

# General review

Valiev RZ, Zhu YT

Contribution of early works by Terence G. Langdon to modern materials science

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,5-7

Kassner ME, Barrabes SR

New developments in geometric dynamic recrystallization

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,152-155

Alexandrov IV, Zhilina MV, Scherbakov AV, Bonarski JT

Multiscale investigations of severe plastic deformation

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,332-336

Sakai G, Nakamura K, Horita Z, Langdon TG

Developing high-pressure torsion for use with bulk samples

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.OCT 15 2005,VOL 406,IS 1-2,268-273

Baretzky B, Baro MD, Grabovetskaya GP, Gubicza J, Ivanov MB, Kolobov YR, Langdon TG,  
Lendvai J, Lipnitskii AG, Mazilkin AA, Nazarov AA, Nogues J, Ovidko IA, Protasova SG, Raab  
GI, Revesz A, Skiba NV, Sort J, Starink MJ, Straumal BB, Surinach S, Ungar T, Zhilyaev AP

Fundamentals of interface phenomena in advanced bulk nanoscale materials

REVIEWS ON ADVANCED MATERIALS SCIENCE.APR 2005,VOL 9,IS 1,45-108

# Processing

Rosochowski A

Processing metals by severe plastic deformation.

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,13-22

Lapovok RYE

The role of back-pressure in equal channel angular extrusion.

JOURNAL OF MATERIALS SCIENCE.JAN 15 2005,VOL 40,341-346

Estrin Y, Rabkin E, Hellmig RJ, Kazakevich M, Zi A,

Severe plastic deformation by solid state infiltration

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,165-168

Cerri E, Leo P

Influence of severe plastic deformation on aging of Al-Mg-Si alloys

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,226-229

Li ZH, Cheng XH, Shanguan QQ

Effects of heat treatment and ECAE process on transformation behaviors of TiNi shape memory alloy.

MATERIALS LETTERS.MAR 2005,VOL 59,705-709

Furukawa M, Kawasaki Y, Miyahara Y, Horita Z, Langdon TG

An investigation of the deformation process during equal-channel angular pressing of an aluminum single crystal

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,194-200

Nagasekhar AV, Tick-Hon Y, Li S, Seow HP

Effect of acute tool-angles on equal channel angular extrusion/pressing.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,269-272

Vorhauer A, Kleber S, Pippan R

Influence of processing temperature on microstructural and mechanical properties of high-alloyed single-phase steels subjected to severe plastic deformation.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,281-284

Xia K, Wang JT, Wu X, Chen G, Gurvan M

Equal channel angular pressing of magnesium alloy AZ31.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,324-327

Dinda GP, Rosner H, Wilde G

Synthesis of bulk nanostructured materials by repeated cold-rolling.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,328-331

Krishnaiah A, Chakkingal U, Venugopal P

Applicability of the groove pressing technique for grain refinement in commercial purity copper

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,337-340

Zhang DL, Raynova S, Koch CC, Scattergood RO, Youssef KM

Consolidation of a Cu-2.5 vol.% Al<sub>2</sub>O<sub>3</sub> powder using high energy mechanical milling

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,375-380

Pushin VG, Stolyarov VV, Valiev RZ, Lowe TC, Zhu YT  
Nanostructured TiNi-based shape memory alloys processed by severe plastic deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,386-389

Lapovok R, Thomson PF, Cottam R, Estrin Y  
Processing routes leading to superplastic behaviour of magnesium alloy ZK60  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,390-393

Sklenicka V, Dvorak J, Kral P, Stonawska Z, Svoboda M  
Creep processes in pure aluminium processed by equal-channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,408-412

Dobatkin SV, Arsenkin AM, Popov MA, Kishchenko AN  
Production of bulk metallic nano- and submicrocrystalline materials by the method of severe  
plastic deformation  
METAL SCIENCE AND HEAT TREATMENT.MAY-JUN 2005,VOL 47,IS 5-6,188-192

Xia K, Wu X  
Back pressure equal channel angular consolidation of pure Al particles  
SCRIPTA MATERIALIA.DEC 2005,VOL 53,IS 11,1225-1229

Hofmann DC, Vecchio KS  
Submerged friction stir processing (SFSP): An improved method for creating ultra-fine-grained  
bulk materials  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.AUG 15 2005,VOL 402,IS 1-2,234-241

Ma E  
Four approaches to improve the tensile ductility of high-strength nanocrystalline metals  
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE.AUG 2005,VOL 14,IS  
4,430-434

Goran D, Fundenberger JJ, Suwas S, Bouzy E, Toth L, Skrotzki W, Grosdidier T  
Pure Ni single crystal of cube orientation deformed by equal channel angular extrusion  
TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,333-338

Saha S, Kulovits A, Soffa WA, Barnard JA

Synthesis of Fe-Pd and Fe-Pd/Ta magnetic nanocomposites by severe plastic deformation  
JOURNAL OF APPLIED PHYSICS.MAY 15 2005,VOL 97,IS 10,PN Part 2,AR 10F301

Rangaraju N, Raghuram T, Krishna BV, Rao KP, Venugopal P  
Effect of cryo-rolling and annealing on microstructure and properties of commercially pure aluminium  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.MAY 25 2005,VOL 398,IS 1-2,246-251

Han JH,Yoon JK, Park JW, Oh KH, Lee JC  
A comparative study of two shear deforming processes in texture evolution  
MATERIALS TRANSACTIONS.MAY 2005,VOL 46,IS 5,1064-1069

Luis CJ, Luri R, Leon J  
Strain and temperature analysis of AA-1370 processed by ECAE at different temperatures  
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.MAY 15 2005,VOL 164,1530-1536

Ma ZY, Mishra RS, Mahoney MW, Grimes R  
Effect of friction stir processing on the kinetics of superplastic deformation in an Al-Mg-Zr alloy  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.JUN 2005,VOL 36A,IS 6,1447-1458

Sun ZM, Hashimoto H, Keawprak N, Ma AB, Li LF, Barsoum MW  
Effect of rotary-die equal channel angular pressing on the thermoelectric properties of a (Bi,Sb)<sub>2</sub>Te-3 alloy  
JOURNAL OF MATERIALS RESEARCH.APR 2005,VOL 20,IS 4,895-903

Prokoshkin SD, Khmelevskaya IY, Dobatkin SV, Trubitsyna IB, Tatyatin EV, Stolyarov VV, Prokofiev EA  
Alloy composition,deformation temperature, pressure and post-deformation annealing effects in severely deformed Ti-Ni based shape memory alloys  
ACTA MATERIALIA.MAY 2005,VOL 53,IS 9,2703-2714

Wang WW, Song JL  
Effect of friction on equal channel angular extrusion process  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA.APR 2005,VOL 15,162-166

Dong SL, Imai T, Saito N, Shigemastu I  
Processing of commercial magnesium alloys by different-speeds-rolling technique  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA.APR 2005,VOL 15,284-287

- Lewandowska M, Garbacz H, Pachla W, Mazur A, Kurzydłowski KJ  
Grain refinement in aluminium and the aluminium Al-Cu-Mg-Mn alloy by hydrostatic extrusion  
MATERIALS SCIENCE-POLAND.2005,VOL 23,IS 1,279-286
- Cabibbo M, Evangelista E, Vedani M  
Influence of severe plastic deformations on secondary phase precipitation in a 6082 Al-Mg-Si alloy  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.MAY 2005,VOL 36A,IS 5,1353-1364
- Park JH, Lee YS, Nam WJ, Park KT  
Comparison of compressive deformation of ultrafine-grained 5083 Al alloy at 77 and 298 K  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.MAY 2005,VOL 36A,IS 5,1365-1368
- Krishnaiah A, Chakkingal U, Venugopal P  
Production of ultrafine grain sizes in aluminium sheets by severe plastic deformation using the technique of groove pressing  
SCRIPTA MATERIALIA.JUN 2005,VOL 52,IS 12,1229-1233
- Sklenicka V, Dvorak J, Svoboda M, Kral P, Vlach B  
Effect of processing route on microstructure and mechanical behaviour of ultrafine grained metals processed by severe plastic deformation  
MATERIALS STRUCTURE & MICROMECHANICS OF FRACTURE IV SE MATERIALS SCIENCE FORUM.2005,VOL 482,83-88
- Stolyarov VV, Beigel'zimer YE, Orlov DV, Valiev RZ  
Refinement of microstructure and mechanical properties of titanium processed by twist extrusion and subsequent rolling  
PHYSICS OF METALS AND METALLOGRAPHY.FEB 2005,VOL 99,IS 2,204-211
- Krallics G, Malgin D, Fodor A  
Experimental investigations of the Al 6082 alloy subjected to equal-channel angular pressing  
MATERIALS SCIENCE, TESTING AND INFORMATICS II SE MATERIALS SCIENCE FORUM.2005,VOL 473-474,129-134
- Battezzati L, Baricco M, Curiotto S  
Non-stoichiometric cementite by rapid solidification of cast iron  
ACTA MATERIALIA.APR 2005,VOL 53,IS 6,1849-1856
- Senkov ON, Senkova SV, Scott JM, Miracle DB  
Compaction of amorphous aluminum alloy powder by direct extrusion and equal channel angular extrusion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.FEB 25 2005,VOL 393,IS 1-2,12-21

