



ao.Univ.Prof.Dr. Michael ZEHETBAUER

LIST OF PUBLICATIONS (September 2017)

Total # Papers 255 accepted, 181 peer reviewed, several submitted
(Publications with 'peer review' are marked by *)

- *1) M.Zehetbauer, L.Trieb, H.P.Aubauer
Effect of Short-Range-Order on the Mechanical Properties of α -Cu-Al
Z.Metallk. 67, 431 (1976)
- *2) F.Adunka, M.Zehetbauer, L.Trieb
Heterogeneous Short-Range-Order as an Origin of the K-State in α -Fe-Al
phys.stat.sol. (a) 62, 213 (1980)
- *3) J.Schrank, M.Zehetbauer, W.Pfeiler, L.Trieb
Effect of High Deformation on Electrical Resistivity in Pure Al
Scripta Metall. 14, 1125 (1980)
- *4) H.Pfützner, M.Zehetbauer
On the Mechanism of Domain Refinement due to Scratching
Jap.J.Appl.Phys. 21, L580 (1982)
- *5) M.Zehetbauer, W.Pfeiler, J.Schrank
Microhardness and Yield Stress of Cold-Rolled Pure Aluminium
up to very high Deformations
Scripta Metall. 17, 221 (1983)
- *6) W.Pfeiler, P.Meisterle, M.Zehetbauer
Determination of SRO-Parameters of α -Ag-Al from Resistivity Measurement
Acta Metall. 32, 1053 (1984)
- *7) H.Pfützner, C.Bengtsson, M.Zehetbauer
Effects of Torsion on Domains of Coated Si-Fe Sheets
IEEE Trans.Mag.Vol.MAG-20 (5), 1554 (1984)
- *8) D.Trattner, M.Zehetbauer, V.Gröger
Electrical Resistivity of Dislocations in Aluminium
Phys.Rev. B 31, 1172 (1985)
- *9) W.Pfeiler, M.Zehetbauer, J.Schrank

Variations of Microstructure in Large Strain Cold- Rolled Pure Aluminium
Scripta Metall. 19, 505 (1985)

- 10) H.Pfützner, M.Zehetbauer
Temperature Effects on Magnetic Properties of Stress- Coated Si-Fe Sheets
Proc. 7th Soft Magn. Materials Conf. (SMM 7), Blackpool, U.K.,
paper 3.17 (1985)
- *11) M.Zehetbauer, D.Trattner
Strengthening Characteristics of Heavily Cold-Rolled Cu
Proc. 7th Int.Conf.Strength of Metals and Alloys (ICSMA 7),
Montreal, Canada, p.105 (1985)
- *12) M.Zehetbauer, D.Trattner
Effects of Stress-Aided Static Recovery in iteratively Cold-Worked f.c.c. Metals
Mater.Sci.Eng. 89, 93 (1987)
- *13) M.Zehetbauer, V.Seumer, W.Witzel
Plasticity and Microstructure of Copper in Stage IV- Cold Work Hardening
Proc. 8th Int.Conf.Strength of Metals and Alloys
(ICSMA 8), Tampere, Finland (1988), p.451
- *14) M.Zehetbauer
Theory and Experiment on Deviations of Matthiessen's Rule in Dislocated Crystals:
A constructive Reply
J.Phys.Condens.Matter 1, 2833 (1989)
- *15) B.Marczewska-Lasa, M.Zehetbauer, W.Pfeiler, B.Wielke
Analysis of Isothermal and Isochronal Annealing in Deformed Zn and Zn-Ag
J.Mater.Sci. 26, 4499 (1991)
- *16) M.Zehetbauer, J.Schmidt, F.Haeßner
Calorimetric Study of Defect Annealing in Low Temperature - Deformed Pure Zn
Scripta Metall. Mater. 25, 559 (1991)
- 17) F.Sachslehner, M.Zehetbauer, V.Gröger
Anisotropic Electron Scattering in Dislocated Metals
Proc.22nd.Int.Symp.Superconductivity & Cryoelectronics,
Georgenthal, Germany (1990)
ed.W.Krech et al., World Scientific Singapore (1991), p.188
- *18) M.Zehetbauer, V.Gröger, B.R.Watts
Deviations from Matthiessen's rule in Copper containing dislocations
Solid State Comm. 79 (6), 465 (1991)
- *19) M.Zehetbauer, V.Seumer
Cold Work Hardening in Stages IV and V of f.c.c. Metals
I: Experiments and Interpretation
Acta Metall.Mater. 41 (2), 577-588 (1993)

