

NanoSPD5 Program

Monday, March 21st, 2011

0800-0830	NanoSPD5 Check-in
	Opening Remarks and Overview/Chairperson: J.T. Wang / Room #2
0830-0855	Opening Remarks and Welcome
0855-0915	<u>R.Z. Valiev</u> Ufa State Aviation Technical University, Russia Major Landmarks of NanoSPD Activity: International Conferences from NanoSPD1 to NanoSPD5 (overview)
0915-0935	<u>T.G. Langdon</u> University of Southern California, U.S.A; University of Southampton, U.K. Processing by Severe Plastic Deformation: Historical Developments and Current Impact (overview)
0935-1020	Coffee break and Conference Photos
	Recent Advances in SPD / Chairperson: R.Z. Valiev / Room #2
1020-1100	<u>K. Lu</u> Institute of Metal Research, Chinese Academy of Science, China Nano-scale Twin Strengthening and Nano-twinned Austenite Steels (Invited Plenary Lecture)
1100-1130	<u>G. Wilde</u> , H. Rösner and S. Divinski University of Münster, Germany Microstructure, Atomic-Level Strain and Atomic Mobility of Grain Boundaries In Severely Deformed Metals
1130-1200	<u>T.C. Lowe</u> Manhattan Scientifics Inc., USA; Los Alamos National Laboratory, USA Status of Commercialization of Nanostructured Metals
1200-1340	Lunch break

	Mechanical Behavior Chairperson: K. Lu / Room #1	Characterization Chairperson: G. Wilde / Room #2	Innovations and applications Chairperson: T.C. Lowe / Room #3
1340-1400	Y. Zhang, <u>N.R. Tao</u> and K. Lu Institute of Metal Research, Chinese Academy of Sciences, China Optimization of Strength and Ductility in Pure Copper Subjected to Plastic Deformation and Subsequent Annealing	Y. Cao, Y. Wang, S.N. Alhajeri, R.B. Figueiredo, <u>X. Liao</u> , S.P.Ringer, T.G. Langdon and Y.Zhu The University of Sydney, Australia ; University of Southampton, UK; University of Southern California, USA; North Carolina State University, USA Three-Dimensional Shear Strain Patterns Induced by High-Pressure Torsion and Their Effect on Hardness Evolution	D.R. Leiva, J. Huot, T.T. Ishikawa, C. Bolfarini, C.S. Kiminami, A.M. Jorge and <u>W.J. Botta</u> Universidade Federal De Sao Carlos, Brazil ; Université Du Québec À Trois-Rivières, Trois-Rivières, Canada Hydrogen Activation Behavior of Commercial Magnesium Processed by Different Severe Plastic Deforeamation Routes
1400-1415	<u>Y.T. Zhu</u> , X.L. Wu, X.Z. Liao, and J. Narayan North Carolina State University, USA ; Institute of Mechanics, Chinese Academy of Sciences, China; The University of Sydney, Australia Dislocation-Twin Interactions in Nanocrystalline fcc Metals	<u>W. Pantleon</u> Risoe DTU, Denmark Disorientations after Severe Plastic Deformation and Their Effect on Work-Hardening	<u>P.P. Bhattacharjee</u> and N. Tsuji Indian Institute of Technology Hyderabad, India ; Kyoto University, Japan. Development of Textured Coated Superconductor Substrate Tapes by Severe Plastic Deformation Processing
1415-1430	<u>I. Alexandrov</u> and R. Chembarisova Ufa State Aviation Technical University, Russia Mechanisms of Deformation Behavior of Coarse-Grained and Ultrafine-Grained Ti	<u>S. Li</u> and H. Li Central South University, China ; South China University of Technology, China Texture Evolution in Pure Copper Processed by Equal Channel Angular Extrusion with Extended Processing Routes	<u>W. Zhang</u> and S. Hou Luoyang Ship Material Research Institute, China Nanocrystalline Materials Application
1430-1445	<u>K.V. Ivanov</u> and E.V. Naidenkin Siberian Branch of Russian Academy of Sciences, Russia Structure Evolution and Deformation Mechanisms in Ultrafine-Grained Aluminum under Tension at Room Temperature	<u>E.A. El-Danaf</u> , M.S. Soliman and A.A. Almajid College of Engineering King Saud University, Saudi Arabia Texture Manipulation in Commercial Purity Aluminum by Deformation Path Change From ECAP to Plane Strain Compression	<u>E.V. Navdenkin</u> , I.V. Ratochka and G.P. Grabovetskaya Siberian Branch of Russian Academy of Sciences, Russia The Aspects of Practical Application of Ultrafine-Grained Titanium Alloys Produced by Severe Plastic Deformation
1445-1500	<u>Z.J. Zheng</u> , Y. Gao, Y. Gui and M. Zhu South China University of Technology, China Optimization of Strength and Ductility in Ultra-Fined 304 Stainless Steel after Equal-Channel Angular Processing	<u>R. Arruffat-Massion</u> , D. Goran, J.J. Fundenberger, E. Bouzy, L.S. Toth and T. Grosdidier Université Paul Verlaine - Metz, France Analysis of Texture and Microstructure Developments on the Transverse Section Of Ni Single Crystal during ECAE	<u>G. Raab</u> and F. Utyashev Ufa State Aviation Technical University, Ufa, Russia; Development of SPD Technologies and Establishment of a Production Line for Rod-Shaped Semiproducts out of Nanostructured Titanium for Medical Application

1500-1530	Coffee break		
1530-1600	Special Jubilee talk / Chairperson: T.G. Langdon / Room #2		
	<u>Y. Estrin</u> Monash University, Australia / Seoul National University, Korea From Dislocation Theory to NanoSPD: Forty Years of Exciting Research (Special Jubilee talk)		
	Young Scientists' Oral session 1 / Chairperson: T.G. Langdon / Room #2		
1600-1610	<u>C. Gammer</u> , C. Mangler, H.P. Kamthaler and C. Rentenberger University of Vienna, Austria Combining Advanced Transmission Electron Microscopy Methods for a Complete Structural Analysis of Bulk Nanocrystalline Materials		
1610-1620	<u>A. Loucif</u> , R.B. Figueiredo, T. Baudin, F. Brisset and T.G. Langdon Université de Annaba, Algeria; University of Southampton, U.K; Université Paris-Sud 11, ICMMO, UMR CNRS 8182, France ; University of Southern California, U.S.A. Microstructure Evolution in an Al-6061 Alloy Processed by High-pressure Torsion and Rapid Annealing		
1620-1630	<u>S. Ni</u> , Y.B. Wang, X.Z. Liao, S.N. Alhajeri, H.Q. Li, S.P. Ringer, T.G. Langdon and Y.T. Zhu University of Sydney, Australia; University of Southampton, UK; Los Alamos National Laboratory, USA; University of Sydney, Australia; University of Southern California, USA; North Carolina State University, USA Grain Size Effect on Deformation Twinning and De-twinning in a Nanocrystalline Ni-Fe Alloy		
1630-1640	<u>L. Zhu</u> , H.Z. Sandim, M. Seefeldt and B. Verlinden Katholieke Universiteit Leuven, Belgium; University of Sao Paulo, Brazil Grain Subdivision of a Nb Polycrystal Deformed by Successive Compression Tests		
1640-1650	<u>X.H. An</u> , S.D. Wu and Z.F. Zhang Institute of Metal Research, Chinese Academy of Sciences, China Influence of Stacking Fault Energy on the Microstructures and Grain Refinement in the Cu-Al Alloys during Equal Channel Angular Pressing		
1650-1700	<u>J. Bai</u> , F. Xue, S.N. Alhajeri and T.G. Langdon Southeast University, China; University of Southern California, U.S.A./University of Southampton, U.K. Microstructural Evolution of Mg-4Nd Alloy Processed by High-Pressure Torsion		
1700-1710	<u>P. Šedá</u> , A. Jäger and P. Lejček Institute of Physics, Academy of Sciences of the Czech Republic, Czech Republic; Institute of Chemical Technology Prague, Czech Republic Microstructure and Texture of Magnesium Single Crystals Processed by ECAP		
1710-1720	<u>S.V. Krymskiy</u> , E.V. Avtokratova, M.V. Markushev, M.Yu. Murashkin and O.Sh. Sitdikov		

	Institute for Metals Superplasticity Problems RAS, Russia; Institute of Physics of Advanced Materials, Russia Structure and Hardness of Cryorolled and Heat-Treated 2xxx Aluminum Alloy
1720-1730	I. Shuro , M. Umemoto, Y. Todaka, H.H. Kuo and H. Wang Toyohashi University of Technology, Japan Anomalous Property Evolution during Annealing in HPTed SUS 304 Austenitic Stainless Steel
1730-1740	S. Subbaravan and H.J. Roven Norwegian Univ of Science and Tech, Norway Microstructure Evolution during ECAP of Commercial Purity (CP) Aluminium at 350 °C
1740-1750	G. Reglitz , S. Divinski, H. Rösner and G. Wilde and Y. Estrin University of Münster, Germany; Monash University, Australia; CSIRO Division of Process Science and Engineering, Australia Properties of Non-equilibrium Grain Boundaries in UFG Nickel Produced by Severe Plastic Deformation
1750-1800	H.L. Wang , Z.B. Wang and K. Lu Institute of Metal Research, Chinese Academy of Sciences, China Diffusion of Zn in Grain Boundaries and Twin Boundaries of a Nanostructured Cu Processed by Means of Dynamic Plastic Deformation