Park KT, Lee HJ, Lee CS, Shin DH

Effect of post-rolling after ECAP on deformation behavior of ECAPed commercial Al-Mg alloy at 723K

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.FEB 25 2005,VOL 393,IS 1-2,118-124

Kuziak R, Zalecki W, Weglarczyk S, Pietrzyk M

New possibilities of achieving ultrafine grained microstructure in metals and alloys employing MaxStrain technology

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,43-48

Dinda GP, Rosner H, Wilde G

Crystal refinement by cold rolling in NiTi shape memory alloys

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,55-60

Wilde G, Dinda GP, Rosner H

Synthesis of bulk nanocrystalline materials by repeated cold rolling

ADVANCED ENGINEERING MATERIALS.JAN 2005,VOL 7,IS 1-2,11-15

Kim HS, Ryu WS, Janecek M, Baik SC, Estrin Y

Effect of equal channel angular pressing on microstructure and mechanical properties of IF steel

ADVANCED ENGINEERING MATERIALS.JAN 2005,VOL 7,IS 1-2,43-46

Yang FQ, Du WW, Okazaki K

Effect of cold rolling on the indentation deformation of AA6061 aluminum alloy.

JOURNAL OF MATERIALS RESEARCH.MAY 2005,VOL 20,1172-1179

## **Microstructure**

Murr LE

Grain boundary contributions to deformation and solid-state flow in severe plastic deformation

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 15 2005,VOL 409,13-23

Zhu YT, Langdon TG

Influence of grain size on deformation mechanisms: An extension to nanocrystalline materials

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 15 2005,VOL 409,234-242

Ko YG, Kim WG, Lee CS, Shin DH

Microstructural influence on low-temperature superplasticity of ultrafine-grained Ti-6Al-4V alloy  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,156-159

Oh-ishi K, Zhilyaev AP, McNelley TR  
Effect of strain path on evolution of deformation bands during ECAP of pure aluminum  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,183-187

Zhao YH, Liao XZ, Zhu YT, Horita Z, Langdon TG  
Influence of stacking fault energy on nanostructure formation under high pressure torsion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,188-193

Lesuer DR, Syn CK, Sherby OD  
Severe plastic deformation through adiabatic shear banding in Fe-C steels  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,222-225

Stoica GM, Fielden DE, McDaniels R, Liu Y, Huang B, Liaw PK, Xu C, Langdon TG  
An analysis of the shear zone for metals deformed by equal-channel angular processing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,239-242

Karaman I, Yapici GG, Chumlyakov YI, Kireeva IV  
Deformation twinning in difficult-to-work alloys during severe plastic deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,243-247

Xue Q, Liao XZ, Zhu YT, Gray GT  
Formation mechanisms of nanostructures in stainless steel during high-strain-rate severe plastic deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,252-256

Sun PL, Cerreta EK, Gray GT, Rae P  
The influence of boundary structure on the mechanical properties of ultrafine grained AA1050  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,265-268

Zhilyaev AP, Oh-ishi K, Langdon TG, McNelley TR  
Microstructural evolution in commercial purity aluminum during high-pressure torsion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,277-280

Mishra A, Richard V, Gregori F, Asaro RJ, Meyers MA  
Microstructural evolution in copper processed by severe plastic deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,290-298

Shin DH, Park KT  
Ultrafine grained steels processed by equal channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,299-302

Gao N, Starink MJ, Furukawa M, Horita Z, Xu C, Langdon TG  
Microstructural evolution in a spray-cast aluminum alloy during equal-channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,303-307

Eddahbi M, del Valle JA, Perez-Prado MT, Ruano OA  
Comparison of the microstructure and thermal stability of an AZ31 alloy processed by ECAP and large strain hot rolling  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,308-311

Wang JT, Xu C, Du ZZ, Qu GZ, Langdon TG  
Microstructure and properties of a low-carbon steel processed by equal-channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,312-315

Koneva NA, Kozlov EV, Ivanov YF, Popova NA, Zhdanov AN  
Substructural and phase transformations during plastic deformations of materials obtained by intensive deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,341-344

Sauvage X, Pippan R  
Nanoscaled structure of a Cu-Fe composite processed by high-pressure torsion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,345-347

Del Valle JA, Perez-Prado MT, Ruano OA  
Accumulative roll bonding of a Mg-based AZ61 alloy  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,353-357

Swarninathan S, Shankar MR, Lee S, Hwang J, King AH, Kezar RF, Rao BC, Brown TL,

Chandrasekar S, Compton WD, Trumble KP  
Large strain deformation and ultra-fine grained materials by machining  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,358-363

Shankar MR, Chandrasekar S, Compton WD, King AH  
Characteristics of aluminum 6061-T6 deformed to large plastic strains by machining  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,364-368

Berta M, Apps PJ, Prangnell PB  
Effect of processing route and second phase particles on grain refinement during equal-channel  
angular extrusion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,381-385

Kawasaki M, Huang Y, Xu C, Furukawa M, Horita Z, Langdon TG  
A quantitative study of cavity development in the tensile testing of an aluminum metal matrix  
composite processed by equal-channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,402-407

Horita Z, Langdon TG  
Microstructures and microhardness of an aluminum alloy and pure copper after processing by  
high-pressure torsion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,422-425

Kumar P, Xu C, Langdon TG  
The significance of grain boundary sliding in the superplastic Zn-22% Al alloy after processing by  
ECAP  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,447-450

Koizumi Y, Ueyama M, Tsuji N, Minamino Y, Ota K  
Internal friction of ultrafine-grained nickel produced by Accumulative Roll-Bonding(ARB)  
JOURNAL OF THE JAPAN INSTITUTE OF METALS.NOV 2005,VOL 69,IS 11,997-1003  
Agnew SR, Mehrotra P, Lillo TM, Stoica GM, Liaw PK  
Crystallographic texture evolution of three wrought magnesium alloys during equal channel  
angular extrusion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 5 2005,VOL 408,IS 1-2,72-78

Qin JN, Di Z, Zhang GD, Lee JC

Effect of temperature on texture formation of 6061 aluminum sheet in equal-channel angular pressing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 5 2005,VOL 408,IS 1-2,79-84

Park KT, Park JH, Lee YS, Nam WJ

Microstructures developed by compressive deformation of coarse grained and ultrafine grained 5083 Al alloys at 77 K and 298 K

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 5 2005,VOL 408,IS 1-2,102-109

Dobatkin SV, Bastarache EN, Sakai G, Fujita T, Horita Z, Langdon TG

Grain refinement and superplastic flow in an aluminum alloy processed by high-pressure torsion

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 5 2005,VOL 408,IS 1-2,141-146

Xu C, Furukawa M, Horita Z, Langdon TG

The evolution of homogeneity and grain refinement during equal-channel angular pressing: A model for grain refinement in ECAP.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.MAY 25 2005,VOL 398,66-76

Schwarzer RA

Local texture and back-end defect in hot extruded AZ91 magnesium alloy

ZEITSCHRIFT FUR METALLKUNDE.SEP 2005,VOL 96,IS 9,1005-1008

Wang TS, Peng JG, Gao YW, Zhang FC, Jing TF

Microstructure of 1Cr18Ni9Ti stainless steel by cryogenic compression deformation and annealing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.OCT 25 2005,VOL 407,IS 1-2,84-88

Li XW, Wu SD, Wu Y, Yasuda HY, Umakoshi Y

Temperature-dependent microstructures in fatigued ultrafine-grained copper produced by equal channel angular pressing

