Room: Sunset - Session C5-1</p> <p>Thin Films for Active Devices Moderators: F. Tasnadi, Linköping University, Sweden, S. Moram, Imperial College London, UK</p>		<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E1-3</p> <p>Friction, Wear, and Lubrication; Effects & Modeling Moderators: V. Fridrici, Ecole Centrale de Lyon, France, O. Eryilmaz, Argonne National Laboratory, US, S.M. Aouadi, University of North Texas, US</p>
2:10 pm	<p>C5-1-1 Investigation on Plasma Treatment in Transparent Al-Zn-Sn-O Thin Film Transistor Application, C.H. CHANG, P.T. LIU, Y.T. WU, C.S. FUH, National Chiao Tung University, Taiwan, Republic of China</p>	<p>E1-3-1 Tribological Behavior of Multilayered Ti-Si-B/Zr-based Thin Film Metallic Glass Coatings with Various Si Contents, H.W. CHEN, Y.C. CHAN, National Tsing Hua University, Taiwan, Republic of China, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, J.G. DUH, National Tsing Hua University, Taiwan,</p>
2:30 pm	<p>C5-1-2 IGZO Deposition - Sputtering Technologies Comparison, P. OZIMEK, W. GLAZEK, A. KLIMCZAK, P. ROZANSKI, Huettinger Electronic, Poland</p>	<p>E1-3-2 Invited A Simple In-situ Method of AFM Calibration for Tribological Characterization of Ultra-thin Transfer Films, D BURRIS, H. KHARE, University of Delaware, US</p>
2:50 pm	<p>C5-1-3 Low Temperature Electrochemical Hydrocarbon Sensor Based on Reactive Magnetron Co-sputtering Deposited Layers, E. DEREPPER, P. BRIOIS, A. BILLARD, IRTES-LERMPS-UTBM, France</p>	<p>Invited talk continued.</p>
3:10 pm	<p>C5-1-4 Growth of Carbon Nanotubes/ Diamond Double Layers for High Stable Field Electron Emission, L. YANG, C. ZHANG, Y. LI, Q. YANG, University of Saskatchewan, Canada</p>	<p>E1-3-4 Precession Electron Diffraction Studies to Determine Wear-induced Texture Formation and Grain Refinement in Tribological Coatings and Engineered Surfaces, H. MOHSENI, J.-E. MOGONYE, R. BANERJEE, P. COLLINS, T. SCHARF, University of North Texas, US</p>
3:30 pm	<p>C5-1-5 The Effect of Moisture on Oxygen Adsorption of InGaZnO Thin Film Transistors under Bias Stress, Y.C. CHEN, T.C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China</p>	<p>E1-3-5 Dry Friction Between Laser-patterned Surfaces: Role of Alignment and Structural Wavelength, A. ROSENKRANZ, C. GACHOT, Saarland University, Germany, N. PRODANOW, M. MUESER, Supercomputing Centre Juelich, F. MUECKLICH, Saarland University, Germany</p>
3:50 pm		<p>E1-3-6 Influence of Aspect Ratio of Silicon Patterned and Coated Surfaces on Wetting and Tribological Characteristics, S. PIAO, N. MACHAVALLAVAN, KIST, Republic of Korea, K.Y. JHANG, Hanyang University, Republic of Korea, E.-S. YOON, KIST, Republic of Korea</p>
4:10 pm		<p>E1-3-7 Laser Interference-induced Microstructural Architectures and Topographies in Gold Thin Films and their Effect under Dry Sliding Conditions, C. GACHOT, A. ROSENKRANZ, F. MUECKLICH, Saarland University, Germany</p>
4:30 pm		<p>E1-3-8 Stress Analysis of WS₂ Coatings Using Scratch Testing and Raman Spectroscopy, J. RESTREPO, Universidad Nacional Autónoma de México, Mexico, J.M. GONZALEZ, Universidad Del Valle, Colombia, S. MUHL, Universidad Nacional Autónoma de México, Mexico, F. SEQUEDA, Universidad Del Valle, Colombia</p>
4:50 pm		<p>E1-3-9 Investigation of the Tribological Behavior of Electrocodeposited Ni-MoS₂ Composite Coatings, E. SARALOGLU GULER, I. KARAKAYA, Middle East Technical University, Turkey, E. KONCA, Atılım University, Turkey, A. OZTURK, M. ERDOĞAN, Middle East Technical University, Turkey</p>
5:10 pm		<p>E1-3-10 Fretting Wear Behaviour of Ti-TiC Composite Alloys: Influence of the TiC Concentration, J. DUHART, S. FOUVRY, Ecole Centrale de Lyon, France</p>
5:30 pm		
6:10 pm	<p>Awards Convocation-5:45 p.m. San Diego Room Honorary Lecturer-William D. Sproul “40 Years of Advancement in PVD Technology”</p>	
6:30 pm	<p>Awards Reception will follow the Convocation at 7:30 p.m. Poolside</p>	

Wednesday Afternoon, May 1, 2013

<p>New Horizons in Coatings and Thin Films Room: Sunrise - Session F2-2</p> <p>High Power Impulse Magnetron Sputtering Moderators: J. Sapielha, Ecole Polytechnique de Montreal, Canada, D. Lundin, Université Paris-Sud 11, France</p>	<p>New Horizons in Coatings and Thin Films Room: California - Session F3-1</p> <p>New Boron, Boride and Boron Nitride Based Coatings Moderators: H. Hoegberg, Linköping University, Sweden, A. Inspektor, Kennametal Incorporated, US</p>
<p>2:10 pm F2-2-1 Invited High Power Pulse Plasma Systems for the Reactive Deposition of Thin Films at Low Substrate Temperature, Z. HUBICKA, M. CADA, S. KMENT, Institute of Physics of the ASCR, v.v.i., Czech Republic, P. KSIROVA, J. OLEJNICEK, Institute of Physics ASCR, v.v.i., Czech Republic, T. KUBART, Uppsala University, Sweden, V. STRANAK, Institute of Physics ASCR, v.v.i., Czech Republic</p>	<p>F3-1-1 Exploring New W-B Coating Materials for the Aqueous Corrosion-wear Protection of Stainless Steels, P. DEARNLEY, University of Southampton, UK, B. MALLIA, University of Malta, Malta</p>
<p>2:30 pm Invited talk continued.</p>	<p>F3-1-2 Exploring Coating Materials Based on the Cr-B-N System for the Corrosion-wear Protection of Stainless Steels, P. DEARNLEY, University of Southampton, UK, M. STÜBER, Karlsruhe Institute of Technology, Germany, B. MALLIA, University of Malta, Malta</p>
<p>2:50 pm F2-2-3 Mo₂BC a Stiff and Moderately Ductile Tool Coatings – from Ab Initio Predictions to HPPMS Synthesis in an Industrial Deposition System, H. BOLVARDI, J. EMMERLICH, D. MUSIC, RWTH Aachen University, Germany, M. ARNDT, H. RUDIGIER, OC Oerlikon Balzers AG, Liechtenstein, J. SCHNEIDER, RWTH Aachen</p>	<p>F3-1-3 Invited Magnetron Sputtering of Me-B-C coatings, U. JANSSON, N. NEDFORS, Uppsala University, Sweden, L. WANG, Lanzhou Institute of Chemical Physics, China</p>
<p>3:10 pm F2-2-4 Influence of HPPMS Pulse Length and Inert Gas Mixture on the Properties of (Cr,Al)N Coatings, N. BAGCIVAN, K. BOBZIN, Surface Engineering Institute - RWTH Aachen University, Germany, G. GRUNDMEIER, C. KUNZE, University of Paderborn, Technical and Macromolecular Chemistry, Germany, R.H. BRUGNARA, Surface Engineering Institute - RWTH Aachen University, Germany</p>	<p>Invited talk continued.</p>
<p>3:30 pm F2-2-5 Ultra-thin Poly-crystalline TiN Films Grown by HiPIMS on MgO(100) - <i>in-situ</i> Resistance Study of the Initial Stage of Growth, S. SHAYESTEHAMINZADEH, T.K. TRYGGVASON, University of Iceland, Iceland, F. MAGNUS, Uppsala University, Sweden, S. OLAFSSON, University of Iceland, Iceland, J.T. GUDMUNDSSON, Univ. of Michigan-Shanghai Jiao Tong University Joint Institute, China</p>	<p>F3-1-5 Synthesis of Very Thick PVD Boron Carbide Films for Potential Fusion Targets, P. MIRKARIMI, K. BETTENCOURT, N. TESLICH, K.J. WU, M. WANG, Lawrence Livermore National Laboratory, US, H. XU, General Atomics, Inc., US, G. RANDALL, NIKROO, General Atomics, Inc., US</p>
<p>3:50 pm F2-2-6 Influence of Ion Bombardment Energy on the Growth of CrN Films by Reactive Magnetron Sputtering and High Power Impulse Magnetron Sputtering, A.P. EHIASARIAN, Sheffield Hallam University, UK, B. HOWE, Air Force Research Lab, US, I. PETROV, University of Illinois at Urbana-Champaign, US</p>	<p>F3-1-6 Influences of Boron Contents on the Microstructure and Mechanical Properties of Ti-Zr-B-N Thin Films Deposited by Pulsed DC Reactive Magnetron Sputtering, W.S. LAI, National Taiwan University of Science and Technology, Taiwan, Republic of China, J.-W. LEE, Ming Chi University of Technology, Taiwan, Republic of China, C.J. WANG, National Taiwan University of Science and Technology, Taiwan, Republic of China</p>
<p>4:10 pm F2-2-7 Properties of Ti_{1-x}Si_xN Films Grown in Hybrid HIPIMS-DCMS Configuration, G. GRECZYNSKI, J. LU, J. JENSEN, Linköping University, Sweden, I. PETROV, J. GREENE, University of Illinois at Urbana-Champaign, US, W. KÖLKER, S. BOLZ, C. SCHIFFERS, O. LEMMER, CemeCon AG, Germany, L. HULTMAN, Linköping University, Sweden</p>	<p>F3-1-7 Invited Boron-10-Based Thin Films for the Next Generation of Neutron Detectors, C. HÖGLUND, European Spallation Source ESS AB/Linköping University, Sweden</p>
<p>4:30 pm F2-2-8 A Comparative Study of AlN Films Deposited by Deep Oscillation Magnetron Sputtering and Pulse DC Magnetron Sputtering, B. WANG, Colorado School of Mines, US, I. DAHAN, Ben Gurion University of the Negev, Israel, J. MOORE, Colorado School of Mines, US, W. SPROUL, Reactive Sputtering, Inc., US, J. LIN, Colorado School of Mines, US</p>	<p>Invited talk continued.</p>
<p>4:50 pm F2-2-9 Characterization of Hard Coatings Deposited by Constant Voltage HIPIMS and MPP Sputtering System and their Cutting Performance, T. SASAKI, K. INOUE, S. ABUSULIK, Hitachi Tool Engineering, Ltd., Japan</p>	<p>F3-1-9 Tailoring the Mechanical and Tribological Properties of Boron Carbide Films by Adjusting the BC_x Stoichiometry, J.C. QIAN, Z.F. ZHOU, C. YAN, City University of Hong Kong, Hong Kong Special Administrative Region of China, D.J. LI, École Polytechnique de Montréal, Canada, M. AZZI, Notre Dame University, US, K.Y. LI, W.J. ZHANG, I. BELLO, City University of Hong Kong, Hong Kong Special Administrative Region of China, L. MARTINU, École Polytechnique de Montréal, Canada, J.E. KLEMBERG-SAPIEHA, École Polytechnique de Montréal, Canada</p>
<p>5:10 pm F2-2-10 Performance of RMS vs. HPPMS Cr/Cr₂O₃ Films in Protection against Metal Dusting, M. PÉREZ, O. SALAS, ITESM-CEM, Mexico, J. LIN, Colorado School of Mines, US, J. OSEGUERA, D. MELO-MAXIMO, ITESM-CEM, Mexico, R. TORRES, PUCPR, Brazil, C. LEPIENSKI, UFPR, Brazil, R. DE SOUZA, Usp, Brazil</p>	<p>F3-1-10 Modification of Multi-walled Boron Nitride Nanotubes by Metal Ion Implantation, D. SHTANSKY, E. OBRAZTSOVA, A. SHEVEKO, A.M. KOVALSKII, National University of Science and Technology "MISIS", Russian Federation, M. YAMAGUCHI, D.V. GOLBERG, National Institute for Materials Science, Japan</p>
<p>Awards Convocation-5:45 p.m. San Diego Room Honorary Lecturer-William D. Sproul “40 Years of Advancement in PVD Technology” Awards Reception will follow the Convocation at 7:30 p.m. Poolside</p>	

Thursday Morning, May 2, 2013

<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B2-1</p> <p>CVD Coatings and Technologies Moderators: E. Blanquet, CNRS, France, S. Ruppi, Walter AG, Germany</p>		<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E2-4</p> <p>Mechanical Properties and Adhesion Moderators: M.T. Lin, National Chung Hsing University, Taiwan, R. Chromik, McGill University, Canada, D. Bahr, Washington State University, US</p>		
8:00 am	<p>B2-1-1 Invited New Developments in the Field of CVD Hard Coatings, I. ENDLER, Fraunhofer IKTS, Germany</p>	E2-4-1	<p>3D Micro Scratch Tests in Combination with a Comprehensive Stress Analysis – a New Tool for the Understanding of Surface Failures, T. CHUDOBA, ASMEC Advanced Surface Mechanics GmbH, Radeberg, Germany, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany, A. GIES, OC Oerlikon Balzers AG, Liechtenstein</p>	
8:20 am	Invited talk continued.	E2-4-2	<p>A New Dynamic Impact and Sliding Wear Testing Method for the Tribological Evaluation of Treated Surfaces, P. EPAMINONDA, C. REBHOLZ, University of Cyprus, Cyprus</p>	
8:40 am	<p>B2-1-3 CVD Ti_{1-x}Al_xN Coatings for Mass Production, H. HOLZSCHUH, W. BUERGIN, SuCoTec AG, Switzerland</p>	E2-4-3	<p>Laser Shock Adhesion Test (LASAT) of EB-PVD TBCs: Towards an Industrial Application, G. BÉGUE, V. GUIPONT, M. JEANDIN, Mines-ParisTech, France, P. BILHE, J.Y. GUÉDOU, Snecma, SAFRAN Group, France</p>	
9:00 am	<p>B2-1-4 The Development of a CVD Material for Thermally Oxidative Environments with High Hydrophobicity and Oleophobicity, and Good Wear Resistance with a Low Friction Coefficient, D. SMITH, J. MATTZELA, P. SILVIS, SilcoTek Corporation, US</p>	E2-4-4	<p>Self-organized Thin Film Buckling Patterns, S. GRACHEV, J.-Y. FAOU, Saint-Gobain Recherche, France, G. PARRY, SIMaP, France, E. BARTHEL, Saint-Gobain Recherche, France</p>	
9:20 am	<p>B2-1-5 Phase Selective Deposition of α-Al₂O₃ by Thin Layers of TiO₂, B.E. BOMAN, D. FONDELL, S. MUNKTELL, Uppsala University, Angstrom Laboratory, Sweden, O. ALM, T. LARSSON, Seco tools AB, Sweden</p>	E2-4-5	<p>Determination of the Young's Modulus of Hard Coatings on Soft Polymer Substrates, T. SANDER, S. TREMMEL, S. WARTZACK, Friedrich-Alexander-University Erlangen-Nuremberg, Germany</p>	
9:40 am	<p>B2-1-6 Influence of the N/Al Ratio in Gas Phase on the Crystalline Quality of AlN Grown by HTCVD on c-sapphire., R. BOICHOT, N. COUDURIER, Grenoble INP, France, E. BLANQUET, M. PONS, CNRS, France</p>	E2-4-6	<p>Nanoscale Mechanical Mapping at a Wide Range of Deformation Rates with AFM, B. PITTENGER, S. MINNE, C. SU, Bruker Nano Surfaces Division, US</p>	
10:00 am	<p>B2-1-7 Growth of HfC and Nanostructured Multilayer HfC/SiC Coatings by DLICVD, G. BOISSELIER, F. MAURY, CIRIMAT, France, F. SCHUSTER, CEA-Saclay, France</p>	E2-4-7	<p>The Effective Indenter Concept and its Extension into the Time Domain, N. BIERWISCH, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany</p>	
10:20 am	<p>B2-1-8 Industrial Scale Production of HFCVD Diamond Coatings, O. LEMMER, C. SCHIFFERS, M. FRANK, B. MESIC, CemeCon AG, Germany, M. RÜFFER, DiaCCon GmbH, Germany, S. ROSIWAL, University Erlangen-Nürnberg, Germany</p>	E2-4-8	<p>Determining Average Effective X-ray Elastic Constant (AEXEC) of Hard Coatings by Combining $\cos^2\alpha \sin^2\psi$ X-ray Diffraction and Laser Curvature Methods, A. WANG, G.P. YU, J.H. HUANG, National Tsing Hua University, Taiwan, Republic of China</p>	
10:40 am	<p>B2-1-9 Gradient of Tribological and Mechanical Properties of Diamond-like Carbon Films Grown on Ti6Al4V Alloy with Different Condition of Interlayer Preparation, P. SILVA, G. MARTINS, J. MACHADO, E. CORAT, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, V. TRAVA-AIROLDI, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil</p>	E2-4-9	<p>Fatigue Property Enhancements of Crystalline Metallic Substrates by Coating Thin Film Metallic Glasses, C.H. CHANG, J.P. CHU, C.M. LEE, National Taiwan Univ. of Sci. and Tech., Taiwan, Republic of China</p>	
11:00 am		E2-4-10	<p>Bending Ductility Enhancement of Bulk Metallic Glass by Surface Treatment s, J.P. CHU, C.C. YU, National Taiwan Univ. of Sci. and Tech., Taiwan, Republic of China</p>	
11:20 am		E2-4-11	<p>Crystal Orientation Effect on the Mechanical Behaviour of Al₂O₃ Coatings at Ambient Temperature, V. BHAKHRI, Imperial College London - South Kensington Campus, UK, R. MSAOUBI, Seco tools AB, F. GIULIANI, Imperial College London - South Kensington Campus, UK, E. BOUZAKIS, Fraunhofer Project Center for Coatings in Manufacturing (PCCM), Greece</p>	
11:40 am				
12:00 pm	<p>ICMCTF 2014 Planning Meeting 12:00-1:15 p.m. Room: Royal Palm 4-6 All Interested Parties are Welcome</p>		<p>VAMAS TWA 22 Annual General Meeting Mechanical Property Measurements of Thin Films and Coatings Room: Royal Palm 1-3 12:15-1:15 p.m.</p>	

Thursday Morning, May 2, 2013

<p>New Horizons in Coatings and Thin Films Room: Sunrise - Session F4-1</p> <p>New Oxynitride Coatings Moderators: W. Kalss, OC Oerlikon Balzers AG, Liechtenstein, S. Ulrich, Karlsruhe Institute of Technology, Germany</p>		<p>Applications, Manufacturing, and Equipment Room: California - Session G6-1</p> <p>Advances in Industrial PVD & CVD Deposition Equipment Moderators: N. Bagcivan, RWTH Aachen University, Germany, M. Schuisky, Sandvik Machining Solutions, Sweden</p>	
8:00 am	F4-1-1 Invited Oxynitride Coatings by Reactive Arc Evaporation, D. KURAPOV, OC Oerlikon Balzers AG, Liechtenstein		
8:20 am	Invited talk continued.		
8:40 am	F4-1-3 Nitride and Oxy-Nitride Coatings for Application on Injection Moulding Tools, N. BAGCIVAN, K. BOBZIN, Surface Engineering Institute - RWTH Aachen University, Germany, C. HOPMANN, Institute of Plastics Processing - RWTH Aachen University, Germany, R.H. BRUGNARA, Surface Engineering Institute - RWTH Aachen University, Germany	G6-1-3 Invited Recent Developments in Pulsed I-PVD Technology for Sputtering Thin Films of Oxides, Nitrides and DLC for Tribological, Optical, Electrical and other Applications, R. CHISTYAKOV, Zpulsar LLC, US	
9:00 am	F4-1-4 Effects of Si and Y in Structural Development of (Al,Cr,Si/Y)O _x N _{1-x} Thin Films Deposited by Magnetron Sputtering, H. NAJAFI, A. KARIMI, D. ALEXANDER, Ecole Polytechnique Fédérale de Lausanne, Switzerland, P. DESSARZIN, M. MORSTEIN, PLATIT AG, Switzerland	Invited talk continued.	
9:20 am	F4-1-5 Two-phase Single Layer Al-O-N Nanocomposite Films with Enhanced Resistance to Cracking, R. JILEK, J. MUSIL, T. TOLG, R. CERSTVY, University of West Bohemia, Czech Republic	G6-1-5 Optical Emission Spectroscopy of HiPIMS Coatings at Industrial Scale, R. CREMER, T. TAKAHASHI, KCS Europe GmbH, Germany, S. HIROTA, Kobe Steel Ltd., Japan	
9:40 am	F4-1-6 Phase Formation of TiAlN Thin Films, M. TO BABEN, F. KRUSCHEWSKI, M. HANS, J. SCHNEIDER, RWTH Aachen University, Germany	G6-1-6 Advances in Process Technology and Deposition Equipment for HiPIMS Coatings for Cutting Tools, C. SCHIFFERS, T. LEYENDECKER, O. LEMMER, W. KÖLKER, CemeCon AG, Germany	
10:00 am	F4-1-7 Thermodynamic Modeling in the Materials System Ti-Al-O-N, H.J. SEIFERT, Karlsruhe Institute of Technology, Germany	G6-1-7 QuadCoatings ^{4®} , a New Generation of PVD Coatings for High-Performance Cutting Applications, A. LUEMKEMANN, M. MORSTEIN, P. DESSARZIN, T. CSELLE, PLATIT AG, Switzerland, B. TORP, PLATIT Inc., US, M. JILEK JR., PLATIT Pivot a.s., Czech Republic	
10:20 am	F4-1-8 Design of Thermal Conductivity of Hard Oxynitride Coatings, M. BÖTTGER, V. SHKLOVER, ETH Zurich, Department of Materials, Switzerland, E. LEWIN, J. PATSCHEIDER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, D. CAHILL, University of Illinois at Urbana-Champaign, US, M. SOBIECH, OC Oerlikon Balzers AG, Liechtenstein	G6-1-8 About the Novel Hi3 Deposition Technique, O. JARRY, G. ERKENS, J. VETTER, J. MUELLER, T. KRIENKE, Sulzer Metaplas, Germany	
10:40 am	F4-1-9 Oxides, Nitrides and Oxynitrides of Silicon on Non-silicon Substrates with Tailored Mechanical, Optical, Electrical and Chemical Properties, U. BECK, A. HERTWIG, M. GRIEPENTROG, M. WEISE, BAM Berlin, Germany	G6-1-9 New Arc Evaporation Technology CARC+: High Performance Coatings Deposited at High Deposition Speeds, M. EERDEN, F. PAPA, D. DERCKX, T. KRUG, Hauzer Techno Coating, BV, Netherlands	
11:00 am	F4-1-10 The Consequence of Different Sputtering Parameters on Optical, Wettability and Structural Characterization of Chromium Oxynitride Thin Films, S. RAWAL, Indian Institute of Technology Roorkee and Charotar Univ. of Science and Tech., India, A. CHAWLA, University of Petroleum and Energy Studies, India, R. JAYAGANTHAN, Indian Institute of Technology Roorkee and Indian Institute of Technology, India, A. JOSHI, G.H. Patel College of Engineering & Technology, India, R. CHANDRA, Indian Institute of Technology Roorkee, India	G6-1-10 The LAM Family – Tools for Production of ta-C Coatings with Excellent Properties, M. FALZ, M. HOLZHERR, K.-D. STEINBORN, T. SCHMIDT, VTD Vakuumentchnik Dresden GmbH, Germany, H.-J. SCHEIBE, A. LESON, V. WEIHNACHT, Fraunhofer-Institut für Werkstoff- und Strahltechnik, IWS Dresden, Germany	
11:20 am			
11:40 am			
12:00 pm	<p>ICMCTF 2014 Planning Meeting 12:00-1:15 p.m. Room: Royal Palm 4-6 All Interested Parties are Welcome</p>	<p>VAMAS TWA 22 Annual General Meeting Mechanical Property Measurements of Thin Films and Coatings Room: Royal Palm 1-3 12:15-1:15 p.m.</p>	

Thursday Morning, May 2, 2013

Topical Symposia Room: Royal Palm 1-3 - Session TS2-1 Advanced Characterization of Coatings and Thin Films Moderators: S. Korte, University of Erlangen-Nürnberg, Germany, M. Sebastiani, University of Rome "Roma Tre", Italy, F. Giuliani, Imperial College London - South Kensington Campus, UK	
8:00 am	TS2-1-1 Correlative Analysis of Phase and Microstructural Evolution of Rapidly Solidified Metallic Multilayers by Transmission Electron Microscopy and Atom Probe Tomography, P. LEIBENGUTH, I. SCHRAMM, F. MÜCKLICH, Saarland University and Materials Engineering Center Saarland, Germany
8:20 am	TS2-1-2 <i>In situ</i> Transmission Electron Microscopy Studies of Metal Diffusion on Ceramic Coatings, I. JOUANNY, C. NGO, University of California, Los Angeles, US, J. PALISAITIS, Linköping University, Sweden, P.H. MAYRHOFER, Vienna University of Technology, Austria, L. HULTMAN, P. PERSSON, Linköping University, Sweden, S. KODAMBAKA, University of California, Los Angeles, US
8:40 am	TS2-1-3 Invited Advanced Transmission Electron Microscopy Methods: Going beyond Imaging, C. SCHEU, LMU Munich, Germany
9:00 am	Invited talk continued.
9:20 am	TS2-1-5 <i>In Situ</i> Transmission Electron Microscopy Studies of Thermochemical Stability of TiO ₂ /C Core/Shell Nanocrystals, I. JOUANNY, S. KODAMBAKA, University of California, Los Angeles, US
9:40 am	TS2-1-6 Evaluation of Laboratory and Synchrotron Nanobeam X-Ray Diffraction Methods for the Characterization of Residual Stress Gradients in Hard Coatings, M. STEFANELLI, Materials Center Leoben Forschung GmbH, Austria, R. DANIEL, Montanuniversität Leoben, Austria, A. RIEDL, Materials Center Leoben Forschung GmbH, Austria, M. BARTOSIK, Montanuniversität Leoben, Austria, M. BURGHAMMER, European Synchrotron Radiation Facility, France, C. MITTERER, J. KECKES, Montanuniversität Leoben, Austria
10:00 am	TS2-1-7 Cross-Sectional X-ray Nanodiffraction on a Graded Multiphase Cr-N Thin Film, M. BARTOSIK, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, J. KECKES, R. DANIEL, C. MITTERER, Montanuniversität Leoben, Austria, M. BURGHAMMER, European Synchrotron Radiation Facility, France, L. ZHOU, Vienna University of Technology and Montanuniversität Leoben, Austria, D. HOLEC, Montanuniversität Leoben, Austria, P.H. MAYRHOFER, Vienna Univ. of Technology, Austria
10:20 am	TS2-1-8 Smart Approach of Surface Characterizations of Engineered Diamond-like Carbon (DLC) Coatings, D. CASCHERA, B. CORTESE, G. GIGLI, A. MEZZI, M. BRUCALE, G.M. INGO, T. DE CARO, G. PADELLETTI, CNR, Italy
10:40 am	TS2-1-9 Multi-scale Residual Stress Analysis of AlN on (100)Si Substrate Deposited at Different Biases, M. RENZELLI, E. BEMPORAD, M. SEBASTIANI, University "Roma Tre" Rome, Italy
11:00 am	TS2-1-10 Focused Ion Beam Milling for Localized Stress Measurement on Thin Films, M. KROTTENTHALER, F. HAAG, C. SCHMID, K. DURST, M. GÖKEN, University Erlangen-Nuremberg, Germany
11:20 am	TS2-1-11 A New Methodology for the Analysis of Fracture Toughness and Residual Stress in Thin Hard Coatings, M. SEBASTIANI, E. BEMPORAD, University of Rome "Roma Tre", Italy, EG. HERBERT, GM. PHARR, University of Tennessee, US
11:40 am	
12:00 pm	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> ICMCTF 2014 Planning Meeting 12:00-1:15 p.m. Room: Royal Palm 4-6 All Interested Parties are Welcome </div> <div style="text-align: center;"> VAMAS TWA 22 Annual General Meeting Mechanical Property Measurements of Thin Films and Coatings Room: Royal Palm 1-3 12:15-1:15 p.m. </div> </div>