Tuesday, March 22nd, 2011

	Invited Keynote Lecture / Chairperson: Y.T. Zhu / Room #2		
0830-0900	Keynote 183 X. Sauvage , G. Wilde and R. Valiev University of Rouen, France; University of Münster, Germany; Ufa State Aviation Technical University, Russia Atomic Scale Investigation of Impurity 3D Distribution in Nanocrystalline Ni Processed by SPD		
	Mechanical Behavior Chairperson: X. Liao / Room #1	Microstructure Characterization Chairperson: Y.T. Zhu / Room #2	Processing Chairperson: W.J. Botta / Room #3
0900-0915	Y.H. Zhao , Y. Li, T. Topping, Y.T. Zhu, R.Z. Valiev and E.J. Lavernia University of California, U.S.A.; North Carolina State University, U.S.A.; Ufa State Aviation Technical University, Russia Mechanical Properties and Deformation in Multi-scale Nanostructured Materials	A. Rebhi, T. Makhlof, J.P. Couzinié, Y. Champion and N. Njah Applied Metallurgy Lab.Sfax Faculty of Sciences, Tunisia; Institut De Chimie Et Des Matériaux, France TEM and DSC Investigation of the Recovery of a Recycled Aluminum Processed by Equal Channel Angular Extrusion	Z.B. Wang and K. Lu Shenyang National Laboratory for Materials Science, Institute of Metal Research, Chinese Academy of Sciences, China Diffusion in Nanostructured Materials Produced by Means of Surface Mechanical Attrition Treatment
0915-0930	Y. Bevgelzimer , R.Z. Valiev and V. Varyukhin Donetsk Institute for Physics & Engineering named	P. Král , J. Dvořák, M. Kvapilová, M. Svoboda, V. Beneš, P. Ponižil, O. Šedivý and V. Sklenička	Z. Fan, J. Song, X. Zhang and C.Xie Shanghai Jiao Tong University, China

	<p>after A.A.Galkin of the National Academy of Sciences of Ukraine, Ukraine Simple Shear: Double-stage Deformation</p>	<p>Academy of Sciences of the Czech Republic; Charles University, Czech Republic; Tomas Bata University In Zlin, Czech Republic Quantitative Characterization of Microstructure in Copper Processed by Equal-Channel Angular Pressing</p>	<p>Phase Transformations and Super-Elasticity of a Ni-rich TiNi Alloy with Ultrafine-Grained Structure</p>
0930-0945	<p>E. Chen, L. Duchêne, A.M. Habraken and B. Verlinden Katholieke Universiteit Leuven, Belgium; University of Liège, Belgium Prediction of the Tension/Compression Asymmetry of ECAP Processed FCC Material Using an Integrated Model Based on Dislocation and Back-stress</p>	<p>T. QIAN, M. Marx, K. SCHUELER and H.VEHOFF Saarland University, Germany; Characterising Ultra-fine-grained AA6063 by Different SEM Based Methods: Why SEM and TEM Not Always Show the Real microstructure</p>	<p>P.B. Berbon and T.G. Langdon California Titanium, China; University of Southern California, USA; University of Southampton, UK High-strength High-purity Sub-micrometer Titanium by Plasma Atomization and Rapid Manufacturing Techniques</p>
0945-1000	<p>N.A. Enikeev, M.Y. Murashkin, X. Sauvage, V.U. Kazykhanov and R.Z. Valiev Ufa State Aviation Technical University, Russia; University of Rouen, France SPD-Induced Grain Boundary Segregations and Superior Strength of UFG Al Alloys</p>	<p>Yanjun Li, Yongjun Chen, Heidi Nordmark and Hans Jørgen Roven SINTEF Materials and Chemistry, 7465 Trondheim, Norway; Department of Materials Science and Engineering, NTNU, 7491 Trondheim, Norway Microstructure evolution of AA3003 aluminium alloy under equal channel angular pressing</p>	<p>L. Cai, J. Hu, B. Prorok, C. Gooneratne and J. Kosel King Abdullah University of Science and Technology, Saudi Arabia; Changzhou University, China; Auburn University, USA Annealing Effect on the Performance of Sputtering Deposited Metglas Thin Films</p>
1000-1025	Coffee break		
	<p>Mechanical Behavior Chairperson: S. Li /Room #1</p>	<p>Microstructure Chairperson: W. Pantleon /Room #2</p>	<p>Functional properties Chairperson: I. Alexandrov / Room #3</p>
1025-1045	<p>Z.F. Zhang, X.H. An, P. Zhang, W. Z.Han, S. Qu, and S.D. Wu Institute of Metal Research, Chinese Academy of Sciences, China Deformation Mechanisms and Mechanical Properties of Cu and Cu Alloys Subjected to Equal Channel Angular Pressing</p>	<p>X. Wu, P. Jiang, and Y.T. Zhu Institute of Mechanics, Chinese Academy of Sciences, China; North Carolina State University, Raleigh, NC 27695, U.S.A. Stacking Fault-Induced High Strength and Ductility in Nanostructured HCP Cobalt</p>	<p>Y. Champion, J-P Couzinié, S. Tusseau-Nenez, Y. Bréchet, R. K. Islamgaliev R. Z. Valiev Université Paris-Est Créteil, CNRS, France; INP Grenoble, France; Ufa State Aviation Technical University, Russia High Strength and Electrical Conductivity of UFG Copper Alloys</p>
1045-1100	<p>I. Semenova and A. Medvedev Ufa State Aviation Technical University, Russia</p>	<p>L.S. Tóth, B. Beausir, C.F. Gu, Y. Estrin and C.H.J. Davies</p>	<p>G. Rogl, M. Zehetbauer, M. Kerber, P. Rogl and E. Bauer University of Vienna, Austria; Michigan State</p>

	Influence of Severe Plastic Deformation and Aging on the Microstructure and Mechanical Properties of β-Alloy Ti-6.8Mo-4.5Fe-1.5Al	Université Paul Verlaine – Metz, France; Technische Universität Dresden, Germany; Monash University, Australia; CSIRO Division of Process Science and Engineering, Clayton, VIC, Australia Effect of Grain Refinement by Severe Plastic Deformation on the Next-Neighbour Misorientation Distribution	University, USA Impact of Ball Milling and High-Pressure Torsion on the Microstructure and Thermoelectric Properties of p- and n-type Sb-based Skutterudites
1100-1115	Z. Zhang , C. Xu, T. Wang and L. Yang Xi'an University of Technology, China Fatigue Properties of Rapidly Solidified Mg-6Zn-1Y-0.6Ce -0.6Zr Alloy Processed by Reciprocating Extrusion	V.V. Popov , E.N. Popova, A.V. Stolbovsky and V.P. Pilyugin Institute of Metal Physics, Ural Division of Russian Academy of Sciences, Russia The Structure of Nb Obtained by Severe Plastic Deformation and Its Thermal Stability	T. Kvackaj , M. Kvackaj, V. Stoyka, R. Kocisko, J. Bidulska and J. Bacso Technical University of Košice, Slovakia; Slovak Academy of Science, Slovakia Influence of ECAR Processing on OFHC Cu Material Properties
1115-1130	K. Hockauf , T. Halle, M. Hockauf, M.F.-X. Wagner and T. Lampke Chemnitz University of Technology, Germany Near-Threshold Fatigue Crack Propagation in an ECAP-Processed Ultrafine-Grained Aluminium Alloy	A. Setiawan , D. Terada and N. Tsuji Kyoto University, Japan High-Temperature Severe Plastic Deformation of Ferritic Steel by Torsion	F. Nie, Y. Wang, S. Wei, Y. Zheng and S. Wang Peking University, China; Shenyang National Laboratory for Materials Science, Institute of Metal Research, and International Centre for Materials Physics, Chinese Academy of Science, China In vitro Corrosion and Haemocompatibility of Bulk Nanocrystalline 304 Stainless Steel by Severe Rolling
1130-1145	J. Horky , G. Khatibi, B. Weiss and M.J. Zehetbauer University of Vienna, Austria Influence of Microstructural Stability on the Fatigue and Crack Propagation Behaviour of Copper Deformed by High Pressure Torsion	C.X. Huang , W.P. Hu and G. Gottstein RWTH Aachen University, Germany Effect of Stacking Fault Energy on Microstructures and Mechanical Behaviors of Cu and Cu-Al Alloys Produced by ECAP	Auriane Etienne , Bertrand Radiguet, Philippe Pareige, N.J. Cunningham, G.R. Odette and Ruslan Valiev Groupe de Physique des Matériaux, UMR CNRS 6634, Université et INSA de Rouen, Saint Etienne du Rouvray, France; Department of Mechanical Engineering UCSB, Santa Barbara, United States of America; Institute of Physics of Advanced Materials, Ufa, Russian Federation Radiation resistance of nanostructured materials Case of austenitic stainless steels
1145-1200	Tao Qian , Michael Marx and Horst VEHOFF Saarland University, Germany Fatigue Behaviour of the Ultrafine Grained Nickel Produced by Equal Channel Angular Pressing	X. Liu, M. Liu , Q. Wang, W. Guo and D. Yin Shanghai Jiao Tong University, China Microstructure and Mechanical Properties of Mg-3Y Binary Alloy Processed by Cyclic Extrusion and Compression	M.M. Abramova , I.V. Alexandrov, V.K. Shamardin, T.M. Bulanova and M.V. Karavaeva Ufa State Aviation Technical University, Russia; Scientific Research Institute of Nuclear Reactor Industry, Russia;

