

### **NanoSPD3 Poster Presentation**

(All posters should be mounted by noon of September 22 and be removed by noon of September 24.

Discussion time is assigned as follows:

**Odd Ms numbers: 15:20-17:30, September 22**

**Even Ms numbers:15:20-17:30, September 23**

Ms number	title	author(s)	country
1	ECAP Processed Copper during deformation and subsequent annealing	<u>X. Molodova</u> , S.Bhaumik, M. Winning, G. Gottstein	Germany
5	Deformation Behavior of Fine Grained Al-Mg Alloy under Biaxial Stress	Masafumi Noda, <u>Kunio Funami</u>	Japan
10	Studies of Severe Plastic Deformation Conditions for Amorphous and Nanocrystalline Structures Formation in Ti-Ni Based Alloys	<u>S.D.Prokoshkin</u> , I.Yu. Khmelevskaya, S.V. Dobatkin, E.V. Tatyani, I.B. Trubitsyna	Russia
11	Effect of Equal-Channel Angular Pressing on the Pitting Corrosion Resistance of Al Alloy	<u>Hiroaki Nakano</u> , In-Joon Son, Satoshi Oue, Shigeo Kobayashi, Hisaaki Fukushima, <u>Zenji Horita</u>	Japan
12	Microstructure evolution and aging kinetics of Al-Mg-Si and Al-Mg-Si-Sc alloys processed by ECAP	G. Angella, P. Bassani, A. Tuissi, D. Ripamonti, <u>M. Vedani</u>	Italy
13	Hydriding properties of the mechanically deformed Mg-Ni alloys	<u>Kazutaka Ikeda</u> , Yuko Nakamori, Shin-ichi Orimo	Japan
14	Strain Rate Effect on Fine-Grain Development in 7475 Al Alloy during Hot Multidirectional Forging	<u>A. Goloborodko</u> , Oleg Sitdikov, Rustam Kaibyshev, Hiromi Miura, Taku Sakai	Russia, Japna
15	Low Carbon Low Alloy Submicro-Steel with Nano-Precipitatio	<u>Hong-wei SONG</u> , Bi SHI, Junbao ZHANG, Xiu-fang WANG	China
16	Development of Complex Methods, Combining Thermal Treatment with Severe Plastic Deformation, for Processing of High-Strength Nanostructured Cu-1%Cr-0.7%Al Alloys	<u>I.V. Alexandrov</u> , V.V. Latysh, S.I.Hong, S.N. Faizova, V.M. Polovnikov	Russia
21	Strain-Induced Grain Refinement in Magnesium Alloy AZ31 during Hot Forging	<u>X. Yang</u> , J. Xing, H. Miura, T. Sakai	Japan
22	Equal Channel Angular Pressing of Magnesium Alloy Containing Quasicrystal Phase	<u>M. Y. Zheng</u> , S. W. Xu, X. G. Qiao, W. M. Gan, K. Wu, S. Kamado, Y. Kojima, H-G, <u>Brokmeier</u>	P. R. China
23	Microstructure, texture and deformation mechanism of Zr702 processed by Equal Channel Angular Pressing (ECAP)	<u>W. Q. Cao</u> , S. H. Yu, S. K. Hwang	China
24	Effect of Equal Channel Angular Pressing and Repeated Rolling on Structure, Phase Transformations and Properties of TiNi Shape Memory Alloys	<u>V.G. Pushin</u> , R.Z. Valiev, Y.T.Zhu, S.D. Prokoshkin, D.V. Gunderov, L.I. Yurchenko	Russia
25	SPD-Induced Nanocrystallization of Shape Memory Ni2MnGa-based and NiTi-based Alloys Quenched from Liquid State	<u>V.G. Pushin</u> , A.V. Korolev, N.I. Kourov, D.V. Gunderov, R.Z. Valiev, V.V. Koledov, <u>V.G. Shavrov</u>	Russia
26	Hardening Viscous Failure and Strain Localization during Severe Plastic Deformation	<u>Y. Beygelzimer</u> , O. Prokof'eva, B. Efros, V. Varyukhin	UKRAINE
27	Single Roll Drive Equal Channel Angular Process –a Potential Severe Plastic Deformation (SPD) Process for Industrial Application	<u>Bin Chen</u> , Dongliang Lin, Xiaoqin Zeng, Chen Lu	China