Thursday Afternoon, May 2, 2013

<p>Hard Coatings and Vapor Deposition Technology Room: Royal Palm 4-6 - Session B2-2</p> <p>CVD Coatings and Technologies Moderators: E. Blanquet, CNRS, France, S. Ruppi, Waller AG, Germany</p>		<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E3-1+G</p> <p>Tribology of Coatings for Automotive and Aerospace Applications Moderators: S. Dixit, Plasma Technology Inc., US, G.L. Doll, University of Akron, US, A. Gies, OC Oerlikon Balzers AG, Liechtenstein</p>	
1:30 pm	<p>B2-2-1 Invited Residual Stress and Crystallographic Texture in CVD Zirconia Thin Films, V. JI, M. ANDRIEUX, N. PRUD'HOMME, Université Paris-Sud 11, France</p>	E3-1+G-1 Invited	<p>Friction Reduction Through Thermal Spray Coatings on Cylinder Running Surfaces of Internal Combustion Engines, PE. ERNST, Sulzer Metco AG (Switzerland), Switzerland</p>
1:50 pm	Invited talk continued.		Invited talk continued.
2:10 pm	<p>B2-2-3 The Deposition of Hydrogenated Silicon Films under Different H₂ and Ar Flow Rates by an ICP CVD System, C. LI, National Central University, Taiwan, Republic of China, J.H. HSIEH, Ming Chi University of Technology, Taiwan, Republic of China, K.L. HUANG, National Central University, Taiwan, Republic of China</p>	E3-1+G-3	<p>Thermal Treatment and Tribological Behaviour of Hybrid Coatings Deposited by Sol-gel Route on Martensitic Stainless Steel, S. RAHOUI, v. TURO, J.P. BONINO, Université Paul Sabatier, France</p>
2:30 pm	<p>B2-2-4 High-rate PECVD with Metal Strip Magnetron for Hard and Other Functional Coatings, C. METZNER, B. SCHEFFEL, O. ZYWITZKI, Fraunhofer FEP, Germany</p>	E3-1+G-4	<p>Tribological Behavior of New Coatings for High Temperature Aeronautical Applications, M. BERNARD, V. FRIDRICI, P. KAPSA, LTDS - Ecole Centrale de Lyon, France</p>
2:50 pm	<p>B2-2-5 Study of the Uniformity of SiO₂ Films Developed in Atmospheric Plasmas, D. PAPPAS, J.H. YIM, V. RODRIGUEZ-SANTIAGO, A. BUJANDA, S.D. WALCK, US Army Research Laboratory, US</p>	E3-1+G-5 Invited	<p>Thick TiSiCN-based Nanocomposite Coatings for Aerospace and Automotive Applications, R.H. WEI, Southwest Research Institute, US</p>
3:10 pm	<p>B2-2-6 Semi-empirical Modeling of the Optical Gap of Plasma-deposited a-C:H:F, a-C:H:Cl and a-C:H:Si:O:F Films, A. NETO, T. GONÇALVES, R. TURRI, UNESP, Brazil, W. SCHREINER, UFPR, Brazil, D. GALVÃO, UNICAMP, Brazil, S. DURRANT, UNESP, Brazil</p>		Invited talk continued.
3:30 pm	<p>B2-2-7 The SiO_xC_yH_z Hydrophobic Film with Chemical and Mechanical Properties Using PECVD by Controlling the Plasma Process, J.S. LEE, S.B. JIN, CHOI, CHOI, HAN, Institute for Plasma-Nano Materials, Center for Advanced Plasma Surface Technology, Sungkyunkwan University, Korea</p>	E3-1+G-7	<p>In-situ Real Time Solid Particle Erosion Testing Methodology for Hard Protective Coatings, E BOUSSER, L. MARTINU, École Polytechnique de Montréal, Canada, J.E. KLEMBERG-SAPIEHA, Ecole Polytechnique de Montréal, Canada</p>
3:50 pm	<p>B2-2-8 Modeling Surface Processes and Kinetics of Compound Layer Formation during Plasma Nitriding of Pure Iron, F. CAZARES, A. JIMENEZ-CENISERO, ITESM-CEM, Mexico, J. OSEGUERA, ITESM-CEM, Mexico, F. CASTILLO, ITESM-CEM, Mexico</p>	E3-1+G-8	<p>Characterization and Tribological Investigation of TiSi_xC_y Wear Protective Coatings, J. MATTHEY, Haute Ecole Arc Ingenierie, Switzerland</p>
4:10 pm		E3-1+G-9	<p>Effects TiN and TaN Barrier Layers on the Rmergence of Ag and Cu Particles and the Subsequent Mechanical and Antibacterial Properties of TaN-(Ag,Cu) Nanocomposite Films, J.H. HSIEH, Y.R. CHO, Y.T. SU, Ming Chi University of Technology, Taiwan, Republic of China</p>
4:30 pm			
4:50 pm			
5:10 pm			
5:30 pm	<p>Poster Session 5:00-7:00 p.m. Grand Hall Reception begins at 6:00 p.m.</p>		

Thursday Afternoon, May 2, 2013

<p>New Horizons in Coatings and Thin Films Room: Sunrise - Session F5-1</p> <p>Coatings for Compliant Substrates Moderators: B Beake, Micro Materials Ltd., UK, N. Moody, Sandia National Laboratories, US</p>		<p>Applications, Manufacturing, and Equipment Room: California - Session G5-1</p> <p>Coatings, Pre-Treatment, Post-Treatment, and Duplex Technology Moderators: T. Takahashi, KCS Europe GmbH, Germany, S. Brahmandam, Kennametal, Inc., US</p>	
1:30 pm	<p>F5-1-1 Deformation Domains of Nanostructured Metallic Thin Film onto Polyimide Substrate under Controlled Biaxial Deformation, P.O. RENAULT, E. LE BOURHIS, University of Poitiers, France, D. FAURIE, University of Paris 13, France, S. DJAZIRI, P.O. GOUDEAU, University of Poitiers, France, D. THIAUDIÈRE, C. MOCUTA, Synchrotron SOLEIL, France, G. GEANDIER, University of Lorraine, France</p>	G5-1-1	<p>Nitriding Duration Reduction with Improving Mechanical Characteristic and Fatigue Behavior, the Beneficial Effect of Prior Severe Shot Peening, A. MORIDI, S.M. HASSANI-GANGARAJ, Politecnico di Milano, Italy, S. VEZZÙ, Associazione Civen, Italy, M. GUAGLIANO, Politecnico di Milano, Italy</p>
1:50 pm	<p>F5-1-2 Stress Measurement in Thin Films: Micro-focus Synchrotron X-ray Diffraction Combined with Focused Ion Beam Patterning for d_b Evaluation, N. BAIMPAS, University of Oxford, UK, E. LE BOURHIS, Université de Poitiers, France, S. EVE, ENSICAEN, CRISMAT, France, D. THIAUDIÈRE, Synchrotron SOLEIL, France, C. HARDIE, A.M. KORSUNKY, University of Oxford, UK</p>	G5-1-2	<p>Growth Kinetics and Mechanical Properties of Boride Layers Formed at the Surface of ASTM F-75 Biomedical Alloy, I. CAMPOS-SILVA, D. BRAVO-BARCENAS, A. MENESES-AMADOR, Instituto Politecnico Nacional, Mexico, H. CIMENOGLU, Istanbul Tech. Univ., Turkey, U. FIGUEROA-LÓPEZ, ITESM-CEM, Mexico</p>
2:10 pm	<p>F5-1-3 Invited Wrinkling and Delamination of Thin Films on Compliant Substrates, R. HUANG, University of Texas at Austin, US</p>	G5-1-3 Invited	<p>Combining Thermal Spraying and PVD Technologies: a New Approach of Duplex Surface Engineering for Ti Alloys, F. CASADEI, M. TULUI, Centro Sviluppo Materiali SpA, Italy</p>
2:30 pm	Invited talk continued.		Invited talk continued.
2:50 pm	<p>F5-1-5 Interfacial Failure in a Model Polymer-metal Thin Film Structure, R. FRIDDLE, D. REEDY, E. CORONA, D. ADAMS, Sandia National Laboratories, US, M. KENNEDY, Clemson University, US, CORDILL, University of Leoben, Austria, D. BAHR, Washington State University, US, N. MOODY, Sandia National Laboratories, US</p>	G5-1-5	<p>Corrosion Testing by Potentiodynamic Polarization and EIS in Borided Steels, I. MEJÍA-CABALLERO, Instituto Politecnico Nacional, Mexico, H. HERRERA-HERNÁNDEZ, Universidad Autónoma Metropolitana- Azcapotzalco, Mexico, J. MARTÍNEZ-TRINIDAD, Instituto Politecnico Nacional, Mexico, M. PALOMAR-PARDAVÉ, M. ROMERO-ROMO, UAM-A, Mexico, I. CAMPOS-SILVA, Instituto Politecnico Nacional, Mexico</p>
3:10 pm	<p>F5-1-6 Fatigue-corrosion Behavior of Flexible Optoelectronic Device Electrodes, T. BEJITUAL, K. SIERRROS, D. CAIRNS, West Virginia University, US</p>	G5-1-6	<p>Improved Adhesion of Diamond Coatings on Cemented Carbide Tools by Surface Reconstruction via MPCVD, M. MEE, S. MEIER, Fraunhofer IWM, Germany</p>
3:30 pm	<p>F5-1-7 Load Bearing Capacity of Hydrogenated Amorphous Carbon Coatings on Ultrafine Grained Al Substrates, C. SCHMID, C. SCHUNK, University of Erlangen-Nürnberg, Germany, S. MEIER, Fraunhofer Institute for Mechanics of Materials, IWM, Germany, M. GÖKEN, K. DURST, University Erlangen-Nuremberg, Germany</p>	G5-1-7	<p>Improvement in the Tribological Characteristics of Si-DLC Coating by Laser Surface Texturing at Elevated Temperatures, A. AMANOV, S. SASAKI, Tokyo University of Science, Japan</p>
3:50 pm	<p>F5-1-8 Three-dimensional Finite Element Analysis of Adhesive Failure on Coated Systems under Uniaxial Tensile Tests, N. FUKUMASU, University of São Paulo, Brazil, F. SILVA, Federal University of ABC, Brazil, R. SOUZA, University of São Paulo, Brazil</p>		
4:10 pm	<p>F5-1-9 Annealing Induced Structural Evolution and Optical Properties of Block Copolymer Templated Nanostructured Tungsten Oxide Films, C.L. WU, National Cheng Kung Univ., Taiwan, Republic of China, C.K. LIN, Taipei Medical University, Taiwan, Republic of China, C.K. WANG, National Cheng Kung Univ., Taiwan, Republic of China, S.C. WANG, Southern Taiwan University of Science and Technology, Taiwan, Republic of China, J.L. HUANG, National Cheng Kung Univ., Taiwan, Republic of China</p>		
4:30 pm			
4:50 pm			
5:10 pm			
5:30 pm	<p>Poster Session 5:00-7:00 p.m. Grand Hall Reception begins at 6:00 p.m.</p>		

Thursday Afternoon, May 2, 2013

Topical Symposia
Room: Royal Palm 1-3 - Session TS3-1
Energetic Materials and Micro-Structures for Nanomanufacturing
Moderators: C. Rebholz, University of Cyprus, D. Adams, Sandia National Laboratories, US

1:30 pm	TS3-1-1 Invited Hermetic and Room-Temperature Wafer-Level-Packaging Based on Nanoscale Energetic Systems, J. BRAEUER, J. BESSER, Fraunhofer ENAS, Germany, E. TOMOSCHEIT, Chemnitz University of Technology, Germany, M. WIEMER, T. GESSNER, Fraunhofer ENAS, Germany	
1:50 pm	Invited talk continued.	
2:10 pm	TS3-1-3 Self-Sustained Deflagration Reactions in Sputter-deposited Al_xPt_y Multilayers, D. ADAMS, R. REEVES, M. RODRIGUEZ, E. JONES, JR., Sandia National Laboratories, US	
2:30 pm	TS3-1-4 Visualizing Mass Transport in the Self-propagating Formation of B₂-RuAl from PVD Multilayers, C. PAULY, H. ABOULFADL, Saarland University, Germany, K. WOLL, Johns Hopkins University, US, F. MÜCKLICH, Saarland University, Germany	
2:50 pm	TS3-1-5 Ti/Al Multilayer Coating Releasing Heat During Slow Thermal Annealing, P. STUPKA, J. MUSIL, S. PROKSOVA, R. CERSTVY, P. ZEMAN, University of West Bohemia, Czech Republic	
3:10 pm	TS3-1-6 Invited Fabrication and Characterization of Microstructured Thermites Derived from Electrophoretic Deposition, A.E. GASH, K.T. SULLIVAN, J.W. KUNTZ, Lawrence Livermore National Laboratory, US	
3:30 pm	Invited talk continued.	
3:50 pm	TS3-1-8 Effect of Surface Functionalization of Fuels on Nanocomposite Thermites, K. KAPPAGANTULA, C. FARLEY, M. PANOTYA, Texas Tech University, US, J. HORN, Naval Research Laboratory, US	
4:10 pm	TS3-1-9 Exothermic Reactions in Spark Ignitable Green Compacts of Continuously Ball-milled Al/Ni Powders, A. HADJIAFXENTI, University of Cyprus, Cyprus, I. GUNDUZ, Northeastern University, US, C. DOUMANIDIS, C. REBHOLZ, University of Cyprus, Cyprus	
4:30 pm	TS3-1-10 Optimization and Functionalization of Anodized Titania Nanotubes for Redox Supercapacitor, Z. ENDUT, M. HAMDY, W.J. BASIRUN, University of Malaya, Malaysia	
4:50 pm		
5:10 pm		
5:30 pm	Poster Session 5:00-7:00 p.m. Grand Hall Reception begins at 6:00 p.m.	

Thursday Afternoon Poster Sessions

Coatings for Use at High Temperature

Room: Grand Hall - Session AP

Symposium A Poster Session

Moderators: A Bolcavage, Rolls Royce, US, B. Hazel, Pratt and Whitney, US

5:00 pm

AP1

Thermal Stability of Ir - Re Coatings Annealed in Oxygen Containing Atmospheres, LIN, National Tsing Hua University, Taiwan, Republic of China, Y.I. CHEN, National Taiwan Ocean University, Taiwan, Republic of China, H.Y. TSAI, National Tsing Hua University, Taiwan, Republic of China, K.C. LIU, National Taiwan Ocean University, Taiwan, Republic of China, Y.H. CHEN, Young Optics Inc.

AP2

Steam Oxidation of Al Slurry Coatings Deposited on Super304H, TP347H and TP347HFG, M. SERAFFON, A.T. FRY, National Physical Laboratory, UK

AP5

Structure of Pd-Zr and Pt-Zr Modified Aluminide Coatings Deposited by CVD Method on Nickel Superalloys, M. PYTEL, Rzeszów University of Technology, Poland, R. FILIP, M. GORAL, Rzeszów University of Technology, Poland, J. SIENIAWSKI, Rzeszów University of Technology, Poland

AP6

TBCs Deposited using New EB-PVD Smart Coater System, A. NOWOTNIK, Rzeszów University of Technology, Poland, M. GORAL, J. SIENIAWSKI, M. PYTEL, Rzeszów University of Technology, Poland

AP8

Influence of Deposition Parameters on Structure of Diffusion Aluminide Coatings Obtained by CVD Method on Rene 108 DS Superalloy, L. SWADZBA, B. WITALA, Silesian University of Technology, Poland, R. SWADZBA, Institute for Ferrous Metallurgy, Poland, M. HETMANCZYK, G. MOSKAL, B. MENDALA, Silesian University of Technology, Poland, L. KOMENDERA, AVIO Poland sp. z o.o., Poland

AP9

Research on High Temperature Property of Plasma Sprayed Lanthanum Cerium Oxide Thermal Barrier Coatings, R. WANG, T. WU, W. WANG, Beijing Aeronautical Technology Research Center, China

AP10

Calcium-Magnesium Aluminosilicate (CMAS) Reactions and Degradation Mechanisms of Advanced Environmental Barrier Coatings, N. AHLBORG, The Ohio State University, US, D. ZHU, NASA Glenn Research Center, US

AP11

An Experimental Method for Determining the Mode II Interfacial Toughness of Thermal Barrier Coatings, S.J. LOCKYER-BRATTON, J.A. EL-AWADY, K.J. HEMKER, Johns Hopkins University, US

AP12

Isothermal Oxidation of a Single Crystal N5 Superalloy in the Range of 1050°C to 1150°C, R. SWADZBA, Institute for Ferrous Metallurgy, Poland, B. WITALA, L. SWADZBA, Silesian University of Technology, L. KOMENDERA, AVIO Polska

AP13

Boron Distribution in High Temperature Silicide Coatings for Niobium Alloys: An Analytical Problem Which can be Solved using a Coupled WDS-EDS System, S. MATHIEU, L. PORTEBOIS, N. CHAIA, Université de Lorraine, France

AP14

Evaluation of EBPVD Top Coat Modulus Using Micro-beam Bending Techniques, B. ZHANG, K.J. HEMKER, Johns Hopkins University, US

Hard Coatings and Vapor Deposition Technology

Room: Grand Hall - Session BP

Syposium B Poster Session

Moderators: A. Anders, Lawrence Berkeley National Laboratory, US, C. Rebholz, University of Cyprus, Cyprus, J. Vetter, Sulzer Metaplas, Germany

5:00 pm

BP1

High Temperature Wettability of Ion Implanted Multicomponent CrAlSiN by Molten Glass, YY CHANG, H.M. LAI, National Formosa University, Taiwan, Republic of China, H.Y. KAO, MingDao University, Taiwan, Republic of China

BP2

Mechanical Properties and Impact Resistance of Multilayered CrAlSiN/TiN Coatings, Y.Y. CHANG, National Formosa University, Taiwan, Republic of China, Y.Y. LIOU, MingDao University, Taiwan, Republic of China

BP3

Mechanical Properties and Physicochemical Characteristics of CrN/Si₃N₄ Multilayers, C. AGUZZOLI, T. SOARES, Universidade de Caxias do Sul, Brazil, G. SOARES, Universidade Federal do Rio Grande do Sul, Brazil, C.A. FIGUEROA, Universidade de Caxias do Sul, Brazil, I. BAUMVOL, Universidade de Caxias do Sul, Brazil and Universidade Federal do Rio Grande do Sul, Brazil

BP4

Reliability Characteristics of Multi-Step Deposition-Annealed HfO₂ Film under Static and Dynamic Stress, YL CHENG, C.Y. HSIEH, National Chi-Nan University, Taiwan, Republic of China, T.C. BO, National Chi Nan University, Taiwan, Republic of China

BP5

Wear Properties and Microstructure Characterization of Various Fe-W-C-B-Cr System Clad Layers, Y.C. LIN, Y.C. CHEN, National Taiwan University, Taiwan, Republic of China

BP6

Effect of Cu Diffusion on Electrical and Reliability Characteristics for Low Dielectric Constant Dielectric, YM CHANG, National Chiao Tung University, Taiwan, Republic of China, YL CHENG, K.C. KAO, National Chi-Nan University, Taiwan, Republic of China, J.P. LEU, National Chiao Tung University, Taiwan, Republic of China, T.C. BO, National Chi-Nan University, Taiwan, Republic of China

BP7

Zirconium Modified Aluminide Coatings Obtained by the CVD and the PVD Methods., J. ROMANOWSKA, M. ZAGULA-YAVORSKA, J. SIENIAWSKI, Rzeszów University of Technology, Poland, J. MARKOWSKI, Wrocław University of Technology, Poland

BP8

Phase Stability, Thermal Stability and Oxidation Resistance of Arc evaporated Ti-Al-Ta-N Coatings, R. HOLLERWEGER, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, M. ARNDT, R. RACHBAUER, OC Oerlikon Balzers AG, Liechtenstein, P. POLCIK, PLANSEE Composite Materials GmbH, Germany, J. PAULITSCH, P.H. MAYRHOFER, Vienna University of Technology, Austria

BP9

Superhard and Corrosion Protective Coatings of Ta-Si-N and Nb-Si-N, G. RAMIREZ, Argonne National Laboratory, US, S. RODIL, S. MUHL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, E. CAMPS, L. ESCOBAR-ALARCON, Instituto Nacional de Investigaciones Nucleares de Mexico

BP10

Simple Relationships Between Characteristics of Complex Nitrides and Electronegativities and Radii of Constituent Elements, V. PETRMAN, University of West Bohemia, Czech Republic, J. HOUSKA, University of West Bohemia - NTIS, Czech Republic

BP11

Internal Oxidation of Nanolaminated Nb-Ru Coatings, Y.I. CHEN, H.N. CHU, National Taiwan Ocean University, Taiwan, Republic of China

BP12

Phase Stability, Structural and Elastic Properties of Ternary Cr_{1-x}TM_xN alloys: An Ab-initio Study, L. ZHOU, Vienna University of Technology and Montanuniversität Leoben, Austria, D. HOLEC, Montanuniversität Leoben, Austria, P.H. MAYRHOFER, Vienna University of Technology, Austria

BP13

Substrate Bias Effects on the Wear and Hydrophobic Properties of CrAlN Coatings Prepared by Close Field Unbalanced Magnetron Sputtering, Y.S. YANG, T.P. CHO, J.H. LIN, National Kaohsiung First Univ. of Sci. and Tech., Taiwan

Thursday Afternoon Poster Sessions

BP14

Electrolyte-Insulator-Semiconductor (EIS) with Gd_2O_3 -based Sensing Membrane for pH-Sensing Applications, H. CHEN, National Chi-Nan University, Taiwan, Republic of China, C.H. KAO, Chang Gung University, Taiwan

BP15

Reactive and Non-reactive Sputter Deposition of Metallic, Intermetallic and Ceramic Target Materials to Prepare Al-Cr-N Coatings, c. SABITZER, Christian Doppler Laboratory for Application Oriented Coating Development at the Institute of Materials Science and Technology, Vienna University of Technology, Austria, J. PAULITSCH, Vienna University of Technology, Austria, P. POLCIK, PLANSEE Composite Materials GmbH, Germany, M. ARNDT, R. RACHBAUER, OC Oerlikon Balzers AG, Liechtenstein, P.H. MAYRHOFER, Vienna University of Technology, Austria

BP16

The Young's Modulus of Composite Spacer Contributed on the Stress Effect of N-MOSFET with Contact-etch-stop Layer Stressor, Y.C. CHIOU, National Chiayi University, Taiwan, Republic of China, C.C. LEE, T.L. TZENG, Chung Yuan Christian University, Taiwan, Republic of China, C.C. HUANG, National Nano Device Laboratories, Taiwan, Republic of China

BP17

Thermal Stability and Oxidation Resistance of TiAlN/TaAlN Multilayer Coatings, C.M. KOLLER, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, R. HOLLERWEGGER, Vienna University of Technology, Austria, R. RACHBAUER, OC Oerlikon Balzers AG, Liechtenstein, P. POLCIK, PLANSEE Composite Materials GmbH, Germany, J. PAULITSCH, Vienna University of Technology and Montanuniversität Leoben, Austria, P.H. MAYRHOFER, Vienna University of Technology, Austria

BP18

Investigation of Corrosion Properties in TiAlN/TiCrN Multilayer Coatings Deposited by CFUBMS, E. DEMIRCI, Ataturk University, Turkey, O. BARAN, Erzincan University, Turkey, Y. TOTIK, I. EFEGLU, T. MORTEZA, Ataturk University, Turkey

BP19

Simulation of Neutral Gas Dynamics for PVD DC-MSIP and HPPMS Processes, K. BOBZIN, N. BAGCIVAN, S. THEISS, R.H. BRUGNARA, M. SCHÄFER, Surface Engineering Institute - RWTH Aachen University, Germany, R. BRINKMANN, T. MUSSENBRÖCK, Institute for Theoretical Electrical Engineering - Ruhr University Bochum, Germany, J. TRIESCHMANN, Surface Engineering Institute - RWTH Aachen University, Germany

BP20

Oxidation Resistance and Mechanical Properties of Ta - Si - N Coatings, Y.I. CHEN, K.Y. LIN, National Taiwan Ocean University, Taiwan, Republic of China

BP21

Structural and Optical Properties of Brominated Plasma Polymers, M. APPOLINARIO, A. NETO, UNESP, Brazil, W. SCHREINER, UFPR, Brazil, N. CRUZ, E. RANGEL, S. DURRANT, UNESP, Brazil

BP22

First Principles Study of Alloying Trends in Ti—Al—N and Cr—Al—N Systems, D. HOLEC, Christian Doppler Laboratory for Application Oriented Coating Development at Montanuniversität Leoben and Vienna University of Technology, Austria, L. ZHOU, Vienna University of Technology and Montanuniversität Leoben, Austria, R. RACHBAUER, Montanuniversität Leoben, Austria, P.H. MAYRHOFER, Vienna University of Technology, Austria

BP23

Pulsed Laser Deposition of Tetrahedral Amorphous Carbon Layers (ta-C) - Properties in Dependence of Laser Fluence on the Target- Surface, K. GUENTHER, S. WEIBMANTEL, University of Applied Sciences Mittweida, Germany

BP24

Tribological Properties of TiN/Ta_xN and TiN/Ta_xN Doped Cr_y Multilayer Coatings at High Temperature, I. EFEGLU, Ataturk University, Turkey, O. BARAN, Erzincan University, Turkey, E. DEMIRCI, Y. TOTIK, Ataturk University, Turkey

BP25

The Effect of Annealing Temperatures on the Hydrophobic Property of CrAlN Coatings, Y.S. YANG, T.P. CHO, J.H. LIN, S.H. YANG, National Kaohsiung First University of Science and Technology, Taiwan, Republic of China

BP26

Effect of CO Gas for CVD Ti(C,N,O) Coating Layers on MT-TiCN I : CO Gas Effect, S. NA, J. KIM, E. LEE, D. KIM, S. SONG, M. SHARON, TaeguTec, Republic of Korea, B. MIN, Yeungnam University, Republic of Korea

BP27

Effect of CO Gas for CVD Ti(C,N,O) Coating Layers on MT-TiCN II : Temperature Effect, S. NA, E. LEE, J. KIM, D. KIM, S. SONG, H. HAN, TaeguTec, Republic of Korea, J. LEE, Yeungnam University, Republic of Korea