			The Effect of Structure on Mechanical and Corrosion Properties of Austenic Steel Subjected to the Neutron Irradiation
1200-1330	Lunch break		
	Mechanical Behavior Chairperson: X. Wu / Room #1	Microstructure Chairperson: L.S. Tóth /Room #2	Processing Chairperson: Y. Champion / Room #3
1330-1350	<u>Y. Ivanisenko</u> , H-J. Fecht Karlsruhe Institute of Technology, Germany, University of Ulm, Germany Cooperative Grain Boundary Sliding and Shear Banding at High Strains in Ultrafine Grained and Nanocrystalline Pd Alloys	<u>E. Schafner</u> University of Vienna, Austria Effect of Hydrostatic Pressure on the Microstructure and Mechanical Properties during and after High Pressure Torsion	<u>O. Bouaziz</u> , D. Barbier, R. Arrufat-Massion, L. Toth, A. Pougis, M. Arzaghi, J.J. Fundenberger and X. Sauvage Arcelormittal Research, France; Centre Des Matériaux, France; Université Paul Verlaine Metz, France; Université De Rouen, France High-Pressure Tube Twisting : a New Continuous SPD Process
1350-1410	J. Jiang, Y. Ding and <u>A. Shan</u> Shanghai Jiao Tong University, China Strengthening of CP-Ti by Rolling at Room Temperature	<u>K. Tsuchiya</u> and O. Ciuca National Institute for Materials Science Tsukuba, Japan Nanostructure Formation and Amorphization in Intermetallic Compounds by Severe Plastic Deformation	<u>H.S. Kim</u> Pohang University of Science and Technology , Korea Computer Simulations of Plastic Deformation and Microstructural Evolution During High-Pressure Torsion Using the Finite Element Method Based on the Dislocation Cell Model
1410-1425	<u>I.S. Golovin</u> and Y. Estrin National Research Technological University, Russia; Monash University/ CSIRO Division of Process Science and Engineering, Australia Mechanical Spectroscopy of Ultrafine Grained Copper	<u>H.W. Zhang</u> , X. Huang, N. Hansen and R. Pippan Institute of Metal Research, Chinese Academy of Sciences, China; Danish-Chinese Center for Nanometals, Technical University of Denmark, Denmark; Austrian Academy of Sciences, Austria Microstructure of Pure Ni Subjected to High Pressure Torsion	<u>R. Lapovok</u> , Y. Estrin, R. Djugum and A. Lerk Monash University, Australia Severe Plastic Deformation Processes with Friction Induced Shear
1425-1440	<u>V. Sklenička</u> , P. Král, J. Dvořák, M. Kvapilová, M. Kawasaki and T.G. Langdon Institute of Physics of Materials, Academy of Sciences of the Czech Republic, Czech Republic; University of Southern California, U.S.A.; University of Southampton, UK	<u>A. Belyakov</u> , K. Tsuzaki and R. Kaibyshev Belgorod State University, Russia; National Institute for Materials Science, Japan Nanostructure Evolution in an Austenitic Stainless Steel Subjected to Multiple Forging at Ambient Temperature	<u>G.R. Cui</u> , D.R. Ni, B.L. Xiao and Z.Y. Ma Institute of Metal Research, Chinese Academy of Sciences, China Fabrication of Ultra-Fine Grained Pure Aluminum by Friction Stir Processing

	Effect of Equal-Channel Angular Pressing on the Creep Resistance of Precipitation-Strengthened Alloys		
1440-1455	P. Yang , H. Yang, J. Tao, C. Li, L. Shen and X.K. Zhu Kunming University of Science and Technology, China Influence of Stacking Fault Energy on the Mechanical Properties and Work Hardening Behavior of Ultra-Fine (UF) Grained Cu and Cu Alloys	W. Guo, Q. Wang , M. Liu, T. Peng, X. Liu and H. Zhou Shanghai Jiao Tong University, China Microstructure and Mechanical Performance of AZ31-1.7wt.% Si Alloy Processed by Cyclic Channel Die Compression	T. Grosdidier , Y. Samih, N. Allain-Bonasso, B. Bolle, Z.X. Zou, Y. Quin, S.Z. Hao and C.Dong Université Paul Verlaine - Metz, France; Dalian University of Technology, China Grain Refinement and Hardening Induced by Heavy Deformation Using Low Energy High Current Pulsed Electron Beam Surface Treatment
1455-1530	Coffee break		
Young Scientists' Oral session 2 / Chairperson: Y. Estrin / Room #2			
1530-1540	K. Edalati and Z. Horita Kyushu University, Japan Correlation of Physical Parameters with Steady-State Hardness of Pure Metals Processed by High-Pressure Torsion		
1540-1550	L. Kurmanaeva , Yu. Ivanisenko and H.-J. Fecht Institute of Nanotechnology (INT) Karlsruhe Institute of Technology, Germany; Institute of Micro and Nanomaterials, University of Ulm, Germany The Optimal Grain Size for Maximal Strength and Ductility in Nanocrystalline Pd.		
1550-1600	Y. Zhang , S.N. Alhajeri, R.B. Figueiredo, N. Gao, J.T. Wang and T.G. Langdon Nanjing University of Science and Technology, China; University of Southampton, U.K.; University of Southern California, U.S.A. Contribution of Twins to the Strengthening of Commercial Purity Titanium after Equal-Channel Angular Pressing		
1600-1610	P. Frint , M. Hockauf, T. Halle, G. Strehl, T. Lampke and M.F.-X. Wagner Chemnitz University of Technology, Germany Microstructural Features and Mechanical Properties after Industrial Scale ECAP of an Al-6060 Alloy		
1610-1620	N. Hu and X.C. Xu Central South University, China Influence of Dissolved Precipitated Phase on Mechanical Properties of Severely Deformed Al-4 wt%Cu Alloy		
1620-1630	M. Gazizov , V. Teleshov, V. Zakharov and R. Kaibyshev Belgorod State University, Russia Effect of ECAP on Mechanical Properties of an Al-Cu-Mg-Ag-Sc Alloy		
1630-1640	A. Mogucheva and R. Kaibyshev Belgorod State University, Russia		

	Effect of ECAP on Microstructure and mechanical properties of an Al-Mg-Sc Alloy
1640-1650	H. Asgharzadeh , A. Simchi and H.S. Kim Sharif University of Technology, Iran; Pohang University of Science and Technology, South Korea Hot Workability of Ultrafine-Grained Aluminum Alloy Produced by Severe Plastic Deformation of Al6063 Powder and Consolidation
1650-1700	N. Zhang , H. Ding, J. Li, X. Wu, Y. Li and K. Xia Northeastern University, China; University of Melbourne, Australia Microstructure and Mechanical Properties of Ultra-Fined Grain AZ80 Alloy Processed by Back Pressure Equal Channel Angular Pressing
1700-1710	M. Fatemi-Varzaneh , J.M. Cabrera and A. Zarei-hanzaki University of Tehran, Iran; Polytechnique University of Catalonia, Spain Microstructure and Mechanical Properties of an AZ31 Magnesium Alloy Processed by Accumulative Back Extrusion (ABE)
1710-1720	H.N. Kou and J. Lu The Hong Kong Polytechnic University, China Bulk Nanostructured TWIP Steel with Simultaneous High Strength and Good Ductility
1720-1730	M.X. Yang , G. Yang, Z.D. Liu, C. Wang and C.X. Huang Central Iron and Steel Research Institute, China; Kunming University of Science and Technology, China; Institute of Metal Research, Chinese Academy of Sciences, China Microstructures and Tensile Properties of Maraging Steel Processed by Equal-Channel Angular Pressing
1730-1740	A. Bachmaier and R. Pippan Erich Schmid Institute of Materials Science - Austrian Academy of Sciences, Austria; Institute of Solid State Physics -Vienna University of Technology, Austria; Christian Doppler Laboratory for Local Analysis of Deformation and Fracture, Austria Microstructure and Properties of a Fe–Cu Composite Processed by HPT Powder Consolidation
1740-1750	O.F. Higuera , J.A. Muñoz and J.M. Cabrera Technical University of Catalonia, Spain/ Technological University of Pereira, Colombia; CTM Technical Centre, Spain Mechanical Properties of Different Coppers Processed by Equal-Channel Angular Pressing
1750-1800	Y.C. Dong , I.V. Alexandrov and J.T. Wang Ufa State Aviation Technical University, Russia; Nanjing University of Science and Technology, China The Dynamic Behavior of Ultra-Fine-Grained Copper Fabricated by Equal Channel Angular Pressing