28	Fabrication of a W-25%Cu nanocomposite by high pressure torsion	<u>I.Sabirov</u> , T.Schoeberl, R. Pippan	Austria
30	Structural analysis and properties of Bi2-xSbxTe3-ySe prepared by angular extrusion	<u>T.Havashi</u> , M.Sekine, J.Suzuki, Y.Horio	Japan
31	Fabrication of Nano Grain Tungsten Compact by Mechanical Milling Process and its High Temperature Properties	<u>Eiji Oda</u> , Kei Ameyama, Satoshi Yamaguchi	Japan
33	Microstructure and Mechanical Properties of Pure Nickel Processed by Severe Plastic Deformation	<u>G.V.Nurislamova</u> , R.K. Islamgaliev, R.Z.Valiev	Russia
34	The influence of the SPD temperature on superplasticity of aluminium alloys	<u>R.K. Islamgaliev</u> , N.F. Yunusova, R.Z. Valiev	Russia
35	Increasing the mechanical properties of FCC- and BCC-metals by combined cold severe plastic deformation	V.N. Varyukhin, <u>E.G. Pashinskaya</u> , V.M. Tkachenko, M.M. Bilousov.	Ukraine

36	Substructure and Nanocrystalline Structure Effects in Thermomechanically Treated Ti-Ni Alloys	<u>K. E. Inaekyan</u> , S.D. Prokoshkin, V. Brailovski, I.Yu. Khmelevskaya, V. Demers, S.V. Dobatkin, E.V. Tatvanin, <u>E. Bastarache</u>	Canada
37	Three-dimensional imaging of shear band produced by ECAP process in Al-Ag alloy	<u>Koji Inoke</u> , Kenji Kaneko, Zenji Horita	Japan
40	The influence of the ECAP temperature on microstructure and mechanical properties of a magnesium alloy	<u>O.B.Kulyasova</u> , R.K.Islamgaliev, N.A. Krasulnikov	Russia
42	Microstructural Evolution in Pure Copper Severely Deformed by the ARB Process	<u>B. L. Li</u> , N. Shigeiri, N. Tsuji, Y. Minamino	Japan
43	HPT-Deformation of Copper and Nickel Single Crystals	<u>M. Hafok</u> , A. Vorhauer, J. Keckes, R. Pippan	Austria
46	Limit of Dislocation Density and Dislocation Strengthening in Iron	<u>K. Nakashima</u> , M. Suzuki, Y. Futamura, T. Tsuchiyama, S. Takaki	Japan
47	Stress and strain histories in equal channel angular extrusion/pressing	<u>A.V. Nagasekhar</u> , Yip Tick-Hon, S. Li	Singapore
51	Low Temperature Mechanical Properties of Different Commercial Purity Nanostructured Titanium Processed by ECA Pressing	<u>E. D. Tabachnikova</u> , V. Z. Bengus, A. V. Podolskiy, S.N.Smirnov, D. V. Gunderov, <u>R. Z. Valiev</u>	Ukraine
52	ELABORATION BY SEVERE PLASTIC DEFORMATION, MICROSTRUCTURAL AND MECHANICAL STUDY OF Cu/X (X =Ta or Nb) NANOFILAMENTARY WIRES FOR USE IN	<u>V. Vidal</u> , L. Thilly, F. Lecouturier	FRANCE
53	Mechanical Behaviour of Nanostructured Iron Fabricated by Severe Plastic Deformation under Diffusion Flow of Nitrogen	A.I. Yurkova, <u>A.V. Byakova</u> , A.V. Belots'ky, Yu. V. Milman, S.N. Dub	Ukraine
54	LARGE STRAIN DEFORMATION OF SINGLE-PHASE COPPER SOLID SOLUTIONS BY MACHINING	Srinivasan Swaminathan, <u>Srinivasan Chandrasekar</u> , W. Dale Compton, Alexander H. King, Kevin P. Trumble	USA
55	The surface nanocrystallization of Ni3Al through surface mechanical attrition treatment	Jiangwei Ren, <u>Aidang Shan</u> , Junbao Zhang, Junliang Liu, Hongwei Song	China