BP28

Wear and Oxidation Behaviors of Ti(C, N, O) Coatings, J.H. HSIEH, Y.L. LAI, Y.R. CHO, Ming Chi University of Technology, Taiwan, Republic of China

BP29

Improved Performance of Metal-based Dye-sensitized Solar Cells by Introducing a TiN Nanocrystalline Thin Film, W.L. TAI, F.-Y. OUYANG, National Tsing Hua University, Taiwan, Republic of China

BP30

Super Smooth Nano-Structured Carbon Films with Cross-linked Graphitic Sheets Induced by ECR Ion Irradiation, X. FAN, Key Laboratory of Education Ministry for Modern Design and Rotor-Bearing System, School of Mechanical Engineering, Xi'an Jiaotong University, China, D.F. DIAO, School of Mechanical Engineering, Xi'an Jiaotong University; College of Mechatronics and Control Engineering, Shenzhen University, China, L. YANG, Key Laboratory of Education Ministry for Modern Design and Rotor-Bearing System, School of Mechanical Engineering, Xi'an Jiaotong University, China

BP31

Influence of the Bilayer Period on the Structure of AlN and the Mechanical Properties of CrN/AlN Multilayer Coatings, P.H. MAYRHOFER, Vienna University of Technology, Austria, M. SCHLÖGL, Vienna University of Technology and Montanuniversität Leoben, Austria, B. MAYER, V. CHAWLA, D. HOLEC, Montanuniversität Leoben, Austria

BP34

Mechanical Properties and Interface Adhesion of Molybdenum Single Layer on Soda-lime Glasses, H.H. SUNG, National Chung Hsing University, Taiwan, Republic of China, Z.C. CHANG, National Chin-Yi University of Technology, Taiwan, Republic of China, L.Y. KUO, F.S. SHIEU, National Chung Hsing University, Taiwan, Republic of China

BP35

Effects of Silicon Content on the Structure and Mechanical Properties of (AlCrTaTiMo)N Coatings by Reactive Magnetron Sputtering, D.C. TSAI, F.S. SHIEU, National Chung Hsing University, Taiwan, Republic of China

BP36

Effect of In-Situ Crystallization on the Microstructural and Photo-induced Properties of TiO₂ Coatings Prepared by Magnetron Sputtering, I. SAYAH, M. ARAB POUR YAZDI, LERMPS-IRTES, France, F. SCHUSTER, CEA-Saclay, France, A. BILLARD, Lrc Cea/lrtes-Lermeps, France

BP37

Thermal Stability of Quaternary TiZrAlN Sputtered Thin Films, G. ABADIAS, Institut P' - Université de Poitiers, France, I. SALADUKHIN, S. ZLOTSKI, V. UGLOV, Belarussian State University, Belarus

BP38

The Development and Application on the Process Technique of (Zr_xHf_{1-x})N Thin Film, Y.W. LIN, Instrument Technology Research Center, National Applied Research Laboratories, Taiwan, Republic of China, J.H. HUANG, Department of Engineering and System Science National Tsing Hua University, Taiwan, Republic of China, G.P. YU, Institute of Nuclear Engineering and Science National Tsing Hua University, Taiwan, Republic of China

BP39

Deposition of TiN Films by High Power Impulse Magnetron Sputtering, W. WU, S. SHIH, P. CHEN, C.L. CHANG, D.Y. WANG, MingDao University, Taiwan, Republic of China

BP40

Development of Uniform Coating Technique of Tetrahedral Amorphous-Carbon Film by T-shape Filtered-Arc-Deposition with Deflected Plasma beam and Multi-Motion Substrate Holder for Spherical Object, H. TANOUÉ, H. OKUDA, Y. SUDA, H. TAKIKAWA, Toyohashi University of Technology, Japan, M. KAMIYA, Itoh Optical Industrial Co., Ltd., Japan, M. TAKI, Y. HASEGAWA, N. TSUJI, Onward Ceramic Coating Co., Ltd., Japan

BP41

Optical Emission Spectroscopy of Cr-Al-C Arc Ion Plating Plasma, T. TAKAHASHI, R. CREMER, P. JASCHINSKI, KCS Europe GmbH, Germany

BP42

Growth of Boron Nitride with a High Temperature Chemical Vapor Deposition (HTCVD) Reactor using BCl₃ and NH₃ as Precursors, N. COUDURIER, R. BOICHOT, Grenoble INP, France, E. BLANQUET, M. PONS, CNRS, France

BP43

Novel TiAlN Nanostructured CVD Coatings with Superior Oxidation Resistance, J. KECKES, R. DANIEL, V. TERZIYSKA, C. MITTERER, Montanuniversität Leoben, Austria, A. KÖPF, R. WEIBENBACHER, R. PITONAK, Bohlerit GmbH, Kapfenberg, Austria

Thursday Afternoon Poster Sessions

BP44

Silicon Carbide Interlayers for HFCVD Diamond on Cemented Carbide Cutting Tools, U. HECKMAN, Fraunhofer Institute for Surface Engineering and Thin Films, Germany, A. HAGEMANN, Fraunhofer Institute for Surface Engineering and Thin Films IST, Germany, J.A. OYANEDEL FUENTES, Institute for Machine Tools and Factory Management (IWF), TU Berlin, Germany, J. GÄBLER, M. HÖFER, Fraunhofer Institute for Surface Engineering and Thin Films IST, Germany, F. SAMMLER, Institute for Machine Tools and Factory Management (IWF), TU Berlin, Germany, L. SCHÄFER, Fraunhofer Institute for Surface Engineering and Thin Films IST, Germany, E. UHLMANN, Institute for Machine Tools and Factory Management (IWF), TU Berlin, Germany

BP45

Role of the Si-addition on the Mechanical and Tribological Properties of AlCrN-based Films Deposited by Cathodic Arc Deposition, A. BILLARD, IRTES-LERMPS-UTBM, France, F. LOMELLO, DEN/DANS/DPC/SEARS/LISL CEA, France, F. SANCHETTE, ICT, France, F. SCHUSTER, M. TABARANT, CEA, France

BP46

Influence of RF and Plasma Parameters on Film Properties for Layer Transfer by an Advanced PECVD Process Control Method, T. GROTHJAHN, Fraunhofer IWM, Germany, R. ROTHE, Plasmetrex GmbH, Germany, S. MEIER, Fraunhofer IWM, Germany

BP47

Arc evaporated coatings for machining application, D. SCHLEGEL, ESTA, France, M. ARAB POUR YAZDI, IRTES-LERMPS-UTBM, France, F. LOMELLO, DEN/DANS/DPC/SEARS/LISL CEA, France, F. SANCHETTE, ICT, France, A. BILLARD, IRTES-LERMPS-UTBM, France, F. SCHUSTER, CEA, France

BP48

Structure and Properties of CrN/TiN Multilayer Coatings Deposited by Modulated Pulsed Power and Pulsed dc Magnetron Sputtering, Y. OU, J. LIN, Colorado School of Mines, US, I. DAHAN, Ben Gurion University of the Negev, Israel, B. WANG, J. MOORE, Colorado School of Mines, US, W. SPROUL, Reactive Sputtering, Inc., US, M. LEI, Dalian University of Technology, China

BP49

Hardness and Structure Evolution of Annealed Zr-TiAlN Films, R. PILEMARM, Linköping University, Sweden

BP50

Synthesis of the CrZrSiN Thin Films and its High Temperature Tribological Properties, D.J. KIM, J.H. LA, S.M. KIM, S.Y. LEE, Korea Aerospace University, Republic of Korea

BP51

Improvement of Wear Resistance of Nitrile Rubber Surfaces by Hydrocarbon Plasma Treatments, R. DOS SANTOS, E. SANTOS JR., S. CAMARGO JR., Federal University of Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

BP53

Preparation and Characterization of Ti-Al-N Thin Films Deposited by Reactive Crossed Beam Pulsed Laser Deposition, L. ESCOBAR-ALARCON, Instituto Nacional de Investigaciones Nucleares de Mexico, Mexico, D. SOLIS-CASADOS, Universidad Autonoma del Estado de Mexico, Mexico, S. ROMERO, J. PEREZ-ALVAREZ, Instituto Nacional de Investigaciones Nucleares de Mexico, Mexico, G. RAMIREZ, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de Mexico, México, S. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de Mexico, México, Mexico

BP54

Characterization of Diamond-like Carbon Film Synthesized by HIPIMS System for Medical Application, M.H. SHIH, W.C. CHEN, C.L. CHANG, D.Y. WANG, MingDao University, Taiwan, Republic of China

BP55

Design and Fabrication of Bilayer Wire Grid Polarizers (B-WGPs) with Sub-wavelength Metal Gratings, J.J. KIM, T.Y. KIM, W.Y. KIM, B.H. KU, P. PAZHANISAMI, C. HWANGBO, Inha University, Republic of Korea

BP56

Alumina Coatings for use under High Radiation Conditions, F. MAJID, S. RIAZ, S. NASEEM, University of the Punjab, Pakistan, I. AHMAD, G. HUSNAIN, National Centre of Physics, Pakistan

BP57

A Detailed Investigation into the Preparation and Properties of ZrO₂-Fe₂O₃ Coatings for Bio-Medical Applications, S. RIAZ, S. NASEEM, University of the Punjab, Pakistan

BP58

Preparation and Characterization of CIGAS Thin Films and Their Solar Cells, S. NASEEM, S. RIAZ, University of the Punjab, Pakistan

BP59

Effect of Droplet Inclusion in Arc-evaporated Multilayer Coatings on the Anisotropy of Thermal Conductivity, M. BÖTTGER, ETH Zurich, Department of Materials, Switzerland, A. GUSSAROV, ENISE, France, V. SHKLOVER, ETH Zurich, Department of Materials, Switzerland, J. PATSCHEIDER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, M. SOBIECH, OC Oerlikon Balzers AG, Liechtenstein

BP60

Structural, Electrical Conductivity and Mechanical Properties of TiN, Thin Films, J. GOUPY, CEA Grenoble, France, P. DJEMIA, LSPM-CNRS, Université Paris 13, Sorbonne Paris-Cité, France, S. POUGET, CEA Grenoble, France, L. BELLARD, UPMC-Institut des NanoSciences de Paris, France, G. ABADIAS, Institut P' - Université de Poitiers, France, J.C. VILLÉGIER, CEA Grenoble, France, J.L. SAUVAGEOT, C. PIGOT, CEA Saclay, France

BP61

Tribological and Electrochemical Properties of HVOF Sprayed CrC-40NiCr and WC-40NiCr Coatings, P. OLUBAMBI, Z.H. MASUKU, B. OBADELE, T. RAPOO, Tshwane University of Technology, South Africa

BP62

TiCrN/NiMnSb Thin Film Heterostructures for Vibration Damping in MEMS, N. CHOUDHARY, D. KAUR, Indian Institute of Technology Roorkee, India

BP63

Characterization of a Cylindrical Planar Hollow Cathode and its use for the Preparation of Bi Nanoparticles, S. MUHL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, A. PEREZ, Universidad Nacional Autónoma de México, Mexico, A. TENORIO, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico

BP64

The Influence of the Inert and Reactive Gas Inlet Temperature and Pressure on the Reactive Sputtering Process Outcomes, S. FADDEEVA, J. OSEGUERA, ITESM-CEM, Mexico

BP65

Hardness and Elastic Modulus of Hard Coatings at High Temperatures, M. REBELO DE FIGUEIREDO, University of California Berkeley, M. TKADLETZ, Materials Center Leoben Forschung GmbH, R. HOLLERWEGGER, Christian Doppler Laboratory for Application Oriented Coating Development at the Institute of Materials Science and Technology, Vienna University of Technology, Austria, A.J. HARRIS, Micro Materials Ltd, UK, M. ABAD, University of California Berkeley, P.H. MAYRHOFER, Vienna University of Technology, Austria, C. MITTERER, Montanuniversität Leoben, Austria, P. HOSEMANN, University of California Berkeley

BP66

Electrochemical and Impact Wear Behavior of TiCN, TiSiCN, TiCrSiCN, and TiAlSiCN Coatings, D. SHTANSKY, K.A. KUPTSOV, PH.V. KIRYUKHANTSEV-KORNEEV, A. SHEVEKO, National University of Science and Technology "MISIS", Russian Federation

BP67

A Study of Thermal Stability, Structural and Mechanical Properties of Zr_xW_{1-x}N_y Coatings Deposited by DC/RF Reactive Magnetron Sputtering, P. DUBEY, R. CHANDRA, A. VIVEK, D. SINGH, V. DAVE, Indian Institute of Technology Roorkee, India

BP68

The Investigation of the Adhesion, Wear and Friction Properties of TiN/TaN Multilayer Coatings, O. BARAN, Erzincan University, Turkey, E. DEMIRCI, I. EFEGLU, Y. TOTIK, Atatürk University, Turkey

BP69

Rapid Annealing of TaN-(Ag,Cu) Thin Films Deposited on PEEK Polymer Substrate by Pulse Current Heating, J.H. HSIEH, Y.T. SU, Ming Chi University of Technology, Taiwan, Republic of China

BP70

Synthesis and Characterization as Hydrocarbon Sensors of Nanostructured ZnO Sputter-deposited Coatings, M. ARAB POUR YAZDI, IRTES-LERMPS-UTBM, France, J. SANCHEZ, Umr Cnrs 6249, France, E. MONSIFROT, Sarl Dephis, France, P. BRIOIS, IRTES-LERMPS-UTBM, France, F. BERGER, UMR CNRS 6249 University of Franche Comte, France, A. BILLARD, IRTES-LERMPS-UTBM, France

BP71

A New Dedicated DLC Coating System for Threading in Titanium, M. MORSTEIN, P. DESSARZIN, PLATIT AG, Switzerland, K. GERSCHWILER, RWTH Aachen University, H. FRANK, M. SCHIFFLER, GFE Schmalkalden e.V., Germany

BP72

Study on the Characteristics of MoN Doping Cu Amorphous Thin Film Fabricated by Pulse Magnetron Sputtering Process, C.H. HUANG, W.S. HWANG, National Cheng Kung University, Taiwan, Republic of China, C.W. CHU, Metal Industries Research & Development Centre, Taiwan, Republic of China, S.J. LIU, H.Y. CHU, National University of Tainan, Taiwan, Republic of China

Thursday Afternoon Poster Sessions

BP73

Thermal Stability and Oxidation Behavior of Reactively Sputtered TaN Coatings, F.B. WU, K.Y. LIU, National United University, Taiwan, Republic of China

BP74

Electrochemical Impedance Spectroscopy Evaluation of Aluminium-Based PVD Coatings Exposed to Salt-Spray Corrosion, F. INDEIR, O. FASUBA, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK

BP75

Comparison Between Single Phase Ti and Cr-nitrides Thin Films Deposited by Different Processing Routes, F. LOMELLO, DEN/DANS/DPC/SEARS/LISL CEA Saclay, France, M. ARAB POUR YAZDI, IRTES-LERMPS, France, D. SCHLEGEL, ESTA, France, A. BILLARD, IRTES-LERMPS-UTBM, France, F. SANCHEtte, LRC CEA-ICD LASMIS, Nogent International Center for CVD Innovation (Nicci), France, F. SCHUSTER, CEA Cross-Cutting Programme on Advanced Materials, France, M. TABARANT, DEN/DANS/DPC/SEARS/LISL CEA Saclay, France

BP76

Improving the Corrosion Resistance of Electroplated Chromium Coatings on AISI H13 Steel by Gaseous Nitriding in Vacuum, H. CIFUENTES, J.J. OLAYA, Universidad Nacional de Colombia Bogotá, Colombia

BP77

Enhancement of Mechanical and Tribological Properties in NiTi Shape Memory Alloy Thin Films by Using Graded AlN/Al Multilayer Coating, N. KAUR, D. KAUR, Indian Institute of Technology Roorkee, India

BP78

Property Evaluation in Humid Environments of Silicon-doped DLC Films Deposited by Plasma Immersion Assisted Deposition, C. LIU, J. COOPER, H. LI, M. AUDRONIS, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK

BP79

First-principles Calculations on the Thermodynamic and Mechanical Properties of Ti-Al-(Zr, Hf)-N Wear-resistant Coating Systems, A. WANG, National Center for Quality Supervision and Inspection of Building Decoration Materials, China, W. WANG, Y. DU, L. CHEN, State Key Laboratory of Powder Metallurgy, Central South University, P.R. China

BP80

Interfacial Structure of Ti₂AlN Thin Film Deposited on MgO(111): Experimental and Computational Study, H. JIN, Institute of High Performance Computing, Singapore

BP81

Study of the Mechanical Properties of PVD Metallic Nanocomposite Cr(N)-based Coatings with Combined Additions of Silver and Copper, X. LIU, M. AUDRONIS, A. YEROKHIN, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK

BP82

Improving the Corrosion and Tribological Performance of Magnesium Alloys by Using Duplex Surface Treatments, L. LIU, M. AUDRONIS, A. YEROKHIN, A. MATTHEWS, A. LEYLAND, University of Sheffield, UK

Fundamentals and Technology of Multifunctional Thin Films: Towards Optoelectronic Device Applications
Room: Grand Hall - Session CP

Syposium C Poster Session

Moderators: E. Schubert, University of Nebraska-Lincoln, US, M. Cremona, Pontificia Universidade Católica do Rio de Janeiro, Brazil

5:00 pm

CP1

Electrical and Optical Properties of AZO/Ag Bilayer Prepared by Transfer Printing Method, M.S. KIM, D.H. LEE, Y.H. CHA, B.H.O. O, S.G. LEE, S.G. PARK, Inha University, Republic of Korea

CP2

Characterization of Hysteresis Phenomena in Indium Zinc Oxide Thin Film Transistors with Double-channel Layers via Capacitance-voltage Measurement, W. KIM, S.H. LEE, J.S. PARK, Hanyang University, Republic of Korea

CP3

Effects of RF Power and Oxygen Gas on the Characteristics of Thin Film Transistors with Co-sputtered Silicon Zinc Oxide Channel Layers, S.H. LEE, W. KIM, Hanyang University, Republic of Korea, H.S. UHM, Samsung Display, Republic of Korea, J.S. PARK, Hanyang University, Republic of Korea

CP6

Effect of Thickness on the Structure and Optical Properties of Yttrium-Doped Hafnium Oxide Nanocrystalline Thin Films, C. RAMANA, A. ORTEGA, M. NOOR-ALAM, A. KONGU, University of Texas at El Paso, US

CP7

Impact of Mechanical Strain on Hot Carrier Degradation for Partially Depleted Silicon-On-Insulator n-channel Metal-Oxide-Semiconductor-Field-Effect-Transistors, W.H. LO, T.C. CHANG, J.Y. TSAI, National Sun Yat-Sen University, Taiwan, Republic of China

CP8

Abnormal Threshold Voltage Shift under Hot Carrier Stress in Ti_{1-x}N_x/HfO₂ p-channel MOSFETs, J.Y. TSAI, T.C. CHANG, W.H. LO, National Sun Yat-Sen University, Taiwan, Republic of China

CP9

Electrical Enhancement of Nitrogen Doped Amorphous In-Ga-Zn-O Thin Film Transistors by Microwave Annealing, C.S. FUH, P.T. LIU, S.M. SZE, S.W. HUANG, M.J. LIU, C.H. CHANG, National Chiao Tung University, Taiwan, Republic of China

CP10

Chemical Bath Deposited Zn-Cd-S Buffer Layer for Cu(In,Ga)Se₂ Solar Cells, Y.C. LIN, National Chung Hsing University, Taiwan, Republic of China, Z.C. CHANG, National Chin Yi University of Technology, Taiwan, Republic of China, F.S. SHIEU, National Chung Hsing University, Taiwan, Republic of China

CP11

Investigation on Amorphous InGaZnO Based Resistive Switching Memory with Low-power, High-speed, High Reliability and Good Flexibility, Y.S. FAN, C.H. HSU, P.T. LIU, National Chiao Tung University, Taiwan, Republic of China

CP12

Effect of Sn-layer Addition to Precursors on Characteristics of Cu₂ZnSn(S,Se)₄ Thin Film Solar Cell Absorber, K. SAMMI, K. WOO KYOUNG, O. MISOL, L. SOOBIN, J. SOYOUNG, Yeungnam University, Republic of Korea

CP13

Rapid Sulfurization of CuGaIn/Se Precursors, L. SOOBIN, Yeungnam University, Republic of Korea, C. HYUN-IL, S. CHANGGIL, A. DONGGI, K. BYOUNGDONG, Samsung SDI, Republic of Korea, K. WOO KYOUNG, Yeungnam University, Republic of Korea

CP14

Electrical and Optical Properties of Magnesium Doped Delafossite Structure CuCr_{1-x}Mg_xO₂ Reactively co Sputter Deposited Coatings, P. BRIOS, M. ARAB POUR YAZDI, IRTES-LERMPS-UTBM, France, J.F. PIERSON, Institut Jean Lamour, France, A. BILLARD, IRTES-LERMPS-UTBM, France

CP15

High Power Impulse Magnetron Sputtering of Transparent Conducting Oxides, L.C. CHANG, C.K. CHANG, S.C. WANG, Ming Chi University of Technology, Taiwan, Republic of China

Thursday Afternoon Poster Sessions

CP16

Synthesis of Silver Nanowire by Polyol Method for Transparent Conductive Film Application, J.J. HUANG, MingDao University, Taiwan, Republic of China, J.Y. LIN, National Yunlin University of Science and Technology, Taiwan, Republic of China, C.N. CHEN, Asia University, Y.L. HSUEH, National Yunlin University of Science and Technology, Taiwan, Republic of China, M.W. TSAI, MingDao University, Taiwan, Republic of China

CP17

Performance Improvement of Hybrid Solar Cells with Thermally Evaporated Cuprous Oxide as a Hole Transport Layer, Y. YU, Y. WANG, M. HSU, Ming Chi University of Technology, Taiwan, Republic of China

CP18

Nanocomposite Anti Bacterial Sputter Deposited Coatings, E. MONSIFROT, Dephis, France, F. SANCHECETTE, ICT, France, A. BILLARD, IRTES-LERMPS-UTBM, France, F. SCHUSTER, CEA, France

CP19

Organic Thin-film Transistors with Polymer-nanoparticle Hybrid Dielectrics Layer, Y. YU, M. CHEN, Ming Chi University of Technology, Taiwan, Republic of China

CP20

Investigation of Sputtered GAZO Films for CIGS Photovoltaics, c.-H. HUANG, National Dong Hwa University, Taiwan, Republic of China, H.-L. CHENG, National Dong Hwa University, Taiwan, Republic of China

CP21

Investigation of Green and Yellow Luminescence from Alpha and Beta Zinc Silicate Thin Films Doped with Manganese, Y.K. CHO, J.H. KIM, Chungbuk National University, Republic of Korea

CP22

Effect of the Thin Ga₂O₃ Layer in n⁺-ZnO/n-Ga₂O₃/p-Cu₂O Heterojunction Solar Cells, Y. NISHI, T. MIYATA, T. MINAMI, Kanazawa Institute of Technology, Japan

CP23

Influence of Crystallographical Properties on Obtainable Texture-etched Surface Structure in Transparent Conducting Impurity-doped ZnO Thin Films, T. MIYATA, J. NOMOTO, T. FUJITA, T. MINAMI, Kanazawa Institute of Technology, Japan

CP24

Co-Sputtering and RTA Process for Preparation of CIGS Thin Films Using Gallium, Indium and Copper Diselenide Alloy Targets, E. BLEZA, S. OH, G. CHO, N. KIM, Chosun University, Korea

CP25

Analysis of Coatings in Matrix of Conformation Fasteners in Stainless Steel Austenitic, W. MATTES, J. PAIVA JUNIOR, Centro Univesitário Catolica de Santa Catarina, Brazil

CP26

Influence of Rapid Thermal Annealing Treatment on Transparent Conducting Impurity-Doped ZnO Thin Films for Thin-Film Solar Cell Applications, J. NOMOTO, T. MIYATA, T. MINAMI, Kanazawa Institute of Technology, Japan

CP29

Hole Trapping-induced Anomalous Gate Current Hump after Dynamic Negative Bias Stress in p-MOSFETs with HfO₂ and Hf_xZr_{1-x}O₂/Metal Gate Stacks, S.H. HO, National Chiao Tung University, Taiwan, Republic of China, T.C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China, T.Y. TSENG, National Chiao Tung University, Taiwan, Republic of China

CP30

Temperature Dependent Instability of Drain Bias Stress in Amorphous Indium-Gallium-Zinc-Oxide Thin Film Transistors, G.W. CHANG, National Chiao Tung University, Taiwan, Republic of China, T.C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China, Y.H. TAI, National Chiao Tung University, Taiwan, Republic of China, Y.E. SYU, National Sun Yat-Sen University, Taiwan, Republic of China

CP31

Temperature Dependence on Positive Gate Bias Instability in HfO₂/TiN p-MOSFETs, H.M. CHEN, National Chiao Tung University, Taiwan, Republic of China, T.C. CHANG, National Sun Yat-Sen University, Taiwan, Republic of China, Y.H. TAI, National Chiao Tung University, Taiwan, Republic of China, W.H. LO, National Sun Yat-Sen University, Taiwan, Republic of China

CP32

Investigation of Random Telegraph Signal in PD SOI nMOSFETs between Moderate and Strong Inversion Region, C.E. CHEN, National Chiao Tung University, Taiwan, Republic of China, T.C. CHANG, B. YOU, National Sun Yat-Sen University, Taiwan, Republic of China, T.Y. TSENG, National Chiao Tung University, Taiwan, Republic of China

CP33

Self Current Compliance Bipolar Resistance Switching Characteristics for Nonvolatile Memory Application, H.C. TSENG, National Sun Yat-Sen University, Taiwan, Republic of China

CP35

Study of the Surface Chemical Composition and Evaluation of Corrosion Resistance of Bi_xTi_yO_z Thin Films Deposited by RF Magnetron Sputtering, J. ALFONSO, J.J. OLAYA, M. PINZÓN, National University of Colombia, Colombia, J.F. MARCO, CSIC

CP36

Light Extraction Enhancement by Metallic Photonic Crystal Nanostructures Embedded in Gallium Nitride Diodes, G.M. WU, Chang Gung MemoUniversity, Taiwan

CP37

Effects of Intermediate GAZO Layer Thickness on the Properties of GAZO/Ag/GAZO/Ag/GAZO Film, Y.S. JUNG, H.W. CHOI, K.H. KIM, Gachon University, Republic of Korea

Thursday Afternoon Poster Sessions

Coatings for Biomedical and Healthcare Applications

Room: Grand Hall - Session DP

Syposium D Poster Session

Moderators: J. Piascik, RTI International, R. Hauert, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland

5:00 pm

DP1

Albumin Adsorption on Zirconium Oxide Thin Films: the Influence of Atomic Ordering, P. SILVA-BERMUDEZ, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México, Mexico, S. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México

DP2

Hydroxyapatite Growth Behavior and Osteocompatible Performance of Biomedical Polymer Coated with Titanium Dioxide Interlayer, M.H. CHI, Feng Chia University, Taiwan, Republic of China, H.K. TSOU, Feng Chia University, Taiwan; Taichung Veterans General Hospital, 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

DP3

Deposition, Characterization and In Vivo Performance of Parylene Coating on General-purposed Silicone for Biocompatible Surface Modification, C.M. CHOU, Taichung Veterans General Hospital; National Yang-Ming University, C.J. SHIAO, Feng-Chia 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