Wednesday, March 23rd, 2011

	Invited Keynote Lecture / Chairperson: Y. Ivanisenko / Room #2
0830-0900	R. Pippan and M. Faller Austrian Academy of Sciences, Austria Effect of precipitation and second phases on the limitation in the refinement by SPD

	Mechanical Behavior Chairperson: E. Schafner /Room #1	Aging in SPD Materials Chairperson: Y. Ivanisenko /Room #2	Processing Chairperson: O. Bouaziz /Room #3
0900-0915	M.S. Soliman , E.A. El-Danaf and A.A. Almajid King Saud University, Saudi Arabia Static and Cyclic Deformation of Commercially Pure Al Processed by Equal-Channel Angular Pressing Using Two Routes	W. Hu , S. Zhang, X. He, Z. Liu, R. Berghammer and G. Gottstein RWTH Aachen University, Germany Investigations on Microstructure Evolution Deformation Behavior of Aged and Ultrafine Grained Al-Zn-Mg Alloy Subjected to Severe Plastic Deformation	Y. Perlovich , M. Isaenkova, V. Fesenko, O. Krymskaya and A. Zavodchikov National Research Nuclear University, Russia; Perm Research Technological Institute, Russia Features of Structure Development in the Zone of Difficult Deformation Under Radial Forging of Products From Zr-Based Alloys
0915-0930	Y. Shen , W.Zeng, X.Huang, L.Zhang and A. Shan Shanghai Jiao Tong University, China; Ris DTU National Laboratory, Denmark The Effects of Annealing and Electro Pulse Treatment on Mechanical Properties of SPD Processed Pure Al	G. Sha , Y. Wang, J. Li, Z.C. Duan, X. Wu, R. Lapovok, X. Liao, W. Jie, K. Xia, R.Z. Valiev, T.G. Langdon and S.P. Ringer The University of Sydney, Australia; The University of Sydney, Australia; Northwestern Polytechnical University, China; University of Southern California, USA; University of Melbourne; Monash University, Australia; Ufa State Aviation Technical University, Russia; University of Southampton, UK Engineering Precipitate Microstructure of Materials by Severe Plastic Deformation	X. Zhao , and X. Yang Zhengzhou Institute of Aeronautics, China; Zhengzhou Zhongxing Basic Constructions Development Co., China; State Key Lab.of Metastable Materials Science and Technology, China Ultrafine-Grained Steel Produced by Warm Rolling and Annealing of Lath Martensite
0930-0945	J. Bidulská , T. Kvačkaj, R. Kočiško, R. Bidulský and M.A. Grande Technical University of Košice, Slovakia; Politecnico di Torino, Italy Effect of ECAP on Dimensional and Morphological Characteristics of High Performance Aluminium PM Alloy	H. Matsunaga, Z. Horita , K. Imamura, T. Kiss and X. Sauvage Kyushu University, Japan; University of Rouen, France. Aging Behavior of Cu-Ni-Si Alloy Processed by High-Pressure Torsion	H.S. Liu , B. Zhang and G.P. Zhang Institute of Metal Research, Chinese Academy of Sciences, China; Northeastern University, China Enhanced Plasticity of Cu-based Laminated Composites Produced by Cold Roll-Bonding
0945-1000	G. Yang and F. Yin Central Iron and Steel Research Institute of Beijing, China; Shandong University of Technology, China Effect of ECAP on the Microstructure and Mechanical Properties of 17-4PH Stainless Steel	R. Berghammer , W. Hu, A. Hasani and G. Gottstein Institute of Physical Metallurgy and Metal Physics RWTH Aachen University, Germany; Laboratoire de Physique et Mécanique des Matériaux Université Paul Verlaine - Metz Ile du Saulcy, Germany Influence of the Precipitation State on Thermal Stability of an Ultra-fine Grained AlMnFe-Alloy	W. Bochniak, P. Ostachowski , A. Korbel and K. Piela Department of Structure and Mechanics of Solids, Poland Superplastic Flow of Metals Extruded by KoBo Method

		Produced by Equal Channel Angular Pressing	
1000-1025	Coffee break		
	Mechanical Behavior Chairperson: R. Pippan /Room #1	Microstructure and property Chairperson: K. Tsuchiya /Room #2	Processing & Consolidation Chairperson: H.S. Kim /Room #3
1025-1045	<u>A.H. Chokshi</u> Indian Institute of Science, India Comparison of Microstructural Stability and Superplasticity in Bulk Nanomaterials	<u>B. Straumal</u> Institute of Solid State Physics, Russia;Max-Planck-Institut, Germany Phase Transitions in Nanograined Materials Driven by the Severe Plastic Deformation	<u>M. Göken</u> and H. Höppel University Erlangen-Nürnberg, Germany Tailoring Nanostructured Al Alloys by Accumulative Roll Bonding (ARB)
1045-1100	<u>F. Yuan</u> and X. Wu Institute of Mechanics, Chinese Academy of Science, China Evolution of Adiabatic Shear Band in Ultra-Fine-Grained Iron under Dynamic Shear Loading	M. Bönisch, <u>M.J. Zehetbauer</u> , M. Krystian, D. Setman and G. Krexner University of Vienna, Austria Stabilization of Lattice Defects in HPT-deformed Palladium Hydrid	<u>K. Xia</u> University of Melbourne, Australia SPD Consolidation of Particles: Mechanism and Applications in Processing Bulk Ultrafine and Nanostructured Alloys and Composites
1100-1115	<u>J. Dvořák</u> , P. Král, M. Kvapilová, M. Svoboda and V. Sklenička Institute of Physics of Materials, Academy of Sciences of the Czech Republic, Czech Republic Microstructure Stability and Creep Behaviour of a Cu-0.2wt.%Zr Alloy Processed by Equal-Channel Angular Pressing	<u>N. Dudova</u> , A. Belyakov and R. Kaibyshev Belgorod State University, Russia Recrystallization Mechanisms Leading to the Formation of Nanoscale Grains in a Ni-20%Cr Alloy Subjected to Intense Plastic Deformation	<u>M. Richert</u> , J. Richert, A. Hotloś, P. Pałka, W. Pachla and M. Perek University of Science and Technology, Poland Ag Powders Consolidated by Reciprocating Extrusion (CEC)
1115-1130	X.Y. Liu, <u>X.C. Zhao</u> and X.R. Yang Xi'an University of Architecture and Technology, China Strain Rate Sensitivity of Ultrafine-grained CP-Ti Processed by ECAP at Room Temperature	<u>A. Hohenwarter</u> and R. Pippan Erich Schmid Institute of Materials Science, Austrian Academy of Sciences, Austria; CD-Laboratory for Local Analysis of Deformation and Fracture, Austria An Overview on the Fracture Behavior of Metals Processed by High Pressure Torsion	<u>A. Molotnikov</u> , R. Lapovok, T. Peng and Y. Estrin Monash University, Australia; CSIRO Division of Process Science and Engineering, Australia; Shanghai Jiao Tong University, China Comparison of Different Extrusion Methods for Compaction of Powders
1130-1145	<u>N.Q. Chinh</u> , T. Csanádi, J. Gubicza, R.Z. Valiev, B.B. Straumal and T.G. Langdon Eötvös Loránd University, Hungary;Ufa State Aviation	<u>C. Mangler</u> , C. Gammer, H.P. Karnthaler and C. Rentenberger University of Vienna, Austria	<u>E.W. Lui</u> , W. Xu and K. Xia The University of Melbourne, Australia Nonostructured Dual Phase Ti-Al through

	Technical University, Russia; University of Southern California, U.S.A./University of Southampton, U.K. The Effect of Grain Boundary Sliding and Strain Rate Sensitivity on the Ductility of Ultrafine-Grained Materials	Properties of Nanocrystalline FeAl produced by High Pressure Torsion	Consolidation of Particles by Severe Plastic Deformation
1145-1200	S. Fritsch , M. Händel, D. Nickel, M. Hockauf, T. Lampke and M.F.X. Wagner Chemnitz University of Technology, Germany Mechanical Properties and Stress Corrosion Cracking Behaviour of the Ultrafine-grained High-strength Aluminium Alloy 7075	A.H. Feng, M.R. Shagiev, B.B. Li, Y.J. Huang and J. Shen Harbin Institute of Technology, China; Institute for Metals Superplasticity Problems, Russia A Novel Ti₂AlNb-based Intermetallic with High Specific Strength	K. Venkateswarlu , V. Rajinikanth, M.K. Sen, S.N. Alhajeri and T.G. Langdon National Aerospace Laboratories, India; National Metallurgical Laboratory, India; University of Southampton, U.K.; University of Southern California, USA Application of High-Pressure Torsion to Al-Si Alloys with and without Scandium Additions
1200-1330	Lunch break		