58	Enhanced Ductility due to Grain Refinement by Equal Channel Angular Extrusion in Automotive Aluminium Alloy 6016	<u>P. W. J. Mckenzie</u> , R. Lapovok, P. F. Thomson	Australia
60	Heterogeneity and Anisotropy in microstructure and mechanical properties of Pure Copper Processed by Equal Channel Angular pressing	<u>Jing Tao Wang</u> , Zhong Ze Du, Feng Kang, Guang Chen	China
62	Formation of Nanocrystalline Structure by Shot Peening	<u>Yoshikazu Todaka</u> , Minoru Umemoto, Yukinori Watanabe, Koichi Tsuchiya	JAPAN
64	Modelling of the Evolution of Dislocation Cell Misorientation under Severe Plastic Deformation	<u>Y. Estrin</u> , L.S. Toth, Y. Brechet, H.S. Kim	Germany
66	Effect of Rolling Direction on the Microstructure and Mechanical Properties of Accumulative Roll Bonding (ARB) Processed Commercially Pure 1050 Aluminum Alloy	<u>Y. S. Kim</u> , S.H. Kang, D.H. Shin	South Korea
70	Controlling mechanism of ferrite grain size generated through large strain deformation of 0.15C steel	<u>S.V.S. Narayana Murty</u> , Shiro Torizuka, Kotobu Nagai	Japan
72	Effects of the number of ECAP passes and ECAP route on the heterogeneity in mechanical properties across the sample from titanium VT1-0	<u>Korshunov A.I.</u> , <u>Vedernikova I.I.</u> , Polyakov L.V., Kravchenko T.N., Smolyakov A.A., Solovov V.P.	Russia
73	Consolidation of amorphous Al86Ni6Co2Gd6 melt-spun ribbons by twist extrusion	V.N. Varyukhin, <u>V.I. Tkatch</u> , V.V. Maslov, Y. Y. Beygelzimer, S.G. Synkov, V.K. Nosenko, S.G. Rassolov, A.S. Synkov, V.I. Krysov, V.A. Mashira	Ukraine
74	Microstructural Change of Beta Type Titanium Alloy by Intense Plastic Deformation	Goroh Itoh, <u>Hisashi Hasegawa</u> , Tsing(Qing) Zhou, Yoshinobu Motohashi, Mitsuo Niinomi	Japan
76	Microstructure, Texture and Property Changes of High Purity Aluminium during Accumulative Roll Bonding and Conventional Rolling	P. Homola, <u>M. Slámová</u> , M. Karlík, J. Čížek, I. Procházka	Czech Republic
78	Severe plastic deformation of commercially pure titanium by Rotary-Die equal channel angular pressing method	<u>Akira Watazu</u> , Ichinori Shigematsu, Aibin Ma, Yoshinori Nishida, Yong-Jai Kwon, Kazutaka Suzuki	Japan
79	Fine-Grained Structure Formation in Al- Mg- Sc Alloy during Hot ECAP	<u>O. Sitdikov</u> , R. Kaibyshev, E. Avtkratova, K. Tsuzaki,	Japan

80	ECC Observations of Nanostructures Formed by Sliding Wear in Copper	<u>Y. Ohno</u> , Yoshihisa Kaneko, Satoshi Hashimoto	Japan
82	Microstructure and Mechanical Properties Resulting from Cold Rolling of Equal Channel Angular Extruded Commercial Purity Copper	<u>A. Krishnaiah</u> , Uday Chakkingal and P. Venugopal	INDIA
83	Metal Flow at Equal Channel Angular Pressing with Backpressure	<u>G.I. Raab</u>	Russia
84	Mechanical spectroscopy of high pressure torsion deformed Fe-based alloys and Ti	<u>I.S. Golovin</u> , T.S. Pavlova, Ch. Grusewski, Y. Ivanisenko, D.V. Gunderov	Germany, Russia
86	Nanocrystalline Formation during Mechanical Attrition of Cobalt	<u>X. Wu</u> , J. Zhou, C. Sun, N. Tao, G. Liu, X. Meng, Y. Hong	China