DP4

The Biological Characteristics of MG-63 Human Osteosarcoma Cell Line and Human Gingival Fibroblast Cells on Tantalum Doped Carbon Films, M.T. TSAI, Hungkuang University, Taiwan, Republic of China, Y.Y. CHANG, National Formosa University, Taiwan, Republic of China, YC CHEN, MingDao University, Taiwan, Republic of China, J.T. HSU, H.L. HUANG, China Medical University, Taiwan, Republic of China

DP5

Cytocompatibility and Antibacterial Properties of Zirconia Coatings with Different Silver Contents on Titanium, H.L. HUANG, China Medical University, Taiwan, Republic of China, YY CHANG, National Formosa University, Taiwan, Republic of China, YC CHEN, MingDao University, Taiwan, Republic of China, C.H. LAI, MYC CHEN, China Medical University, Taiwan, Republic of China

DP7

Adhesion and Corrosion Performance of Amorphous Titanium Oxide Films on Stainless Steel, V. GARCIA-PEREZ, Facultad de Odontología, Universidad Nacional Autónoma de México, Mexico, P. SILVA-BERMUDEZ, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México, A. ALMAGUER-FLORES, Facultad de Odontología, Universidad Nacional Autónoma de México, Mexico, J. RESTREPO, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, S. RODIL, Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México

DP8

Blood Compatibility and Adhesion of Collagen/Heparin Multilayers Coated on Two Titanium Surfaces by a Layer-by-layer Technique, C.-C. CHOU, H.-J. ZENG, National Taiwan Ocean University, Taiwan, Republic of China, C.-H. YEH, Chang Gung Memorial Hospital, Keelung, Taiwan, Republic of China, S.-C. LIU, National Taiwan Ocean University, Taiwan, Republic of China

DP11

Effect of Nitrogen Plasma Immersion Ion Implantation Treatment on Corrosion Resistance of Ni-free ZrCuFeAl Bulk Metallic Glass, H.M. HUANG, Y.S. SUN, H.H. HUANG, National Yang-Ming University, Taiwan

DP12

Tribocorrosion and Properties of TiAlN/TiB₂ Coatings Deposited onto Ti6Al4V Alloy by DC/RF Magnetron Sputtering, O. JIMENEZ, J. REYES, M. FLORES, E. RODRIGUEZ, Universidad de Guadalajara, Mexico

DP13

The Tribocorrosion Behavior of CoCrMo Alloys Coated with TiAlPtN in Simulated Body Fluid, M. FLORES, Universidad de Guadalajara, Mexico, E. ANDRADE, Universidad Nacional Autónoma de México, Mexico, O. JIMENEZ, E. RODRIGUEZ, Universidad de Guadalajara, Mexico

DP14

101 Million Cycle Simulator Wear Characterization of Diamond Like Carbon Coated CoCrMo Articulating Implants, K. THORWARTH, U. MÜLLER, R. FIGI, B. WEISSE, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, G. THORWARTH, DePuy Synthes Companies, Switzerland, R. HAUERT, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland

DP15

Preparation of a Composite Bioceramic HA/Ag Coating and Effect on Insertion Torques of the Coated Ti6Al4V Screws, T. CHENG, X. NIE, Y. CHEN, University of Windsor, Canada

DP16

Scratch Resistance of Coated Orthodontic Archwires, E. SANTOS JR., D. DA SILVA, A. RUELLAS, S. CAMARGO JR., C. MATTOS, Federal University of Rio de Janeiro, Brazil

DP17

AC Impedance Behavior of HA/TiN Coated Ti-25Ta-xZr Alloy by RF Sputtering and EB-PVD for Dental Implant, H.J. KIM, Y.H. JEONG, Y.M. KO, Chosun University, Korea, S.W. EUN, Polytechnic V Colleges, Korea, H.C. CHOE, Chosun University, Korea

DP18

Hydroxyapatite Precipitation on Nanotubular Film Formed Ti-25Nb-xHf Alloys for Biomedical Application, S.H. KIM, Y.H. JEONG, Y.M. KO, H.C. CHOE, Chosun University, Korea

DP19

HA/TiN Multilayer Coating on the Ti-30Nb-xTa Alloys by RF Sputtering for Biocompatibility, E.S. KIM, Y.H. JEONG, Y.M. KO, H.C. CHOE, Chosun University, Korea

DP20

Electrochemical Behaviors of an Interface Between Si/HA Coated Ti-Nb-Zr Alloy and HOB Cell, Y.H. JEONG, H.C. CHOE, Chosun University, Korea

DP21

Hydroxyapatite Coating on Micro-pore formed Ti-35Ta-xNb Alloy by Electron Beam-Physical Vapor Deposition, C.I. JO, Y.H. JEONG, Y.M. KO, H.C. CHOE, Chosun University, Korea, S.W. EUN, Polytechnic V Colleges, Korea

Thursday Afternoon Poster Sessions

Tribology & Mechanical Behavior of Coatings and Engineered Surfaces

Room: Grand Hall - Session EP

Syposium E Poster Session

Moderators: N.M. Jennett, National Physical Laboratory, UK, T. Scharf, University of North Texas, US

5:00 pm

EP1

Controlled Vacuum Annealing of TiZrN Thin Film on Si (001) and AISI 304 Stainless Steel Deposited by Unbalanced Magnetron Sputtering, P.-H. WU, J.H. HUANG, G.P. YU, National Tsing Hua University, Taiwan, Republic of China

EP2

Fracture Toughness Measurement of ZrN Hard Coatings, Y.-H. CHEN, G.P. YU, J.H. HUANG, National Tsing Hua University, Taiwan, Republic of China

EP3

Producing Thick TiN Films by Controlling Deposition Parameters in Magnetron Sputtering, M.-L. CAI, G.P. YU, J.H. HUANG, National Tsing Hua University, Taiwan, Republic of China

EP4

Wear Behavior and Failure Mechanism of a Solid Lubricant Coating on One Side or Both Sides of Counterbodies, J. YANG, V. FRIDRICI, P. KAPSA, Ecole Centrale de Lyon, France

EP5

Investigation of Internal Stress Levels and Characteristics during Electrocodeposition of Ni-MoS₂ Composite Coatings, E. SARALOGLU GULER, I. KARAKAYA, Middle East Technical University, Turkey, E. KONCA, Atılım University, Turkey, M. ERDOĞAN, Middle East Technical University, Turkey

EP6

Impact Wear Resistance of CrN, CrAlN and TiAlN PVD Coatings on Cemented Carbide and M2 Steel Substrates, J.L. MO, M.H. ZHU, Southwest Jiaotong University, China, S. BANFIELD, University of Sheffield, UK, J. HOUSDEN, Tecvac Ltd, UK, A. LEYLAND, A. MATTHEWS, University of Sheffield, UK

EP7

Examples for the Time Dependent Effective Indenter Concept, N. BIERWISCH, Saxonian Institute of Surface Mechanics, Germany, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany, A. EL SEWEFI, Forum Zehlendorf, Germany, M. GRIEPENTROG, P. REINSTADT, BAM Berlin, Germany

EP8

Effect of Implant Diameter and Length on Stress Distribution for Titanium and Zirconia Implants with 15° Angled Abutment by using Finite Element Analysis (FEA), F. KARABUDAK, R. YESILDAL, F. BAYINDIR, Atatürk University, Turkey

EP9

Coated Polymers for Low Friction and Wear of Roller Bearing Cages in Lightweight Design, T. SANDER, B. VIERNEUSEL, S. TREMMEL, S. WARTZACK, Friedrich-Alexander-University Erlangen-Nuremberg, Germany

EP10

Tribological Properties of Hard a-C:H:F Coatings, C. JAOUËL, Université de Limoges - CNRS, France, O. JARRY, Sulzer Sorevi, P. TRISTANT, Université de Limoges - CNRS, France, E. LABORDE, Université de Limoges - CNRS, M. COLAS, J.P. LAVOUTE, Université de Limoges - CNRS, France, L. KILMAN, Sulzer Sorevi, H. AGEORGES, C. DUBLANCHE-TIXIER, Université de Limoges - CNRS, France

EP11

Microtribological Properties of Extremely Thin Diamond-like Carbon Films Deposited using Bend-type Filtered Cathodic Vacuum Arc and Electron Cyclotron Resonance Chemical Vapor Deposition Techniques, S. YAMAZAKI, S. MIYAKE, Nippon Institute of Technology, Japan

EP12

Deposition and Tribological Properties of Multilayer and Mixed Films Composed of Gold and Diamond-like Carbon, S. TAKANORI, M. SHOJIRO, Nippon Institute of Technology, Japan

EP14

Deposition and Characterization of Bismuth Containing Hard Coatings, R. MIRABAL, S. RODIL, P. SILVA-BERMEDEZ, S. MUHL, G. RAMIREZ, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, J. OLIVEIRA, A. CAVALEIRO, Faculdade Ciências E Tecnologia Da Universidade De Coimbra, Portugal

EP15

A Laboratory-scale Pin-sliding Instrument for Triboluminescence Measurement, S. LEELACHAO, S. MURAIISHI, Tokyo Institute of Technology, Japan

EP16

An Overview of Interfacial Fracture Energy Predictions for Stacked Thin Films Using Four-Point Bending Framework, C.C. LEE, Y.J. LAI, Chung Yuan Christian University, Taiwan, Republic of China, C.C. HUANG, National Nano Device Laboratories, Taiwan, Republic of China

EP17

Thermo-mechanical Failure Behavior of Copper TSV Induced by Transient Selective Annealing Technology, C.C. LEE, Y.H. LIN, Chung Yuan Christian University, Taiwan, Republic of China, C.C. HUANG, National Nano Device Laboratories, Taiwan, Republic of China

EP18

Global Elastic Anisotropy of Polycrystalline Metallic Thin Films and Multilayers, D. FAURIE, P. DJEMIA, LSPM-CNRS, Université Paris 13, Sorbonne Paris-Cité, France, E. LE BOURHIS, P.O. RENAULT, Institut P² - Université de Poitiers, France, O. CASTELNAU, PIMM, ENSAM Paris, France, R. BRENNER, UMPC, Paris, France, P.O. GOUDEAU, Institut P² - Université de Poitiers, France

EP19

On the Meaning and Requirements of the Concept of an Effective Indenter, M. FUCHS, Chemnitz University of Technology, Germany

EP21

Friction Characteristics Degradation of Cup Anemometer used for Wind Energy Potential Measurements, M. ZLATANOVIC, School of Electrical Engineering, Serbia, D. ROMANIC, Republic Hydrometeorological Service, Serbia

EP22

Characterization of Zr-Ti-Fe Thin Film Metallic Glasses Containing Different Fe Contents, L.T. CHEN, 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

EP23

Enhanced Wear Resistance and Mechanical Properties of the WC-12%Co HVOF Thermally Sprayed Coatings Doped with MWCNTs, M. RODRIGUEZ, Universidad Central de Venezuela (UCV), Venezuela (Bolivarian Republic of), J. CARO, Fundació CTM Centre Tecnològic, Spain, E. ANGLARET, N. FRÉTY, Université Montpellier II, France, L. GIL, Universidad Nacional Experimental Politécnica (UNEXPO), Vicerrectorado Puerto Ordaz, Venezuela (Bolivarian Republic of)

EP24

Evaluations of the Residual Stress in the Plasma Sprayed Multi-layer Electrodes of the Solid Oxide Fuel Cell, Y.C. YANG, Y.C. WANG, National Taipei University of Technology, Taiwan, Republic of China, C.S. HWANG, C.H. TSAI, Institute of Nuclear Energy Research

EP25

Microstructure and Properties of WC-Co Carbides Coatings Obtained by Different Methods of High Velocity Thermal Spray Process, K. SZYMAŃSKI, G. MOSKAL, H. MYALSKA, Silesian University of Technology, Poland

EP27

Characteristics of Structure and Selected Properties of High Velocity Oxy-fuel Thermal Sprayed WC-Co Type Coatings with the use of Ultra-fine Powders, A. IWANIAK, Silesian University of Technology, Poland, G. WIECLAW, K. ROSNER, Certech Sp. z o.o., Poland

EP28

Deformation and Failure Mechanisms of Magnetron Sputtered Cu/TiN Multilayers, R. RAGHAVAN, D. ESQUÉ-DE LOS OJOS, A. MONTAGNE, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland, E. ALMANDOZ, G. FUENTES, AIN-Centre of Advanced Surface Engineering, Spain, J. MICHLER, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland

Thursday Afternoon Poster Sessions

New Horizons in Coatings and Thin Films

Room: Grand Hall - Session FP

Syposium F Poster Session

Moderators: A.P. Ehiassarian, Sheffield Hallam University, Sweden, U. Helmersson, Linköping University, Sweden, IFM, Plasma and Coatings Physics, Sweden, S. Kodambaka, University of California, Los Angeles, US

5:00 pm

FP1

Mechanical Properties of Patterned Oxide Structures on Compliant Substrates for Flexible Optoelectronics, K. SIERRAS, West Virginia University, T. BEJITUAL, N. MORRIS, D. CAIRNS, West Virginia University, US

FP2

Influence of H-radical Irradiation on the Properties of a Ge/SiC Nanodot/SiC Stacked Structure, K. SATOU, Y. ANEZAKI, Nagaoka University of Technology, Japan, M. SUEMITSU, Tohoku University, Japan, H. NAKAZAWA, Hirosaki University, Japan, Y. NARITA, Yamagata University, Japan, A. KATO, T. KATO, Nagaoka University of Technology, Japan, K. YASUI, Nagaoka University of Technology, Japan

FP3

Shape Controllability and Photoluminescence Properties of ZnO Nanorods Grown by Chemical Bath Deposition, T. TERASAKO, T. MURAKAMI, Graduate School of Science and Engineering, Ehime University, Japan, M. YAGI, Kagawa National College of Technology, Japan, S. SHIRAKATA, Graduate School of Science and Engineering, Ehime University, Japan

FP4

Optical Properties of La_2O_3 Thin Films Deposited by RF Magnetron Sputtering, S.B. BRACHETTI-SIBAJA, M.A. DOMINGUEZ-CRESPO, A.M. TORRES-HUERTA, Instituto Politécnico Nacional, Mexico, S. RODIL, Universidad Nacional Autónoma de México, Mexico

FP5

ZnO Nanostructures as Efficient Antireflection Layers in High Efficiency Non-selenized $\text{Cu}(\text{In,Ga})\text{Se}_2$ Solar Cells, B.T. JHENG, National Tsing Hua University, Taiwan, Republic of China, P.T. LIU, National Chiao Tung University, Taiwan, Republic of China, Y.P. CHANG, Nan Kai University of Technology Nantou, Taiwan, M.C. WU, National Tsing Hua University, Taiwan, Republic of China

FP7

Phase Stability of Bi_2O_3 Thin Films prepared by Reactive Magnetron Sputtering, O. DEPABLOS-RIVERA, P. SILVA-BERMEDEZ, S. RODIL, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico, E. CAMPS, Instituto Nacional de Investigaciones Nucleares de Mexico

FP8

Photocatalytic Activity of Bismuth Oxide Thin Films, J.C. MEDINA, S. RODIL, M. BIZARRO, P. SILVA-BERMEDEZ, Universidad Nacional Autónoma de México - Instituto de Investigaciones en Materiales, Mexico

FP9

Synthesis and Characterization of Copper Nanoparticles by Solution Plasma Processing, S.M. KIM, S.C. KIM, S.H. JIN, Korea Aerospace University, Republic of Korea, G.J. YOON, S.W. NAM, J.W. KIM, University of InCheon, Republic of Korea, S.Y. LEE, Korea Aerospace University, Republic of Korea

FP10

A Study of Microstructure and Electrical Properties of Strontium Doped Ceria Thin Films Deposited by High Power Impulse Magnetron Sputtering, C.T. CHANG, 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

FP12

Effect of Substrate Bias and Hydrogen Addition on the Residual Stress of Hexagonal Boron Nitride Film Prepared by Sputtering of B_4C Target with Ar/N_2 Reactive Gas, J.K. PARK, J.H. LEE, W.-S. LEE, Y.J. BAIK, Korea Institute of Science and Technology, Republic of Korea

FP13

In-situ Biaxial Loading During X-Ray Diffraction and Digital Image Correlation Measurements: Application to Metallic Thin Films Supported by Polyimide Substrates, P.O. RENAULT, E. LE BOURHIS, University of Poitiers, France, D. FAURIE, University of Paris 13, France, G. GEANDIER, University of Lorraine, France, P.O. GOUDEAU, University of Poitiers, France, D. THIAUDIÈRE, Synchrotron SOLEIL, France

FP14

Antimicrobial Brass Coatings Prepared on Poly(ethylene terephthalate) Textile by High Power Impulse Magnetron Sputtering, Y.H. CHEN, G.W. CHEN, J.L. HE, Feng Chia University, Taiwan, Republic of China

FP16

Influences of Various Feedstocks on Characteristics of the Plasma Sprayed NiO/YSZ Anode in Solid Oxide Fuel Cell, Y.C. YANG, H.C. TSENG, C.T. CHENG, National Taipei University of Technology, Taiwan, Republic of China

FP17

Effect of Mo Content on Structure and Corrosion Resistance of Arc Ion Plated Ti-Mo-N Films on 316L Stainless Steel as Bipolar Plates for Polymer Exchange Membrane Fuel Cells, M. ZHANG, Liaoning Normal University, China, K. KWANG HO, Pusan National University, Republic of Korea, S. ZHIGANG, Dalian Institute of Chemical Physics, P. YUNLI, H. XIAOGANG, H. YE, Liaoning Normal University, China

FP18

The Smoke Density Evaluation of Acrylic Emulsion and Intumescent, Z. LI, H. WANG, W. ZHAO, W. LU, J. ZHAO, Marine Chemical Research Institute, State Key Lab of Marine Coatings, China

FP19

Effects of Duty Cycle and Pulse Frequency on the Fabrication of AlCrN Thin Films Deposited by High Power Impulse Magnetron Sputtering, Y. C. HSIAO, 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

FP20

Enhancing the Thermal Stability and Oxidation Resistance of the Cr Zr N Films by Adding Oxygen, D.J. KIM, J.H. LA, S.M. KIM, Y.S. HONG, S.Y. LEE, Korea Aerospace University, Republic of Korea

FP21

Novel Synthesis of Conductive Nano-crystalline Carbon Film by Advanced Magnetron Sputtering, JEONG. HAN, SUNGI. KIM, J.D. NAM, Sungkyunkwan University, South Korea

FP22

Reactive Sputtering Al_2O_3 and Cr_2O_3 Coatings using Arc Free High Power Pulsed Magnetron Sputtering, J. LIN, W. SPROUL, B. WANG, Y. OU, Colorado School of Mines, US

Thursday Afternoon Poster Sessions

Applications, Manufacturing, and Equipment

Room: Grand Hall - Session GP

Symposium G Poster Session

Moderators: D. Pappas, EP Technologies, LLC, US, K. Yamamoto, Kobe Steel Ltd., Japan

5:00 pm

GP2

Preparation of Phosphor-doped TiO₂ Particle/Passivating Layer and their Applications in Dye-sensitized Solar Cells, T.S. EOM, K.H. KIM, C.W. BARK, H.W. CHOI, Gachon University, Republic of Korea

GP3

Dual Frequency ICP Discharge: Effect of Pressure and Gas Ratio on EEDF and Discharge Parameters, A. MISHRA, T.H. KIM, K.N. KIM, G.Y. YEOM, Sungkyunkwan University, Republic of Korea

GP4

Failure Behavior of Thick Single and Multilayered TiSiCN Coatings under Impact-sliding Forces, J.F. SU, X. NIE, H. HU, University of Windsor, Canada, R.H. WEI, Southwest Research Institute, US

GP5

Evolution of Reliability on Electroplated and Sputtered Ni-Zn films for Under Bump Metallization with Sn-3.0Ag-0.5Cu Solder Attached During Liquid Reactions, H.M. LIN, J.G. DUH, National Tsing Hua University, Taiwan, Republic of China

GP6

Improvement of Air Plasma Spraying Parameters for the Fabrication of Thermal Barrier Coatings, S. LISCANO, L. GIL, M. ROMERO, UNEXPO, Venezuela (Bolivarian Republic of)

GP7

Surface Recrystallization of Tungsten Carbide by MPCVD due to Controlled Oxidation and Deoxidation in an Equilibrium Process, M. MEE, S. MEIER, Fraunhofer IWM, Germany

GP8

Understanding of Wear Mechanisms of Coated Solid Carbide Endmills During Machining of Ti-Al6-V4, S. STEIN, R. RACHBAUER, M. ARNDT, OC Oerlikon Balzers AG, Liechtenstein

Topical Symposia

Room: Grand Hall - Session TSP

Syposium TS Poster Session

Moderator: C. Muratore, University of Dayton, US

5:00 pm

TSP1

Fine Micro- and Nano-Imprinting onto DLC Coating via Controlled Oxygen Plasma Etching, T.A. ZHO, Shibaura Institute of Technology, Japan, K.M. MIZUSHIMA, Shibaura Institute of Technology, Japan, T.F. FUKUDA, Mitsue Mold Engineering, Co. Ltd.

TSP2

Comparison of Flow Curves of Thin Films Determined by Different Finite Element Models and Nanoindenter Geometries, K. BOBZIN, N. BAGCIVAN, R.H. BRUGNARA, J. PERNE, Surface Engineering Institute - RWTH Aachen University, Germany

TSP3

Micro-chemical and -morphological Features of Heat Treated Plasma Sprayed Zirconia-based Thermal Barrier Coatings, B. CORTESE, D. CASCHERA, T. DE CARO, G.M. INGO, CNR, Italy

TSP6

Deposition, Structural and Optoelectronic Properties of Bi₂O₃ Thin Films Deposited by Magnetron Sputtering, C.L. GOMEZ, Universidad Nacional Autonoma de Mexico, Mexico, S. RODIL, P. SILVA-BERMEDEZ, Universidad Nacional Autónoma de México, Mexico, M. LEJEUNE, S. CHARVET, A. ZEINERT, Universite de Picardie Jules Verne, France, E. CAMPS, Instituto Nacional de Investigaciones Nucleares de Mexico

TSP8

Relationship Between the Microstructure and Thermoelectric Properties of n-type Bi-Se-Te by Using RF Sputtering, T.S. CHEN, C.C. SHIH, H.D. FU, M.S. LEU, Industrial Technology Research Institute, Taiwan

TSP9

Surfactant-assisted Dispersion of Polyimide/multi-walled Carbon Nanotube Nanocomposites Films with Ultrahigh Electrical Conductivity, H.P. YU, National Chin-Yi University of Technology, Taiwan, Republic of China, Y.C. HUANG, National Chiao Tung University, Taiwan, Republic of China, I.H. TSENG, TSAI, National Chin-Yi University of Technology, Taiwan, Republic of China

TSP10

Poly(amide-imide) / Graphene Oxide Nanocomposite Films for Anticorrosion Application, C.W. CHANG, I.H. TSENG, M.-H. TSAI, National Chin-Yi University of Technology, Taiwan, Republic of China, J.M. YEH, Chung-Yuan Christian University, Taiwan, Republic of China

TSP11

Aberration-corrected HRSTEM Characterization of Nanolaminate Copper Diffusion Barriers Grown by PEALD, C.N. HSIAO, B.H. LIOU, National Applied Research Laboratories, G.S. CHEN, Feng Chia University, Taiwan, Republic of China, Y.J. CHENG, National Chi Nan University, Y.S. Y. S. LAI, National Applied Research Laboratories

TSP12

Kinetics of Spinodal Decomposition in Au-Ni Nanolaminates near Room Temperature, A. JANKOWSKI, Texas Tech University, US

TSP13

Synthesis of CdS Thin Films with Hexagonal Orientation Through an Ammonia-free System, K.Y. CHEN, S.C. HSIAO, B.J. YANG, L.H. CHOU, National Tsing Hua University, Taiwan, Republic of China

TSP14

Electrical Characteristics and Stability of Metal Electrodes for Pyrite Ultra-thin Film Solar Cells, B.K. CHEN, S.C. HSIAO, L.H. CHOU, National Tsing Hua University, Taiwan, Republic of China

TSP15

Nanostructure Formation of Al₂O₃ Layer Carried Out in a Three-Component Electrolyte, M. KUBICA, University of Silesia, Poland, M. BARA, W. SKONECZNY, University of Silesia, Poland

TSP16

Performance Characterisation of Metallic Substrates Coated by HVOF WC-Co, A. VENTER, Necsa Limited; DST/NRF Centre of Excellence in Strong Materials, South Africa, P. OLADIJO, DST/NRF Centre of Excellence in Strong Materials, South Africa; University of the Witwatersrand, South Africa, V. LUZIN, ANSTO (Australian Nuclear Science & Technology Organisation), Australia, L. CORNISH, N. SACKS, DST/NRF Centre of Excellence in Strong Materials, South Africa; University of the Witwatersrand, South Africa

Thursday Afternoon Poster Sessions

TSP17

Micromechanical Characterisation of a-C:H Coating Systems with Si-based Adhesion Layers, C. SCHMID, C. SCHUNK, M. KROTTENTHALER, V. MAIER, M. GÖKEN, K. DURST, University of Erlangen-Nürnberg, Germany