1330-1500	Young Scientists' Poster Session	Regular Poster Session
	Poster size: 100 cm (wide) x 110 cm (height) Poster number at left top with a size of 20 cm x 20 cm	Poster size: 100 cm (wide) x 110 cm (height) Poster Number at left top with a size of 20 cm x 20 cm

1500-1530	Coffee break
	Young Scientists' Oral Session 3 / Chairperson: <u>X. Sauvage</u> /Room #2
1530-1540	Z.J. Zhang , Q.Q. Duan, S.D. Wu, G. Yang and Z.F. Zhang Institute of Metal Research, Chinese Academy of Sciences, China; Central Iron and Steel Research Institute, China Effects of Stacking Fault Energy on High-cycle Fatigue Behaviors of Ultrafine-grained Cu-Zn Alloy Produced by ECAP
1540-1550	V. Polyakova , I. Semenova and R. Valiev Ufa State Aviation Technical University, Russia Influence of Annealing on the Structure and Mechanical Properties of Ultrafine-Grained Alloy Ti-6Al-7Nb, Processed by Severe Plastic Deformation
1550-1600	J. Leuthold , M. Wegner, D. Setman, M. Zehetbauer, S.V. Divinski, K.A. Padmanabhan and G. Wilde University of Münste, Germany; University of Vienna, Austria Low and Medium Homologous Temperature Creep Behaviour of High Pressure

	Torsion Processed Ultra-fine Grained Samples
1600-1610	S. Kahofer , M.J. Zehetbauer, H. Danninger, E. Schafner, M. Kerber and J. Horky University of Vienna, Austria; Vienna University of Technology, Austria; Nanocrystallization and Dissolution of Immiscible Powder Alloys Using High Pressure Torsion
1610-1620	Y. Guo , M. Hudspeth, C. Saldana, T. Murthy and S. Chandrasekar Purdue University, USA; Indian Institute of Science, India Controlled Nanostructuring of Metal Surfaces by Machining
1620-1630	A.de A. Mendes Filho , V.L. Sordi and M. Ferrante Federal University of Sao Carlos Optimization of Tensile Strength and Ductility of Grade 2 Ti, Conditioned by Severe Plastic Deformation
1630-1640	J.W. Zhang , M.J. Starink, N. Gao and W.L. Zhou Dalian University of Technology, China; University of Southampton, U.K. Influence of Strain Reversals during High Pressure Torsion Process on Strengthening in Al-Cu-Mg(-Li) Alloy
1640-1650	S. Alhajeri , M. Kawasaki, N. Gao and T.G. Langdon University of Southampton, U.K./College of Technological Studies PAAET; University of Southern California, U.S.A The Evolution of Homogeneity during Processing of Aluminium Alloys by HPT
1650-1700	J. Zhao , H. Zhang, Y. Yang, J. Chen, Q. Wen, Z. Wang, L. Zhang and Y. Gao North China Institute of Aerospace Engineering, China; Yanshan University, China Effect of Severe Cold-Rolling and Subsequent Annealing on Microstructure and Properties of In-situ Composite Steel
1700-1710	A.N. Petrova , I.G. Brodova, I.G. Shirinkina, E.V. Shorokhov and P.A. Nasonov Institute of Metal Physics, Ural Division, Russian Academy of Sciences, Russia; Russian Federal Nuclear Center - Zababakhin All-Russian Reserch Institute of Tehnical Physics, Russia Application of High-speed Deformation Methods for Nanostructuring in Aluminum Alloys.
1710-1720	Y. Wang, Q.W. Jiang , Y. Wu and X.W. Li Northeastern University, China; Shanghai Institute of Technology, China Comparison of High-Temperature Compressive Deformation Characteristics of Differently Processed LY12 Aluminum Alloys
1720-1730	E. Brude , M.O. Görtan, P. Groche and C. Müller Technische Universität Darmstadt, Germany; Severe Plastic Deformation by Equal-Channel Angular Swaging
1730-1740	H. Iwaoka , Y. Harai and Z. Horita Kyushu University, Japan High-Pressure Torsion for Ring Samples in Different Thicknesses
1740-1750	E.Y. Yoon , D.J. Lee, C.S. Lee, and H.S. Kim

	POSTECH, Pohang, Korea Analysis of Local Deformation of Copper during High Pressure Torsion
1750-1800	<u>N.V. Govindaraj</u> , B. Holmedal and K. Marthinsen Norwegian University of Science and Technology, Norway Effect of Annealing Treatment on Accumulative Roll Bonded Al-Mn Alloy

Thursday, March 24th, 2011

	Invited Keynote Lecture / Chairperson: M.J. Zehetbauer / Room #2		
0830-0900	<u>L. Jian</u> , A. Chen, H. Kou, L. Wang, Y. Li and L. Zhu City University of Hong Kong, China Recent Developments on High Strength and High Ductility Nanomaterials Obtained by SMAT (Surface Mechanical Attrition Treatment)		
	Mechanical Behavior Chairperson: A.H. Chokshi / Room #1	Microstructure Chairperson: M.J. Zehetbauer / Room #2	Processing Chairperson: K. Xia / Room #3
0900-0915	F. Khodabakhshi, <u>M. Kazeminezhad</u> , M. Azamush and S.H. Miran Sharif University of Technology, Iran Effect of Post Annealing Treatment on Nano-structured Low Carbon Steel Sheets Processed by Constrained Groove Pressing	<u>P. Jiang</u> , J. Lu and X.L. Wu State Key Laboratory of Nonlinear Mechanics, Institute of Mechanics, China Microstructure Evolution and Tensile Properties of 304L Stainless Steel Subjected to Surface Mechanical Attrition Treatment	<u>A. Rosochowsk</u> and L. Olejnik University of Strathclyde, United Kingdom ; Warsaw University of Technology, Poland Current Practice and Future Opportunities for Two-Turn ECAP
0915-0930	<u>R. Kaibyshev</u> and A. Mogucheveva Belgorod State University, Russia Effect of ECAP on Mechanical Properties of an AA2014 Alloy	<u>S. Xu</u> , G. Ren, G. Wang and P. Liu Shandong Jianzhu University, P.R.China ; Shandong University, P.R.China; Numerical Simulation and Experimental Investigation of Grain Refinement Behavior in Equal Channel Angular Pressing/Extrusion Process	X.D. Zhu, <u>X.J. Xu</u> , H. Zhao, K. Chong, C. Cheng and X.N. Cheng Jiangsu University, China The Novel Continuous Large Deformation Technology Intergating Conventional Rolling with Equal-Channel Angular Technology
0930-0945	<u>M.X. Huang</u> , D. Barbier, O. Bouaziz, Z. Hamouche and J. Chevalier ArcelorMittal Research, France/The University of Hong Kong, China ; Centre des Matériaux/Mines Paris, France ; Chaire des matériaux industriels métalliques et céramiques, France Effect of Solid Solution on the Work Hardening	<u>R.K. Islamgaliev</u> , M.A. Nikitina and A.F. Kamalov Ufa State Aviation Technical University, Russia Enhanced Thermal Stability and Mechanical Properties of Ultrafine-Grained Aluminium Alloy	<u>C.W. Schmidt</u> , C. Knieke, V. Maier, H.W. Höppel, W. Peukert and M. Göken Institute of General Materials Properties, Germany ; Institute of Particle Technology, Germany Influence of Nanoparticle Reinforcement on the Mechanical Properties of Ultrafine-Grained Aluminium Produced by ARB