ADVANCED ENGINEERING MATERIALS.SEP 2005,VOL 7,IS 9,829-833

Kapoor R, Gupta C, Sharma G, Chakravartty JK

Deformation behavior of Al-1.5Mg processed using the equal channel angular pressing technique

SCRIPTA MATERIALIA.DEC 2005,VOL 53,IS 12,1389-1393

Wang SC, Starink MJ, Gao N, Xu C, Langdon TG

Grain structure and texture development during ECAP of two heat-treatable Al-based alloys

REVIEWS ON ADVANCED MATERIALS SCIENCE.SEP 2005,VOL 10,IS 3,249-255

Hussainova I, Kommel L, Lohmus R, Volobujeva O

Microscopic characterization of surface morphology of nanostructured copper

REVIEWS ON ADVANCED MATERIALS SCIENCE.SEP 2005,VOL 10,IS 3,266-271

Dutkiewicz J, Kusnierz J, Maziarz W, Lejkowska M, Garbacz H, Lewandowska M, Dobromyslov AV, Kurzydowski KJ

Microstructure and mechanical properties of nanocrystalline titanium and Ti-Ta-Nb alloy manufactured using various deformation methods

PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE.SEP 2005,VOL 202,IS 12,2309-2320

Janecek M, Hadzima B, Hellmig RJ, Estrin Y

The influence of microstructure on the corrosion properties of Cu polycrystals prepared by ECAP

KOVOVE MATERIALY-METALLIC MATERIALS.2005,VOL 43,IS 4,258-271

Shankar MR, Chandrasekar S, King AH, Compton WD

Microstructure and stability of nanocrystalline aluminum 6061 created by large strain machining

ACTA MATERIALIA.OCT 2005,VOL 53,IS 18,4781-4793

Sabirov I, Kolednik O, Valiev RZ, Pippan R

Equal channel angular pressing of metal matrix composites: Effect on particle distribution and fracture toughness

ACTA MATERIALIA.OCT 2005,VOL 53,IS 18,4919-4930

Luo P, Xia JC, Hu QD, Wang XY

Preparation of ultra-fine grained cast magnesium alloy by equal channel angular pressing

RARE METAL MATERIALS AND ENGINEERING.SEP 2005.VOL 34,IS 9,1493-1496

Altan BS, Purcek G, Miskioglu I

An upper-bound analysis for equal-channel angular extrusion

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.SEP 15 2005,VOL 168,IS 1,137-146

Zhu YT, Liao XZ, Srinivasan SG, Lavernia EJ

Nucleation of deformation twins in nanocrystalline face-centered-cubic metals processed by severe plastic deformation

JOURNAL OF APPLIED PHYSICS.AUG 1 2005,VOL 98,IS 3,034319

Mahesh S, Beyerlein IJ, Tome CN

Loading- and substructure-induced irreversibility in texture during route C equal channel angular extrusion

SCRIPTA MATERIALIA.OCT 2005,VOL 53,IS 8,965-969

Belyakov A, Kimura Y, Tsuzaki K

Recovery and recrystallization in ferritic stainless steel after large strain deformation

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.AUG 25 2005,VOL 403,IS 1-2,249-259

Cheng P, Yao YL

The influence of sheet metal anisotropy on laser forming process

JOURNAL OF MANUFACTURING SCIENCE AND ENGINEERING-TRANSACTIONS OF  
THE ASME.AUG 2005,VOL 127,IS 3,572-582

Yu, CY Kao, PW Chang, CP

Transition of tensile deformation behaviors in ultrafine-grained aluminum

ACTA MATERIALIA.SEP 2005,VOL 53,IS 15,4019-4028

De Messemaeker J, Verlinden B, Van Humbeeck J

Texture of IF steel after equal channel angular pressing (ECAP)

ACTA MATERIALIA.SEP 2005,VOL 53,IS 15,4245-4257

Azevedo G, Barbosa R, Pereloma EV, Santos DB

Development of an ultrafine grained ferrite in a low C-Mn and Nb-Ti microalloyed steels after  
warm torsion and intercritical annealing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.AUG 15 2005,VOL 402,IS 1-2,98-108

Lin HK, Huang JC, Langdon TG

Relationship between texture and low temperature superplasticity in an extruded AZ31 Mg alloy  
processed by ECAP

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.AUG 15 2005,VOL 402,IS 1-2,250-257

Boucharat N, Hebert R, Rosner H, Valiev R, Wilde G

Nanocrystallization of amorphous Al<sub>88</sub>Y<sub>7</sub>Fe<sub>5</sub> alloy induced by plastic deformation

SCRIPTA MATERIALIA.OCT 2005,VOL 53,IS 7,823-828

Zhang HW, Gopalan R, Mukai T, Hono K

Fabrication of bulk nanocrystalline Fe-C alloy by spark plasma sintering of mechanically milled  
powder

SCRIPTA MATERIALIA.OCT 2005,VOL 53,IS 7,863-868

Isaenkova M, Perlovich Y, Fesenko V, Grekhov M, Alexandrov I, Beyerlein IJ

Formation of inhomogeneous texture and structure in metal materials under equal-channel angular  
pressing

TEXTURES OF MATERIALS, PTS 1 AND 2 SE MATERIALS SCIENCE FORUM.2005,VOL  
495-497,PN Part 1&2,827-832

Goran D, Fundenberger JJ, Suwas S, Bouzy E, Toth LS, Skrotzki W, Grosdidier T,

Heterogeneity of deformation in pure Ni single crystal of cube orientation deformed by equal

channel angular extrusion

TEXTURES OF MATERIALS, PTS 1 AND 2 SE MATERIALS SCIENCE FORUM.2005,VOL 495-497,PN Part 1&2,833-838

Etter AL, Solas D, Baudin T, Penelle R

Evolution of microstructure and texture during annealing of a copper processed by ECAE  
TEXTURES OF MATERIALS, PTS 1 AND 2 SE MATERIALS SCIENCE FORUM.2005,VOL 495-497,PN Part 1&2,845-850

Kusnierz J, Mathon MH, Baudin T, Jasienski Z, Penelle R

Texture of Al-Cu alloys deformed by ECAP  
TEXTURES OF MATERIALS, PTS 1 AND 2 SE MATERIALS SCIENCE FORUM.2005,VOL 495-497,PN Part 1&2,851-856

Alexandrov IV, Zhilina MV, Scherbakov AV, Korshunov AI, Nizovtsev PN, Smolyakov AA, Solovyev VP, Beyerlein IJ, Valiev RZ

Formation of crystallographic texture during severe plastic deformation  
ARCHIVES OF METALLURGY AND MATERIALS.2005,VOL 50,IS 2,281-294

Kusnierz J, Mathon MH, Dutkiewicz J, Baudin T, Jasienski Z, Penelle R

Microstructure and texture of ECAP processed AlCu4SiMn and AlCu5AgMgZr alloys  
ARCHIVES OF METALLURGY AND MATERIALS.2005,VOL 50,IS 2,367-377

Mizera J, Pakiela Z, Kurzydowski KJ

Texture and residual stresses in Ti-Al and Ti-Al-Nb alloy subjected to severe plastic deformation  
ARCHIVES OF METALLURGY AND MATERIALS.2005,VOL 50,IS 2,395-402

Schafner E, Tarkowski L, Bonarski J, Kopacz I, Pippan R, Stuwe HP

Texture evolution and microstructure of ECAP Cu determined by XRD and EBSD  
ARCHIVES OF METALLURGY AND MATERIALS.2005,VOL 50,IS 2,435-443

Zhilina MV, Bonarski J, Scherbakov AV, Alexandrov IV, Makarychev K

Analysis of texture formation homogeneity processes during equal-channel angular pressing  
ARCHIVES OF METALLURGY AND MATERIALS.2005,VOL 50,IS 2,479-485

Zehetbauer MJ, Schafner E, Ungar T

Quantification of nanocrystallization by means of X-ray Line Profile Analysis  
ARCHIVES OF METALLURGY AND MATERIALS.2005,VOL 50,IS 2,515-533

Zrník J, Drnek J, Nový Z, Dobatkin SV, Stejskal O

Structure evolution during severe warm plastic deformation of carbon steel  
REVIEWS ON ADVANCED MATERIALS SCIENCE.AUG 2005,VOL 10,IS 1,45-53