Friday Morning, May 3, 2013

<p>Tribology & Mechanical Behavior of Coatings and Engineered Surfaces Room: Golden West - Session E3-2+G Tribology of Coatings for Automotive and Aerospace Applications Moderators: S. Dixit, Plasma Technology Inc., A. Gies, OC Oerlikon Balzers AG, Liechtenstein, G.L. Doll, University of Akron, US</p>		<p>New Horizons in Coatings and Thin Films Room: Sunrise - Session F6-1 Coatings for Fuel Cells & Batteries Moderators: G.V. Dadheech, General Motors Research and Development Center, US, L. Lei, Shanghai Jiaotong University, China</p>		
8:00 am	<p>E3-2+G-1 Tribological and Mechanical Analysis of the Interest of DLC in Cold Rolling of High Carbon Steel Strips, C. CHOUAD-OULD, HEF, CEMEF, France, X. BADICHE, HEF, France, P. MONTMITONNET, CEMEF, France, Y. GACHON, HEF, France</p>	F6-1-1 Invited	<p>Prototyping Solid-Oxide Fuel Cells with Pulsed Laser Deposition, S. MAO, Lawrence Berkeley National Laboratory, US</p>	
8:20 am	<p>E3-2+G-2 Invited Formation and Characterization of Reconstructive Coatings, H. LIANG, Texas A&M University, US</p>	Invited talk continued.		
8:40 am	Invited talk continued.		<p>F6-1-3 High Performance Nano-Coatings for Ferritic Stainless Steel Strips used as Solid Oxide Fuel Cell Interconnects, J.G. GROLIG, J. FROITZHEIM, L.G. JOHANSSON, J.E. SVENSSON, Chalmers University of Technology, Sweden</p>	
9:00 am	<p>E3-2+G-4 Plasma Electrolytic Oxidation for Surface Treatment of Engine Cylinder Bores, H. EILIAT, X. NIE, University of Windsor, Canada</p>	F6-1-4	<p>Strontium Diffusion in Magnetron Sputtered Gadolinia-doped Ceria Thin Film Barrier Coatings for Solid Oxide Fuel Cells, S. SONDERBY, P. LUNCA POPA, J. LU, Linköping University, Sweden, BH. CHRISTENSEN, KP. ALMTOFT, L. PLETH NIELSEN, Danish Technological Institute, Denmark, P. EKLUND, Linköping University, Sweden</p>	
9:20 am	<p>E3-2+G-5 Invited Understanding Wear of Diamond-like Carbon Coatings for use in High-pressure Diesel Injection Engines, U. MAY, M. DJOUFACK, Robert Bosch GmbH, Diesel Systems, Germany</p>	F6-1-5	<p>High Performance Duplex Coatings for PEMFC Metallic Bipolar Plates by CFUBMSIP and HIPIMS Technology, H. SUN, K. COOKE, P. HAMILTON, Teer Coatings Limited, Miba Coating Group, UK, P. HOVSEPIAN, A.P. EHIASARIAN, A. SUGUMARAN, Sheffield Hallam University, UK</p>	
9:40 am	Invited talk continued.		<p>F6-1-6 Industrial, Low Cost Ceramic MaxPhase™ Protective Coatings for Stainless Steel Bipolar Plates, H. LJUNGCRANTZ, K. NYGREN, M. SAMUELSSON, Impact Coatings, Sweden</p>	
10:00 am	<p>E3-2+G-7 Characterization and Tribological Investigations of Arc Evaporated Mo-based Coatings, J. BECKER, Oerlikon Balzers Coating Germany GmbH, Germany, M. DÖBELI, Ion Beam Physics ETH Zürich, Switzerland, A. GIES, T. HUBEN, J. RAMM, H. RUDIGIER, F. SEIBERT, B. WIDRIG, OC Oerlikon Balzers AG, Liechtenstein</p>	F6-1-7	<p>Pre-coated Steel Stripes for PEMFC and SOFC Interconnects, G.V. DADHEECH, General Motors Research and Development Center, US, H. HOLMBERG, Sandvik Coromant R&D Materials and Processes, Sweden, M. SCHUISKY, Sandvik Machining Solutions, Sweden</p>	
10:20 am	<p>E3-2+G-8 Development of New Oxidation Resistant Coating for Dry Hobbing, M. ABE, K. YAMAMOTO, Y. YAMAMOTO, Kobe Steel Ltd., Japan</p>	F6-1-8	<p>R.F. Magnetron Sputtered Li-Mn-O Thin Films, J. FISCHER, T. BERGFELDT, Karlsruhe Institute of Technology, Germany, K. CHANG, RWTH Aachen University, Germany, H. LEISTE, T. SCHERER, S. ULRICH, H.-M. BRUNS, Karlsruhe Institute of Technology, Germany, C. ZIEBERT, Karlsruhe Institute of Technology, Germany, H.J. SEIFERT, Karlsruhe Institute of Technology, Germany</p>	
10:40 am	<p>E3-2+G-9 Third Body Behavior During Dry Sliding of Al-Al₂O₃ Composite Coatings: <i>in situ</i> Tribometry and Microanalysis, J.M. SHOCKLEY, McGill University, Canada, S. DESCARTES, Université de Lyon - CNRS, INSA-Lyon, France, E. IRISSOU, J.-G. LEGOUX, National Research Council Canada, R. CHROMIK, McGill University, Canada</p>	F6-1-9	<p>The Effect of Reactive Element Coatings on the Oxidation Properties of Ferritic Steels for Solid Oxide Fuel Cell Interconnect Applications, R. SACHITANAND, J. FROITZHEIM, J.E. SVENSSON, L.G. JOHANSSON, Chalmers University of Technology, Sweden</p>	
11:00 am				
11:20 am				
11:40 am	<p>2014 ICMCTF April 28 – May 2, 2014</p>		<p>2014 Abstract Submission Deadline October 1, 2013</p>	
12:00 pm	<p>Thank You & See You Next Year Party Trellis Courtyard near Pool 12:30 – 1:30 pm</p>		<p>Awards Nominations Deadline October 1, 2013</p>	

Friday Morning, May 3, 2013

<p>Applications, Manufacturing, and Equipment Room: California - Session G5-2</p> <p>Coatings, Pre-Treatment, Post-Treatment, and Duplex Technology Moderator: T. Takahashi, KCS Europe GmbH, Germany</p>		<p>Topical Symposia Room: Royal Palm 4-6 - Session TS1-1</p> <p>Surface Engineering for Thermal Transport, Storage and Harvesting Moderators: B. Cola, Georgia Technical Institute, US, C. Muratore, University of Dayton, US</p>	
8:00 am	<p>G5-2-1 Invited Surface Modification for Metal using a Newly Developed Atmospheric Controlled Induction-heating Fine Particle Peening (AIH-FPP) System, J.K. KOMOTORI, Keio University, Japan</p>	TS1-1-1	<p>Direct Thermal Conductivity Measurement of Nanostructured Coatings Using a Modified Photoacoustic Technique, T. BOUGHER, Georgia Institute of Technology, US, B. COLA, Georgia Technical Institute, US</p>
8:20 am	Invited talk continued.	TS1-1-2	<p>Thermo-Mechanical Modeling of Carbon Nanotube Arrays for Thermal Interface Applications, S. SADASIVAM, S. HODSON, T. FISHER, Purdue University, US</p>
8:40 am	<p>G5-2-3 Number of Passes and Thickness Effect on Mechanical Characteristics of Cold Spray Coating, A. MORIDI, S.M. HASSANI-GANGARAJ, M. GUAGLIANO, Politecnico di Milano, Italy, S. VEZZÙ, Associazione Civen, Italy</p>	TS1-1-3 Invited	<p>Heat Transfer in Encased Graphene, C. DAMES, University of California, Berkeley, US</p>
9:00 am	<p>G5-2-4 Effects of Intermediate Surface Treatments on Corrosion Resistance of Cathodic Arc PVD Hard Coatings, S. ABUSULIK, K. INOUE, Hitachi Tool Engineering, Ltd., Japan</p>	Invited talk continued.	
9:20 am	<p>G5-2-5 Microstructure and Dielectric Nature of Plasma Sprayed Ultra Purity Aluminum Oxide Coatings, S. DIXIT, Plasma Technology Inc., US</p>	TS1-1-5	<p>Limited Thermal Conductance of Metal-carbon Interfaces, J. GENGLER, Spectral Energies, LLC/Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, USA, S. SHENOGIN, UES/Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, USA, J. BULTMAN, UDR/Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, USA, A. ROY, C. MURATORE, A. VOEVODIN, Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, US</p>
9:40 am	<p>G5-2-6 The Fracture Toughness of Boride Coating Improved by a Diffusion Annealing Process, I. CAMPOS-SILVA, M. FLORES-JIMÉNEZ, G. RODRIGUEZ-CASTRO, Instituto Politécnico Nacional, Mexico, E. HERNANDEZ-SANCHEZ, Universidad Autónoma Metropolitana-Azc, Mexico, J. MARTÍNEZ-TRINIDAD, L. JIMÉNEZ-TINOCO, Instituto Politécnico Nacional, Mexico</p>	TS1-1-6 Invited	<p>Thermoreflectance Microscopy of Thin Films, A. SCHMIDT, Boston University, US</p>
10:00 am		Invited talk continued.	
10:20 am		TS1-1-8	<p>Hydrogen Absorption and Desorption Properties of Pd/Mg/Pd Tri-layers Prepared by Magnetron Sputtering, Y.K. GAUTAM, R. CHANDRA, Indian Institute of Technology Roorkee, India, M. KUMAR, Indian Institute of Technology Delhi, India</p>
10:40 am		TS1-1-9 Invited	<p>Interface Engineering for Optimized Thermal Transport in Copper/Diamond System, V. SINHA, UES/Air Force Research Laboratory, Materials and Manufacturing Directorate, US, J. GENGLER, Spectral Energies, LLC/Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, US, C. MURATORE, Air Force Research Laboratory, Materials and Manufacturing Directorate, Nanoelectronic Materials Branch, US, J. SPOWART, Air Force Research Laboratory, Materials and Manufacturing Directorate, US</p>
11:00 am		Invited talk continued.	
11:20 am		TS1-1-11	<p>Synthesizing MnO₂/Graphene Composites by a Hydrothermal Method for use to Enhance the Performance of Supercapacitor, P.R. SO, J.M. TING, K.S. RAO, National Cheng Kung University, Taiwan</p>
11:40 am	<p>2014 ICMCTF April 28 – May 2, 2014</p>	<p>2014 Abstract Submission Deadline October 1, 2013</p>	
12:00 pm	<p>Thank You & See You Next Year Party Trellis Courtyard near Pool 12:30 – 1:30 pm</p>	<p>Awards Nominations Deadline October 1, 2013</p>	

Friday Morning, May 3, 2013

<p>Topical Symposia Room: Royal Palm 1-3 - Session TS2-2</p> <p>Advanced Characterization of Coatings and Thin Films Moderators: S. Korte, University of Erlangen-Nürnberg, Germany, M. Sebastiani, University of Rome "Roma Tre", Italy, F. Giuliani, Imperial College London - South Kensington Campus, UK</p>		
8:00 am	<p>TS2-2-1 Correlation Between the Rockwell Indentation Test and the Progressive Load Scratch Test for Assessment of Coating Adhesion, N. RANDALL, CSM Instruments, Switzerland, R. BETHKE, Fraunhofer IST, Germany, G. FAVARO, CSM Instruments, Switzerland</p>	
8:20 am	<p>TS2-2-2 How to Make Tribological Tests Physical, N. SCHWARZER, Saxonian Institute of Surface Mechanics, Germany</p>	
8:40 am	<p>TS2-2-3 Depth Profiling >40-µm Anodized Coatings Using Glow Discharge Optical Emission Spectroscopy, F. LI, J. LAIDUC, W. YORK, W. RIVELLO, Air Liquide Electronics-Balazs NanoAnalysis, US</p>	
9:00 am	<p>TS2-2-4 Mechanical Properties of Nanocrystalline Coatings Revealed by Bending Tests on Fabrication-Unaffected Micro-Cantilevers, A. RIEDL, Materials Center Leoben Forschung GmbH, Austria, R. DANIEL, Montanuniversität Leoben, Austria, M. STEFANELLI, Materials Center Leoben Forschung GmbH, Austria, T. SCHÖBERL, O. KOLEDNIK, C. MITTERER, J. KECKES, Montanuniversität Leoben, Austria</p>	
9:20 am	<p>TS2-2-5 Cyclic and Monotonic Mechanical Properties of Micro Samples Acquired with Custom Built Setups Working up to 1000 Hz – CuAl10Ni5Fe4, 3Y-PZT, T. KENNERKNECHT, Fraunhofer Institute for Mechanics of Materials, IWM, Germany, S. PELLETIER, T. STRAUB, Karlsruhe Institute of Technology, Germany, C. EBERL, Fraunhofer Institute for Mechanics of Materials, IWM, Germany</p>	
9:40 am	<p>TS2-2-6 High Cycle Fatigue of Al and Cu Thin Films by a Novel High-Throughput Method, S. BURGER, C. EBERL, Karlsruhe Institute of Technology, Germany, A. SIEGEL, A. LUDWIG, Ruhr University of Bochum, Germany, O. KRAFT, Karlsruhe Institute of Technology, Germany</p>	
10:00 am	<p>TS2-2-7 Structural, Morphological and Mechanical Characterization of Mo Sputtered Coatings, S.M. DEAMBROSIS, E. MIORIN, M. FABRIZIO, CNR, Italy, M. SEBASTIANI, E. BEMPORAD, University "Roma Tre" Rome, Italy</p>	
10:20 am	<p>TS2-2-8 Effect of AlN Layer on the Growth and on the Structure of Reactive Sputtered TiAlN Thin Films and Multilayers, A. RIZZO, D. VALERINI, L. MIRENGHI, R. TERZI, L. TAPFER, ENEA, Italy, R. GIANNOCARO, U. GALIETTI, Politecnico di Bari, DIMEG, Italy</p>	
10:40 am	<p>TS2-2-9 Structural Characterization of Amorphous GdTM₂ (TM=Fe, Ni and Co) from First-principles, R. LIZARRAGA, E. HOLMSTROM, Universidad Austral de Chile, Chile</p>	
11:00 am	<p>TS2-2-10 Influence of Stoichiometry and Architecture on Mechanical Properties of Cathodic Arc Deposited Ti-Al-Cr-N Coatings, S. PEMMASANI, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), India, R. GUNDAKARAM, International Advanced Research Centre for Powder Metallurgy and New Materials(ARCI), India, K. RAJULAPATI, University of Hyderabad, India, R. MANTRIPRAGADA, S. KOPPOJU, K. VALLETI, S. JOSHI, International Advanced Research Centre for Powder Metallurgy and New Materials(ARCI), India</p>	
11:20 am	<p>TS2-2-11 Fabrication and Characterization of Polymethylmethacrylate (PMMA) Thin Film by Plasma Polymerization, C. LI, National Central University, Taiwan, Republic of China, J.H. HSIEH, Ming Chi University of Technology, Taiwan, Republic of China, Y.H. LIN, National Central University, Taiwan</p>	
11:40 am	<p>2014 ICMCTF April 28 – May 2, 2014</p>	<p>2014 Abstract Submission Deadline October 1, 2013</p>
12:00 pm	<p>Thank You & See You Next Year Party Trellis Courtyard near Pool 12:30 – 1:30 pm</p>	<p>Awards Nominations Deadline October 1, 2013</p>

Authors Index

Bold page numbers indicate the presenter

— A —

Abad, M.: BP65, 34
Abadias, G.: B4-2-8, 20; B5-2-3, **8**; BP37, **33**;
BP60, 34
Abe, M.: E3-2+G-8, **42**
Aboufadi, H.: TS3-1-4, 31
Abrikosov, I.: B5-1-4, 4; B7-1-9, **20**
Abusuilik, S.: F2-2-9, 25; G5-2-4, **43**
Adamek, P.: F2-1-9, 22
Adams, D.: E2-3-1, 21; F5-1-5, 30; TS3-1-3, **31**
Adamski, D.: G4-2+E-3, 9
Agarwal, S.: F1-1-9, 17
Ageh, V.: E1-2-6, **17**
Ageorges, H.: EP10, 38
Agihero, A.: A1-2-5, **7**
Aguilar-Frutis, M.: C2-1-9, 12
Aguzzoli, C.: BP3, **32**; G4-1+E-3, 6
Ahlborg, N.: AP10, 32
Ahmad, I.: BP56, 34
Ahmed, F.: E2-1-6, 5
Ahuja, R.: B7-2-2, 23
Aijaz, A.: B3-1-10, **19**
Alam, S.: B4-3-8, 23
Alexander, D.: F4-1-4, 27
Alfonso, J.: C1-1-4, **4**; CP35, **36**
Alkelae, F.: B4-3-3, **23**
Alling, B.: B5-1-4, 4; B7-1-7, 20; B7-1-9, 20
Allred, D.: C3-1-4, 16
Alm, O.: B2-1-5, 26
Almaguer-Flores, A.: D1-1-5, 13; D1-1-8, **13**; D1-1-9, 13; DP7, 37
Almandoz, E.: EP28, 38
Almtoft, KP.: F6-1-4, 42
Amanov, A.: G5-1-7, **30**
Amorim, F.L.: E1-2-9, 17
Anders, A.: B6-2-7, 16; C4-1-6, 21; F2-1-5, **22**
Andersson, J.: G4-1+E-4, 6
Andersson, M.: B1-3-5, 11
Andrade, E.: D2-2-2, 8; DP13, 37
Andrieux, M.: B2-2-1, 29
Anezaki, Y.: FP2, 39
Anglaret, E.: EP23, 38
Ansart, F.: A2-2-6, 15; E1-2-3, 17
Aouadi, S.M.: B6-1-1, 12; E1-2-5, 17
Appolinario, M.: BP21, 33
Arab Pour Yazdi, M.: BP36, 33; BP47, 34; BP70, **34**; BP75, 35; CP14, 35
Araiza, J.: C2-1-9, 12
Aras, MS.: G1-1-7, 14
Århammar, C.: B7-2-2, **23**
Arndt, M.: B1-2-6, 7; B7-2-1, 23; BP15, 33; BP8, 32; F2-2-3, 25; GP8, 40
Arslan, B.: G1-1-7, 14
Arzate-Vazquez, I.: E2-3-6, 21
Attard, B.: E1-2-8, 17
Audronis, M.: B5-1-6, 4; BP78, 35; BP81, 35; BP82, 35
Awakowicz, P.: B1-2-4, 7
Azzi, M.: F3-1-9, 25

— B —

Badiche, X.: E3-2+G-1, 42
Bae, J.: B4-3-1, 23
Bacgivan, N.: A2-1-9, 11; BP19, **33**; E2-3-3, 21; F2-2-4, 25; F4-1-3, **27**; G4-2+E-9, 9; TSP2, 40
Bahr, D.: E2-2-6, 13; E2-3-1, 21; F5-1-5, 30
Baik, Y.J.: FP12, 39
Baimpas, N.: F5-1-2, **30**
Baker, S.: E2-1-3, **5**
Bandeira, A.: G4-1+E-3, 6
Bandorf, R.: B1-1-3, 3; F2-1-11, 22
Banerjee, R.: E1-3-4, 24
Banfield, S.: EP6, 38
Bara, M.: TSP15, 40

Baran, O.: B4-2-6, 20; B5-1-5, 4; BP18, 33; BP24, 33; BP68, **34**
Baránková, H.: G3-1-5, **18**
Bardos, L.: G3-1-5, 18
Bark, C.W.: GP2, 40
Barthel, E.: E2-4-4, 26
Bartosik, M.: B7-2-1, 23; TS2-1-6, 28; TS2-1-7, **28**
Basirun, W.J.: TS3-1-10, 31
Batsiolas, M.: G4-1+E-4, 6
Battaile, C.C.: E2-1-2, **5**
Baumvol, I.: BP3, 32; G4-1+E-3, 6
Bayindir, F.: EP8, 38
Beake, B.: B5-1-3, 4; E1-1-7, 9; E2-3-9, **21**
Beck, U.: F4-1-9, **27**
Becker, J.: E1-1-6, 9; E3-2+G-7, 42
Bégué, G.: E2-4-3, **26**
Bejital, T.: F5-1-6, **30**; FP1, **39**
Belin, M.: E1-1-5, 9
Bell, D.: B1-3-6, **11**
Bell, W.: C3-1-4, **16**
Bellaton, B.: E2-3-4, 21
Belliard, L.: B4-2-8, 20; BP60, 34
Bello, I.: F3-1-9, 25
Belous, V.: B1-3-9, 11
Bemporad, E.: TS2-1-11, 28; TS2-1-9, 28; TS2-2-7, 44
Berger, F.: BP70, 34
Bergfeldt, T.: F6-1-8, 42
Bernard, M.: E3-1+G-4, 29
Bernoulli, D.: D1-1-3, 13; E2-3-2, **21**
Besser, J.: TS3-1-1, 31
Bethke, R.: TS2-2-1, 44
Bettencourt, K.: B1-2-3, 7; F3-1-5, 25
Bhakhri, V.: E2-2-8, 13; E2-4-11, 26
Bibinov, N.: B1-2-4, 7
Bienholz, S.: B1-2-4, **7**
Bierwisch, N.: E2-4-7, **26**; EP7, **38**
Bilhe, P.: E2-4-3, 26
Billard, A.: B3-1-4, 19; B4-3-6, 23; BP36, 33; BP45, **34**; BP47, 34; BP70, 34; BP75, 35; C5-1-3, 24; CP14, 35; CP18, 36
Birch, J.: E2-2-4, 13
Bizarro, M.: FP8, 39
Blanc, C.: G1-1-9, 14
Blanquet, E.: B2-1-6, 26; BP42, 33
Bleza, E.: C2-1-6, **12**; CP24, **36**
Blomqvist, A.: B7-2-2, 23
Bo, T.C.: BP4, **32**; BP6, 32
Bobzin, K.: A2-1-9, 11; BP19, 33; E2-3-3, 21; F2-2-4, 25; F4-1-3, 27; G4-2+E-9, 9; TSP2, **40**
Boichot, R.: B2-1-6, **26**; BP42, **33**
Boisselier, G.: B2-1-7, 26
Bolvardi, H.: F2-2-3, 25
Bolz, S.: F2-2-7, 25
Boman, B.E.: B2-1-5, 26
Bonino, J.P.: A2-2-6, 15; E1-2-3, 17; E3-1+G-3, 29
Borode, J.O.: A2-3-9, 19
Böttger, M.: BP59, **34**; F4-1-8, **27**
Bouchkour, Z.: F1-1-7, 17
Bougher, T.: TS1-1-1, **43**
Bourgeois, O.: B3-1-7, 19
Bourquard, F.: B3-1-7, 19; F1-1-2, **17**; TS4-1-10, 10
Boussier, E.: E3-1+G-7, **29**
Bouzakis, E.: B4-2-5, 20; E2-4-11, **26**; G4-1+E-4, **6**
Bouzakis, K.D.: B4-2-5, 20; G4-1+E-4, 6
Boyce, B.L.: E2-1-2, 5
Boyle, T.: F1-1-5, 17
Brachetti-Sibaja, S.B.: FP4, 39
Braeuer, G.: F2-1-11, 22
Braeuer, J.: TS3-1-1, **31**
Brahma, S.: F1-1-8, 17
Braue, W.: A2-2-7, 15
Bräuer, G.: B1-1-3, 3; F2-1-1, 22
Bravo-Bárceñas, D.: G5-1-2, 30

Brenner, R.: EP18, 38
Brenning, N.: F2-1-8, 22
Brinkmann, R.: BP19, 33
Brioso, P.: BP70, 34; C5-1-3, 24; CP14, **35**
Britton, T.B.: E2-3-7, **21**
Brögelmann, T.: A2-1-9, 11; E2-3-3, 21
Broitman, E.: E2-2-4, 13
Brucale, M.: TS2-1-8, 28
Brugnara, R.H.: BP19, 33; F2-2-4, **25**; F4-1-3, 27; G4-2+E-9, 9; TSP2, 40
Bruns, H.-M.: F6-1-8, 42
Buerger, W.: B2-1-3, 26
Bufford, D.: E2-2-2, 13
Bujanda, A.: B2-2-5, 29
Bull, S.: D2-1-1, **5**; E2-2-10, 13
Bultman, J.: TS1-1-5, 43
Burger, S.: TS2-2-6, 44
Burghammer, M.: TS2-1-6, 28; TS2-1-7, 28
Burris, D.: E1-3-2, **24**
Byoungdong, K.: CP13, 35

— C —

Cada, M.: F2-1-9, **22**; F2-2-1, 25
Cahill, D.: F4-1-8, 27
Cai, M.-L.: EP3, **38**
Cairns, D.: F5-1-6, 30; FP1, 39
Callisti, M.: E2-2-1, **13**
Camargo Jr., S.: BP51, **34**; DP16, 37
Campos-Silva, I.: E1-2-7, 17; E2-3-6, 21; G5-1-2, **30**; G5-1-5, 30; G5-2-6, 43
Camps, E.: BP9, 32; FP7, 39; TSP6, 40
Capek, J.: F2-1-7, **22**
Capote, G.: B4-2-12, 20
Caro, J.: EP23, 38
Caron, N.: G1-1-9, 14
Casadei, F.: G5-1-3, 30
Caschera, D.: TS2-1-8, 28; TSP3, 40
Cassar, G.: E1-2-8, 17
Casserly, T.: B4-3-1, **23**
Castelnau, O.: EP18, 38
Castillo, F.: B2-2-7, **29**
Cavaleiro, A.: B4-2-9, 20; E1-1-1, 9; E1-2-7, 17; EP14, 38
Cavallo, F.: TS4-1-4, **10**
Cazares, F.: B2-2-7, 29
Cerstvy, R.: B5-2-5, 8; F4-1-5, 27; TS3-1-5, 31
Cha, Y.H.: CP1, 35
Chaia, N.: AP13, **32**; G1-1-8, **14**
Chan, Y.C.: B1-3-4, **11**; E1-3-1, 24
Chandra, R.: B1-1-6, 3; BP67, 34; C1-1-3, 4; F4-1-10, 27; TS1-1-8, 43
Chandross, M.: F1-1-5, **17**
Chang, C.C.: C2-1-5, **12**
Chang, C.H.: C5-1-1, **24**; CP9, **35**; E2-4-9, **26**
Chang, C.K.: CP15, 35
Chang, C.L.: BP39, 33; BP54, 34
Chang, C.T.: FP10, **39**
Chang, C.W.: TSP10, **40**
Chang, G.W.: CP30, **36**
Chang, K.: F6-1-8, 42
Chang, L.C.: CP15, **35**
Chang, S.H.: D1-1-2, 13; G4-2+E-6, 9
Chang, T.C.: C4-1-7, 21; C5-1-5, 24; CP29, 36; CP30, 36; CP31, 36; CP32, 36; CP7, 35; CP8, 35
Chang, Y.J.: D1-1-2, 13
Chang, Y.P.: FP5, 39
Chang, Y.Y.: B1-3-1, 11; BP2, 32; DP4, 37
Chang, Y.M.: BP6, 32
Chang, Y.Y.: BP1, 32; DP5, **37**
Chang, Z.C.: BP34, 33; CP10, 35
Changgil, S.: CP13, 35
Charvet, S.: TSP6, 40
Chatelon, J.P.: TS4-1-10, 10
Chawla, A.: F4-1-10, 27
Chawla, V.: BP31, 33

Chen, A.: B7-1-1, 20
 Chen, B.K.: TSP14, **40**
 Chen, C.E.: CP32, **36**
 Chen, C.H.: C3-1-9, 16
 Chen, C.N.: CP16, 36
 Chen, D.: A2-1-4, 11
 Chen, G.S.: TSP11, 40
 Chen, G.W.: FP14, 39
 Chen, H.: BP14, **33**; C4-1-1, 21; D1-1-1, **13**
 Chen, H.M.: CP31, **36**
 Chen, H.W.: B1-3-3, 11; B1-3-4, 11; E1-3-1, **24**
 Chen, J.Z.: D1-1-1, 13
 Chen, K.: G4-2+E-4, 9
 Chen, K.C.: F1-1-10, 17
 Chen, K.Y.: TSP13, **40**
 Chen, L.: B5-2-2, 8; B7-1-1, 20; BP79, 35
 Chen, L.C.: C2-1-5, 12
 Chen, L.T.: EP22, **38**
 Chen, M.: CP19, 36
 Chen, M.C.: C4-1-7, 21
 Chen, M.J.: D1-1-2, 13; G4-2+E-6, 9
 Chen, MYC: DP5, 37
 Chen, P.: BP39, 33
 Chen, T.S.: TSP8, **40**
 Chen, W.C.: BP54, **34**
 Chen, Y.: A2-1-7, 11; DP15, **37**; E1-1-9, **9**
 Chen, Y.C.: BP5, 32; C5-1-5, **24**
 Chen, Y.H.: AP1, 32; FP14, **39**
 Chen, Y.I.: AP1, **32**; BP11, 32; BP20, 33
 Chen, Y.J.: C4-1-1, 21
 Chen, YC: DP4, **37**; DP5, 37
 Chen, Y-H.: EP2, **38**
 Chen, Y.M.: E1-2-3, 17
 Cheng, C.T.: FP16, 39
 Cheng, H.-L.: CP20, 36
 Cheng, T.: DP15, 37
 Cheng, T.C.: D2-2-10, **8**
 Cheng, Y.J.: TSP11, 40
 Cheng, YL: BP4, 32; BP6, 32
 Chi, M.H.: DP2, 37
 Chiou, Y.C.: BP16, 33
 Chirita, V.: B7-1-6, 20; B7-2-3, **23**
 Chistyakov, R.: G6-1-3, **27**
 Chiu, S.H.: F1-1-6, 17
 Chiu, Y.J.: C4-1-7, 21
 Cho, G.: CP24, 36
 Cho, H.Y.: G1-1-10, 14
 Cho, T.P.: BP13, **33**; BP25, 33
 Cho, T.S.: G3-1-3, 18
 Cho, Y.K.: CP21, **36**
 Cho, Y.R.: BP28, 33; E3-1+G-9, **29**
 Choe, H.C.: DP17, 37; DP18, 37; DP19, 37; DP20, **37**; DP21, 37
 Choi, S.C.: B2-2-7, 29
 Choi, Y.S.: B2-2-7, 29
 Choi, H.W.: CP37, 36; GP2, **40**
 Chordill, M.J.: B6-1-11, 12
 Chou, C.-C.: DP8, **37**
 Chou, C.M.: DP3, 37
 Chou, L.H.: F1-1-6, 17; TSP13, 40; TSP14, 40
 Choudhary, N.: BP62, **34**
 Choumad-Ould, C.: E1-1-2, **9**; E3-2+G-1, **42**
 Chouquet, C.: B3-1-4, 19
 Christensen, B.H.: F6-1-4, 42
 Chromik, R.: E3-2+G-9, **42**
 Chu, C.W.: BP72, 34
 Chu, H.J.: C3-1-9, **16**
 Chu, H.N.: BP11, **32**
 Chu, H.Y.: BP72, 34
 Chu, J.H.: B1-3-3, **11**
 Chu, J.P.: D1-1-2, 13; E2-2-5, 13; E2-3-10, 21; E2-4-10, 26; E2-4-9, 26; G1-1-2, 14; G4-2+E-6, **9**
 Chudoba, T.: E1-1-6, 9; E1-1-8, 9; E2-4-1, **26**
 Chung, C.J.: DP2, **37**; DP3, 37
 Chung, Y.W.: B6-1-7, **12**
 Cifuentes, H.: BP76, **35**
 Cimenoglu, H.: G5-1-2, 30
 Ciobanu, C.: F1-1-9, **17**
 Ciurea, C.: E2-2-8, 13