- *20) M.Zehetbauer
Cold Work Hardening in Stages IV and V of f.c.c. Metals
II: Model Fits and Physical Results
Acta Metall.Mater. 41 (2), 589-599 (1993)
- *21) V.Gröger, M.Zehetbauer
Onset Mechanisms of discontinuous Flow in one- and two-phase **Cu**-Be alloys
Mater.Sci.Eng. A 164, 240 (1993)
- 22) M.Müller, M.Zehetbauer, F.Sachslehner, V. Gröger
Scattering of Electrons by Dislocations: Theory and Application
Solid State Phenom. 35-36, 557 (1994)
- 23) M.Haluska, M.Zehetbauer, H.Kuzmany, P.Dolinar, M.Vybornov
Fullerite Single Crystals: Preparation from Vapor Phase and Characterization
Proc. IWFAc-93, St.Peterburg, Russia (1993),
Mol.Mat. 4, 73 (1994)
- *24) B.Mikulowski, M.Zehetbauer, B.Marczewska, B.Wielke
Strengthening by Deformation Induced Point Defects
Proc. 10th Int.Conf.Strength of Materials (ICSMA 10), Sendai, Japan,
ed. H.Oikawa et al. (The Japan Inst. Metals), p. 287 (1994)
- *25) M.Zehetbauer
Effects of Non-Equilibrium Vacancies on Strengthening
Key Eng.Mater. 97-98, 287 (1994)
- *26) P.Les, M.Zehetbauer
Evolution of Microstructural Parameters in Large Strain Deformation:
Description by Zehetbauer's Model
Key Eng.Mater. 97-98, 335 (1994)
- *27) R.Zürcher, M.Müller, F.Sachslehner, V.Gröger, M.Zehetbauer
The Dependence of DMR in Dislocated Copper on Temperature, Dislocation Density
and Impurity Content
J.Phys.Condens.Matter 7, 3515 (1995)
- 28) M.Müller, M.Zehetbauer, A.Borbely, T.Ungar
Investigation of the Microstructure after Large Strain Deformation
by High Resolution X-Ray Line Profile Analysis
Proc.4th Europ.Conf.Adv.Mater.& Processes (EUROMAT '95),
Padua/Venice, Italy (1995), p.305
- *29) M.Zehetbauer, P.Les, H.P.Stüwe, X.F.Fang
Model Calculations of Large Strain Strengthening Characteristics
of Commercially Pure b.c.c. Iron

- phys.stat.sol.(a) 151 (2), 305 (1995)
- 30) P.Les, H.P.Stüwe, M.Zehetbauer
A Composite Model of Large Strain Strengthening of Metals
Kovove materialy 33 (6), 384 (1995) (in Czech), and
Metallic Materials (1996, in English)
- *31) M.Müller, M.Zehetbauer, A.Borbely, T.Ungar
Dislocation Density and Long Range Internal Stresses in Heavily Cold Worked Cu
measured by X-Ray Line Broadening
Z.Metallk. 86 (12), 827 (1995)
- *32) M.Kocer, F.Sachslehner, M.Müller, E.Schafner, M.Zehetbauer
Measurement of Dislocation Density by Electrical Resistivity
Mater.Sci.Forum 210-213, 133 (1996)
- *33) M.Haluska, M.Zehetbauer, H.Kuzmany
Microhardness and Raman Spectroscopy for Characterization of
Fullerite Single Crystals
Mater.Sci.Forum 210-213, Trans.Tech.Publ. p.267 (1996)
- *34) P.Les, M.Zehetbauer, H.P.Stüwe
Characteristics of Work Hardening in Late Stages of High Temperature Deformation
of Aluminium Single Crystals
phys.stat.sol.(a) 157, 265 (1996)
- *35) Z.Trojanova, V.Gröger, M.Zehetbauer
Characteristics of Low Temperature Serrated Flow in α -Cu-Be alloys
phys.stat.sol.(a) 157, 295 (1996)
- 36) M.Zehetbauer, P.Les
Features & Modelling of Strengthening in Late Stages
of High Temperature Deformation
(invited keynote paper)
Proc. Int.Sympos.Hot Workability of Steels & Light Alloys-Composites,
ed.H.J.Mc.Queen et al., 35th Annual Conference of Metallurgists,
Met.Soc.Can.Inst. Mining & Metallurgy, Montreal, Quebec (Canada),
August 1996, p. 205-217
- 37) M.Zehetbauer, R.Kral, T.Ungar, A.Borbely, B.Ortner, S.Bernstorff, H.Amenitsch
Scanning Wide-Angle Micro Diffraction: The First Material Science Experiment
at the New Austrian SAXS Beamline
ELETTRA News Vol.8, May 17 (1996)
- *38) M.Müller, M.Zehetbauer, A.Borbely, T.Ungar
Stage IV Work Hardening in Cell Forming Materials
pt. I: Features of Dislocation Structure determined by X-Ray Line Broadening
Scripta Mater. 35, 1461 (1996)