	Capacity of Ultrafine Grained Fe Based Alloys		
0945-1000	E.F. Prados, V.L. Sordi and M. Ferrante Federal University of São Carlos, Brasil Precipitation Effect on Work Hardening Behavior of ECAP-Deformed Al-4%Cu Alloy	S. Zharebtsov , E. Kudryavtsev and G. Salishchev Belgorod State University, Russia Mechanism of Microstructure Refinement in Titanium during “abc” Deformation at 400°C	L. Kommel , V. Mikli, R. Traksmaa, M. Saarna, A. Pokatilov, S. Pikker and I. Kommel Tallinn University of Technology, Estonia; Metrosert Ltd, Estonia; Institute of Standards, Russia Influence of the SPD Processing Features on the Nanostructure and Properties of a Pure Niobium
1000-1025	Coffee break		
	Mechanical Property Chairperson: Z. Horita / Room #1	Microstructure Chairperson: B. Straumal / Room #2	Processing Chairperson: M. Göken /Room #3
1025-1045	H.J. Roven Norwegian University of Science and Technology, Norway Ultra-high Strength Aluminum Processed by Severe Plastic Deformation	A.P. Zhilyaev and M.T. Pérez-Prado Centro Nacional de Investigaciones Metalúrgicas (CENIM), Spain/Institute for Metals Superplasticity Problems, Russia; Madrid Institute for Advanced Studies of Materials (IMDEA-Materials) C/ Profesor Aranguren s/n, Spain Phase Transformations in Pure Zr and in a Zr-2.5%Nb Alloy Induced by High-Pressure Torsion	V. Varvukhin , Y.Beygelzimer, R. Kulagin, O. Prokof'eva, and A. Reshetov Donetsk Institute for Physics & Engineering of Nasc of Ukraine Twist Extrusion: Fundamentals and Applications
1045-1100	P. Zhang , G. Yang, S. Wu, S. Li and Z. Zhang Institute of Metal Research, Chinese Academy of Sciences, China; Central Iron and Steel Research Institute, China Microstructural Evolution and Mechanical Properties of Cu and Cu-Zn Alloys Subjected to Equal Channel Angular Pressing	M.Z. Quadir , O. Al-Buhamad and M. Ferry University of New South Wales, Australia; Harvey Mudd College, USA The Mechanical Performance of ARB Fabricated Hybrid Lamellar Composite of Recovered/Recrystallized Al and Precipitation Hardened Al(Sc) Layers	W. Skrotzki , R. Chulist, B. Beausir and M. Hockauf Dresden University of Technology, Germany; Chemnitz University of Technology, Germany Equal-Channel Angular Pressing of NiAl
1100-1115	L. Chen , P. Jiang, X.L. Wu, M.X. Yang, C. Wang and G. Yang Institute of Mechanics, Chinese Academy of Science, China Mechanical Properties and Microstructure of a Duplex Nanostructure	M.Y. Zheng , H. Chang, X. Chao, K. Wu, W.M. Gan and H.G. Brokmeier Harbin Institute of Technology, P.R.China; Institute of Materials Research, Germany; Clausthal University of Technology, Germany Ultrafine-Grained Mg/Al Multilayered Composite	J.T. Wang Nanjing University of Science and Technology, P.R.China Exploring the Significance of Plastic Strain in the Development of New Materials

		Processed by Accumulative Roll Bonding at Ambient Temperature	
1115-1130	J. Zrník , R. Pippan, S. Scheriau, M. Fujda COMTES FHT, s.r.o., Dobruška/University of West Bohemia, Czech Republic; Erich-Schmid Institute of Materials Science, Austria; Technical University of Kosice, Slovak Republic Ultrafine Structure Formation in Aluminium Alloy Processed by HPT and Mechanical Properties Response	W. Du , X. Wang, Z. Wang and S. Li Beijing University of Technology, China Nano-crystalline Structure in Mg₂Si/Mg-2.5Er-5Zn Composite on the Route of Repeated Plastic Working Process	M. Lewandowska , H. Dybiec, M. Kulczyk, J. Latuch and K.J. Kurzydłowski Warsaw University of Technology, Poland; AGH University of Science and Technology, Poland; Polish Academy of Sciences Poland Nano-Refinement, Nano-Consolidation: Different Fabrication Routes of Nano-Crystalline Aluminium Alloys
1130-1145	C. Xu , Z. Horita and T.G. Langdon Ningbo Institute of Material Technology & Engineering, Chinese Academy of Sciences, China/University of Southern California, U.S.A.; Kyushu University, Japan; University of Southampton, U.K. Mechanical Properties of Al-6061 and an Al-6061 Metal Matrix Composite Processed by High-Pressure Torsion	W. Wei , F. Wang, K.X. Wei, I.V. Alexandrov and J. Hu Changzhou University, P.R.China; Ufa State Aviation Technical University, Russia; Microstructure and Properties of Cu-5.7%Cr in Situ Fibrous Composite Produced by Equal-Channel Angular Pressing and Cold Rolling	N. Lopatin , G. Diakonov and O. Pleshakova Belgorod State University, Russia Effect of Combined Rolling Processes on Structure and Mechanical Properties of Pure Titanium Rods
1145-1200	Y.Z. Tian , Z.F. Zhang, R.B. Figueiredo, N. Gao and T.G. Langdon Institute of Metal Research, Chinese Academy of Sciences, China; University of Southampton, U.K.; University of Southern California, U.S.A. Investigation on the Microstructure and Mechanical Properties of a Cu-Ag Alloy Processed by ECAP and HPT	T. Hausöl , H.W. Höppel and M. Göken Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany Microstructure and Mechanical Properties of Accumulative Roll Bonded AA6014/AA5754 Aluminium Laminates	D. Orlov , R. Lapovok and L.S. Tóth Monash University, Australia; Université Paul Verlaine, France Asymmetric Rolling as the Tool for SPD Processing of IF Steel Sheet: FEM Simulations and Experimental Validation
1200-1330	Lunch break		
1330-1800	Nanjing Tour		

Friday, March 25th, 2011

	Invited Keynote Lecture / Chairperson: H.J. Roven /Room #2		
0830-0900	<u>S. Dobatkin</u> Baikov Institute of Metallurgy and Materials Science, Russian Academy of Sciences, Russia Mechanical and Service Properties of Nano- and Submicrocrystalline Materials Obtained by Severe Plastic Deformation		
	Mechanical Behavior Chairperson: A.P. Zhilyaev /Room #1	Grain Refinement Chairperson: H.J. Roven /Room #2	UFG light metals Chairperson: V. Varyukhin /Room #3
0900-0915	<u>Z.S. You</u>, L. Lu and K. Lu Institute of Metal Research, Chinese Academy of Sciences, China Temperature effect on rolling behavior of Cu with nano-scale twins	<u>S.V. Divinski</u>, K.A. Padmanabhan and G. Wilde University of Münster, Germany; University of Hyderabad, India On The Theoretical Limits of Microstructure Evolution in Severe Plastic Deformation	<u>D. Zhang</u>, A. Mukhtar, A.A. Gazawi, C. Kong and P. Munroe University of Waikato, New Zealand; Waikato Centre for Advanced Materials, New Zealand; University of New South Wales, Australia Nanocomposites Produced by Severe Plastic Deformation Assisted Consolidation of Nanostructured Powders
0915-0930	<u>T. Suo</u>, Y. Li, F. Zhao and K. Xie Northwestern Polytechnical University, China Temperature Effects on the Mechanical Behavior of Ultrafine-Grained Material	<u>J. Kratochvil</u> Czech Technical University, Czech Republic Mechanism of Grain Refinement Induced by Severe Plastic Deformation	<u>T. Tokarski</u> AGH University of Science and Technology, Poland Characterization of AM60 Magnesium Alloy Prepared by Rapid Solidification and Plastic Consolidation Technique
0930-0945	<u>N. Gao</u>, C.T. Wang, R.J.K. Wood and T.G. Langdon University of Southampton, U.K.; University of Southern California, U.S.A. Wear Resistance of SPD-Processed Alloys	<u>N.A. Koneva</u>, N.A. Popova and E.V. Kozlov Tomsk State University of Architecture and Building, RF Three Critical Grain Sizes of Metallic Polycrystals	<u>J. Li</u>, H. Ding, X. Wu, W. Xu and K. Xia Northeastern University, China; University of Melbourne, Australia The Influence of Texture and Grain Size on Compressive Deformation Behavior of Pure Mg Though Equal-Channel Angular Processing
0945-1000	<u>A. Reshetov</u>, A. Korshunov, A. Smolyakov, Y. Beygelzimer, V. Varyukhin, I. Kaganova, and A. Morozov Donetsk Physics&Engineering Institute, National Academy of Sciences of Ukraine, Ukraine; Russian Federal Nuclear Center VNIIEF, Russia	<u>T. Furuta</u>, S. Kuramoto, K. Edalati, S. Toh and Z. Horita Toyota Central R&D Laboratories Inc, Japan; Kyushu University, Japan Grain Refinement Mechanism of Nano-Structured	<u>M. Hockauf</u>, B. Zillmann, S. Seippa, M.F.-X. Wagner, I. Schneider and L.W. Meyer Chemnitz University of Technology, Germany; Wehrwissenschaftliches Institut für Werk- und Betriebsstoffe, Germany; Nordmetall Research and

	Distribution of Mechanical Properties by Volume in Titanium Billets Processed by Twist Extrusion	Fe-Ni-Co-Ti Alloys Produced by High Pressure Torsion	Consulting GmbH, Germany Stress-strain Behavior of the Ultrafine-grained Mg-alloy AZ31B Over a Wide Range of Strains and Strain Rates
1000-1030	Coffee break		
	Invited Plenary Lecture and closing ceremony / Chairperson: T.G. Langdon / Room #2		
1030-1110	M.A. Meyers University of California, USA Microstructural Evolution and Mechanical Properties in Ultra -Fine Grained Metals (Invited Plenary Lecture)		
1110-1200	Open Discussions		
1200-1205	Closing ceremony		