Clark, B.: F1-1-5, 17
 Clavero, C.: F2-1-5, 22
 Clegg, W.: B4-1-5, 15; B7-2-4, 23
 Cobet, C.: C3-1-1, **16**
 Cola, B.: TS1-1-1, 43
 Colas, M.: EP10, 38
 Cole, J.: B7-1-1, 20
 Colin, J.: B5-2-3, 8
 Colligon, J.S.: E2-3-9, 21
 Collins, P.: E1-3-4, 24
 Colombier, J.P.: F1-1-2, 17
 Cooke, K.: F6-1-5, 42
 Cooper, J.: BP78, 35
 Corat, E.: B2-1-9, 26; B4-2-12, 20
 Cordill: F5-1-5, 30
 Cornil, J.: B7-2-6, 23
 Cormish, L.: TSP16, 40
 Corona, E.: F5-1-5, 30
 Cortese, B.: TS2-1-8, **28**; TSP3, **40**
 Coudurier, N.: B2-1-6, 26; BP42, 33
 Coulter, K.: B4-2-1, **20**
 Cozza, R.C.: E1-2-10, 17
 Cremer, R.: B4-2-3, 20; BP41, 33; G6-1-5, **27**
 Cruz, N.: BP21, 33
 Cselle, T.: G6-1-7, 27
 Czettl, C.: E1-1-11, 9
 Czigány, Zs.: B3-1-3, 19
 — **D** —
 da Silva, D.: DP16, 37
 Dadheech, G.V.: F6-1-7, 42
 Dahan, L.: BP48, 34; F2-1-6, 22; F2-2-8, 25
 Dambra, C.: A2-1-4, 11
 Dames, C.: TS1-1-3, **43**
 Daniel, R.: B1-2-9, 7; B4-1-3, **15**; B6-2-4, 16; BP43, 33; TS2-1-6, 28; TS2-1-7, 28; TS2-2-4, 44
 Dargad, J.S.: C4-1-2, **21**
 Dave, V.: BP67, **34**; C1-1-3, **4**
 Davies, M.: E1-1-7, **9**; E2-3-9, 21
 De Caro, T.: TS2-1-8, 28; TSP3, 40
 de los Arcos, T.: F2-1-10, 22
 De Souza, R.: A1-2-10, 7; A1-2-9, 7; F2-2-10, 25
 Deambrosis, S.M.: TS2-2-7, **44**
 Dearnley, P.: F3-1-1, **25**; F3-1-2, 25
 Demirci, E.: B4-2-6, 20; B5-1-5, 4; BP18, **33**; BP24, 33; BP68, 34
 Demirci, G.: G1-1-7, **14**
 Depablos-Rivera, O.: FP7, **39**
 Depner, U.: G1-1-6, 14
 Depner-Miller, U.: E2-3-3, 21
 Dereckx, D.: G6-1-9, 27
 Dereeper, E.: C5-1-3, **24**
 Descartes, S.: E3-2+G-9, 42
 Dessarzin, P.: BP71, 34; F4-1-4, 27; G6-1-7, 27
 Detert, D.: C4-1-6, 21
 Diao, D.F.: BP30, 33; E1-1-12, 9; TS4-1-6, **10**
 Dienwiebel, M.: B4-2-11, 20
 Ding, X.Z.: B4-1-5, 15
 Dixit, S.: G5-2-5, **43**
 Djaziri, S.: F5-1-1, 30
 Djemia, P.: B4-2-8, **20**; BP60, **34**; EP18, 38
 Djoufack, M.: E3-2+G-5, 42
 Döbeli, M.: E3-2+G-7, 42
 Doll, G.L.: G4-2+E-4, 9
 Domínguez-Crespo, M.A.: FP4, 39
 Donggi, A.: CP13, 35
 Donnet, C.: B3-1-7, 19; E1-1-2, 9; F1-1-2, 17; TS4-1-10, 10
 Dorfman, R.: A2-1-4, **11**
 dos Santos, R.: BP51, 34
 Doumanidis, C.: TS3-1-9, 31
 Drajewicz, M.: C3-1-3, **16**
 Driscoll, J.: B7-1-1, 20
 Du, Y.: B5-2-2, 8; BP79, 35
 Dubey, P.: BP67, 34
 Dublanche-Tixier, C.: B3-1-1, 19; EP10, 38; F1-1-7, **17**
 Dubon, O.: C4-1-6, 21
 Ducros, C.: B3-1-4, 19

Duh, J.G.: B1-3-3, 11; B1-3-4, 11; E1-3-1, 24; G1-1-5, 14; GP5, 40
 Duhart, J.: E1-3-10, **24**
 Durrant, S.: B2-2-6, **29**; BP21, **33**
 Durst, K.: E2-1-6, 5; E2-3-3, 21; F5-1-7, 30; TS2-1-10, 28; TSP17, 41
 Dwivedi, G.: A2-1-7, 11
 — **E** —
 Eberl, C.: TS2-2-5, 44; TS2-2-6, **44**
 Ebert, M.: B1-1-3, 3
 Edström, D.: B7-1-6, **20**; B7-2-3, 23
 Edström, K.: B1-3-5, 11
 Eerden, M.: G6-1-9, **27**
 Efeoglu, I.: B4-2-6, 20; B5-1-5, **4**; BP18, 33; BP24, **33**; BP68, 34
 Ehiastian, A.P.: F2-2-6, **25**; F6-1-5, 42
 Eiliat, H.: E3-2+G-4, **42**
 Eils, N.K.: A2-2-7, **15**
 Eklund, P.: B1-2-11, 7; B5-2-10, 8; F6-1-4, **42**
 El Sewefi, A.: EP7, 38
 ElAwady, J.: A2-1-10, 11
 El-Awady, J.A.: AP11, 32
 Ellermeier, J.: E2-3-3, 21; G1-1-6, **14**
 Emmerlich, J.: F2-2-3, 25
 Endler, I.: B2-1-1, **26**
 Endrino, J.: B7-2-2, 23
 Endut, Z.: TS3-1-10, **31**
 Eom, T.S.: GP2, 40
 Epaminonda, P.: E2-4-2, **26**
 Erdemir, A.: E1-1-10, 9; E1-1-3, **9**
 Erdoğan, M.: E1-3-9, **24**; EP5, **38**; G1-1-7, 14
 Eriksson, F.: E2-2-4, 13
 Eriksson, O.: E1-2-4, 17
 Erkens, G.: G6-1-8, 27
 Ernst, PE.: E3-1+G-1, **29**
 Eryilmaz, O.: E1-1-10, 9; E1-1-3, 9
 Escobar-Alarcon, L.: BP53, **34**; BP9, 32
 Esqué-de los Ojos, D.: EP28, 38
 Eun, S.W.: DP17, 37; DP21, 37
 Eve, S.: F5-1-2, 30
 Ezirmik, V.: B4-2-6, 20
 — **F** —
 Fabrizio, M.: TS2-2-7, 44
 Faddeeva, S.: BP64, **34**
 Fajfrowski, M.: E2-2-7, **13**
 Falcony, C.: C2-1-9, 12
 Falk, T.: G4-1+E-1, 6
 Falz, M.: G6-1-10, **27**
 Fan, X.: BP30, 33
 Fan, Y.S.: CP11, **35**
 Faou, J.-Y.: E2-4-4, 26
 Faria, G.: B4-2-12, 20
 Farley, C.: TS3-1-8, 31
 Fasuba, O.: BP74, 35
 Faurie, D.: E2-1-1, **5**; EP18, **38**; F5-1-1, 30; FP13, 39
 Favaro, G.: TS2-2-1, 44
 Fernandes, M.: D2-2-1, 8
 Fietzek, H.: A2-1-6, 11
 Figi, R.: DP14, 37
 Figueroa, C.A.: BP3, 32; G4-1+E-3, **6**
 Figueroa, M.: E1-1-1, **9**; E1-2-7, 17
 Figueroa-López, U.: G5-1-2, 30
 Filip, R.: AP5, 32
 Fillon, A.: B5-2-3, 8
 Fischer, J.: F6-1-8, 42
 Fischer, R.: G4-1+E-1, 6
 Fisher, T.: TS1-1-2, 43
 Flores, M.: D2-2-2, 8; DP12, 37; DP13, **37**
 Flores-Jiménez, M.: G5-2-6, 43
 Foiles, S.M.: E2-1-2, 5
 Fondell, D.: B2-1-5, **26**
 Fontaine, J.: E1-1-5, 9
 Forsén, R.: G4-2+E-7, **9**
 Fouvry, S.: B4-3-3, 23; E1-3-10, 24
 Fox-Rabonovich, G.: B5-1-3, 4
 Frank, H.: B5-2-11, 8; BP71, 34
 Frank, M.: B2-1-8, **26**

Franz, R.: B6-2-7, **16**; F2-1-5, 22
 Fredriksson, W.: B1-3-5, 11
 Fréty, N.: EP23, 38
 Friák, M.: B5-2-1, 8
 Friddle, R.: F5-1-5, **30**
 Fridrici, V.: E3-1+G-4, **29**; EP4, **38**
 Froitzheim, J.: F6-1-3, 42; F6-1-9, 42
 Fry, A.T.: AP2, 32
 Ftouni, H.: B3-1-7, 19
 Fu, H.D.: TSP8, 40
 Fuchs, M.: B4-2-10, **20**; EP19, **38**
 Fuentes, G.: EP28, 38
 Fuh, C.S.: C5-1-1, 24; CP9, 35
 Fujimoto, S.: C2-1-1, 12
 Fujita, T.: CP23, 36
 Fukuda, T.F.: TSP1, 40
 Fukumasu, N.: F5-1-8, **30**

— **G** —
 Gäbler, J.: BP44, 34
 Gachon, Y.: E3-2+G-1, 42
 Gachot, C.: E1-3-5, 24; E1-3-7, **24**
 Gajić, R.: TS4-1-9, 10
 Galetz, M.: A1-2-4, 7; B6-2-3, 16
 Galicia, R.: D1-1-5, 13
 Galiotti, U.: TS2-2-8, 44
 Galvão, D.: B2-2-6, 29
 Gan, J.: B7-1-1, 20
 Garbrecht, M.: E2-2-4, 13
 García, E.: E1-1-1, 9; E1-2-7, **17**
 Garcia, J.: D2-2-2, **8**; E1-2-3, 17
 Garcia-Perez, V.: DP7, **37**
 Garrelie, F.: B3-1-7, **19**; E1-1-2, 9; F1-1-2, 17;
 TS4-1-10, 10
 Garvin, K.L.: D2-1-5, 5
 Gasem, Z.: B4-3-8, **23**
 Gash, A.E.: TS3-1-6, 31
 Gautam, Y.K.: TS1-1-8, 43
 Gay, Z.: B1-3-6, 11
 Geandier, G.: E2-1-1, 5; F5-1-1, 30; FP13, 39
 Gell, M.: A2-2-2, **15**
 Gengler, J.: TS1-1-5, 43; TS1-1-9, 43
 Gentleman, M.: A2-2-3, **15**
 Gerdes, H.: B1-1-3, **3**; F2-1-11, 22
 Geringer, J.: D2-2-5, **8**
 Gerschwiler, K.: BP71, 34
 Gerstenberger, R.: B5-2-11, 8
 Gessner, T.: TS3-1-1, 31
 Geumez, G.: B7-2-6, **23**
 Ghafoor, N.: B5-1-1, **4**; G4-2+E-7, 9
 Ghosh, S.: E2-2-10, 13
 Giannoccaro, R.: TS2-2-8, 44
 Gies, A.: E1-1-6, **9**; E2-4-1, 26; E3-2+G-7, 42
 Gigli, G.: TS2-1-8, 28
 Gil, L.: EP23, 38; GP6, 40
 Gilbert, J.L.: D2-1-2, **5**
 Gíslason, H.P.: F2-1-4, 22
 Giuliani, F.: E2-2-8, **13**; E2-4-11, 26
 Glazek, W.: C5-1-2, **24**
 Göken, M.: F5-1-7, 30; TS2-1-10, 28; TSP17, 41
 Golberg, D.V.: F3-1-10, 25
 Goltvyanitsya, S.: B1-3-9, 11
 Goltvyanitsya, V.: B1-3-9, **11**
 Gomez, C.L.: TSP6, **40**
 Gonçalves, T.: B2-2-6, 29
 Gong, J.: E2-3-7, 21
 Gonzalez, J.M.: E1-3-8, 24
 González, V.: A1-2-5, 7
 Goral, M.: A2-1-3, **11**; AP5, 32; AP6, 32
 Gosai, N.: C3-1-10, 16
 Goudeau, P.O.: EP18, 38; F5-1-1, 30; FP13, 39
 Goupy, J.: BP60, 34
 Grachev, S.: E2-4-4, **26**
 Grankowska, S.: C4-1-6, 21
 Greczynski, G.: B1-2-11, 7; B3-1-3, 19; F2-2-7, **25**
 Greene, J.: B7-1-6, 20; B7-1-7, 20; F2-2-7, 25
 Griepentrog, M.: EP7, 38; F4-1-9, 27
 Grochla, D.: B4-3-4, **23**
 Grolig, J.G.: F6-1-3, **42**
 Grönhagen, K.: B4-1-10, 15

Grotjahn, T.: B3-1-9, **19**; BP46, **34**
 Grundmeier, G.: F2-2-4, 25
 Guagliano, M.: G5-1-1, 30; G5-2-3, 43
 Gudmundsson, J.T.: F2-2-5, 25
 Guédou, J.Y.: E2-4-3, 26
 Guenther, K.: B1-1-4, **3**; BP23, **33**
 Guerreiro, B.: E1-2-10, **17**
 Guinebrière, R.: F1-1-7, 17
 Guipont, V.: E2-4-3, 26
 Gundakaram, R.: TS2-2-10, 44
 Gunduz, I.: TS3-1-9, 31
 Guo, H.B.: A1-1-5, **3**; A2-3-7, 19
 Gupta, H.: C1-1-3, 4
 Gurrām, S.K.: F2-1-1, 22
 Gussarov, A.: BP59, 34
 Gutiérrez, M.: A1-2-5, 7
 Guzman, S.: A1-2-7, 7

— **H** —
 Haag, F.: TS2-1-10, 28
 Hadjiafrenti, A.: TS3-1-9, 31
 Haeri, M.: D2-1-2, 5
 Häfliger, K.: E2-3-2, 21
 Hagemann, A.: BP44, 34
 Hala, M.: F2-1-3, 22; F2-1-7, 22
 Hamadi, S.: A2-2-6, 15
 Hamdi, M.: TS3-1-10, 31
 Hamilton, P.: F6-1-5, 42
 Han, H.: BP27, 33
 Han, J.: B6-1-7, 12
 Han, J.B.: B2-2-7, 29
 Han, JeonG.: FP21, **39**
 Hans, M.: F4-1-6, 27
 Harbin, A.: E1-2-5, 17
 Hardie, C.: F5-1-2, 30
 Harris, A.J.: BP65, 34; E2-3-9, 21
 Hasegawawa, Y.: BP40, 33
 Hassani-Gangaraj, S.M.: G5-1-1, **30**; G5-2-3, 43
 Hattar, K.M.: E2-1-2, 5
 Hauert, R.: D1-1-3, 13; DP14, **37**; E2-3-2, 21
 Haynes, J.A.: A1-1-4, 3; A2-2-5, **15**
 He, D.: C2-1-8, 12
 He, J.L.: C3-1-9, 16; DP2, 37; DP3, **37**; FP14, 39
 Héau, C.: E1-1-2, 9
 Hecimovic, A.: F2-1-10, **22**
 Heckman, U.: BP44, 34
 Hellman, O.: B7-1-9, 20
 Helmersson, U.: B3-1-10, 19
 Hemker, K.J.: A2-1-10, **11**; AP11, 32; AP14, 32
 Herbert, EG.: TS2-1-11, 28
 Hernandez-Sanchez, E.: E2-3-6, **21**; G5-2-6, 43
 Herrera-Hernández, H.: G5-1-5, 30
 Hertwig, A.: F4-1-9, 27
 Hetmanczyk, M.: AP8, 32
 Hingarajiya, K.: C3-1-10, **16**
 Hinrichs, KH.: C3-1-5, **16**
 Hirata, A.: C4-1-11, **21**
 Hirota, S.: G6-1-5, 27
 Ho, L.W.: B1-3-7, 11
 Ho, S.H.: CP29, **36**
 Hodson, S.: TS1-1-2, 43
 Höfer, M.: BP44, 34
 Hoffmann, F.: B1-3-1, 11
 Höglund, C.: F3-1-7, **25**
 Högström, J.: B1-3-5, 11
 Holec, D.: B1-3-2, 11; B5-2-1, **8**; B7-1-8, 20; B7-2-
 1, 23; BP12, 32; BP22, **33**; BP31, 33; TS2-1-7,
 28
 Hollerweger, R.: B7-2-1, **23**; BP17, 33; BP65, 34;
 BP8, **32**
 Holm, E.A.: E2-1-2, 5
 Holmberg, H.: F6-1-7, 42
 Holmstrom, E.: B7-1-3, **20**; TS2-2-9, 44
 Holzherr, M.: G6-1-10, 27
 Holzschuh, H.: B2-1-3, **26**
 Hombo, R.: E1-1-5, **9**
 Homer, E.R.: E2-1-2, 5
 Hong, Y.S.: FP20, 39
 Hopmann, C.: F4-1-3, 27
 Horn, J.: TS3-1-8, 31

Horwat, D.: B7-2-2, 23
 Hosemann, P.: BP65, 34
 Housden, J.: E1-1-9, 9; EP6, 38
 Houska, J.: B7-1-5, **20**; BP10, **32**
 Hovsepian, P.: F6-1-5, 42
 Howe, B.: F2-2-6, 25
 Hsiao, C.N.: TSP11, **40**
 Hsiao, S.C.: F1-1-6, **17**; TSP13, 40; TSP14, 40
 Hsiao, T.P.: E2-2-5, **13**
 Hsiao, Y. C.: FP19, **39**
 Hsieh, C.Y.: BP4, 32
 Hsieh, J.H.: B2-2-3, 29; BP28, 33; BP69, 34; C4-1-
 10, **21**; E3-1+G-9, 29; TS2-2-11, 44
 Hsieh, J.-W.: B4-2-7, 20
 Hsu, C.H.: CP11, 35
 Hsu, H.C.: D2-2-10, 8
 Hsu, J.T.: DP4, 37
 Hsu, M.: CP17, 36
 Hsueh, Y.L.: CP16, 36
 Hu, H.: G4-2+E-3, 9; GP4, 40
 Hu, J.J.: B6-1-1, 12
 Huang, B.Y.: D1-1-1, 13
 Huang, C.C.: BP16, 33; EP16, 38; EP17, 38
 Huang, C.H.: BP72, **34**
 Huang, C.-H.: CP20, **36**
 Huang, H.H.: D2-2-7, 8; D2-2-9, **8**; DP11, 37
 Huang, H.L.: DP4, 37; DP5, 37
 Huang, H.M.: DP11, **37**
 Huang, J.H.: B4-2-7, **20**; BP38, 33; E2-4-8, 26;
 EP1, 38; EP2, 38; EP3, 38
 Huang, J.J.: CP16, **36**
 Huang, J.L.: F1-1-1, 17; F1-1-8, 17; F5-1-9, 30;
 TS4-1-3, 10
 Huang, K.L.: B2-2-3, **29**
 Huang, L.Z.: TS4-1-3, **10**
 Huang, R.: F5-1-3, **30**
 Huang, S.H.: B4-1-4, 15; F1-1-6, 17
 Huang, S.T.: C4-1-1, 21
 Huang, S.W.: CP9, 35
 Huang, S.Y.: C4-1-7, 21
 Huang, W.C.: C4-1-8, **21**
 Huang, Y.C.: TSP9, 40
 Huben, T.: E3-2+G-7, 42
 Hubicka, Z.: F2-1-9, 22; F2-2-1, **25**
 Hultberg, L.: B7-1-9, 20
 Hultman, L.: B1-2-11, 7; B3-1-3, 19; B5-1-4, 4; B5-
 2-10, 8; B7-1-6, 20; B7-1-7, 20; B7-2-3, 23; E2-
 2-4, 13; F2-2-7, 25; TS2-1-2, 28
 Husnain, G.: BP56, 34
 Hussein, R.: G3-1-2, **18**
 Hwang, C.S.: EP24, 38
 Hwang, W.S.: BP72, 34
 Hwangbo, C.: BP55, 34
 Hyun-il, C.: CP13, 35
 Hyzy, S.L.: D1-1-9, 13

— **I** —
 Immich, P.: G4-1+E-1, **6**
 Inayoshi, N.: E1-1-5, 9
 Indeir, F.: BP74, **35**
 Ingo, G.M.: TS2-1-8, 28; TSP3, 40
 Inoue, K.: F2-2-9, 25; G5-2-4, 43
 Irissou, E.: E3-2+G-9, 42
 Itagaki, N.: B5-2-7, 8
 Ito, T.: F1-1-3, **17**
 Iwaniak, A.: EP27, **38**

— **J** —
 Jacob, C.: B7-1-1, 20
 Jacobs, J.: D2-2-8, 8
 Jacobson, S.: E1-2-4, 17
 Jaeger, D.: B4-2-4, **20**
 Jakubiak, R.: C2-1-7, 12
 Jang, J.S.C.: B1-3-3, 11; E1-3-1, 24; G4-2+E-6, 9
 Jankowski, A.: TSP12, **40**
 Janoss, B.J.: G4-2+E-1, **9**
 Jansson, U.: B1-3-5, 11; B5-2-10, 8; E1-2-4, 17;
 F3-1-3, **25**
 Jaouen, C.: B5-2-3, 8
 Jaoul, C.: B3-1-1, **19**; EP10, 38; F1-1-7, 17

Jardret, V.: E2-2-7, 13
 Jarry, O.: EP10, 38; G6-1-8, 27
 Jaschinski, P.: B4-2-3, 20; BP41, 33
 Jayaganthan, R.: F4-1-10, 27
 Jeandin, M.: E2-4-3, 26
 Jensen, J.: B1-2-11, 7; B3-1-3, 19; F2-2-7, 25
 Jeon, J.: C2-1-6, 12
 Jeong, Y.H.: DP17, 37; DP18, 37; DP19, 37; DP20, 37; DP21, 37
 Jhang, K.Y.: E1-3-6, 24
 Jheng, B.T.: FP5, 39
 Ji, V.: B2-2-1, 29
 Jia, Q.: B7-1-1, 20
 Jian, J.: B7-1-1, 20
 Jiang, C.: A2-2-2, 15
 Jiao, L.: B7-1-1, 20
 Jilek jr., M.: G6-1-7, 27
 Jilek, M.: G4-1+E-6, 6
 Jilek, R.: B5-2-5, 8; F4-1-5, 27
 Jimenez, O.: D2-2-2, 8; DP12, 37; DP13, 37
 Jimenez-Cenisero, A.: B2-2-7, 29
 Jiménez-Tinoco, L.: G5-2-6, 43
 Jin, H.: BP80, 35
 Jin, S.B.: B2-2-7, 29
 Jin, S.H.: FP9, 39
 Jo, C.I.: DP21, 37
 Jo, Y.D.: C4-1-9, 21
 Johansson, L.G.: A1-2-8, 7; F6-1-3, 42; F6-1-9, 42
 Johansson, M.: G4-2+E-7, 9
 Jones, J.: C2-1-7, 12
 Jones, Jr., E.: TS3-1-3, 31
 Jonsson, T.: A1-2-8, 7
 Jordan, E.: A2-2-2, 15
 Joshi, A.: F4-1-10, 27
 Joshi, S.: TS2-2-10, 44
 Jouanny, I.: TS2-1-2, 28; TS2-1-5, 28
 Juez Lorenzo, M.: A1-2-7, 7
 Juez-Lorenzo, M.: A2-1-6, 11
 Jung, Y.S.: CP37, 36

— K —

Kádas, K.: E1-2-4, 17
 Kagawa, Y.: A2-3-4, 19
 Kamataki, K.: B5-2-7, 8
 Kamiya, M.: BP40, 33
 Kao, C.H.: BP14, 33
 Kao, H.Y.: BP1, 32
 Kao, K.C.: BP6, 32
 Kao, T.Y.: D1-1-2, 13
 Kappagantula, K.: TS3-1-8, 31
 Kapsa, P.: E3-1+G-4, 29; EP4, 38
 Karabudak, F.: EP8, 38
 Karakaya, İ.: E1-3-9, 24; EP5, 38; G1-1-7, 14
 Karimi, A.: F4-1-4, 27
 Kato, A.: FP2, 39
 KATO, N.: E1-1-5, 9
 Kato, T.: C2-1-4, 12; FP2, 39
 Kaulfuss, F.: B1-1-5, 3
 Kaur, D.: BP62, 34; BP77, 35; E2-2-9, 13
 Kaur, N.: BP77, 35
 Keckes, J.: B4-1-3, 15; B5-2-1, 8; B6-1-11, 12; B6-2-4, 16; BP43, 33; TS2-1-6, 28; TS2-1-7, 28; TS2-2-4, 44
 Kempe, P.: E2-3-4, 21
 Kennedy, M.: F5-1-5, 30
 Kennerknecht, T.: TS2-2-5, 44
 Khai, T.V.: G1-1-10, 14
 Khare, H.: E1-3-2, 24
 Khatibi, A.: B1-2-11, 7
 Khatkatty, F.: B7-1-1, 20
 Khominich, V.: B1-3-6, 11
 Kilman, L.: EP10, 38
 Kim, D.: BP26, 33; BP27, 33
 Kim, D.J.: BP50, 34; FP20, 39
 Kim, E.S.: DP19, 37
 Kim, F.: TS4-1-1, 10
 Kim, H.J.: DP17, 37
 Kim, H.W.: G1-1-10, 14
 Kim, J.: BP26, 33; BP27, 33
 Kim, J.H.: CP21, 36