- *39) T.Ungar, M.Zehetbauer
 Stage IV Work Hardening in Cell Forming Materials
 pt. II: A New Mechanism
 Scripta Mater. 35, 1467 (1996)
- 40) P.Les, M.Zehetbauer, H.P.Stüwe
 Measurements and Evaluation of Strain Rate Sensitivity in Al
 at Late Stages of Deformation
 Mater.Sci.Forum 242, 147 (1997)
- *41) M.Zehetbauer, M.Görtler, R.Kral, E.Schafner, P.Vostrý, I.Stulikova
 Defect Analysis in High Temperature Deformed Al Single Crystals
 Mater.Sci.Eng. A 234-236, 438 (1997)
- *42) E.Schafner, M.Zehetbauer, A.Borbely, T.Ungar
 Dislocation Densities and Internal Stresses in Large Strain Cold Worked Pure Iron
 Mater.Sci.Eng. A 234-236, 445 (1997)
- *43) R.Swiatek, M.Zehetbauer, B.Mikulowski
 Work Hardening by Deformation Induced Vacancies in Low Temperature Deformed
 Aluminium Single Crystals
 Mater.Sci.Eng. A 234-236, 441 (1997)
- *44) P.Les, H.P.Stüwe, M.Zehetbauer
 Work Hardening and Strain Rate Sensitivity in
 Stage IV of Deformation in f.c.c. and b.c.c. Metals
 Mater.Sci.Eng. A 234-236, 453 (1997)
- *45) R.Kral, P.Lukac, M.Zehetbauer, M.Janecek
 Mechanisms Controlling Plastic Behaviour in Al-Mg and Al-Zn-Mg Alloys:
 A Comparison of Contemporary Models
 Acta Technica CSAV (Czech Republic) 42, 145 (1997)
- *46) Z.Trojanova, V.Gröger, M.Zehetbauer, R.Smola
 Low Temperature Serrated Flow in Cu₂Be alloy
 Metallic Materials 36, 23 (1998, in Czech)
- *47) P.Les, M.Zehetbauer, H.P.Stüwe
 Stage IV and V Work Hardening of Pure Ni: Experiments & Modelling
 Metallic Materials 36 (3-S), 12 (1998)
- *48) M.Zehetbauer, P.Les
 Micromechanisms of Plastic Deformation in Metals
 Metallic Materials 36 (3), 153 (1998)
- *49) M.Zehetbauer, P.Les
 Experiments and Modelling of Cold Work Hardening in Pure Aluminium

up to Very Large Strains (**invited paper**)
Proc. 19th RISO Int.Symp.Mater.Sci. "Modelling of Structure
and Mechanics of Materials from Microscale to Product",
Sept. 7-11, Roskilde, Denmark (1998), p.553

- *50) M.Zehetbauer, T.Ungar, R.Kral, A.Borbely, E.Schafler, B.Ortner,
H.Amenitsch, S.Bernstorff
Scanning X-ray Diffraction Peak Profile Analysis in Deformed Cu-Polycrystals
by Synchrotron Radiation
Acta mater. 47, 1053 (1999)

- *51) I.Kopacz, L.S.Toth, H.P.Stüwe, M.Zehetbauer
Large Strain Hardening Curves Corrected for Texture Development
Modelling Simul.Mater.Sci.Eng. 7, 875 (1999)

- 52) L.S.Toth, H.P.Stüwe, M.Zehetbauer, I.Kopacz
The Role of Taylor Factor in Strain Hardening
Proc.12th Int.Conf.Textures of Materials (ICOTOM 12), Aug. 9-13, Montreal
(Canada, 1999), p. 417 (1999)

- *53) P.Les, M.Zehetbauer, E.F.Rauch, I.Kopacz
Cold Work Hardening of Al from Shear Deformation up to Large Strains
Scripta mater. 41, 523 (1999)

- *54) E.Schafler, M.Zehetbauer, I.Kopacz, T.Ungar, P.Hanak, H.Amenitsch, S.Bernstorff
Microstructural Parameters in Large Strain Deformed Ni-Polycrystals as Investigated
by Synchrotron Radiation
phys.stat.sol. (a) 175, 501 (1999)

- 55) B.Mingler, H.P.Karnthaler, M.Zehetbauer
TEM Investigation of Ultrafine Cell Sized Copper
Proc. IVth Multinational Congr.Electron Microscopy, Sept.5-8,
Veszprem (Hungary, 1999)

- *56) E.Schafler, Ch.Sitkovich, M.Zehetbauer, T.Ungar, I.Dragomir, A.Revesz
Characterization of Dislocation Types in Plastically Deformed
Aluminium Base Alloys
Mater.Sci.Forum 321-324, 847 (2000)

- *57) M.Zehetbauer
Strengthening Processes of Metals at Severe Plastic Deformation:
Analyses with Electron and Synchrotron Diffraction (**invited keynote paper**)
Proc. NATO Adv.Research Workshop "Investigations & Applications of Severe Plastic
Deformation", August 2-6 (Moscow, Russia 1999), ed. T.C.Lowe and R.Z.Valiev,
Kluwer Acad. Publ., The Netherlands (2000), p.81