Zhu YTT

Deformation twinning in nanocrystalline metals

JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE.AUG 2005,VOL 14,IS  
4,467-472

Schwarzer RA

Texture in hot extruded, hot rolled and laser welded magnesium base alloys

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,23-28

Field DP, Nowell MM, Trivedi P, Wright SI, Lillo TM

Local orientation gradient and recrystallization of deformed copper

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005.VOL 105,157-162

Skrotzki W, Scheerbaum N, Oertel CG, Brokmeier HG, Suwas S, Toth LS

Texture gradient in ECAP copper measured by synchrotron radiation

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,327-332

Kusnierz J

Rolling texture of ECAP processed Al and Cu

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,339-344

Suwas S, Toth LS, Fundenberger JJ, Grosdidier T, Skrotzki W

Texture evolution in FCC metals during Equal Channel Angular Extrusion (ECAE) as a function  
of stacking fault energy

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,345-350

Skrotzki W, Scheerbaum N, Oertel CG, Brokmeier HG, Suwas S, Toth LS

Oblique cube texture formation in high purity aluminum during equal channel angular pressing

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,351-356

Suwas S, Toth LS, Fundenberger JJ, Eberhardt A

Texture evolution in commercially pure Al during Equal Channel Angular Extrusion (ECAE) as a  
function of processing routes

TEXTURE AND ANISOTROPY OF POLYCRYSTALS II SE SOLID STATE  
PHENOMENA.2005,VOL 105,357-362

Hung PC, Sun PL, Yu CY, Kao PW, Chang CP

Inhomogeneous tensile deformation in ultrafine-grained aluminum

SCRIPTA MATERIALIA.SEP 2005,VOL 53,IS 6,647-652

Murty SVSN, Torizuka S, Nagai K, Kitai T, Kogo Y  
Dynamic recrystallization of ferrite during warm deformation of ultrafine grained ultra-low carbon steel  
SCRIPTA MATERIALIA.SEP 2005,VOL 53,IS 6,763-768

Semenova IP, Saitova LR, Islamgaliev RK, Dotsenko TV, Kil'mametov AR, Demakov S, Valiev RZ  
Evolution of the structure of the VT6 alloy subjected to equal-channel angular pressing  
PHYSICS OF METALS AND METALLOGRAPHY.JUL 2005,VOL 100,IS 1,66-72

Wang JY, Chen YH, Yang YL, Lee S  
Grain refining of magnesium alloy AZ 31 by equal channel angular extrusion  
MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,465-471

Miyahara Y, Adachi K, Maehara Y, Horita Z, Langdon TG  
Effect of microstructures on tensile properties of AZ31 Mg alloy processed by ECAP  
MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,473-476

Zheng MY, Qiao XG, Xu SW, Wu K, Kamado S, Kojima Y  
Effect of equal channel angular extrusion on the microstructure and mechanical properties of magnesium alloy containing quasicrystallines  
MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,589-592

Jin L, Lin DL, Mao DL, Zeng XQ, Ding WJ  
Microstructure evolution and mechanical properties of AZ 31 Mg alloy processed by equal channel angular extrusion  
MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,601-604

Popovic M, Verlinden B  
Microstructure and mechanical properties of Al-4 center dot 4 wt-%Mg alloy (AA5182) after equal channel angular pressing  
MATERIALS SCIENCE AND TECHNOLOGY.MAY 2005,VOL 21,IS 5,606-612

Zhang ZG, Watanabe Y, Kim I  
Effect of texture evolution on tensile properties of Al-Ni eutectic alloy fabricated by equal channel angular pressing  
MATERIALS SCIENCE AND TECHNOLOGY.JUN 2005,VOL 21,IS 6,708-714

Han BQ, Lavernia EJ

Deformation mechanisms of nanostructured Al alloys  
ADVANCED ENGINEERING MATERIALS.JUN 2005,VOL 7,IS 6,457-465

Cabibbo A, Evangelista E, Scalabroni C  
EBSD FEG-SEM, TEM and XRD techniques applied to grain study of a commercially pure 1200 aluminum subjected to equal-channel angular-pressing  
MICRON.2005,VOL 36,IS 5,401-414

Miyahara Y, Matsubara K, Horita Z, Langdon TG  
Grain refinement and superplasticity in a magnesium alloy processed by equal-channel angular pressing  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.JUL 2005,VOL 36A,IS 7,1705-1711

Karaman I, Kulkarni AV, Luo ZP  
Transformation behaviour and unusual twinning in a NiTi shape memory alloy ausformed using equal channel angular extrusion  
PHILOSOPHICAL MAGAZINE.JUN 1 2005,VOL 85,IS 16,1729-1745

Jin L, Lin DL, Mao DL, Zeng XQ, Ding WJ  
Mechanical properties and microstructure of AZ31 Mg alloy processed by two-step equal channel angular extrusion  
MATERIALS LETTERS.AUG 2005,VOL 59,IS 18,2267-2270

Zheng MY, Kamado S, Kojima Y  
In-situ quasicrystal-reinforced magnesium matrix composite processed by equal channel angular extrusion (ECAE)  
JOURNAL OF MATERIALS SCIENCE.MAY 2005,VOL 40,IS 9-10,2587-2590

Agnew SR, Mehrotra P, Lillo TM, Stoica GM, Liaw PK  
Texture evolution of five wrought magnesium alloys during route A equal channel angular extrusion: Experiments and simulations  
ACTA MATERIALIA.JUN 2005,VOL 53,IS 11,3135-3146

Rentenberger C, Karnthaler HP  
On the evolution of a deformation induced nanostructure in a Ni3Al alloy  
ACTA MATERIALIA.JUN 2005,VOL 53,IS 10,3031-3040

Syn CK, Lesuer DR, Sherby OD  
Microstructure in adiabatic shear bands in a pearlitic ultrahigh carbon steel  
MATERIALS SCIENCE AND TECHNOLOGY.MAR 2005,VOL 21,IS 3,317-324

Watanabe H, Somekawa H, Higashi K  
Fine-grain processing by equal channel angular extrusion of rapidly quenched bulk Mg-Y-Zn alloy  
JOURNAL OF MATERIALS RESEARCH.JAN 2005,VOL 20,IS 1,93-101

Beyerlein IJ, Li S, Necker CT, Alexander DJ, Tome CN  
Non-uniform microstructure and texture evolution during equal channel angular extrusion  
PHILOSOPHICAL MAGAZINE.MAY 1 2005,VOL 85,IS 13,1359-1394

Mathis K, Gubicza J, Nam NH  
Microstructure and mechanical behavior of AZ91 Mg alloy processed by equal channel angular pressing  
JOURNAL OF ALLOYS AND COMPOUNDS.MAY 17 2005,VOL 394,IS 1-2,194-199

Vinogradov A, Ishida T, Kitagawa K, Kopylov VI  
Effect of strain path on structure and mechanical behavior of ultrafine grain Cu-Cr alloy produced by equal-channel angular pressing  
ACTA MATERIALIA.MAY 2005,VOL 53,IS 8,2181-2192

Waitz T  
The self-accommodated morphology of martensite in nanocrystalline NiTi shape memory alloys  
ACTA MATERIALIA.MAY 2005,VOL 53,IS 8,2273-2283

Sabirov I, Pippan R  
Formation of a W-25%Cu nanocomposite during high pressure torsion  
SCRIPTA MATERIALIA.JUN 2005,VOL 52,IS 12,1293-1298

Suh DW, Oh CS, Kim SJ  
Limit of ferrite grain refinement by severe plastic deformation of austenite  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.APR 2005,VOL 36A,IS 4,1057-1060

Rabkin E, Gutman I, Kazakevich M, Buchman E, Gorni D  
Correlation between the nanomechanical properties and microstructure of ultrafine-grained copper produced by equal channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.APR 15 2005,VOL 396,IS 1-2,11-21

Kaibyshev R, Shipilova K, Musin F, Motohashi Y  
Continuous dynamic recrystallization in an Al-Li-Mg-Sc alloy during equal-channel angular extrusion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.APR 15 2005,VOL 396,IS 1-2,341-351

Cizek J, Prochazka I, Smola B, Stulikova I, Kuzel R, Matej Z, Cherkaska V, Islamgaliev RK, Kulyasova O  
Microstructure and thermal stability of ultra fine grained Mg and Mg-Gd alloys prepared by high-pressure torsion  
MATERIALS STRUCTURE & MICROMECHANICS OF FRACTURE IV SE MATERIALS