Kim, J.J.: BP55, 34
 Kim, J.W.: FP9, 39
 Kim, K.H.: CP37, 36; GP2, 40
 Kim, K.N.: G3-1-6, 18; GP3, 40
 Kim, M.S.: CP1, 35
 Kim, N.: C2-1-6, 12; CP24, 36
 Kim, S.C.: FP9, 39
 Kim, S.H.: DP18, 37
 Kim, S.M.: BP50, 34; FP20, 39; FP9, 39
 Kim, SungI.: FP21, 39
 Kim, T.H.: G3-1-6, 18; GP3, 40
 Kim, T.Y.: BP55, 34
 Kim, W.: CP2, 35; CP3, 35
 Kim, W.Y.: BP55, 34
 Kirchlechner, C.: B6-1-11, 12
 Kiryukhantsev-Korneev, Ph.V.: BP66, 34
 Kishimoto, S.: C4-1-5, 21
 Klemberg-Sapieha, J.E.: B6-1-5, 12; E3-1+G-7, 29; F2-1-3, 22; F2-1-7, 22; F3-1-9, 25
 Klimczak, A.: C5-1-2, 24
 Kment, S.: F2-2-1, 25
 Knutsson, A.: B4-1-10, 15
 Ko, Y.M.: DP17, 37; DP18, 37; DP19, 37; DP21, 37
 Kodambaka, S.: TS2-1-2, 28; TS2-1-5, 28
 Koga, K.: B5-2-7, 8
 Kolarik, V.: A1-2-7, 7; A2-1-6, 11
 Kolednik, O.: TS2-2-4, 44
 Kölker, W.: F2-2-7, 25; G6-1-6, 27
 Koller, C.M.: BP17, 33
 Koložvari, S.: B6-1-9, 12
 Kombogiannis, S.: B4-2-5, 20; G4-1+E-4, 6
 Komendera, L.: AP12, 32; AP8, 32
 Komotori, J.K.: G5-2-1, 43
 Konca, E.: E1-3-9, 24; EP5, 38
 Kongu, A.: CP6, 35
 Konstantinidis, S.: B7-2-6, 23
 Köpf, A.: BP43, 33
 Koppoju, S.: TS2-2-10, 44
 Korsunsky, A.M.: F5-1-2, 30
 Kotowski, S.: A2-1-3, 11
 Kovalskii, A.M.: F3-1-10, 25
 Kraft, O.: TS2-2-6, 44
 Kratzer, M.: TS4-1-9, 10
 Kretschmann, G4-1+E-1, 6
 Krienke, T.: G6-1-8, 27
 Krottenthaler, M.: E2-1-6, 5; TS2-1-10, 28; TSP17, 41
 Krug, T.: F2-1-11, 22; G6-1-9, 27
 Kruschewski, F.: F4-1-6, 27
 Ksirova, P.: F2-2-1, 25
 Ku, B.H.: BP55, 34
 Kubart, T.: F2-2-1, 25
 Kubica, M.: TSP15, 40
 Kuchenreuther, V.: A1-2-7, 7
 Kumar, M.: B1-1-6, 3; TS1-1-8, 43
 Kuntz, J.W.: TS3-1-6, 31
 Kunze, C.: F2-2-4, 25
 Kuo, L.Y.: BP34, 33
 Kuptsov, K.A.: BP66, 34
 Kurapov, D.: F4-1-1, 27
 Kwak, D.S.: G1-1-10, 14
 Kwang Ho, K.: B4-3-7, 23; FP17, 39
 Kwon, Y.J.: G1-1-10, 14

— L —

La, J.H.: BP50, 34; FP20, 39
 Laborde, E.: EP10, 38
 Lagally, M.: TS4-1-4, 10
 Lai, C.H.: DP5, 37
 Lai, H.M.: BP1, 32
 Lai, W.S.: B1-3-7, 11; F3-1-6, 25
 Lai, Y.J.: EP16, 38
 Lai, Y.L.: BP28, 33; C4-1-10, 21
 Laiduc, J.: TS2-2-3, 44
 Lance, M.J.: A1-1-4, 3
 Larsson, T.: B2-1-5, 26
 Lavoute, J.P.: B3-1-1, 19; EP10, 38
 Lawal, J.: B5-1-6, 4
 Lawrence, S.: E2-3-1, 21

Le Bourhis, E.: B1-2-5, 7; E2-1-1, 5; EP18, 38; F5-1-1, 30; F5-1-2, 30; FP13, 39
 Le Priol, A.: B1-2-5, 7
 Lee, C.C.: BP16, 33; EP16, 38; EP17, 38
 Lee, C.M.: E2-3-10, 21; E2-4-9, 26
 Lee, C.S.: C3-1-7, 16
 Lee, D.H.: CP1, 35
 Lee, E.: BP26, 33; BP27, 33
 Lee, J.: B7-1-1, 20; BP27, 33
 Lee, J.H.: FP12, 39
 Lee, J.-W.: B1-3-3, 11; B1-3-4, 11; B1-3-7, 11; B4-1-4, 15; B6-2-6, 16; D1-1-2, 13; E1-3-1, 24; E2-2-5, 13; E2-3-10, 21; EP22, 38; F3-1-6, 25; FP10, 39; FP19, 39; G4-2+E-6, 9
 Lee, J.S.: B2-2-7, 29
 Lee, S.G.: CP1, 35
 Lee, S.H.: CP2, 35; CP3, 35
 Lee, S.Y.: BP50, 34; FP20, 39; FP9, 39
 Lee, T.H.: D2-2-9, 8
 Lee, W.: C2-1-6, 12
 Lee, W.-S.: FP12, 39
 Lee, Y.C.: D2-2-10, 8
 Leelachao, S.: EP15, 38
 Leflem, M.: G1-1-8, 14
 Legoux, J.-G.: E3-2+G-9, 42
 Lei, M.: B4-1-1, 15; B5-2-9, 8; BP48, 34
 Leibenguth, P.: TS2-1-1, 28
 Leiste, H.: B6-1-4, 12; F6-1-8, 42
 Lejeune, M.: TSP6, 40
 Lemmer, O.: B2-1-8, 26; B4-2-5, 20; F2-2-7, 25; G6-1-6, 27
 Lenck, O.: F2-1-1, 22
 Lenz, F.: F2-1-11, 22
 Lepienski, C.: A1-2-9, 7; F2-2-10, 25
 Lepule, M.L.: A2-3-9, 19
 Leson, A.: E1-2-1, 17; G6-1-10, 27
 LeSuer, R.: D2-2-8, 8
 Leu, J.P.: BP6, 32
 Leu, M.S.: TSP8, 40
 Levi, C.: A2-1-5, 11
 Lewin, E.: B5-2-6, 8; F4-1-8, 27
 Leyendecker, T.: G6-1-6, 27
 Leyland, A.: B5-1-6, 4; BP74, 35; BP78, 35; BP81, 35; BP82, 35; E1-2-8, 17; EP6, 38
 Li, C.: B2-2-3, 29; C4-1-10, 21; TS2-2-11, 44
 Li, C.L.: D1-1-2, 13; E2-2-5, 13; G4-2+E-6, 9
 Li, D.J.: F3-1-9, 25
 Li, F.: TS2-2-3, 44
 Li, H.: BP78, 35
 Li, K.Y.: F3-1-9, 25
 Li, S.L.: B1-2-10, 7
 Li, Y.: C5-1-4, 24; E2-1-5, 5
 Li, Z.: FP18, 39
 Liang, B.: F1-1-1, 17
 Liang, H.: E3-2+G-2, 42
 Lim, S.Y.: F1-1-8, 17
 Lin: AP1, 32
 Lin, C.K.: F5-1-9, 30
 Lin, H.M.: GP5, 40
 Lin, J.: B5-2-9, 8; BP48, 34; F2-1-6, 22; F2-2-10, 25; F2-2-8, 25; FP22, 39
 Lin, J.C.: D1-1-2, 13
 Lin, J.H.: BP13, 33; BP25, 33
 Lin, J.Y.: CP16, 36
 Lin, K.Y.: BP20, 33
 Lin, L.W.: C4-1-7, 21
 Lin, M.T.: E2-3-5, 21
 Lin, Y.C.: BP5, 32; CP10, 35
 Lin, Y.H.: EP17, 38; TS2-2-11, 44
 Lin, Y.W.: BP38, 33
 Liou, B.H.: TSP11, 40
 Liou, Y.Y.: B1-3-1, 11; BP2, 32
 Lipkin, D.: A2-1-5, 11
 Liscano, S.: GP6, 40
 Liske, J.: A1-2-8, 7
 Liskiewicz, T.: E1-1-7, 9
 Liu, C.: BP78, 35
 Liu, C.P.: F1-1-8, 17
 Liu, H.: TS4-1-7, 10

- Liu, K.C.: AP1, 32
Liu, K.Y.: B4-1-7, **15**; BP73, 35
Liu, L.: BP82, **35**
Liu, M.J.: CP9, 35
Liu, P.T.: C5-1-1, 24; CP11, 35; CP9, 35; FP5, **39**
Liu, S.: B4-1-5, **15**
Liu, S.-C.: DP8, 37
Liu, S.J.: BP72, 34
Liu, S.M.: C4-1-1, 21; D1-1-1, 13
Liu, T.Y.: G4-2+E-6, 9
Liu, X.: BP81, **35**
Liu, Y.: E2-2-2, 13
Lizarraga, R.: B7-1-3, 20; TS2-2-9, **44**
Ljungcrantz, H.: F6-1-6, **42**
Lloyd, D.: E2-3-7, 21
Lo, W.H.: CP31, 36; CP7, **35**; CP8, 35
Lockyer-Bratton, S.J.: A2-1-10, 11; AP11, **32**
Loir, A.S.: B3-1-7, 19; E1-1-2, 9; F1-1-2, 17; TS4-1-10, 10
Lomello, F.: B4-3-6, **23**; BP45, 34; BP47, 34; BP75, **35**
Lopez-Hirata, V.M.: A1-2-10, 7
Lu, B.: G4-2+E-4, 9
Lu, J.: F2-2-7, 25; F6-1-4, 42
Lu, P.: F1-1-5, 17
Lu, W.: FP18, 39
Luchaninov, A.: B1-3-9, 11
Ludwig, A.: TS2-2-6, 44
Luemkemann, A.: G6-1-7, **27**
Lunca Popa, P.: F6-1-4, 42
Lundin, D.: F2-1-8, **22**
Luzin, V.: TSP16, 40
— **M** —
M'Saoubi, R.: G4-1+E-4, 6
Macauley, C.: A2-1-5, **11**
Macco, B.: F1-1-9, 17
Macdonald, D.: D2-2-5, 8
Machado, J.: B2-1-9, 26
Machavallavan, N.: E1-3-6, 24
MacKay, R.: A2-2-1, 15
Magnus, F.: F2-2-5, 25
Mai, K.: C4-1-7, 21
Maier, V.: TSP17, 41
Maixner, V.: G4-1+E-6, 6
Majid, F.: BP56, **34**
Makino, H.: C2-1-1, 12; C2-1-2, 12; C4-1-5, 21
Makowski, S.: E1-2-1, 17
Makrimalakis, S.: B4-2-5, 20; G4-1+E-4, 6
Mali, S.: D2-1-2, 5
Malié, A.: A2-2-6, 15
Mallia, B.: F3-1-1, 25; F3-1-2, **25**
Mantripragada, R.: TS2-2-10, 44
Mao, S.: F6-1-1, **42**
Marco, J.F.: CP35, 36
Marinin, V.: B1-3-9, 11
Markowski, J.: BP7, 32
Marks: PL1, **2**
Marsal, A.: E1-2-3, **17**
Martin, E.: D2-1-4, 5
Martínez, G.: B4-1-8, **15**
Martínez-Hernández, M.: D1-1-8, 13
Martínez-Trinidad, J.: G5-1-5, 30; G5-2-6, **43**
Martini, A.: E1-2-5, 17
Martins, G.: B2-1-9, 26; B4-2-12, 20
Martinu, L.: E3-1+G-7, 29; F2-1-3, **22**; F2-1-7, 22; F3-1-9, 25
Massines: Ex1, **14**
Masuku, Z.H.: BP61, 34
Mathew, M.: D2-1-4, **5**; D2-2-1, 8; D2-2-12, 8; D2-2-8, **8**
Mathieu, S.: A1-1-3, **3**; AP13, 32; G1-1-8, 14
Matković, A.: TS4-1-9, 10
Matos, M.A.: G3-1-1, 18
Matsubara, K.M.: G1-1-1, 14
Mattes, W.: CP25, 36
Mattews, A.: E1-2-8, 17
Matthews, A.: B4-3-8, 23; B5-1-6, 4; BP74, 35; BP78, 35; BP81, 35; BP82, 35; E1-1-9, 9; EP6, 38
Matthey, J.: E3-1+G-8, **29**
Mattos, C.: DP16, 37
Mattzela, J.: B2-1-4, 26
Mauer, G.: A2-1-1, 11
Maury, F.: B2-1-7, **26**
May, U.: E3-2+G-5, **42**
Mayekar, K.: E1-1-8, **9**
Mayer, B.: BP31, 33
Mayerhofer, P.H.: B1-2-6, 7; B1-2-8, 7; B1-3-2, **11**; B5-2-1, 8; B6-1-11, 12; B7-1-8, 20; B7-2-1, 23; BP12, 32; BP15, 33; BP17, 33; BP22, 33; BP31, **33**; BP65, 34; BP8, 32; E2-2-8, 13; TS2-1-2, 28; TS2-1-7, 28
McCarty, E.: G4-2+E-3, 9
Mechnich, P.: A2-2-7, 15; A2-3-3, **19**
Medina, J.C.: FP8, **39**
Medrano, J.: A2-1-4, 11
Mee, M.: G5-1-6, **30**; GP7, **40**
Meier, S.: B3-1-2, **19**; B3-1-9, 19; BP46, 34; F5-1-7, 30; G5-1-6, 30; GP7, 40
Mejía-Caballero, I.: G5-1-5, **30**
Mellor, B.G.: E2-2-1, 13
Melo-Maximo, D.: A1-2-10, 7; A1-2-9, 7; F2-2-10, 25
Melo-Maximo, L.: A1-2-10, 7
Mendala, B.: AP8, 32
Mendelsberg, R.: F2-1-5, 22
Méndez-García, V.: C2-1-9, 12
Meneses-Amador, A.: G5-1-2, 30
Meng, W.J.: G4-2+E-4, **9**
Mesic, B.: B2-1-8, 26
Metzner, C.: B2-2-4, **29**
Meunier, F.: B3-1-1, 19
Meyer, J.: D2-2-8, 8
Mezzi, A.: TS2-1-8, 28
Michalon, J.-Y.: TS4-1-10, 10
Michel, A.: B5-2-3, 8
Michler, J.: B7-2-4, 23; E2-3-4, **21**; EP28, **38**
Michotte, C.: B6-1-10, 12; E1-1-11, 9
Miki, H.: E1-1-5, 9
Min, B.: BP26, 33
Minami, T.: B4-3-5, **23**; CP22, 36; CP23, 36; CP26, 36
Minea, T.: F2-1-8, 22
Minne, S.: E2-4-6, 26
Miorin, E.: TS2-2-7, 44
Mirabal, R.: EP14, **38**
Miralami, R.: D2-1-5, 5
Mirengi, L.: TS2-2-8, 44
Mirkarimi, P.: B1-2-3, 7; F3-1-5, **25**
Miserque, F.: G1-1-9, 14
Mishra, A.: G3-1-6, **18**; GP3, **40**
Mishra, D.: C2-1-5, 12
Mishra, R.: B1-1-6, 3
Misol, O.: CP12, 35
Mitterer, C.: B1-2-9, 7; B4-1-3, 15; B6-1-10, 12; B6-2-4, 16; BP43, 33; BP65, 34; E1-1-11, 9; TS2-1-6, 28; TS2-1-7, 28; TS2-2-4, 44
Miyake, S.: EP11, 38
Miyata, T.: CP22, 36; CP23, **36**; CP26, 36
Mizushima, K.M.: TSP1, 40
Mo, J.L.: EP6, **38**
Mocuta, C.: E2-1-1, 5; F5-1-1, 30
Mogonye, J.-E.: E1-2-5, 17; E1-3-4, 24
Mohanty, G.: E2-3-4, 21
Moharrami, N.: D2-1-1, 5; E2-2-10, **13**
Mohseni, H.: E1-2-5, 17; E1-2-6, 17; E1-3-4, 24
Monsifrot, E.: BP70, 34; CP18, **36**
Montagne, A.: EP28, 38
Montmitonnet, P.: E3-2+G-1, 42
Moody, N.: E2-3-1, 21; F5-1-5, 30
Moore, J.: B5-2-9, 8; BP48, 34; F2-2-8, 25
Moré Farias, M.: G4-1+E-3, 6
Mori, A.: G5-1-1, 30; G5-2-3, **43**
Morris, N.: FP1, 39
Morstein, M.: BP71, **34**; F4-1-4, 27; G6-1-7, 27
Morteza, T.: BP18, 33
Moskal, G.: AP8, 32; E2-3-11, 21; EP25, 38
Mráz, S.: B6-1-3, 12
Msaoubi, R.: E2-4-11, 26
Mu, Y.: G4-2+E-4, 9
Mucklich, F.: B4-1-10, 15
Mücklich, F.: TS2-1-1, 28; TS3-1-4, 31
Muecklich, F.: E1-3-5, 24; E1-3-7, 24
Muelas, R.: A1-2-5, 7
Mueller, J.: G6-1-8, 27
Mueller, U.: D1-1-3, 13
Mueser, M.: E1-3-5, 24
Muff, D.: B1-2-7, 7; D2-2-6, 8
Muhl, S.: BP63, 34; BP9, 32; E1-1-1, 9; E1-1-10, 9; E1-2-7, 17; E1-3-8, 24; EP14, 38
Muller, P.: B1-2-5, 7
Müller, U.: DP14, 37
Mulligan, C.: B1-3-6, 11
Munktell, S.: B2-1-5, 26
Münstermann, T.: G4-2+E-9, **9**
Muraishi, S.: EP15, 38
Murakami, T.: FP3, 39
Murata, Y.: B4-3-5, 23
Muratore, C.: B6-1-1, **12**; E1-2-5, 17; TS1-1-5, 43; TS1-1-9, 43
Murphy, N.: C2-1-7, 12
Music, D.: B6-1-3, 12; F2-2-3, 25
Musil, J.: B5-2-5, 8; F4-1-5, 27; TS3-1-5, 31
Mussenbrock, T.: BP19, 33
Myalska, H.: E2-3-11, **21**; EP25, **38**
Myers, M.: B7-1-1, 20
— **N** —
Na, S.: BP26, **33**; BP27, 33
Nagatomi, E.: C2-1-4, 12
Nagelli, C.: D2-2-8, 8
Nahif, F.: B6-1-3, **12**
Najafi, H.: F4-1-4, **27**
Naji, A.: B6-2-3, **16**
Nakazawa, H.: FP2, 39
Nam, J.D.: FP21, 39
Nam, S.W.: FP9, 39
Namavar, F.: D1-1-10, 13; D2-1-5, 5
Narala, S.: G4-1+E-5, 6
Narayanan, B.: F1-1-9, 17
Narita, Y.: FP2, 39
Naseem, S.: BP56, 34; BP57, 34; BP58, **34**
Nayak, P.K.: TS4-1-3, 10
Nedfors, N.: B5-2-10, 8; F3-1-3, 25
Nesbitt, J.: A2-2-1, **15**
Nestler, M.: A2-1-4, 11
Neto, A.: B2-2-6, 29; BP21, 33
Ngo, C.: TS2-1-2, 28
Niakan, H.: B3-1-8, **19**; E2-1-5, 5
Nie, X.: DP15, 37; E1-1-9, 9; E3-2+G-4, 42; G3-1-2, 18; G4-2+E-3, 9; GP4, 40
Niewerth, D.: F2-1-1, 22
Nikroo: F3-1-5, 25
Nishi, Y.: CP22, **36**
Nishio, S.: B4-3-5, 23
Nold, E.: B4-2-11, 20
Nomoto, J.: CP23, 36; CP26, **36**
Noor-A-Alam, M.: A2-3-8, 19; CP6, 35
Northwood, D.: G3-1-2, 18
Nowotnik, A.: AP6, **32**
Nozu, T.: E1-1-5, 9
Nyberg, H.: E1-2-4, 17
Nyberg, T.: E1-2-4, 17
Nygren, K.: B1-3-5, **11**; F6-1-6, 42
Nyholm, L.: B1-3-5, 11
— **O** —
O, B.H.O.: CP1, 35
Obadele, B.: A2-3-9, 19; BP61, 34
Obraztsova, E.: F3-1-10, 25
Odén, M.: B4-1-10, **15**; B5-1-1, 4; G4-2+E-7, 9
Oechsner, M.: E2-3-3, 21; G1-1-6, 14
Ogura, Y.: C2-1-1, 12
Oh, S.: CP24, 36
Okamoto, K.: C1-1-1, 4
Oks, E.: F2-1-5, 22
Okuda, H.: BP40, 33
Oladijo, P.: TSP16, 40

Olafsson, S.: F2-2-5, 25
 Ólafsson, S.: F2-1-4, **22**
 Olaya, J.: B4-2-12, 20; C1-1-4, 4
 Olaya, J.J.: BP76, 35; CP35, 36
 Olejnicki, J.: F2-1-9, 22; F2-2-1, 25
 Olivares-Navarrete, R.: D1-1-6, **13**; D1-1-9, 13
 Oliveira, J.: EP14, 38
 Olsson, S.: E2-2-4, **13**
 Oltra, R.: G1-1-9, 14
 Olubambi, P.: A2-3-9, **19**; BP61, **34**
 Orlianges, J.C.: F1-1-7, 17
 Ortega, A.: CP6, 35
 Ortega, J.: C2-1-9, **12**
 Osada, A.: G4-2+E-8, 9
 Oseguera, J.: A1-2-10, 7; A1-2-9, 7; B2-2-7, 29;
 BP64, 34; F2-2-10, **25**
 Ou, Y.: B5-2-9, **8**; BP48, **34**; F2-1-6, 22; FP22, 39
 Ouyang, F.-Y.: BP29, 33
 Ouyang, Z.: G3-1-3, 18
 Oyanedel Fuentes, J.A.: B5-2-11, **8**; BP44, **34**
 Ozimek, P.: C5-1-2, 24
 Ozturk, A.: E1-3-9, 24

— **P** —

Pacquentin, W.: G1-1-9, **14**
 Padelletti, G.: TS2-1-8, 28
 Padilla, H.: E2-1-2, 5
 Paiva Jr., J.M.: E1-2-9, 17
 Paiva Junior, J.: CP25, **36**
 Palisaitis, J.: TS2-1-2, 28
 Palomar-Pardavé, M.: G5-1-5, 30
 Pan, K.Y.: F1-1-10, **17**
 Panjan, P.: G1-1-3, **14**
 Panotya, M.: TS3-1-8, 31
 Papa, F.: F2-1-11, **22**; G6-1-9, 27
 Pappas, D.: B2-2-5, **29**
 Park, J.K.: FP12, **39**
 Park, J.S.: CP2, 35; CP3, 35
 Park, S.G.: CP1, 35
 Parry, G.: E2-4-4, 26
 Patel, K.: C3-1-10, 16
 Patel, S.: D2-2-11, **8**
 Patscheider, J.: B4-2-4, 20; B5-2-6, **8**; BP59, 34;
 F4-1-8, 27
 Paturi, U.: G4-1+E-5, **6**
 Paudel, N.: C4-1-3, **21**
 Paulitsch, J.: B1-2-6, 7; B1-2-8, 7; B1-3-2, 11; B6-
 1-11, 12; B7-2-1, 23; BP15, 33; BP17, **33**; BP8,
 32
 Pauly, C.: TS3-1-4, **31**
 Pazhanisami, P.: BP55, 34
 Pecnik, C.: B1-2-7, 7; D2-2-6, **8**
 Pedraza, F.: A1-2-7, 7
 Pelletier, S.: TS2-2-5, 44
 Pemmasani, S.: TS2-2-10, **44**
 Peng, Y.: B5-2-2, 8
 Penoy, M.: E1-1-11, 9
 Perepezko, J.: A1-1-1, **3**
 Perez, A.: BP63, 34
 PÉREZ, M.: F2-2-10, 25
 Perez-Alvarez, J.: BP53, 34
 Perne, J.: TSP2, 40
 Persson, P.: TS2-1-2, 28
 Petersen, M.: B1-1-3, 3
 Petman, V.: BP10, 32
 Petrov, I.: B7-1-6, 20; B7-1-7, 20; F2-2-6, 25; F2-2-
 7, 25
 Pharr, G.M.: TS2-1-11, 28
 Piao, S.: E1-3-6, 24
 Pierson, J.F.: CP14, 35
 Pigot, C.: BP60, 34
 Pilemalm, R.: BP49, **34**
 Pint, B.A.: A1-1-4, 3; A1-2-1, 7; A2-2-5, 15
 Pinzon, M.: C1-1-4, 4
 Pinzón, M.: CP35, 36
 Pitonak, R.: BP43, 33
 Pittenger, B.: E2-4-6, **26**
 Pleth Nielsen, L.: F6-1-4, 42
 Plötze, R.: B3-1-9, 19
 Polcar, T.: B4-2-9, **20**; E1-2-7, 17; E2-2-1, 13

Polcik, P.: B1-2-1, **7**; B1-2-6, 7; B1-2-8, 7; B6-1-9,
 12; B6-2-7, 16; B7-2-1, 23; BP15, 33; BP17,
 33; BP8, 32
 Pons, M.: B2-1-6, 26; BP42, 33
 Portebois, L.: A1-1-3, 3; AP13, 32
 Pouget, S.: BP60, 34
 Pourzal, R.: D2-1-4, 5
 Prodanow, N.: E1-3-5, 24
 Proksova, S.: TS3-1-5, 31
 Prud'Homme, N.: B2-2-1, 29
 Pujol, G.: A2-2-6, **15**
 Pureza, J.: B6-1-7, 12
 Pytel, M.: AP5, **32**; AP6, 32; C3-1-3, 16