- *58) E.Schafner, M.Zehetbauer, P.Hanak, T.Ungar, T.Hebesberger, R.Pippan, B.Mingler, H.P.Karnthaler, H.Amenitsch, S.Bernstorff
Fragmentation in large strain cold rolled Aluminium as observed by Synchrotron X-Ray Bragg Peak Profile Analysis (SXPA), Electron Back Scatter Diffraction (EBSD) and Transmission Electron Microscopy (TEM)
Proc. NATO Adv.Research Workshop “Investigations & Applications of Severe Plastic Deformation”, August 2-6 (Moscow, Russia 1999), ed. T.C.Lowe and R.Z.Valiev, Kluwer Acad. Publ., The Netherlands (2000), p.163
- *59) T.Ungar, I.V.Alexandrov, M.Zehetbauer
Ultrafine-Grained Microstructures Evolving During Severe Plastic Deformation, in: *Commentary: Bulk Materials with Nanoscale Microstructures*
Journal JOM 52, 34 (2000)
- 60) J.T.Bonarski, M.Zehetbauer, Z.Swiatek, I.M.Fodchuk, I.Kopacz, S.Bernstorff, H.Amenitsch
Synchrotron Investigation of the Near-Surface Areas in Silicon Solar Cells Modified by P⁺ Ion Implantation and Thermal Treatment
Proc. Europ.Conf. on Photovoltaics, Oct.25-27, 1999 (Cracow, Poland), Opto-Electronics Review 8, 323 (2000)
- 61) I.Altpeter, S.Kuehn, M.Kopp, W.Arnold, M.Kröning, M.Zehetbauer
Grundlegende Untersuchungen zur Eigenspannungsmessung im Mikrometerbereich durch Korrelation magnetischer Prüfgrößen mit experimentell ermittelten Dehnungs- und Spannungsfeldern
Proc. DACH-Jahrestagung 2000, Innsbruck (Austria), May 29-31, paper 45
- *62) M.Zehetbauer, T.Ungar, E.Schafner, S.Bernstorff, H.Amenitsch
Microscale Spatial Distribution of Dislocations and Long Range Internal Stresses in Cold Worked bcc Fe
Key Eng.Mater. 177-180, 159 (2000)
- *63) M.Zehetbauer, B.Mikulowski
Deformation Induced Vacancies and Work Hardening of Metals
Arch.Metallurgy (Poland) 46, 65-80 (2001)
- *64) E.Schafner, M.Zehetbauer, T.Ungar
Measurement of Screw and Edge Dislocation Density by means of X-Ray Bragg Profile Analysis
Mater.Sci.Eng.A 319-321, 220-223 (2001)
- *65) B.Mingler, H.P.Karnthaler, M.Zehetbauer, R.Z.Valiev
TEM Investigation of Multidirectionally Deformed Copper
Mater.Sci.Eng.A 319-321, 242-245 (2001)
- *66) L.S. Tóth, I. Kopacz, M.Zehetbauer, I.V. Alexandrov
The evolution of crystallographic texture in equal channel angular deformation of copper
(invited paper)

Int.Conf. Processing & Manufacturing Adv.Mater. (THERMEC '2000),
Dec. 4-8, Las Vegas, USA (2000), J.Mater.Processing Technol., publ. on CD (2001)

- *67) T.Hebesberger, E.Schafner, M.Zehetbauer, R.Pippan, T.Ungar, H.Amenitsch,
S.Bernstorff
Electron Back Scatter Diffraction (EBSD) and Synchrotron X-Ray Profile Analysis
(SXPA) as Tools for Microstructural Characterisation of Large Strain Work Hardened
Metals
Z.Metallkd. 92, 410-416 (2001)
- *68) I.Kopacz, M.Zehetbauer, L.S.Toth, I.Alexandrov
Texture Development and Simulation in Copper during Route B – Equal Channel
Angular Pressing
Proc.22nd RISO Int.Symp.Mater.Sci. "Science of Metastable & Nanocrystalline Alloys:
Structure, Properties and Modelling", Sept. 3-7, Roskilde, Denmark (2001), p.295-300
- *69) G.Winther, N.Hansen, T.Hebesberger, X.Huang, R.Pippan, M.Zehetbauer
Dislocation Structure of Ni Deformed by High Pressure Torsion
Proc.22nd RISO Int.Symp.Mater.Sci. "Science of Metastable & Nanocrystalline Alloys:
Structure, Properties and Modelling", Sept. 3-7, Roskilde, Denmark (2001), p.435-440
- *70) B.Mülders, M.Zehetbauer, G.Gottstein, P.Les, E.Schafner
Large Strain Work Hardening in the Alloy Al-1Mg-1Mn
at Low and Intermediate Deformation Temperatures: Experiments and Modelling
Mater.Sci.Eng.A 324, 244-250 (2002)
- *71) M.Zehetbauer, E.Schafner, T.Ungar, I.Kopacz, S.Bernstorff
Investigation of the Microstructural Evolution During Large Strain Cold Working of
Metals by Means of Synchrotron Radiation – A Comparative Overview
J.Eng.Mater.Techn. ASME, special issue on "Micromechanics in Crystal Plasticity",
124, 41-47 (2002)
- 72) J.Bonarski, M.Zehetbauer, Z.Swiatek, E.Schafner, S.Bernstorff
Structural Investigation of Silicon Platelets for Solar Cells By Advanced Methods of X-
Ray Diffraction
Proc. Review Seminar "Physics and Materials Science", Polish Academy of Sciences,
May 27-30, 2001 (Vienna, Austria), p. 171-177 (2002)
- 73) V.Gröger, B.Mikulowski, A.Kotas, G.Krexner, W.Egger, M.Zehetbauer
Positron Annihilation Spectroscopy of Vacancy-Type Lattice Defects at Severe Plastic
Deformation of Fcc Metals
Proc. Review Seminar "Physics and Materials Science", Polish Academy of Sciences,
May 27-30, 2001 (Vienna, Austria), p. 142-148 (2002)
- 74) M.Zehetbauer, J.Kohout
Principles and Modeling of Severe Plastic Deformation Providing Ultra Fine Grained
Materials (**invited paper**)
Proc. 9th Int.Symp.Plasticity & Current Appl. "Plasticity '02", Aruba, Netherlands, Jan.
3-8, 2002, eds. A.S. Khan, O.Lopez-Pamies, NEAT Press, Maryland (USA),
p. 543-545 (2002)