88	Microstructural features and mechanical properties of the Ti-6Al-4V ELI alloy processed by severe plastic deformation	<u>I.P. Semenova</u> , L.R. Saitova, G.I. Raab, A.I. Korshunov, Y.T. Zhu, T.C. Lowe, R.Z. Valiev	Russia
89	Microstructure and properties of Ti rods produced by multi-step SPD	<u>V.V. Latysh</u> , I.P. Semenova, G.H. Salimgareeva, I.V. Kandarov, Y.T. Zhu, T.C. Lowe, R.Z. Valiev	Russia
90	Mechanical Properties and Microstructure of Mg-Zn-Y Alloys Processed by ECAE	<u>Shintaro Yoshimoto</u> , Yuichi Miyahara, Zenji Horita, Yoshihito Kawamura	Japan
92	The Microstructures and Mechanical Properties of Hot-Processed Magnesium Casting Alloys	<u>Takeshi Yamaguchi</u> , Tadayoshi Tsukeda, Ken Saito, Yoshihito Kawamura	Japan
93	Strain rate sensitivity of ultrafine grained fcc- and bcc-type metals	<u>Johannes May</u> , Heinz Werner Hoppel, Mathias Goken	Germany
99	Gradient Structure Formation by Severe Plastic Deformation	<u>M. Danylenko</u> , V. Gorban, Yu. Podrezov, S. Firstov, O. Rosenberg, S. Shejkin, F. Morito, Y. Yamabe-Mitarai	Ukraine
100	Structure and Property Evaluation of SPD-Processed Ni-20Cr	<u>J.S. Marte</u> , R. DiDomizio, PR Subramanian, K.T. Hartwig, R.E. Barber	USA
101	Evaluation of a Ni-20Cr Alloy Processed by Multi-axis Forging	<u>R. DiDomizio</u> , M.F. Gigliotti, J.S. Marte, PR. Subramanian, V. Valitov	USA
104	Extrusion of Ultra-Fine Grained Bulk Forms from Nanocrystalline Aluminum 6061-T6 Powder	Balkrishna C. Rao, M. Ravi Shankar, <u>Kevin P. Trumble</u> , Srinivasan Chandrasekar, W. Dale Compton	USA
105	Severe Plastic Deformation of NiTi and NiTiHf Shape Memory Alloys For Enhanced Cyclic Stability	<u>I. Karaman</u> , A.V. Kulkarni, B. Kockar	USA
108	The effect of the initial orientation on microstructure development of copper single crystals subjected to equal-channel angular pressing	<u>H. Miyamoto</u> , J. Fushimi, T. Mimaki, A. Vinogradov, S. Hashimoto	Japan
111	TEM investigations of Titanium processed by ECAP followed by cold rolling	<u>B. Mingler</u> , V. V. Stolyarov, M. Zehetbauer, W. Lacom, H. P. Karnthaler	Austria
112	Continuous Severe Plastic Deformation using Conform Extrusion	<u>Tomas Erlien</u> , Jens Cristofer Werenskiold, Oystein Grong, Hans Jorgen Roven	Norway
115	Nanopowder Consolidation Using Equal Channel Angular Extrusion	M. Haouaoui, <u>I. Karaman</u> , H.J. Maier	USA
116	Fracture and Fatigue Resistance of Ultrafine Grain CuCrZr Alloy Produced ECAP	<u>A. Vinogradov</u> , K. Kitagawa and V.I. Kopylov	Japan
117	Strain Kernel Area Influence on the Refinement of Metal Microstructure at Severe Cold Straining	F.Z. Utyashev, <u>G.I. Raab</u>	Russia
120	The fabrication of semi-finished products from aluminum alloys with ultra-fine grain structure and their mechanical properties	<u>R. Kaibyshev</u>	Russia
121	Fabrication of Copper-Graphite Multifilamentary Composite Wire by Severe Plastic Deformation Microstructures and Electrical Properties	<u>A. Guillet</u> , E. Yama Nzoma, P. Pareige	France
125	Corrosion and Mechanical Behaviors of Cu-35%Zn Alloy Prepared by Equal Channel Angular Pressing (ECAP)	<u>Y. Choi</u> , N. I. Cho, H. S. Kim, S. I. Hong	S-Korea