SCIENCE FORUM.2005,VOL 482,183-186

Cizek J, Prochazka I, Smola B, Stulikova I, Kuzel R, Cieslar M, Matej Z, Cherkaska V, Brauer G, Anwand W, Islamgaliev RK, Kulyasova O

Positron annihilation studies of microstructure of ultra fine grained metals prepared by severe plastic deformation

MATERIALS STRUCTURE & MICROMECHANICS OF FRACTURE IV SE MATERIALS SCIENCE FORUM.2005,VOL 482,207-210

Zheng LJ, Li SS, Li HX, Chen CQ, Han YF, Dong BZ

Small angle x-ray scattering study on microstructure and mechanical property evolutions of equal-channel angular pressed 7050 Al alloy

ACTA PHYSICA SINICA.APR 2005,VOL 54,IS 4,1665-1670

Degtyarev MV, Voronova LM, Chashchukhina TI

Grain growth upon annealing of armco iron with various ultrafine-grained structures produced by high-pressure torsion deformation

PHYSICS OF METALS AND METALLOGRAPHY.MAR 2005,VOL 99,IS 3,276-285

Li SY, Beyerlein IJ, Alexander DJ, Vogel SC

Texture evolution during equal channel angular extrusion: Effect of initial texture from experiment and simulation

SCRIPTA MATERIALIA.JUN 2005,VOL 52,IS 11,1099-1104

Kim WJ, Jeong HT

Grain-size strengthening in equal-channel-angular-pressing processed AZ31 Mg alloys with a constant texture

MATERIALS TRANSACTIONS.FEB 2005,VOL 46,IS 2,251-258

Gutierrez-Urrutia I, Munoz-Morris MA, Morris DG

The effect of coarse second-phase particles and fine precipitates on microstructure refinement and mechanical properties of severely deformed Al alloy

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.MAR 15 2005,VOL 394,IS 1-2,399-410

Cao WQ, Yu SH, Chun YB, Yoo YC, Lee CM, Shin DH, Hwang SK

Strain path effects on the microstructure evolution and mechanical properties of Zr702

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.MAR 25 2005,VOL 395,IS 1-2,77-86

Zhu YT, Liao XZ

Formation mechanism of fivefold deformation twins in nanocrystalline face-centered-cubic metals

APPLIED PHYSICS LETTERS.MAR 7 2005,VOL 86,IS 10,AR 103112

Lapovok R, Thomson PF, Cottam R, Estrin Y

The effect of grain refinement by warm equal channel angular extrusion on room temperature twinning in magnesium alloy ZK60

JOURNAL OF MATERIALS SCIENCE.APR 2005,VOL 40,IS 7,1699-1708

Noskova NI, Vil'danova NF, Churbaev RV

Formation of nano-sized grains in Al-based alloys upon severe plastic deformation

PHYSICS OF METALS AND METALLOGRAPHY.FEB 2005,VOL 99,IS 2,159-165

Zhou ZM, Sun YR, Zhou HT

Evolution of dislocation cells during plastic deformation

TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA.FEB 2005,VOL 15,IS 1,149-152

Sitdikov O, Sakai T, Goloborodko A, Miura H, Kaibyshev R

Grain refinement in coarse-grained 7475 Al alloy during severe hot forging

PHILOSOPHICAL MAGAZINE.APR 11 2005,VOL 85,IS 11,1159-1175

Creasy TS, Kang YS

Fibre fracture during equal-channel angular extrusion of short fibre-reinforced thermoplastics

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.MAR 1 2005,VOL 160,IS 1,90-98

Zhang ZG, Watanabe Y, Kim I, Liu XF, Bian XF

Microstructure and refining performance of an Al-5Ti-0.25C refiner before and after equal-channel angular pressing

METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.MAR 2005,VOL 36A,IS 3A,837-844

Gubicza J, Krallics G, Schiller I, Malgin D

Evolution of the microstructure of Al 6082 alloy during equal-channel angular pressing

MATERIALS SCIENCE, TESTING AND INFORMATICS II SE MATERIALS SCIENCE FORUM.2005,VOL 473-474,453-457

Kim HW, Kang SB, Tsuji N, Minamino Y

Elongation increase in ultra-fine grained Al-Fe-Si alloy sheets

ACTA MATERIALIA.APR 2005,VOL 53,IS 6,1737-1749

Sakai G, Horita Z, Langdon TG

Grain refinement and superplasticity in an aluminum alloy processed by high-pressure torsion

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.FEB 25 2005,VOL 393,IS 1-2,344-351

Kurzydowski KJ, Richert M, Richert J, Zasadzinski J, Sus-Ryszkowska M

Effect of non-conventional large deformations on the formation of nanostructure in materials

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL

101-102,31-36

Wojdyr M, Gierlotka S, Ivanisenko Y, Lojkowski W, Fecht H  
X-ray investigations of the natural and artificial White Etching Layer  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,97-100

Wilde G, Dinda GP, Hebert R, Perepezko J  
Microstructure selection in severely deformed Al-base systems  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,247-252

Enikeev NA, Orlova TS, Alexandrov IV, Romanov AE  
A physical criterion for the grain subdivision during SPD  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,319-324

Bucki JJ, Plocinski T  
Quantitative description of grain size changes during annealing of ultrafine-grained iron produced  
by SPD  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,329-334

Ovid'ko IA, Sheinerman AG  
Suppression of nanocrack generation in nanocrystalline materials under superplastic deformation  
ACTA MATERIALIA.MAR 2005,VOL 53,IS 5,1347-1359

Murty SVSN, Torizuka S, Nagai K, Koseki N, Kogo Y  
Classification of microstructural evolution during large strain high Z deformation of a 0.15 carbon  
steel  
SCRIPTA MATERIALIA.APR 2005,VOL 52,IS 8,713-718

Valeeva AA, Gizhevskii BA, Pilyugin VP, Rempel AA  
Effect of severe plastic deformation on the structure of polycrystalline titanium monoxide  
PHYSICS OF METALS AND METALLOGRAPHY.JAN 2005,VOL 99,IS 1,56-61

Malysheva, SP Salishchev, GA Mironov, SY Betsofen, SY  
Grain growth and texture evolution upon annealing of a submicrocrystalline titanium obtained by  
severe plastic deformation  
PHYSICS OF METALS AND METALLOGRAPHY.JAN 2005,VOL 99,IS 1,66-72

Ferry M, Hamilton NE, Humphreys FJ  
Continuous and discontinuous grain coarsening in a fine-grained particle-containing Al-Sc alloy  
ACTA MATERIALIA.FEB 2005,VOL 53,IS 4,1097-1109

Hwang B, Lee HS, Kim YG, Lee S, Ahn BD, Shin DH, Lee CG  
Dynamic deformation behavior of ultrafine-grained low-carbon steels fabricated by equal-channel angular pressing

METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.FEB 2005,VOL 36A,IS 2,389-397

Han SZ, Lim C, Kim C, Kim S

The microstructural evolution during the equal channel angular pressing process and its relationship with the tensile behavior of oxygen-free copper

METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.FEB 2005,VOL 36A,IS 2,467-470

Xu C, Furukawa M, Horita Z, Langdon TG

Influence of ECAP on precipitate distributions in a spray-cast aluminum alloy

ACTA MATERIALIA.FEB 2005,VOL 53,IS 3,749-758

Haouaoui M, Hartwig KT, Payzant EA

Effect of strain path on texture and annealing, microstructure development in bulk pure copper processed by simple shear

ACTA MATERIALIA.FEB 2005,VOL 53,IS 3,801-810

Ma A,Nishida Y, Suzuki K, Shigematsu I, Saito N

Characteristics of plastic deformation by rotary-die equal-channel angular pressing

SCRIPTA MATERIALIA.MAR 2005,VOL 52,IS 6,433-437

Watanabe H, Takara A, Sornekawa H, Mukai T, Higashi K

Effect of texture on tensile properties at elevated temperatures in an AZ31 magnesium alloy

SCRIPTA MATERIALIA.MAR 2005,VOL 52,IS 6,449-454

Zhilyaev AP, Kim BK, Szpunar JA, Baro MD, Langdon TG

The microstructural characteristics of ultrafine-grained nickel

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING,JAN 25 2005,VOL 391,IS 1-2,377-389