— **Q** —

Qian, J.C.: F3-1-9, **25**

— **R** —

Rachbauer, R.: B1-2-6, 7; B1-2-8, 7; B7-2-1, 23;
 BP15, 33; BP17, 33; BP22, 33; BP8, 32; GP8,
40
 Raghavan, R.: B7-2-4, 23; E2-3-4, 21; EP28, 38
 Rahoui, S.: E3-1+G-3, **29**
 Rajulapati, K.: TS2-2-10, 44
 Ralević, U.: TS4-1-9, 10
 Ramalho, A.: E1-1-1, 9
 Raman, P.: G3-1-3, 18
 Ramana, C.: A2-3-8, 19; B4-1-8, 15; C2-1-7, **12**;
 C3-1-8, 16; CP6, **35**
 Ramirez, G.: BP53, 34; BP9, **32**; E1-1-10, **9**; EP14,
 38
 Ramírez, G.: E1-1-1, 9
 Ramírez-Castro, G.: E1-2-7, 17
 Ramm, J.: B1-2-8, 7; E3-2+G-7, **42**
 Ramzan, M.: B7-2-2, 23
 Ranade, A.: G3-1-1, **18**
 Randall, G.: F3-1-5, 25
 Randall, N.: TS2-2-1, **44**
 Rangel, E.: BP21, 33
 Rao, K.S.: TS1-1-11, 43
 Rao, R.: G3-1-7, **18**
 Rapoo, T.: BP61, 34
 Rawal, S.: F4-1-10, 27
 Raza, M.: B3-1-10, 19
 Reamy, K.: A2-2-1, 15
 Rebelo de Figueiredo, M.: BP65, **34**
 Rebholz, C.: E2-4-2, 26; TS3-1-9, **31**
 Reedy, D.: F5-1-5, 30
 Reeves, R.: TS3-1-3, 31
 Reichertz, L.: C4-1-6, 21
 Reinstädt, P.: EP7, 38
 Renault, P.O.: B1-2-5, 7; E2-1-1, 5; EP18, 38; F5-1-
 1, **30**; FP13, **39**
 Renzelli, M.: TS2-1-9, **28**
 Reshetnyak, E.: B1-3-9, 11
 Restrepo, J.: DP7, 37; E1-3-8, **24**
 Reyes, J.: DP12, 37
 Reynaud, S.: TS4-1-10, 10
 Rezanka, S.: A2-1-1, 11
 Riaz, S.: BP56, 34; BP57, **34**; BP58, 34
 Riedl, A.: B6-2-4, 16; TS2-1-6, 28; TS2-2-4, **44**
 Rivello, W.: TS2-2-3, 44
 Rizzo, A.: TS2-2-8, **44**
 Roberts, S.: E2-3-7, 21
 Rocha, L.: D2-2-1, 8
 Rodil, S.: BP53, 34; BP9, 32; D1-1-5, 13; D1-1-9,
13; DP1, 37; DP7, 37; E1-1-1, 9; E1-1-10, 9;
 EP14, 38; FP4, **39**; FP7, 39; FP8, 39; TSP6, 40
 Rodriguez, E.: DP12, 37; DP13, 37
 Rodriguez, M.: EP23, **38**; TS3-1-3, 31
 Rodriguez-Castro, G.: E2-3-6, 21; G5-2-6, 43
 Rodriguez-Santiago, V.: B2-2-5, 29
 Romanic, D.: EP21, 38
 Romanowska, J.: A1-2-2, 7; BP7, **32**
 Romero, M.: GP6, 40
 Romero, S.: BP53, 34
 Romero-Romo, M.: E2-3-6, 21; G5-1-5, 30
 Rommel, M.: G4-1+E-1, 6
 Rosenkranz, A.: E1-3-5, **24**; E1-3-7, 24
 Rosiwal, S.: B2-1-8, 26

Rosner, K.: EP27, 38
 Roth, J.: A2-2-2, 15
 Rothe, R.: B3-1-9, 19; BP46, 34
 Rouillard, F.: G1-1-8, 14
 Roussel, R.: A1-2-7, 7; A2-1-6, 11
 Roy, A.: TS1-1-5, 43
 Roy, S.: E2-2-10, 13
 Royhman, D.: D2-2-12, **8**
 Rozanski, P.: C5-1-2, 24
 Rubensson, J.-E.: B7-2-2, 23
 Rubenstein, A.: D2-1-5, 5
 Rubinstein, A.: D1-1-10, 13
 Rubio, E.: A2-3-8, **19**; C3-1-8, **16**
 Rudigier, H.: E3-2+G-7, 42; F2-2-3, 25
 Ruellas, A.: DP16, 37
 Ruffer, M.: B2-1-8, 26
 Runa, M.: D2-2-1, **8**
 Ruzic, D.N.: G3-1-3, **18**

— **S** —

Sabirianov, R.: D1-1-10, **13**; D2-1-5, 5
 Sabitzer, C.: B1-2-6, **7**; BP15, **33**
 Sachitanand, R.: F6-1-9, **42**
 Sacks, N.: TSP16, 40
 Sadasivam, S.: TS1-1-2, **43**
 Sakidja, R.: A1-1-1, 3
 Saladukhin, I.: BP37, 33
 Salas, O.: A1-2-10, 7; A1-2-9, 7; F2-2-10, 25
 Samala, S.: C3-1-8, 16
 Sammi, K.: CP12, **35**
 Sammler, F.: BP44, 34
 Sampath, S.: A2-1-7, **11**
 Samuelsson, M.: F6-1-6, 42
 Sanchette, F.: B3-1-4, **19**; B4-3-6, 23; BP45, 34;
 BP47, 34; BP75, 35; CP18, 36
 Sanchez, J.: BP70, 34
 Sander, T.: E2-4-5, **26**; EP9, **38**
 Sangiovanni, D.: B7-1-6, 20; B7-2-3, 23
 Santos Jr., E.: BP51, 34; DP16, **37**
 Sarakinos, K.: B3-1-10, 19
 Saraloglu Guler, E.: E1-3-9, 24; EP5, 38
 Särhammar, E.: E1-2-4, 17
 Sartory, B.: B6-1-10, 12; E1-1-11, 9
 Sasaki, S.: G5-1-7, 30
 Sasaki, T.: F2-2-9, **25**
 Satou, K.: FP2, 39
 Sauvageot, J.L.: BP60, 34
 Saxena, A.: B1-1-6, 3
 Sayah, I.: BP36, **33**
 Sayginer, O.: D2-1-1, 5
 Schäfer, L.: BP44, 34
 Schäfer, M.: BP19, 33
 Schalk, N.: E1-1-11, **9**
 Schaller, F.: E1-2-1, 17
 Scharf, T.: E1-2-5, 17; E1-2-6, 17; E1-3-4, **24**
 Scheerer, H.: E2-3-3, **21**
 Scheffel, B.: B2-2-4, 29
 Scheibe, H.-J.: B1-1-1, **3**; G6-1-10, 27
 Scherer, T.: F6-1-8, 42
 Scheu, C.: TS2-1-3, **28**
 Schiffers, C.: B2-1-8, 26; F2-2-7, 25; G6-1-6, **27**
 Schiffler, M.: BP71, 34
 Schlegel, D.: BP47, **34**; BP75, 35
 Schloegl, M.: B6-1-11, **12**
 Schlögl, M.: BP31, 33
 Schmid, C.: E2-1-6, 5; E2-3-3, 21; F5-1-7, **30**; TS2-
 1-10, 28; TSP17, **41**
 Schmidt, A.: TS1-1-6, **43**
 Schmidt, D.: A1-2-4, **7**
 Schmidt, S.: B3-1-3, **19**
 Schmidt, T.: G6-1-10, 27
 Schnakenberg, S.: B3-1-2, 19; B3-1-9, 19
 Schneider, J.: B6-1-3, 12; F2-2-3, **25**; F4-1-6, 27
 Schöberl, T.: TS2-2-4, 44
 Schoepfner, R.: E2-2-6, **13**
 Scholze, S.: B1-1-4, 3
 Schramm, I.: B4-1-10, 15; TS2-1-1, 28
 Schreiner, W.: B2-2-6, 29; BP21, 33
 Schuisky, M.: F6-1-7, **42**
 Schulz von der Gathen, V.: F2-1-10, 22

- Schunk, C.: F5-1-7, 30; TSP17, 41
Schuster, F.: B2-1-7, 26; B3-1-4, 19; B4-3-6, 23; BP36, 33; BP45, 34; BP47, 34; BP75, 35; CP18, 36
Schütze, M.: A1-2-4, 7; B6-2-1, 16; B6-2-3, 16
Schwarzer, N.: B4-2-10, 20; E1-1-6, 9; E1-1-7, 9; E2-4-1, 26; E2-4-7, 26; EP7, 38; TS2-2-2, 44
Sebastiani, M.: TS2-1-11, 28; TS2-1-9, 28; TS2-2-7, 44
Seibert, F.: E3-2+G-7, 42
Seifert, H.J.: F4-1-7, 27; F6-1-8, 42
Senick, M.: B1-3-6, 11
Seo, H.: B5-2-7, 8
Sequeda, F.: E1-3-8, 24
Seraffon, M.: AP2, 32
Setsuhara, J.: C4-1-10, 21
Sharma, H.: E2-2-9, 13
Sharon, M.: BP26, 33
Sharp, J.G.: D2-1-5, 5
Shayestehaminzadeh, S.: F2-1-4, 22; F2-2-5, 25
Shen, Y.M.: F1-1-1, 17
Shenogin, S.: TS1-1-5, 43
Sheveko, A.: BP66, 34; F3-1-10, 25
Shiao, C.J.: DP3, 37
Shieu, F.S.: BP34, 33; BP35, 33; CP10, 35
Shih, C.C.: TSP8, 40
Shih, H.C.: F1-1-10, 17
Shih, M.H.: BP54, 34
Shih, S.: BP39, 33
Shirakata, S.: C2-1-1, 12; FP3, 39
Shiratani, M.: B5-2-7, 8
Shklover, V.: BP59, 34; F4-1-8, 27
Shockley, J.M.: E3-2+G-9, 42
Shojiro, M.: EP12, 38
Shokuhfar, T.: D2-2-3, 8
Shtansky, D.: BP66, 34; F3-1-10, 25
Shull, K.: D2-1-4, 5
Shulumba, N.: B7-1-9, 20
Siegel, A.: TS2-2-6, 44
Sieniawski, J.: A1-2-2, 7; A2-1-3, 11; AP5, 32; AP6, 32; BP7, 32
Sierros, K.: F5-1-6, 30; FP1, 39
Sik, H.: B1-2-5, 7
Silva, F.: F5-1-8, 30
Silva, P.: B2-1-9, 26
Silva-Bermudez, P.: D1-1-5, 13; D1-1-9, 13; DP1, 37; DP7, 37; EP14, 38; FP7, 39; FP8, 39; TSP6, 40
Silvis, P.: B2-1-4, 26
Sima, M.: G4-1+E-6, 6
Simonet Fotso, J.F.T.: B1-2-9, 7
Singh, D.: BP67, 34
Sinha, V.: TS1-1-9, 43
Sittinger, V.: F2-1-1, 22
Sjölen, J.: B1-2-11, 7
Sklenka, J.: B5-2-5, 8
Skoneczny, W.: TSP15, 40
Skordaris, G.: B4-2-5, 20; G4-1+E-4, 6
Smith, D.: B2-1-4, 26
Smith, J.: E2-3-9, 21
Snyders, R.: B7-2-6, 23
So, P.R.: TS1-1-11, 43
Soares Jr., P.C.: E1-2-9, 17
Soares, G.: BP3, 32
Soares, T.: BP3, 32
Sobiech, M.: BP59, 34; F4-1-8, 27
Sobrinho, J.M.: E1-2-3, 17
Solanki, G.K.: C3-1-10, 16
Solis-Casados, D.: BP53, 34
Sonderby, S.: F6-1-4, 42
Song, H.: C2-1-1, 12; C2-1-2, 12; C4-1-5, 21
Song, S.: BP26, 33; BP27, 33
Sonnleitner, D.: B1-3-2, 11
Soobin, L.: CP12, 35; CP13, 35
Soulignac, R.: A2-3-6, 19
Souza, R.: F5-1-8, 30
Soyoung, J.: CP12, 35
Spitz, S.: B6-1-4, 12
Spolienak, R.: B1-2-7, 7; D1-1-3, 13; D2-2-6, 8; E2-3-2, 21
Spowart, J.: TS1-1-9, 43
Sproul, W.: B5-2-9, 8; BP48, 34; F2-1-6, 22; F2-2-8, 25; FP22, 39
Sprute, T.: B1-3-1, 11
Stafford, S.: A2-3-8, 19
Stefenelli, M.: B6-2-4, 16; TS2-1-6, 28; TS2-2-4, 44
Stein, S.: GP8, 40
Steinborn, K.-D.: G6-1-10, 27
Steneteg, P.: B7-1-9, 20
Stoian, R.: F1-1-2, 17
Stone, D.: E1-2-5, 17
Stoyanov, P.: B4-2-11, 20
Stranak, V.: F2-2-1, 25
Straub, T.: TS2-2-5, 44
Strel'nitskij, V.: B1-3-9, 11
Stüber, M.: B4-2-11, 20; B6-1-4, 12; F3-1-2, 25
Stupka, P.: TS3-1-5, 31
Su, C.: E2-4-6, 26
Su, J.F.: G4-2+E-3, 9; GP4, 40
Su, Q.: B7-1-1, 20
Su, Y.T.: BP69, 34; E3-1+G-9, 29
Suda, Y.: BP40, 33
Suemitsu, M.: FP2, 39
Sugita, Y.S.: G1-1-1, 14
Sugumaran, A.: F6-1-5, 42
Sukotjo, C.: D2-2-12, 8
Sullivan, K.T.: TS3-1-6, 31
Sun, H.: F6-1-5, 42
Sun, L.: C2-1-7, 12
Sun, Y.S.: D2-2-7, 8; DP11, 37
Sundberg, J.: E1-2-4, 17
Sung, H.H.: BP34, 33
Svensson, J.E.: A1-2-8, 7; F6-1-3, 42; F6-1-9, 42
Swadzba, L.: AP12, 32; AP8, 32
Swadzba, R.: A1-2-3, 7; AP12, 32; AP8, 32
Swaminathan, V.: D2-1-2, 5
Syu, Y.E.: CP30, 36
Sze, S.M.: CP9, 35
Szpunar, J.: B3-1-8, 19
Szymański, K.: E2-3-11, 21; EP25, 38
— T —
Tabarant, M.: B4-3-6, 23; BP45, 34; BP75, 35; G1-1-9, 14
Tahmasebian Myandoab, M.T.: B4-2-6, 20
Tai, W.L.: BP29, 33
Tai, Y.H.: CP30, 36; CP31, 36
TAKAHASHI, M.: G4-2+E-8, 9
Takahashi, T.: B4-2-3, 20; BP41, 33; G6-1-5, 27
Takanori, S.: EP12, 38
TAKENO, T.: E1-1-5, 9
Takeuchi, T.: C2-1-4, 12
Taki, M.: BP40, 33
Takikawa, H.: BP40, 33
Takoudis, C.: D2-2-11, 8
Tan, Z.: C2-1-8, 12
Tanaka, K.: G4-2+E-8, 9
TANAKA, Y.: G4-2+E-8, 9
Tanoue, H.: BP40, 33
Tapfer, L.: TS2-2-8, 44
Tasnadi, F.: B7-1-7, 20; B7-1-9, 20
Tasnádi, F.: B5-2-1, 8
Taylor, M.: D2-2-5, 8
Teichert, C.: TS4-1-9, 10
Tengstrand, O.: B5-2-10, 8
Tenorio, A.: BP63, 34
Terasako, T.: C2-1-1, 12; FP3, 39
Terzi, R.: TS2-2-8, 44
Terziyska, V.: BP43, 33
Teshfaye, A.: G1-1-2, 14
Teslich, N.: B1-2-3, 7; F3-1-5, 25
Theiss, S.: BP19, 33
Thiaudière, D.: E2-1-1, 5; F5-1-1, 30; F5-1-2, 30; FP13, 39
Thiele, G.M.: D2-1-5, 5
Tholander, C.: B7-1-7, 20
Thorwarth, G.: D1-1-3, 13; DP14, 37; E2-3-2, 21
Thorwarth, K.: D1-1-3, 13; DP14, 37; E2-3-2, 21
Thune, E.: F1-1-7, 17
Tillmann, W.: B1-3-1, 11
Ting, J.M.: C2-1-5, 12; C4-1-8, 21; TS1-1-11, 43
Tite, T.: B3-1-7, E1-1-2, 919; TS4-1-10, 10
Tiwari, R.: B1-1-6, 3
Tkadletz, M.: B6-1-10, 12; BP65, 34
to Baben, M.: B6-1-3, 12; F4-1-6, 27
To, C.H.: C3-1-7, 16
Tolg, T.: F4-1-5, 27
Tolpygo, V.K.: A2-2-8, 15
Tomoscheit, E.: TS3-1-1, 31
Tong, C.-J.: E2-3-5, 21
Torp, B.: G6-1-7, 27
Torres, R.: A1-2-10, 7; A1-2-9, 7; E1-2-9, 17; F2-2-10, 25
Torres-Huerta, A.M.: FP4, 39
Totik, Y.: B4-2-6, 20; B5-1-5, 4; BP18, 33; BP24, 33; BP68, 34
Trava-Airoldi, V.: B2-1-9, 26; B4-2-12, 20
Tremmel, S.: E2-4-5, 26; EP9, 38
Trentin, R.: G4-1+E-3, 6
Trieschmann, J.: BP19, 33
Tristant, P.: B3-1-1, 19; EP10, 38; F1-1-7, 17
Tryggvason, T.K.: F2-2-5, 25
Tsai: TSP9, 40
Tsai, C.: B7-1-1, 20
Tsai, C.H.: EP24, 38
Tsai, D.C.: BP35, 33
Tsai, H.Y.: AP1, 32
Tsai, J.Y.: CP7, 35; CP8, 35
Tsai, M.-H.: TSP10, 40
Tsai, M.T.: DP4, 37
Tsai, M.W.: CP16, 36
Tsai, W.T.: B6-2-6, 16
Tseng, H.C.: CP33, 36; FP16, 39
Tseng, I.H.: TSP10, 40; TSP9, 40
Tseng, T.C.: B4-1-4, 15
Tseng, T.Y.: CP29, 36; CP32, 36
Tsou, H.K.: DP2, 37
Tsuji, N.: BP40, 33
Tucker, G.J.: E2-1-2, 5
Tului, M.: G5-1-3, 30
Tung, C.Y.: A1-2-11, 7
TURQ, V.: E1-2-3, 17; E3-1+G-3, 29
Turri, R.: B2-2-6, 29
Tzeng, T.L.: BP16, 33
— U —
Uchida, G.: B5-2-7, 8
Uglov, V.: BP37, 33
Uhlmann, E.: B5-2-11, 8; BP44, 34
Uhm, H.S.: CP3, 35
Ulrich, S.: B4-2-11, 20; B6-1-4, 12; F6-1-8, 42
Ulu, F.: G1-1-7, 14
Umemoto, H.: C2-1-4, 12
Unocic, K.A.: A1-1-4, 3; A1-2-1, 7; A2-2-5, 15
Uribe, E.: A1-2-9, 7
— V —
Valerini, D.: TS2-2-8, 44
Valletti, K.: TS2-2-10, 44
van de Sanden, M.C.M.: F1-1-9, 17
Van Regemorter, T.: B7-2-6, 23
Vasić, B.: TS4-1-9, 10
Vassen, R.: A2-1-1, 11
Vasyliov, V.: B1-3-9, 11
Vekilova, O.: B7-1-9, 20
Velasco, F.: A1-2-7, 7
Venter, A.: TSP16, 40
Veprek, S.: B6-1-8, 12
Veprek-Heijman, M.G.J.: B6-1-8, 12
Vernhes, R.: F2-1-3, 22
Vetter, J.: B3-1-5, 19; G6-1-8, 27
Vezzù, S.: G5-1-1, 30; G5-2-3, 43
Vierneusel, B.: EP9, 38
Vilasi, M.: A1-1-3, 3; G1-1-8, 14
Villégier, J.C.: BP60, 34
Vishwanathan, V.: A2-1-7, 11

Vishynakov, V.: E2-3-9, 21
Vitelaru, C.: F2-1-8, 22
Vivek, A.: BP67, 34
Voevodin, A.: B6-1-1, 12; E1-2-5, 17; TS1-1-5, **43**
— **W** —
Wagner, P.: B5-2-1, 8
Walck, S.D.: B2-2-5, 29
Walter, C.: B7-2-4, **23**
Walukiewicz, W.: C4-1-6, 21
Wang, A.: BP79, 35; E2-4-8, **26**
Wang, B.: BP48, 34; F2-1-6, 22; F2-2-8, **25**; FP22, 39
Wang, C.: B6-1-7, 12; TS4-1-6, 10
Wang, C.J.: A1-2-11, 7; B1-3-7, 11; F3-1-6, 25
Wang, C.K.: F5-1-9, 30
Wang, D.Y.: BP39, 33; BP54, 34
Wang, H.: B7-1-1, **20**; E2-2-2, 13; FP18, 39
Wang, L.: E1-2-4, 17; F3-1-3, 25
Wang, M.: F3-1-5, 25
Wang, R.: AP9, 32
Wang, R.C.: F1-1-8, 17
Wang, S.C.: CP15, 35; F1-1-1, 17; F5-1-9, 30; TS4-1-3, 10
Wang, W.: AP9, 32; BP79, **35**
Wang, Y.: CP17, 36
Wang, Y.C.: EP24, **38**
Wang, Y-T.: E2-3-5, 21
Wartzack, S.: E2-4-5, 26; EP9, 38
Weber, J.-W.: F1-1-9, 17
Weeks, S.L.: F1-1-9, 17
Wei, R.H.: B4-2-1, 20; E3-1+G-5, **29**; GP4, 40
Weihnacht, V.: E1-2-1, **17**; G6-1-10, 27
Weise, M.: F4-1-9, 27
Weiß, R.: E2-3-3, 21
Weisse, B.: DP14, 37
Weißenbacher, R.: BP43, 33
Weißmantel, S.: B1-1-4, 3; BP23, 33
Wen, S.P.: A1-2-11, 7
Wheeler, J.: B7-2-4, 23; E2-3-4, 21
Wickersham, J.: B4-3-1, 23
Widrig, B.: E3-2+G-7, 42
Wieclaw, G.: EP27, 38
Wiemer, M.: TS3-1-1, 31
Wilkinson, A.: E2-3-7, 21
Williams, B.: B4-3-1, 23
Wimmer, M.: D2-2-12, 8; D2-2-8, 8
Winter, J.: F2-1-10, 22
Witala, B.: AP12, 32; AP8, 32
Woll, K.: TS3-1-4, 31
Wong, F.L.: C3-1-7, 16
Woo Kyoung, K.: CP12, 35; CP13, 35
Wu, C.L.: F5-1-9, **30**
Wu, C.P.: D2-2-9, 8
Wu, F.B.: B4-1-7, 15; BP73, **35**

Wu, G.M.: CP36, **36**
Wu, K.J.: F3-1-5, 25
Wu, K.W.: F1-1-6, 17
Wu, M.C.: FP5, 39
Wu, M.H.: C4-1-7, 21
Wu, P.-H.: EP1, **38**
Wu, T.: AP9, **32**
Wu, W.: BP39, **33**
Wu, Y.H.: G1-1-5, **14**
Wu, Y.L.: G3-1-3, 18
Wu, Y.T.: C5-1-1, 24
Wyss, A.: D1-1-3, 13; E2-3-2, 21
— **X** —
Xiaogang, H.: B4-3-7, 23; FP17, 39
Xu, H.: F3-1-5, 25
Xu, Y.: B5-2-2, **8**
— **Y** —
Y. S. Lai, Y.S.: TSP11, 40
Yagi, M.: C2-1-1, 12; FP3, 39
Yamaguchi, M.: F3-1-10, 25
Yamaguchi, N.: C2-1-4, 12
Yamamoto, K.: B5-1-3, **4**; E3-2+G-8, 42
Yamamoto, N.: C4-1-5, 21
Yamamoto, T.: C2-1-1, 12; C2-1-2, **12**; C4-1-5, 21
Yamamoto, Y.: E3-2+G-8, 42
Yamazaki, S.: EP11, **38**
Yan, C.: F3-1-9, 25
Yan, Y.: C4-1-3, 21
Yang, B.: B5-2-2, 8
Yang, B.J.: TSP13, 40
Yang, J.: EP4, 38
Yang, J.F.: B1-3-10, **11**
Yang, K.H.: C4-1-7, 21
Yang, L.: BP30, **33**; C5-1-4, **24**; E1-1-12, **9**; E2-1-5, 5
Yang, M.C.: C4-1-7, 21
Yang, Q.: B3-1-8, 19; C5-1-4, 24; E2-1-5, 5
Yang, S.H.: BP25, 33
Yang, Y.C.: E2-2-5, 13; EP22, 38; EP24, 38; FP10, 39; FP16, 39; FP19, 39
Yang, Y.S.: BP13, 33; BP25, **33**
Yasui, K.: C2-1-4, **12**; FP2, **39**
Ye, H.: B4-3-7, 23; FP17, 39
Yeh, B.L.: C4-1-7, 21
Yeh, C.-H.: DP8, 37
Yeh, J.M.: TSP10, 40
Yeh, Y.M.: C4-1-1, **21**; D1-1-1, 13
Yeom, G.Y.: G3-1-6, 18; GP3, 40
Yerokhin, A.: BP81, 35; BP82, 35
Yesildal, R.: EP8, 38
Yi, J.: C2-1-8, 12
Yildirim, B.: A2-1-9, **11**
Yim, J.H.: B2-2-5, 29

Yoon, E.-S.: E1-3-6, **24**
Yoon, G.J.: FP9, 39
York, W.: TS2-2-3, 44
You, B.: CP32, 36
Young, D.: G4-2+E-3, 9
Yu, C.C.: E2-4-10, **26**
Yu, G.P.: B4-2-7, 20; BP38, 33; E2-4-8, 26; EP1, 38; EP2, 38; EP3, 38
Yu, H.P.: TSP9, **40**
Yu, K.: C4-1-6, **21**
Yu, Y.: CP17, **36**; CP19, **36**
Yuan, J.: D2-2-12, 8
Yunli, P.: B4-3-7, 23; FP17, 39
— **Z** —
Zabeida, O.: F2-1-3, 22; F2-1-7, 22
Zagula-Yavorska, M.: A1-2-2, 7; BP7, 32
Zapien, J.A.: C3-1-7, **16**
Zbib, H.: E2-2-6, 13; E2-3-1, 21
Zeinert, A.: TSP6, 40
Zeman, P.: TS3-1-5, 31
Zeng, H.-J.: DP8, 37
Zeng, X.T.: B4-1-5, 15
Zhang, B.: A2-1-10, 11; AP14, **32**
Zhang, C.: B3-1-8, 19; C5-1-4, 24; E2-1-5, 5
Zhang, M.: B4-3-7, **23**; FP17, **39**
Zhang, Q.: E1-1-12, 9
Zhang, T.: A2-3-7, **19**
Zhang, W.: B7-1-1, 20
Zhang, W.J.: F3-1-9, 25
Zhang, X.: E2-2-2, **13**
Zhao, J.: FP18, 39
Zhao, W.: FP18, **39**
Zhigang, S.: FP17, 39
Zho, T.A.: G1-1-1, **14**; TSP1, **40**
Zhou, D.J.: G4-2+E-3, 9
Zhou, f.: C2-1-8, 12
Zhou, J.: C2-1-8, 12
Zhou, L.: B7-1-8, **20**; BP12, **32**; BP22, 33; TS2-1-7, 28
Zhou, Y.W.: B1-2-10, **7**
Zhou, Z.F.: F3-1-9, 25
Zhu, D.: A2-3-1, **19**; AP10, **32**
Zhu, M.H.: EP6, 38
Zhu, P.F.: B1-2-10, 7
Zhu, X.M.: B4-1-1, 15
Zhu, Y.: B7-1-1, 20
Ziebert, C.: F6-1-8, 42
Zimmer, O.: B1-1-5, 3
Zlatanovic, M.: EP21, **38**
Zlotski, S.: BP37, 33
Zou, J.: TS4-1-1, 10
Zywitzki, O.: B2-2-4, 29