Poster No.	Young Scientists' Posters	Poster No.	Regular Posters
Y01	J. Cui , W. Guo, H. Roven, Q. Wang, Y. Chen and T. Peng Shanghai Jiao Tong University, China; Norwegian University of Science and Technology, Norway Recycling of Aluminum Scrap by Severe Plastic Deformation	R01	Q.J. Wang , Y.C. Wang, Z.Z. Du and X.Y. Liu Xi'an University of Architecture & Technology, P.R.China Investigation on Corrosion Behaviors of Ultra-Fine Grain Copper in 3.5% NaCl Solution
Y02	G.B. Rathmayer and R. Pippan Erich Schmid Institute of Materials Science, Austria; CDL for Local Analysis of Deformation and Fracture, Austria Effect of Impurities on the Microstructure of HPT Deformed Nickel	R02	E. Prokofiev , J. Buraw, J. Frenzel, D. Gunderov, G. Eggeler and R. Valiev Ufa State Aviation Technical University, Russia; Ruhr-Universität Bochum, Germany Phase Transformations and Functional Properties of NiTi Alloy with Ultrafine-Grained Structure
Y03	D.J.Lee , Y.Song, E.Y.Yoon, C.S.Lee and H.S.Kim Pohang University of Science and Technology, Korea; Shandong Agricultural University, China Dislocation Cell Mechanism-based Finite element Analysis for Plastic Deformation Behavior and Microstructural Evolution of Pure Copper During High Pressure Torsion	R03	G.F. De Lima, D.R. Leiva, T.T. Ishikawa, C. Bolfarini, C.S. Kiminami, W.J. Botta and A.M. Jorge Jr Universidade Federal de São Carlos, Brazil Hydrogen Sorption Properties of the Complex Hydride Mg₂FeH₆ Consolidated by HPT
Y04	K. Tazoe , S. Honda and Z. Horita	R04	I. Brodova , I. Shirinkina and A. Petrova

	Kyushu University, Japan Application of High-Pressure Sliding for Grain Refinement of Al and Mg Alloys		Dispersion of the Structure in Al-based Alloys by Different Methods of Severe Plastic Deformation
Y05	Z. Li , J. Wang, and J.T. Wang Nanjing University of Science and Technology, P.R.China ; Qingdao Technological University, P.R.China Finite Element Method Simulation of High Pressure Circum-shear Process	R05	I. Nikulin , A. Kipelova, S. Malopheyev and R.Kaibyshev Belgorod State University, Russia Synergetic Effect of ECAE and Friction Stir Welding on Microstructure and Mechanical Properties of Aluminium Sheets
Y06	M. Azizieh , Soo-Hyun Joo, H. S. Kim, A. H. Kokabi and P. Abachi Department of Materials Science and Engineering, Sharif University of Technology, Iran ; Department of Materials Science and Engineering, Pohang University of Science and Technology, Korea Fabrication of AZ31/AL2O3 Nanocomposites by Friction Stir Processing	R06	M. Isaenkova , Y. Perlovich, V. Fesenko, O. Kymkaya and A. Zavodchikov National Research Nuclear University “Moscow Engineering Physics Institute”, Russia Evidences of Bulk Nanostructuring in Zr-Based Alloys under Deformation at Temperatures of $\alpha \leftrightarrow \beta$ Phase Transformation
Y07	H. Jafarian , E. Borhani, A. Shibata, D. Terada and N. Tsuji Kyoto University, Japan Martensitic Transformation from Ultrafine Grained Austenite Fabricated by ARB in Fe-24Ni-0.3C	R07	D.L. Yin , X. Chen and J.T. Wang Nanjing University of Science and Technology, P.R.China Microstructure and Toughness of an AZ80 Mg Alloy Processed by ECAP and Aging Treatment
Y08	I. Shakhova , Y. Sakai, A. Belyakov and R. Kaibyshev Belgorod State University, Russia ; National Institute for Materials Science, Japan Microstructure Evolution in a Cu-Ag Alloy during Large Strain Deformation and Annealing	R08	A. Kipelova , I. Nikulin, S. Malopheyev and R. Kaibyshev Belgorod State University, Russia Development of Ultra-Fine Grained Structure in an Al-5.4%Mg-0.5%Mn Alloy Processed by ECAP
Y09	G.F. Zhang , X. Sauvage, J.T. Wang, N. Gao and T.G. Langdon Nanjing University of Science and Technology, P.R.China ; University of Rouen, Groupe de Physique des mareriaux, CNRS (UMR 6634), Avenue de l’Université,France Decomposition of Nanostructured Martensite in Cu-Al Alloys Produced by Severe Plastic Deformation	R09	J. Ren , D. Li and A. Shan Shanghai University of Engineering Science, China ; Shanghai Jiao Tong University, China Interface Microstructure of Diffusion Bonded Fe₃Al/Al with Ultrafine Grain Layer
Y10	D. Akama , Z. Horita, K. Matsuda and S. Hirose Kyushu University, Japan ; University of Toyama, Japan; Yokohama National University, Japan Aging Behavior of Al-Mg-Si Alloys Processed by High-Pressure Torsion	R10	T. Reshetnikova , A. Shcherbakov, M. Salakhova and L. Khakimova Ufa State Aviation Technical University, Russia Towards Perspective Applications of Nanostructured Ti in Medicine
Y11	A.V. Polyakov , D.V. Gunderov and G.I. Raab Ufa State Aviation Technical University, Russia Evolution of Microstructure and Mechanical Properties of Titanium Grade 4 with the Increase of the ECAP-Conform Passes	R11	A.I. Korshunov , A.A. Smolyakov, T.N. Kravchenko and I.I. Kaganova FSUE Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics, Russia Effects of equal-channel angular pressing on mechanical properties of the Ti_{49.4}Ni_{50.6} alloy

Y12	F. Lu , S.X. Li, Z.F. Zhang, R.B. Figueiredo, N. Gao and T.G. Langdon Institute of Metal Research, Chinese Academy of Sciences, China; University of Southern California, U.S.A. ; University of Southampton, U.K. The Microstructure Evolution of Pure Mg by High-pressure Torsion at Different Turns	R12	A.M. Ivanov , E.P. Soshnikova, A.A. Argunova, D.V. Gunderov and N.D. Petrova Institute of Physical-Technical Problems of the North, Siberian Branch of the RAS, Russia Microstructure and Strength of Welded Joints of Steel after Equal Channel Angular Pressing
Y13	Y. Cao , Y.B. Wang, X.Z. Liao, R.B. Figueiredo, S.P. Ringer, T.G. Langdon and Y.T. Zhu The University of Sydney, Australia ; University of Southampton, UK; University of Sydney, Australia; University of Southern California, USA; North Carolina State University, USA Structural Evolution of Dual-Phase Duplex Stainless Steel Induced by High-Pressure Torsion	R13	A.V. Podolskiy , B. Bonarski, D. Setman, C. Mangler, E. Schafner, E.D. Tabachnikova and M.J. Zehetbauer B.Verkin Institute for Low Temperature Physics & Engineering, Ukraine ; University of Vienna, Austria Microstructure and Properties of Nanostructured Zirconium Processed by High Pressure Torsion
Y14	S. Lee and Z. Horita Kyushu University, Japan Annealing Behavior of FeNi Alloy Processed by High-Pressure Torsion	R14	B. Verlinden , E. Chen, L. Duchêne and A.M. Habraken Katholieke Universiteit Leuven Belgium ; University of Liège, Belgium Transient Yielding during Compression Tests on ECAP'ed AA1050 Aluminium
Y15	J.L. Sun and J.T. Wang NanJing University of Science and Technology, P.R.China Microstructures and Mechanical Properties of Pure Titanium by Dynamic Plastic Deformation	R15	H. Yuan , Y. Zhang, A.V. Ganeev, J.T. Wang, and I.V. Alexandrov Nanjing University of Science and Technology, P.R.China ; Ufa State Aviation Technical University, Russia Strengthening and Toughening Effect on Tungsten Subjected to a Multiple ECAP
Y16	F. Liu , Y. Zhang and J.T. Wang Nanjing University of Science and Technology, P.R.China Microstructure Evolution of Pure Nickel up to a High Strain Level during Equal-Channel Angular Pressing	R16	Y. Jiang, X. Yang and L. Zhang Central South University, China Grain Refinement in AZ61 Mg Alloy during Hot Cyclic Bending
Y17	N.D. Stepanov , A.V. Kuznetsov, G.A. Salishchev, G.I. Raab and R.Z. Valiev Belgorod State University, Russia ; Ufa State Aviation Technical University, Russia Effect of Cold Rolling on Structure and Mechanical Properties of Copper Subjected to Different Number Passes of ECAP	R17	H. Mi , Q.N. Shi, J.L. Wang, L. Zhou and L.W. Chen College of Material Science and Engineering, Kunming University of Science & Technology, China Effect of Asymmetrical Accumulative Roll-Bonding and Heat Treatment on the formation of Ultra-Fine Twin Copper
Y18	E. Borhani , H. Jafarian, H. Adachi, D. Terada and N. Tsuji Kyoto University, Japan Annealing Behavior of Solution Treated and Aged Al-0.2wt% Sc Deformed by ARB	R18	G.G. Zakharova , E.G. Astafurova, E.V. Naydenkin, G.I. Raab and S.V. Dobatkin Institute of Strength Physics and Materials Science, Siberian Branch of Russian Academy of Sciences, Russia ; Ufa State Aviation Technical University, Russia; Russian Academy of Sciences, The Evolution of Structure and Mechanical Properties of Fe-Mn-V-Ti-0.1C