Ramesh A, Melkote SN, Allard LF, Riester L, Watkins TR

Analysis of white layers formed in hard turning of AISI 52100 steel

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.JAN 15 2005,VOL 390,IS 1-2,88-97

Ivanisenko Y, Valiev RZ, Fecht HJ

Grain boundary statistics in nano-structured iron produced by high pressure torsion

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.JAN 15 2005,VOL 390,IS 1-2,159-165

Chang SY, Ahn BD, Hong SK, Kamado S, Kojima Y, Shin DH  
Tensile deformation characteristics of a nano-structured 5083 Al alloy  
JOURNAL OF ALLOYS AND COMPOUNDS.JAN 11 2005,VOL 386,IS 1-2,197-201

Sun PL, Yu CY, Kao PW, Chang CP  
Influence of boundary characters on the tensile behavior of sub-micron-grained aluminum  
SCRIPTA MATERIALIA.FEB 2005,VOL 52,IS 4,265-269

Ohsaki S, Hono K, Hidaka H, Takaki S  
Characterization of nanocrystalline ferrite produced by mechanical milling of pearlitic steel  
SCRIPTA MATERIALIA.FEB 2005,VOL 52,IS 4,271-276

Kvackaj T, Vrchovinsky V, Pokorný I, Mamuzić I  
Nanostructural formation by severe plastic deformation  
METALURGIJA.JAN-MAR 2005,VOL 44,IS 1,49-51

Jang YH, Kim SS, Han SZ, Lim CY, Kim CJ, Goto M  
Effect of trace phosphorous on tensile behavior of accumulative roll bonded oxygen-free copper  
SCRIPTA MATERIALIA.JAN 2005,VOL 52,IS 1,21-24

Inoue T, Cho JY, Yin FX, Nagai K  
Effect of shear deformation on microstructural evolution of Ni-30Fe alloy during hot deformation.  
JOURNAL OF THE JAPAN INSTITUTE OF METALS.APR 2005,VOL 69,341-347

Min BK, Kim HW, Kang SB  
Effect of Al<sub>3</sub>Sc precipitate on the microstructural evolution during accumulative roll bonding in Al-0.2 wt.% Sc alloy.  
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.MAY 152005,VOL 162,355-361

Yu SH, Chun Y, Cao WQ, Kim MH, Chae SW, Kwun SI, Shin DH, Hwang SK  
Comparison of equal channel angular pressing and cold rolling in the evolution of microstructure and texture in zirconium.  
METALS AND MATERIALS INTERNATIONAL.APR 2005,VOL 11,101-111

Yoshida Y, Arai K, Itoh S, Kamado S, Kojima Y  
Realization of high strength and high ductility for AZ61 magnesium alloy by severe warm working.  
SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS.MAR 2005,VOL 6,185-194

Han JH, Huh MY, Suh JY, Lee JC  
Controlling the textures of the Al alloy sheet via dissimilar channel angular pressing.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.MAR 15 2005,VOL 394,60-65

Li S, Beyerlein IJ, Bourke MAM

Texture formation during equal channel angular extrusion of fcc and bcc materials: comparison with simple shear.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.MAR 15 2005,VOL 394,66-77

Zhou ZM, Sun YR, Zhou HT

Evolution of dislocation cells during plastic deformation.

TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA.FEB 2005,VOL 15,149-152

Wojdyr M, Gierlotka S, Ivanisenko Y, Lojkowski W, Fecht H

X-ray investigations of the natural and artificial White Etching Layer.

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,97-100

Hansen N, Huang X, Xing Q

Structural refinement and coarsening in deformed metals.

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,279-286

Mao J, Kang SB, Park JO

Grain refinement, thermal stability and tensile properties of 2024 aluminum alloy after equal-channel angular pressing.

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.FEB 10 2005,VOL 159,314-320

Song R, Ponge D, Raabe D, Kaspar R

Microstructure and crystallographic texture of an ultrafine grained C-Mn steel and their evolution during warm deformation and annealing.

ACTA MATERIALIA.FEB 2005,VOL 53,845-858

Luo H, Shaw L, Zhang LC, Miracle D

On tension/compression asymmetry of an extruded nanocrystalline Al-Fe-Cr-Ti alloy

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 15 2005,VOL 409,249-256

Wetscher F, Vorhauer A, Pippan R

Strain hardening during high pressure torsion deformation

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,213-216

Raab GI

Plastic flow at equal channel angular processing in parallel channels

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,230-233

Villegas JC, Dai K, Shaw LL, Liaw PK

Nanocrystallization of a nickel alloy subjected to surface severe plastic deformation

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 257-260

Chaudhury PK, Cherukuri B, Srinivasan R

Scaling up of equal-channel angular pressing and its effect on mechanical properties, microstructure, and hot workability of AA 6061

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 316-318

Cherukuri B, Nedkova TS, Srinivasan R

A comparison of the properties of SPD-processed AA-6061 by equal-channel angular pressing, multi-axial compressions/forgings and accumulative roll bonding

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 394-397

Xu C, Langdon TG

Creep and superplasticity in a spray-cast aluminum alloy processed by ECA pressing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 398-401

Sergueeva AV, Mara NA, Valiev RZ, Mukherjee AK

Elevated temperature behavior of SPD materials: Superplasticity or enhanced ductility.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 413-416

Roven HJ, Nesboe H, Werenskiold JC, Seibert T

Mechanical properties of aluminium alloys processed by SPD: Comparison of different alloy systems and possible product areas

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 426-429

Han BQ, Langdon TG

Achieving enhanced tensile ductility in an Al-6061 composite processed by severe plastic deformation

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 430-434

Han BQ, Langdon TG

Improving the high-temperature mechanical properties of a magnesium alloy by equal-channel angular pressing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 435-438

Furui M, Xu C, Aida T, Inoue M, Anada H, Langdon TG

Improving the superplastic properties of a two-phase Mg-8% Li alloy through processing by ECAP

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 439-442

Lillo TM

Enhancing ductility of AL6061+10 wt.% B4C through equal-channel angular extrusion processing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 443-446

Maier HJ, Gabor P, Karaman I

Cyclic stress-strain response and low-cycle fatigue damage in ultrafine grained copper

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 457-461

Chen LJ, Ma CY, Stoica GM, Liaw PK, Xu C, Langdon TG

Mechanical behavior of a 6061 Al alloy and an Al<sub>2</sub>O<sub>3</sub>/6061 Al composite after equal-channel angular processing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 472-475

Balasubramanian N, Langdon TG

An analysis of superplastic flow after processing by ECAP

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 476-479

Alexander DJ, Beyerlein IJ

Anisotropy in mechanical properties of high-purity copper processed by equal channel angular extrusion

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. NOV 25 2005, VOL 410, 480-484

Zhang ZF, Wu SD, Li YJ, Liu SM, Wang ZG

Cyclic deformation and fatigue properties of Al-0.7 wt.% Cu alloy produced by equal channel angular pressing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING. DEC 5 2005, VOL 412, IS 1-2, 279-286

Hao YL, Yang R

High strength nano-structured Ti-Nb-Zr-Sn alloy

ACTA METALLURGICA SINICA. NOV 2005, VOL 41, IS 11, 1183-1189

Ma AB, Takagi M, Saito N, Iwata H, Nishida Y, Suzuki K, Shigematsu I  
Tensile properties of an Al-11 mass%Si alloy at elevated temperatures processed by rotary-die  
equal-channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 5 2005,VOL 408,IS 1-2,147-153

La PQ, Ma JQ, Zhu YTT, Yang J, Lu WM, Xue QJ, Valiev RZ  
Dry-sliding tribological properties of ultrafine-grained Ti prepared by severe plastic deformation  
ACTA MATERIALIA.NOV 2005,VOL 53,IS 19,5167-5173

Kim YG, Hwang B, Lee S, Kim WG, Shin DH  
Dynamic deformation and fracture behavior of ultrafine-grained aluminum alloy fabricates by  
equal-channel angular pressing  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY  
AND MATERIALS SCIENCE.NOV 2005,VOL 36A,IS 11,2947-2955

Oruganti RK, Subramanian PR, Marte JS, Gigliotti MF, Amancherla S  
Effect of friction, backpressure and strain rate sensitivity on material flow during equal channel  
angular extrusion  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.OCT 15 2005,VOL 406,IS 1-2,102-109