126	Microstructure Development during Equal Channel Angular Extrusion of an Al-3%Cu Alloy	<u>I. Mazurina</u> , A. Goloborodko, R. Kaibyshev, H. Miura, T. Sakai	Japan

127	Anelasticity and structural stability of ECAP processed Al-Mg-Si alloys investigated by mechanical spectroscopy	S.Amadori, L.Pasquini, E.Bonetti, M.Cabibbo, C.Scalabroni, E.Evangelista	Italy
130	Mechanical Properties of Fine-Grained AA1050 after ECAP	Stijn Poortmans, Bert Verlinden	Belgium
132	Formation of Texture and Structure in Rods of Copper and Titanium under Equal-Channel Angular Pressing	Yu. Perlovich, M. Isaenkova, V. Fesenko, M. GrekhovI. Alexandrov, I.J. Beyerlein	Russia
133	Features of Texture and Structure Development in Zirconium under Equal Channel Angular Pressing	Yu. Perlovich, M. Isaenkova, V. Fesenko, M. Grekhov, Seng-Ho Yu, Sun-Keun Hwang, D. H. Shin	Russia
134	Improving the mechanical properties of AZ31 Mg alloy by high ratio extrusion	Chen Yongjun, Wang Qudong, Peng Jianguo, Zhai Chunqun	China
137	Severe Plastic Deformation of a commercial aluminium-lithium alloy (AA8090) by Equal Channel Angular Pressing	N. Llorca-Isern, P.A. Gonzalez, C.J. Luis, I. Laborde	Spain
138	Principals of Indirect Equal Channel Angular Drawing for Processing of Ultrafine Grained Materials	Aidang Shan, Jong-Woo Park, In-Ge Moon	China
140	Microstructure and corrosion behaviour of ultrafine-grained copper	Branislav Hadzima, Miloš Janeček, Ralph Jörg Hellmig, Yulia Kutnyakova, Yuri Estrin	Germany
141	Mechanical Properties of ECAP processed magnesium alloy AS21X	T.T.Lamark, R.J.Hellmig, Y. Estrin	Germany
143	Fine-Grained Structures Associated with Deformation Twin and Its Influence on Tensile Behaviours in a Cold-Rolled Fe-Ni Alloy	Tatsuya Morikawa, Taku Moronaga, Kenji Higashida	Japan
145	Corrosion and Mechanical Behaviours of Cu-Cr in-situ Composites	Y. Choi, M. S. Song, K. L. Lee, S. I. Hong	S-Korea
146	Interfacial Structures of Cu-Nb Filamentary Nanocomposites in the As-drawn and Annealed Conditions	K. H. Lee, S.I. Hong	South Korea
149	Martensite Transformation of Ultrafine Grained Austenite in Fe-28.5at%Ni Alloy	Hiromoto Kitahara, Nobuhiro Tsuji, Yoritoshi Minamino	Japan
150	Annealing Behavior and Recrystallized Texture in ARB Processed Copper	Naoki Takata, Kousuke Yamada, Ken-ichi Ikeda, Fuyuki Yoshida, Hideharu Nakashima, Nobuhiro Tsuji	Japan
151	Grain Boundary Structure in ARB Processed Copper	Ken-ichi Ikeda, Naoki Takata, Kousuke Yamada, Fuyuki Yoshida, Hideharu Nakashima, Nobuhiro Tsuji	JAPAN
152	Microstructures of Heavily Deformed Copper and Niobium	Jaetaek Im, K. Ted Hartwig	USA
157	Three Dimensional Numerical Investigation of Equal Channel Multi-Angular Pressing	Pham Quanga, Seung Chae Yoonb, Sun Ig Hong and Hyoung Seop Kim	Korea
160	An EBSD study of texture and grain boundary evolution in a strongly textured aluminium alloy during ECA pressing	Marco J. Starink, Shun Cai Wang, Nong Gao, H. Singh Ubhi, Cheng Xu, Terence G. Langdon	UK