- 75) M.Zehetbauer
 Features of Severe Plastic Deformation as Compared to Conventional Deformation Modes (**invited paper**)
 Proc. 2th Int.Symp.Ultrafine Grained Materials, 2002 TMS Annual Meeting, Feb. 17- 21, 2002, Seattle (WA, USA), p. 669-678 (2002)
- 76) B.Mikulowski, V.Gröger, M.Zehetbauer
 The Effect of Vacancies and Vacancy Agglomerates on the Mechanical Properties of Metals
 Proc. 13th Conf.Metall.Comm. Polish Academy of Sciences “Metallurgia 2002”, April 17-20, 2002, Krynica (Poland), p. 315-323 (2002)
- *77) M.Richert, H.P.Stüwe, M.J.Zehetbauer, J.Richert, R.Pippan, Ch.Motz, E.Schafner,
 Work Hardening and Microstructure of AlMg5 after Severe Plastic Deformation by Cyclic Extrusion and Compression
 Mater.Sci.Eng. A 355, 180-185 (2003)
- *78) K.Milička, F.Dobeš, E.Schafner, M.Zehetbauer
 Comparison of X-ray and dip test measurements of internal stresses during high temperature creep of copper
 Metallic Materials 41, 133 (2003)
- 79) X.Huang, G.Winther, N.Hansen, T.Hebesberger, A.Vorhauer, R.Pippan, M.Zehetbauer
 Microstructures of Nickel Deformed by High Pressure Torsion to High Strains
 Mater.Sci.Forum 426-432, 2819-2824 (2003)
- 80) B. Mingler., A.V. Korznikov, L. Zeipper, M. Zehetbauer, H.P. Karnthaler
 Influence of ECAP and Hot Rolling on the Microstructure of an Al-Mg-Li-Zr Alloy
 Proc. 6th Multinational Congress on Microscopy, Pula, Croatia, 191 (2003)
- *81) M.Zehetbauer, H.P.Stüwe, A.Vorhauer, E.Schafner, J. Kohout
 The Role of Hydrostatic Pressure in Severe Plastic Deformation
Invited Keynote paper
 Proc. 2nd International Conference on Nanomaterials by Severe Plastic Deformation: Fundamentals – Processing – Applications, Wien, Austria (Dec. 9-13, 2002), eds. M.J.Zehetbauer & R.Z.Valiev, J.Wiley VCH Weinheim (Germany), p. 435 (2004)
- and
- Adv.Eng.Mater. 5, 330-337 (2003)
- *82) E. Schafner, L. Zeipper, M.Zehetbauer
 X-Ray Bragg Profile Analysis of Severely Plastically Deformed Titanium
 Proc. 2nd International Conference on Nanomaterials by Severe Plastic Deformation: Fundamentals – Processing – Applications, Wien, Austria (Dec. 9-13, 2003), ed. M.J.Zehetbauer & R.Z.Valiev, J.Wiley VCH Weinheim (Germany), p. 426 (2004)

- *83) L. Zeipper, M.Zehetbauer, B.Mingler, E.Schafler, G.Korb, H.P.Karnthaler
Mechanical Properties of Nano-SPD Titanium
Proc. 2nd International Conference on Nanomaterials by Severe Plastic Deformation:
Fundamentals – Processing – Applications, Wien, Austria (Dec. 9-13, 2003), ed.
M.J.Zehetbauer & R.Z.Valiev, J.Wiley VCH Weinheim (Germany), p. 810 (2004)
- *84) B.Mingler, L.Zeipper, H.P.Karnthaler, M.Zehetbauer
TEM Investigations of Ti deformed by ECAP
Proc. 2nd International Conference on Nanomaterials by Severe Plastic Deformation:
Fundamentals – Processing – Applications, Wien, Austria (Dec. 9-13, 2003), ed.
M.J.Zehetbauer & R.Z.Valiev, J.Wiley VCH Weinheim (Germany), p. 369 (2004)
- *85) L. Zeipper, G. Gemeinböck, G. Korb, M. Zehetbauer, E. Schafler, B. Mingler
Nanostructuring of Titanium Based Materials by Severe Plastic Deformation
Proc. 10th World Conf. on Titanium, Hamburg, Germany (July 13-18, 2003), ed. G.
Lütjering, J.Wiley VCH Weinheim (Germany), 1445-1452 (2004)
- 86) X. Huang, A.Vorhauer, G. Winther, N. Hansen, R. Pippan, M.Zehetbauer
Evolution of Microstructural Morphology and Boundary Spacing During High Pressure
Torsion of Nickel
Proc. 3rd Int.Symp.Ultrafine Grained Materials, 2004 TMS Annual Meeting, March 15-
18, 2004, Charlotte (NC, USA), p. 235-240 (2004)
- 87) L.Zeipper, G.Gemeinboeck, M.Zehetbauer, G.Korb
Compression Tests to approximate the ECAP Deformation and Post-Processing of
Coarse Grained and NanoSPD Grade-2 Titanium
Proc. 3rd Int.Symp.Ultrafine Grained Materials, 2004 TMS Annual Meeting, March 15-
18, 2004, Charlotte (NC, USA), p. 541-546 (2004)
- *88) M. Zehetbauer, J. Kohout, E. Schafler, F.Sachslehner, A. Dubravina
Plastic Deformation of Nickel under High Hydrostatic Pressure
J. Alloys & Compounds 378, 329-334 (2004)
- *89) A.Dubravina, M.J.Zehetbauer, E.Schafler, I.V.Alexandrov
Correlation between domain size obtained by X-ray Bragg profile analysis and
macroscopic flow stress in Severely Plastically Deformed Cu
Mater.Sci.Eng.A 387-389, 1018 (2004)
- *90) H.Wilhelm, A. Paris, E. Schafler, S. Bernstorff, J. Bonarski, T. Ungar, M. J. Zehetbauer
Proof of Dislocations In Melt-Crystallised And Plastically Deformed Polypropylene
Mater.Sci.Eng.A 387-389, 817 (2004)
- *91) E. Schafler, K. Simon, S. Bernstorff, G. Tichy, T. Ungar, M.J. Zehetbauer
A Second Order Phase Transformation During Plastic Deformation Determined by
In Situ X-Ray Synchrotron Diffraction
Acta mater. 53, 315 (2005)