			Low-Carbon Steel Subjected to Severe Plastic Deformation and Subsequent Annealing
Y19	V.D. Sitdikov , Y. Zhang, J.T. Wang and I.V. Alexandrov Ufa State Aviation Technical University, Russia ; Nanjing University of Science and Technology, P.R.China The Effect of Annealing on Microstructure and Crystallographic Texture of Tungsten Subjected to the ECAP	R19	J.L. Ning , Y. Ivanisenko, D. Wang, M. Murashkin and H.-J. Fecht Karlsruhe institute of Technology, Germany ; Ufa State Aviation Technical University, Russia; Universität Ulm, Germany The Obtaining of a Homogeneous Fe-C Nanostructure from a Ferrite-Pearlitic Dual-Phase Steel by High Pressure Torsion
Y20	Artur.V. Ganeev, Rinat.K. Islamgaliev, Ruslan.Z. Valiev and Jing Tao Wang and Igor V. Alexandrov Institute of Physics of Advanced Materials Ufa State Aviation Technical University, Russia ; Department of Materials Science and Engineering, Nanjing University of Science and Technology, Nanjing, P. R. China Peculiarities of microstructure refinement in tungsten during severe plastic deformation	R20	G.A. Salishchev , N.D. Stepanov, A.V. Kuznetsov, S.V. Zhrebtsov, O.R. Valiachmetov, A.A. Kuznetsov and S.V. Dobatkin Belgorod State University, Russia ; Institute for Metals Superplasticity, Russian Academy of Science, Russia; A.A.Baikov Institute of Metallurgy and Materials Science, Russian Academy of Sciences, Russia Effect of Multiaxial Forging on Structure Evolution and Mechanical Properties of Oxygen Free Copper
Y21	C.T. Wang , N. Gao, R.J.K. Wood and T.G. Langdon University of Southampton, U.K. ; University of Southern California, U.S.A. Wear Behaviour of Al-1050 Alloy Processed by Severe Plastic Deformation	R21	Z.P. Luo , H.W. Zhang and K. Lu Institute of Metal Research, Chinese Academy of Sciences, China Quantitative Characterization of the Structural Evolution of Pure Ni Subjected to Dynamic Plastic Deformation (DPD)
Y22	B. Yao , Z. Han, Y.S. Li, N.R. Tao and K. Lu Institute of Metal Research, Chinese Academy of Sciences, China Annealing Effect on Sliding Tribological Properties of Cu Subjected to Dynamic Plastic Deformation	R22	Q. Shi , Y. Cheng and J. Wang Kunming University of Science and Technology, China The Study on Characteristics of Microstructures and Orientations of UFG Materials Prepared by SPD
Y23	D. Song , A. Ma, J.H. Jiang and P.H. Lin Hohai University, P.R.China. Overview on the Corrosion Behavior of the Ultra-Fine Grained Materials Fabricated by Equal-Channel Angular Pressing	R23	Y. Chen , A. Herz and R. Kirchheim Universität Göttingen, Germany Grain Boundary Segregation of Carbon and Formation of Nanocrystalline Iron-Carbon Alloys by Ball Milling
Y24	H. Chen and G. Tao NanJing University of Science and Technology, China Research on Temperature Change and Microstructure Evolution of Bore in Steel Target Penetrated by Copper Jets	R24	M. Tikhonova , V. Dudko, A. Belyakov and R. Kaibyshev Belgorod State University, Russia The Formation of Submicrometer Scale Grains in a Super 304H Steel during Multiple Compressions at 700 °C
Y25	Y.L. Wang , Y. Liu, J.T. Wang and F.S. Tian Nanjing University of Science and Technology, P.R.China ; Jiangsu Xingrong Hi-tech Company Limited, P.R.China Microstructure and Properties of TP2 Copper Tube Produced by Severe Hot	R25	A.M. Kliauga , M. Ferrante and R.E. Bolmaro Federal University of São Carlos, Brasil ; Rosario National University, Argentina The Evolution of Texture in AA1050 Alloy Deformed by Equal-Channel Angular Pressing

	Rolling		
Y26	Y. Liu Nanjing University of Science and Technology, P.R.China Hot deformation behavior of TP2 copper	R26	M. Kubota and T. Ohno Nihon University, Japan Mechanical Properties and Microstructures of Severely Plastic Deformed Pure Titanium by Mechanical Milling and Spark Plasma Sintering
Y27	Y.J. Wu , R. Zhu, J.T. Wang and T. Bian Nanjing University of Science and Technology, P.R.China Cyclic Response of Ultrafine-grained Mg-3%Al-1%Zn Alloys Produced by Equal Channel Angular Pressing	R27	Y. Huang and T.G. Langdon University of Strathclyde, U.K.; University of Southern California, U.S.A.; University of Southampton, U.K. Using Atomic Force Microscopy to Examine Flow Processes in Materials Processed by ECAP
Y28	S. Malophevey , A. Kipelova, I. Nikulin and R. Kaibyshev Belgorod State University, Russia Mechanical Properties of an Al-5.4%Mg-0.5%Mn-0.1%Zr Alloy Subjected to ECAP and Rolling	R28	X. Yang and J. Lu Department of Materials Science and Engineering, Chongqing University, P.R.China; University of Technology of Troyes, France; The Hong Kong Polytechnic University, Hong Kong, P.R.China Nanocrystalline 316L Stainless Steel Prepared under Thermal Stress by Surface Mechanical Attrition Treatment
		R29	L. Bao, H. Ding , W. Zhao and R. Mei Northeastern University, China; Institute of Metal Research, China Simulation of Multi-pass ECAP by 3D Finite Element Method
		R30	X. Yang , X. Zhao and X. Liu Xi'an University of Architecture and Technology, China CP-Ti Processed for Multiple Passes by ECAP at Room Temperature
		R31	Andrey Smoliakov Russian Federal Nuclear Center VNIIEP, Russia Numerical Simulations of Multi-pass ECAP Process and Comparison with Experiment
		R32	X. Li and Y. Ding Southeast University, China Experimental Studies and Modelling Analysis of Commercial Pure Iron Processed by Asymmetric Rolling
		R33	J.X. Wang , N. Zhou and R. Yang Nanjing University of Science and Technology, China Study on the Fabrication Nanocrystalline Copper by Explosive Dynamic Loading

		R34	G. Cai , X. Huang and S. Zhang Henan University of Technology, P.R.China Finite Element Simulation of Effects of Mould Angle and Friction on ECAP for AZ80 Magnesium Alloy
		R35	S. Xu , C. Jing, G. Ren and P. Liu Shandong Jianzhu University, P.R.China Finite Element Simulation of Die Design for Warm Equal-Channel Angular Extrusion Process of AZ31 Alloy and its Experimental Investigation
		R36	S.Y. Li and H. Li Central South University, China; South China University of Technology, China Optimal Route for Grain Refinement in Equal Channel Angular Extrusion: Modeling and Experiments
		R37	Y.H. Yao , A.B. Ma, J.H. Jiang, J. Shi, D. Song, D.H. Yang and J.Q. Chen Hohai University, China Dynamic Mechanical Properties of Al-Si alloy Processed by Severe Plastic Deformation
		R38	X.D. Wang , W.B. Du, Z.H. Wang and S.B. Li Beijing University of Technology, P.R.China Mechanism Responsible for Dynamic Recrystallization for Repeated Plastic Working Deformation Process
		R39	G.G. Zakharova , E.G. Astafurova, E.V. Naydenkin, G.I. Raab and S.V. Dobatkin Institute of Strength Physics and Materials Science, Siberian Branch of Russian Academy of Sciences, Russia; Ufa State Aviation Technical University, Russia; Russian Academy of Sciences, The Evolution of Structure and Mechanical Properties of Fe-Mn-V-Ti-0.1C Low-Carbon Steel Subjected to Severe Plastic Deformation and Subsequent Annealing
		R40	O. Davydenko , V. Spuskanyuk and V. Varyukhin Donetsk Institute for Physics and Engineering, National Academy of Sciences of Ukraine, Ukraine Production a High-Strength and High-Conductivity Copper Wire by Using Equal Channel Angular Hydroextrusion Method