Segal VM  
Deformation mode and plastic flow in ultra fine grained metals  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.OCT 15 2005,VOL 406,IS 1-2,205-216

Tabachnikova ED, Bengus VZ, Podolskiy AV, Smirnov SN, Natsik VD, Csach K, Miskuf J,  
Gunderov DV, Valiev R  
Low temperature features of mechanical properties and failure of different commercial purity  
nanostructured titanium processed by ECA pressing  
REVIEWS ON ADVANCED MATERIALS SCIENCE.SEP 2005,VOL 10,IS 3,229-234

Korshunov AI, Vedernikova II, Polyakov LV, Kravchenko TN, Smolyakov AA, Soloviev VP  
Effects of the number of ECAP passes and ECAP route on the heterogeneity in mechanical  
properties across the sample from ultrafine copper  
REVIEWS ON ADVANCED MATERIALS SCIENCE.SEP 2005,VOL 10,IS 3,235-238

Purcek G, Altan BS, Miskioglu I, Patil A  
Mechanical properties of severely deformed ZA-27 alloy using equal channel angular extrusion  
MATERIALS SCIENCE AND TECHNOLOGY.SEP 2005,VOL 21,IS 9,1044-1048

Kim JK, Kim HK, Park JW, Kim WJ  
Large enhancement in mechanical properties of the 6061 Al alloys after a single pressing by

ECAP

SCRIPTA MATERIALIA.NOV 2005,VOL 53,IS 10,1207-1211

Stolyarov VV, Brodova IG, Yablonskikh TI, Lapovok R

The effect of backpressure on the structure and mechanical properties of the Al-5 wt % Fe alloy produced by equal-channel angular pressing

PHYSICS OF METALS AND METALLOGRAPHY.AUG 2005,VOL 100,IS 2,182-191

Li YJ, Blum W

Strain rate sensitivity of Cu after severe plastic deformation by multiple compression

PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE.SEP 2005,VOL 202,IS 11,R119-R121

Perez-Prado MT, del Valle JA, Ruano OA

Achieving high strength in commercial Mg cast alloys through large strain rolling

MATERIALS LETTERS.NOV 2005,VOL 59,IS 26,3299-3303

Su CW, Chua BW, Lu L, Lai MO

Properties of severe plastically deformed Mg alloys

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.AUG 15 2005,VOL 402,IS 1-2,163-169

Luo H, Zhang LC, Shaw L

Multi-phase nanocrystalline Al alloy with superior strength and modulus at elevated temperatures

JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE.AUG 2005,VOL 14,IS 4,441-447

Liu T, Wang YD, Wu SD, Li SX, Peng RL, Xu YB

Improving the strength and ductility of magnesium alloys by grain refinement and texture modification

MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,177-180

Yang L, Yang XM, Liu T, Wu SD, Chen LJ

Superplasticity of magnesium alloy ZK40 processed by equal channel angular pressing

MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,575-579

Li L, Chen LJ, Liu Z

An investigation of low temperature superplasticity of ZK40 magnesium alloy subjected to equal channel angular pressing

MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS SCIENCE FORUM.2005,VOL 488-489,581-584

Hu XS, Wu K, Zheng MY, Xu SW, Zhang YK  
Effect of deformation on the damping capacity of magnesium alloys  
MAGNESIUM - SCIENCE, TECHNOLOGY AND APPLICATIONS SE MATERIALS  
SCIENCE FORUM.2005,VOL 488-489,737-740

Chung CS, Chun DK, Kim HK  
Fatigue properties of fine grained magnesium alloys after severe plastic deformation  
JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY.JUL 2005,VOL 19,IS  
7,1441-1448

Conrad H, Jung K  
On the strain rate sensitivity of the flow stress of ultrafine-grained Cu processed by equal channel  
angular extrusion (ECAE)  
SCRIPTA MATERIALIA.SEP 2005,VOL 53,IS 5,581-584

Ma AB, Suzuki K, Saito N, Nishida Y, Takagi M, Shigematsu I, Iwata H  
Impact toughness of an ingot hypereutectic Al-23 mass% Si alloy improved by rotary-die  
equal-channel angular pressing  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.JUN 15 2005,VOL 399,IS 1-2,181-189

Horita Z, Ohashi K, Fujita T, Kaneko K, Langdon TG  
Achieving high strength and high ductility in precipitation-hardened alloys  
ADVANCED MATERIALS.JUL 4 2005,VOL 17,IS 13,1599

Kaibyshev R, Shipilova K, Musin F, Motohashi Y  
Achieving high strain rate superplasticity in an Al-Li-Mg alloy through equal channel angular  
extrusion  
MATERIALS SCIENCE AND TECHNOLOGY.APR 2005,VOL 21,IS 4,408-418

Jin L, Lin DL, Mao DL, Zeng XQ, Ding WJ  
Mechanical properties and microstructure of AZ31 Mg alloy processed by two-step equal channel  
angular extrusion  
MATERIALS LETTERS.AUG 2005,VOL 59,IS 18,2267-2270

May J, Hoppel HW, Goken M  
Strain rate sensitivity of ultrafine-grained aluminium processed by severe plastic deformation  
SCRIPTA MATERIALIA.JUL 2005,VOL 53,IS 2,189-194

Lapovok R, Cottam R, Thomson P, Estrin Y  
Extraordinary superplastic ductility of magnesium alloy ZK60  
JOURNAL OF MATERIALS RESEARCH.JUN 2005,VOL 20,IS 6,1375-1378

Zhou F, Lee Z, Lavernia EJ, Nutt SR  
The influence of Sc on thermal stability of a nanocrystalline Al-Mg alloy processed by cryogenic

ball milling

METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY  
AND MATERIALS SCIENCE.JUN 2005,VOL 36A,IS 6,1587-1594

Krasilnikov N, Lojkowski W, Pakiela Z, Valiev R

Tensile strength and ductility of ultra-fine-grained nickel processed by severe plastic deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.APR 25 2005,VOL 397,IS 1-2,330-337

Zhao YH, Liao XZ, Zhu YT, Valiev RZ

Enhanced mechanical properties in ultrafine grained 7075 Al alloy  
JOURNAL OF MATERIALS RESEARCH.FEB 2005,VOL 20,IS 2,288-291

Huarte B, Luis CJ, Puertas I, Leon J, Luri R

Optical and mechanical properties of an Al-Mg alloy processed by ECAE  
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.MAY 15 2005,VOL 162,317-326

Smirnov BI, Shpeizman VV, Nikolaev VI

High strength and superplasticity of nanocrystalline materials  
PHYSICS OF THE SOLID STATE.2005,VOL 47,IS 5,840-844

Rhee K,Lapovok R, Thomson PF

The influence of severe plastic deformation on the mechanical properties of AA6111  
JOM.MAY 2005,VOL 57,IS 5,62-66

Wu K, Hu XS, Zheng MY

Mechanical properties and damping capacities of magnesium alloys processed by equal channel  
angular extrusion (ECAE)  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA.APR 2005,VOL  
15,276-279

Razorenov SV, Savinykh AS,Zaretsky EB, Kanel GI, Kolobov YR

Effect of preliminary strain hardening on the flow stress of titanium and a titanium alloy during  
shock compression  
PHYSICS OF THE SOLID STATE.2005,VOL 47,IS 4,663-669

Munoz-Morris MA, Gutierrez-Urrutia I, Morris DG

Effect of equal channel angular pressing on strength and ductility of Al-TiAl composites  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.APR 15 2005,VOL 396,IS 1-2,3-10

Milman YV

Mechanical behavior of nanostructured aluminum alloys containing quasicrystalline phase  
MATERIALS STRUCTURE & MICROMECHANICS OF FRACTURE IV SE MATERIALS

SCIENCE FORUM.2005,  
VOL 482,77-82

Ma AB, Saito N, Takagi M, Nishida Y, Iwata H, Suzuki K, Shigematsu I, Watazu A  
Effect of severe plastic deformation on tensile properties of a cast Al-11 mass% Si alloy  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.MAR 25 2005,VOL 395,IS 1-2,70-76

Weon JI, Creasy TS, Sue HJ, Hsieh AJ  
Mechanical behavior of polymethylmethacrylate with molecules oriented via simple shear  
POLYMER ENGINEERING AND SCIENCE.MAR 2005,VOL 45,IS 3,314-324

Krasilnikov N, Pakielka Z, Lojkowski W, Valiev R  
Excellent mechanical properties of nickel processed by high pressure technique  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,49-54