- *92) R. Grössinger, G. Badurek, J. Fidler, M. Zehetbauer, C.D. Dewhurst
Structural methods for studying nanocrystalline materials
J. Mag.Magn.Mater. 294, 152-158 (2005)
- 93) T. Ungar, M. Zehetbauer
Parameters from X-ray line profile analysis governing strength during deformation induced nanocrystallisation (**invited paper**)
Proc. 11th Int.Symp.Plasticity & Current Appl. “Plasticity ‘05”, Kauai (Hawaii, USA) Jan. 3-8, 2005, eds. A.S. Khan et al., NEAT Press, Maryland (USA), pp. 502-504 (2005)
- *94) M.Zehetbauer, L. Zeipper, E. Schafler
Modelling Mechanical Properties of SPD Materials during and after Severe Plastic Deformation
(Invited Keynote Paper)
Proc. NATO Advanced Research Workshop “Nanostructured Materials by High-Pressure Severe Plastic Deformation” Donetsk, Ukraine (Sept. 2004), ed. Y. Zhu, Springer, Nato Science Series II, vol. 212 (2005)
- 95) M. Zehetbauer, M. Krystian, W. Lacom
Bulk Nanostructured Metals by Severe Plastic Deformation
Proc. 2005 Nanotechnology Conference and Trade Show, (Anaheim, USA, May 8-12, 2005), vol. 1-3 (2005)
- *96) E. Schafler, G. Steiner, E. Korznikova, M. Kerber, M. J. Zehetbauer
Lattice Defect Investigation of SPD Cu by Means of X-Ray Line Profile Analysis, Calorimetry and Electrical Residual Resistivity
Mater.Sci.Eng. A 410-411, 169-173 (2005)
- *97) L. Zeipper, M. Zehetbauer, Ch. Holzleithner
Defect Based Micromechanical Modelling and Simulation of NanoSPD CP-Ti in Post-Deformation
Mater.Sci.Eng. A 410-411, 217-221 (2005)
- *98) T. Ungar, E.Schafler, P.Hanak, S.Bernstorff, M.Zehetbauer
Vacancy Concentrations Determined from the Diffuse Background Scattering of X-Rays in Plastically Deformed Cu
Z.Metallk. 96, 578-583 (2005)
- *99) M. Zehetbauer, E. Schafler, T. Ungar
Quantification of Deformation Induced Nanocrystallization by Means of X-Ray Line Profile Analysis
Arch.Metall.Mater. 50, 515-533 (2005)