162	Application of Severe Torsion Straining Process for Grain Refinement of Steel	Yoshiyasu Kawasaki, Koji Neishi, Yuichi Miyahara, Katsuaki Nakamura, Kenji Kaneko, Michihiko Nakagaki, Yuichi Miyahara, Naoki Emi,	Japan
165	Microstructures and Mechanical Properties of Mg alloy after Severe Torsion Straining Process	Koji Neishi, Katsuaki Nakamura, Kenji Kaneko, Michihiko Nakagaki, Zenji Horita	Japan
166	Grain Refinement of Commercial Al-Mg alloy Using Severe Torsion Straining Process	Koji Neishi, Akihiko Higashino, Yuichi Miyahara, Katsuaki Nakamura, Kenji Kaneko, Michihiko Nakagaki, Zenji Horita	Japan
168	Effect of Severe Plastic Deformation on the Structure and Properties of the Age-Hardenable Mg-Sm Alloys	L.L. Rokhlin, S.V. Dobatkin, T.V. Dobatkina, N.I. Nikitina, M.V.Popov	Russia
169	Hardening Mechanisms of Metals and Alloys Produced by SPD	S.Hashimoto, T.Suzuki, A.Vinogradov	Japan
170	Structure and Mechanical Properties of Submicrocrystalline Copper Produced by ECAP to Very High Strains	A.Vinogradov, T.Suzuki, S.Hashimoto, K.Kitagawa, A.Kuznetsov, S.Dobatkin	Japan
172	Grain Refinement by High Temperature Plane-Strain Compression of Fe-2%Si Steel	P.R. Calvillo, A.C.C. Reis L. Kestens, and Y. Houbaert	Belgium

175	The effect of equal-channel angular pressing on structure-phase changes and superplastic properties of Al-Mg-Li alloy	<u>E.V. Naidenkin</u> , E.F. Dudarev, Yu.R. Kolobov, G.P. Bakach, T.G. Langdon	Russia
179	Particle break-up, microstructure evolution and properties of recycled aluminium alloys processed by ECAP	Przemyslaw Szczygiela, <u>Hans J. Rovenka</u> , Oddvin Reisob	Norway
180	Dislocation-Crystal Plasticity Simulation Based on Self-Organization for Repartition of Dislocation Cell Structures and Subgrain	Naoshi Yamaki, Aoyagi Yoshiteru, <u>Kazuyuki Shizawa</u>	Japan
185	DEVELOPMENT OF SPD TECHNOLOGY FOR PRODUCING NANOSTRUCTURAL MATERIALS	V. Varyukhin, <u>M. Bilousov</u>	Ukraine
186	Effect of microstructural and particle parameters on the high temperature stability of submicron grained Al-Sc Alloys	N. Burhan, <u>M. Ferry</u>	Australia
189	Substructure of Ultrafine Grained Metals after Intensive External Influences at Study of Field Ion Microscopy Method	<u>Victor Varyukhin</u> , Borys Efros, Vladimir Ivchenko, Natalya Efros, Elena Popova	Ukraine
190	Grain boundary sliding as a significant mechanism of low temperature plastic deformation in ECAP aluminum	<u>Nguven Q. Chinh</u> , György Vöröses, Péter Szommer, Zenji Horita, Terence G. Langdon	Hungary
192	Acceleration of the Grain Boundary Diffusion During Plastic Deformation	<u>V.N.Perevezentsev</u> , A.S.Pupynin, J.V.Svirina	Russia
193	STUDY OF THE NANOMETRIC GRAIN SIZE DISTRIBUTION IN IRON COMPACTS OBTAINED BY MECHANICAL MILLING	J. Llunà, J.A. Benito, A. Roca, <u>J.M. Cabrera</u> , J.M. Prado	Spain
195	Effects of High Temperature ECAE Process on Microstructures and Martensitic Transformation of TiNi Shape Memory Alloy	<u>Chaoying Xie</u> , Z.G.Fan, Z.H.Li, G.Q.Xiang, X.H.Cheng	China
196	Development and Applications of Bulk Nanomaterials within the Framework of the Program on Nanotechnologies in Russia	<u>V. V. Maltsev</u>	Russia