Sus-Ryszkowska M, Miskiewicz M, Pakielka Z, Kurzydowski KJ  
Strain localization in nano-crystalline iron processed by severe plastic deformation  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,81-84

Sus-Ryszkowska M, Pakielka Z, Valiev RZ, Wyrzykowski JW, Kurzydowski KJ  
Mechanical properties of nanostructured iron obtained by various methods of severe plastic  
deformation  
BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL  
101-102,85-90

Cheng S, Ma E, Wang YM, Kecskes LJ, Youssef KM, Koch CC, Trociewitz UP, Han K  
Tensile properties of in situ consolidated nanocrystalline Cu  
ACTA MATERIALIA.MAR 2005,VOL 53,IS 5,1521-1533

Kim HK, Lee YI, Chung CS  
Fatigue properties of a fine-grained magnesium alloy produced by equal channel angular pressing  
SCRIPTA MATERIALIA.MAR 2005,VOL 52,IS 6,473-477

Lukas P, Kunz L, Svoboda A  
Fatigue notch sensitivity of ultrafine-grained copper  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.JAN 25 2005,VOL 391,IS 1-2,337-341

Yu CY, Sun PL, Kao PW, Chang CP  
Mechanical properties of submicron-grained aluminum  
SCRIPTA MATERIALIA.MAR 2005,VOL 52,IS 5,359-363

Ma A, Suzuki K, Nishida Y, Saito N, Shigematsu I, Takagi M, Iwata H, Watazu A, Imura T  
Impact toughness of an ultrafine-grained Al-11mass%Si alloy processed by rotary-die  
equal-channel angular pressing  
ACTA MATERIALIA.JAN 3 2005,VOL 53,IS 1,211-220

Son YI, Lee YK, Park KT, Lee CS, Shin DH  
Ultrafine grained ferrite-martensite dual phase steels fabricated via equal channel angular  
pressing: Microstructure and tensile properties.  
ACTA MATERIALIA.JUN 2005,VOL 53,3125-3134

May J, Hoppel HW, Goken M  
Strain rate sensitivity of ultrafine-grained aluminium processed by severe plastic deformation.  
SCRIPTA MATERIALIA.JUL 2005,VOL 53,189-194

Li YJ, Liu SM, Wu SD, Zhang ZF, Wang ZG  
Fatigue behavior comparison of ecaped Al-Cu alloy under stress and strain control.  
ACTA METALLURGICA SINICA.APR 11 2005,VOL 41,380-384

Dalla Torre F, Spatig P, Schaublin R, Victoria M  
Deformation behaviour and microstructure of nanocrystalline electrodeposited and high pressure  
torsioned nickel.  
ACTA MATERIALIA.MAY 2005,VOL 53,2337-2349

Ma YQ, Jin JE, Lee YK  
A repetitive thermomechanical process to produce nano-crystalline in a metastable austenitic steel.  
SCRIPTA MATERIALIA.JUN 2005,VOL 52,1311-1315

Munoz-Morris MA, Gutierrez-Urrutia I, Morris DG  
Effect of equal channel angular pressing on strength and ductility of Al-TiAl composites.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.2005,VOL 396,3-10

Ishikawa K, Watanabe H, Mukai T  
High strain rate deformation behavior of an AZ91 magnesium alloy at elevated temperatures.  
MATERIALS LETTERS.MAY 2005,VOL 59,1511-1515

Ma AB, Saito N, Takagi M, Nishida Y, Iwata H, Suzuki K, Shigematsu I, Watazu A  
Effect of severe plastic deformation on tensile properties of a cast Al-11 mass% Si alloy.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.MAR 25 2005,VOL 395,70-76

Sauvage X, Wetscher F, Pareige P  
Mechanical alloying of Cu and Fe induced by severe plastic deformation of a Cu-Fe composite.

ACTA MATERIALIA.APR 2005,VOL 53,2127-2135

Lee YB, Shin DH, Nam WJ

Effect of annealing temperature on tensile behavior of 5052 Al alloy deformed at cryogenic temperature.

JOURNAL OF MATERIALS SCIENCE.MAR 2005,VOL 40,1313-1315

Furukawa M, Horita Z, Langdon TG

Processing by equal-channel angular pressing: Applications to grain boundary engineering.

JOURNAL OF MATERIALS SCIENCE.FEB 15 2005,VOL 40,909-917

Xu C, Furukawa M, Horita Z, Langdon TG

Developing a superplastic forming capability in nanometals.

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,23-30

Mizera J, Lewandowska M, Korznikov AV, Kurzydowski KJ

Microstructure and mechanical properties of binary Al-Li alloys processed by ECAE.

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,73-76

Sus-Ryszkowska M, Pakielka Z, Valiev RZ, Wyrzykowski JW, Kurzydowski KJ

Mechanical properties of nanostructured iron obtained by various methods of severe plastic deformation.

BULK AND GRADED NANOMETALS SE SOLID STATE PHENOMENA.2005,VOL 101-102,85-90

Jang Y, Kim S, Jung YY, Lee S

Tensile behavior of carbon nano-fiber-reinforced Cu composite using the liquid infiltration process.

METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE.JAN 2005,VOL 36A,217-223

## **Modeling**

Beyerlein IJ, Li SY, Alexander DJ

Modeling the plastic anisotropy in pure copper after one pass of ECAE

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,201-206

Li SY, Kalidindi SR, Beyerlein IJ

A crystal plasticity finite element analysis of texture evolution in equal channel angular extrusion

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,207-212

Zeipper LF, Zehetbauer MJ, Holzleithner C

Defect based micromechanical modelling and simulation of nanoSPD CP-Ti in post-deformation  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,217-221

Dumoulin S, Roven HJ, Werenskiold JC, Valberg HS

Finite element modeling of equal channel angular pressing: Effect of material properties, friction  
and die geometry

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,248-251

Kim HS, Estrin Y

Microstructural modelling of equal channel angular pressing for producing ultrafine grained  
materials

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,285-289

Zhao WJ, Ding H, Ren YP, Hao SM, Wang J, Wang JT

Finite element simulation of deformation behavior of pure aluminum during equal channel angular  
pressing

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.NOV 25 2005,VOL 410,348-352

Kim WJ, Namkung JC

Computational analysis of effect of route on strain uniformity in equal channel angular extrusion

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES  
MICROSTRUCTURE AND PROCESSING.DEC 5 2005,VOL 412,IS 1-2,287-297

Manna R, Agrawal P, Joshi S, Mudda BK, Mukhopadhyay NK, Sastry GVS

Physical modeling of equal channel angular pressing using plasticine

SCRIPTA MATERIALIA.DEC 2005,VOL 53,IS 12,1357-1361

Yang FQ, Saran A, Okazaki K

Finite element simulation of equal channel angular extrusion

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY.JUL 15 2005,VOL 166,IS 1,71-78

Li S, Beyerlein IJ

Modelling texture evolution in equal channel angular extrusion of bcc materials: effects of  
processing route and initial texture

MODELLING AND SIMULATION IN MATERIALS SCIENCE AND ENGINEERING.JUN  
2005,VOL 13,IS 4,509-530

Beygelzimer Y

Grain refinement versus voids accumulation during severe plastic deformations of polycrystals:

mathematical simulation

MECHANICS OF MATERIALS.JUL 2005,VOL 37,IS 7,753-767

Lapovok R, Dalla Torre FH, Sandlin J, Davies CHJ,Pereloma EV, Thomson PF, Estrin Y  
Gradient plasticity constitutive model reflecting the ultrafine micro-structure scale: the case of severely deformed copper

JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS.APR 2005,VOL 53,IS 4,729-747

Toth LS

Modelling of strain hardening and microstructural evolution in equal channel angular extrusion

COMPUTATIONAL MATERIALS SCIENCE.MAR 2005,VOL 32,IS 3-4,568-576

Wolf D, Yamakov V, Phillpot SR, Mukherjee A, Gleiter H

Deformation of nanocrystalline materials by molecular-dynamics simulation: relationship to experiments?

ACTA MATERIALIA.JAN 3 2005,VOL 53,IS 1,1-40

Dai K, Villegas J, Shaw L

An analytical model of the surface roughness of an aluminum alloy treated with a surface nanocrystallization and hardening process

SCRIPTA MATERIALIA.FEB 2005,VOL 52,IS 4,259-263