- *100) Z. Budrovich, S. Van Petegem, P.M. Derlet, B. Schmitt, H. Van Swygenhoven, E. Schafler, M. Zehetbauer
Footprints of Deformation Mechanisms During In-situ X-Ray Diffraction: Nanocrystalline and Ultra-Fine Grained Ni
J. Appl. Phys. Letters 86, 231910 (2005)
- *101) M.Zehetbauer, E.Schafler, T.Ungar
Vacancies in plastically deformed copper
Z.Metallk. 96, 1044-1048 (2005)
- *102) E. Schafler, M. Zehetbauer
Characterization of nanostructured materials by X-ray Line Profile Analysis
Rev. Adv. Mater. Sci. 10, 28-33 (2005)
- *103) M. Kerber, E. Schafler, M. Zehetbauer
Processing and Evaluation of X-Ray Line Profiles measured from Nanostructured Materials Produced by Severe Plastic Deformation
Rev. Adv. Mater. Sci. 10, 427-433 (2005)
- *104) E. Schafler, K. Nyilas, S. Bernstorff, L. Zeipper, M. Zehetbauer, T. Ungar,
Microstructure of Post-Deformed ECAP-Ti investigated by Multiple X-Ray Line Profile Analysis
Z. Kristallogr. 23 (suppl.), 129-134 (2006)
- *105) M. Kerber, E. Schafler, P. Hanak, G. Ribarik, S. Bernstorff, T. Ungar, M. Zehetbauer
Spatial Fluctuations of the Microstructure During Deformation in Cu Single Crystals
Z. Kristallogr. 23 (suppl.), 105-110 (2006)
- *106) E. Schafler, A. Dubravina, B. Mingler, H.P. Karnthaler, M. Zehetbauer
On the Microstructure of HPT Processed Cu Under Variation of Deformation Parameters
Mater.Sci.Forum, 503-504, 51-56 (2006)
- *107) B. Mingler, V. V. Stolyarov, M. Zehetbauer, W. Lacom, H. P. Karnthaler
TEM Investigations of Titanium Processed by ECAP followed by Cold Rolling
Mater.Sci.Forum, 503-504, 805-810 (2006)
- *108) M. Zehetbauer, E. Schafler, G. Steiner, E. Korznikova, A. Korznikov.
Deformation Induced Vacancies in SPD Cu: Measurements & Modelling
Mater.Sci.Forum, 503-504, 57-64 (2006)
- 109) E. Korznikova, E. Schafler, G. Steiner, M. J. Zehetbauer
Measurements of Vacancy type Defects in SPD deformed Ni
Proc. 4th Int.Symp.Ultrafine Grained Materials, 2006 TMS Annual Meeting, March 13-17, 2006, San Antonio (Texas, USA), pp. 97-104 (2006)
- 110) R.K.Islamgaliev, O. B.Kulyasova, B.Mingler, E.Schafler, G. Korb, H.P.Karnthaler, M.J.Zehetbauer
The Influence of the ECAP Temperature on the Microstructure and the Mechanical properties of the AM60 Magnesium Alloy

Proc. 4th Int.Symp.Ultrafine Grained Materials, 2006 TMS Annual Meeting,
March 13-17, 2006, San Antonio (Texas, USA), pp. 407-411 (2006)

- *111) M. Zehetbauer, E. Schafler, F.Dobeš, K.Milička
Determination of basic characteristics of composite model in high temperature creep
of Al and Al-Mg alloy
Z. Metallk. 97, 329-335 (2006)

- *112) R.Z.Valiev, Y. Estrin, Z. Horita, T.G. Langdon, M.J. Zehetbauer, Y.T. Zhu
Producing Bulk Ultrafine-Grained Materials By Severe Plastic Deformation
JOM 54 (4), 33 (2006)

- *113) A.K. Wiczorek, M. Krystian, M.J. Zehetbauer
SPD Processed Alloys as Efficient Vacancy-Hydrogen Systems
Solid State Phenom. 114, 177-182 (2006)

- *114) A. Daniszewska, W. Lojkowski, H. Fecht, K.J. Kurzydowski, Urszula Narkiewicz,
G.A. Salishchev, M.J. Zehetbauer, M. Kulczyk, M. Chmielecka, D. Kuzmenko
Metallic Nano-Materials and Nanostructures: Development of Technology Roadmap
Solid State Phenom. 114, 345-392 (2006)

- *115) G. V. Duong, N. Hanh, D. V. Linh, R. Groessinger, P. Weinberger, E. Schafler,
M. Zehetbauer
Monodispersed Nanocrystalline $Co_{1-x}Zn_xFe_2O_4$ Particles by Forced Hydrolysis:
Synthesis and Characterization
J. Mag. Magn.Mater. 311, 46-50 (2007)

- *116) T. Ungar, E. Schafler, P. Hanak, S. Bernstorff, M. Zehetbauer
Vacancy Production During Plastic Deformation in Copper Determined by
In-situ X-ray Diffraction
Mater.Sci.Eng. A 462, 398-401 (2007)

- *117) B. Mingler, O. B. Kulyasova, R.K.Islamgaliev, G. Korb, H.P. Karnthaler,
M.J.Zehetbauer
DSC and TEM Analysis of Lattice Defects Governing the Mechanical Properties of an
ECAP-Processed Magnesium Alloy
J. Mater. Sci. 42, 1477-1482 (2007)

- *118) M. Zehetbauer, E. Schafler, T. Ungar
Non-Microscope Methods for Characterization of Microstructures and Properties of
UFG Metals
Int.J.Mater.Res. 98, 290-298 (2007)

- *119) R. Z. Valiev, M. J. Zehetbauer, Y. Estrin, H. W. Höppel, Y. Ivanisenko, H. Hahn,
G. Wilde, H. J. Roven, X. Sauvage, T. G. Langdon
The Innovation Potential of Bulk Nanostructured Materials

- Adv.Eng.Mater. 9, 527-533 (2007)
- *120) B. Mingler, V.V.Stolyarov, L.Zeipper, M. Zehetbauer
Post-deformation of CP Ti processed by Equal Channel Angular Pressing
Mater.Sci.Eng. A 476, 98-105 (2008)
 - *121) F. Spieckermann, H. Wilhelm, E.Schafler, S. Ahzi, M.J. Zehetbauer
Application of Composite Models to Isotactic Polypropylene for the Determination of
Phase Specific Stress-Strain Curves
Mater.Sci.Eng. A 483-484, 76-78 (2008)
 - *122) D. Setman, E. Schafler, E. Korznikova, M.J. Zehetbauer
The Presence and Importance of Vacancy type Defects in SPD Nanometals
Mater.Sci.Eng. A 493, 116-122 (2008)
 - *123) B. J. Bonarski, B. Mikułowski, E. Schafler, Ch. Holzleithner, M. J. Zehetbauer
Crystallographic textures of single and polycrystalline pure Mg
and Cu subjected to HPT deformation
Arch.Metall.Mater. 53, 117-123 (2008)
 - 124) D.Setman, M.Krystian, M.J.Zehetbauer
Lattice Defects in Hydrogenated and HPT Processed Pd
Mater.Sci.Forum 584-586, 355-360 (2008)
 - 125) B.J.Bonarski, E.Schafler, B.Mikulowski, M.J. Zehetbauer
Texture Evolution of Magnesium Single Crystals Deformed By High-Pressure Torsion
Mater.Sci.Forum 584-586, 263-268 (2008)
 - 126) N.A.Enikeev, E.Schafler, M.Zehetbauer, I.V.Alexandrov, R.Z.Valiev
Observations of Texture in Large Scale HPT-Processed Cu
Mater.Sci.Forum 584-586, 367-372 (2008)
 - 127) R. Islamgaliev, O. B. Kulyasova, B. Mingler, M. Zehetbauer, A. Minkow
Structure And Fatigue Properties Of The Mg Alloy AM60 Processed By ECAP
Mater.Sci.Forum 584-586, 803-808 (2008)
 - 128) H.W.Zhang, X.Huang, N.Hansen, R.Pippan, M.J. Zehetbauer
Strengthening Of Nickel Deformed By High Pressure Torsion
Mater.Sci.Forum 584-586, 417-421 (2008)
 - 129) A.E.Sergeeva, D.Setman, M.J.Zehetbauer, S.D.Prokoshkin, V.V. Stolyarov
Effect of Electroplastic Deformation on Martensitic Transformation
in Coarse Grained and Ultrafine Grained Ni-Ti Shape Memory Alloy
Mater.Sci.Forum 584-586, 127-132 (2008)
 - *130) B.J.Bonarski, E.Schafler, B.Mingler, W.Skrotzki, B.Mikulowski, M.J. Zehetbauer
Texture Evolution of Mg During High-Pressure Torsion
J.Mater.Sci. 43, 7513-7518 (2008)
 - *131) F.Spieckermann, H.Wilhelm, E. Schafler, E.C.Aifantis, M.J. Zehetbauer

Determination Of Critical Strains In Isotactic Polypropylene By Cyclic Loading-
Unloading
J.Eng.Mater.Technol. 131, 011109 and 027001 (2009)

- *132) K.A. Yagotintsev, Yu.E. Stetsenko, I.V. Legchenkova, A.I. Prokhvatilov,
M.A. Strzhemechny, E. Schafler, M. Zehetbauer
Process of Intercalation of C₆₀ with Molecular Hydrogen according to X-Ray
Diffraction Data
Low Temp. Physics 35, 238-242 (2009)
- *133) O. Kulyasova, R. Islamgaliev, B. Mingler, M. Zehetbauer
Microstructure and fatigue properties of the ultrafine-grained AM60 magnesium alloy
processed by Equal Channel Angular Pressing
Mater.Sci.Eng. A 503, 176-180 (2009)
- *134) L. Zhang, A. Grytsiv, M. Kerber, P. Rogl, E. Bauer, M.J. Zehetbauer, J. Wosik,
G.E. Nauer
MmFe₄Sb₁₂- and CoSb₃-based Nano-Skutterudites Prepared by Ball Milling: Kinetics
of Formation and Transport Properties
J. Alloys & Comp. 481, 106-115 (2009)
- *135) M. B. Kerber, E. Schafler, A.K. Wiczorek, G. Ribarik, S. Bernstorff, T. Ungar,
M. J. Zehetbauer
Large Synchrotron X-Ray Line-Profile Analysis Experiments For The In-Situ
Microstructural Characterisation Of SPD Nanometals During Tensile Deformation
Int.J.Mater.Res. 100, 770 (2009)
- *136) Z. Száraz, Z. Trojanová, M. Zehetbauer
High-Pressure Torsion Deformation of a Magnesium-Based Nanocomposite
Int.J.Mater.Res. 100, 906 (2009)
- *137) W. Lechner, W. Puff, R. Würschum, G. Wilde, M.J. Zehetbauer, R. Pippan
Positron Annihilation Studies of HPT Deformed Aluminium Alloys
phys.stat.sol. C 6, 2313-15 (2009)
- *138) K. Wawer, M. Lewandowska, A. Wiczorek, E. C. Aifantis, M. Zehetbauer,
K. J. Kurzydowski
Grain Refinement in 7475 Aluminium Alloy via High Pressure Torsion and
Hydrostatic Extrusion
Metallic Materials 47, 325-332 (2009)
- *139) W. Lechner, W. Puff, B. Mingler, M.J.Zehetbauer, R. Würschum
Microstructure and Vacancy-type Defects in High-Pressure Torsion Deformed Al-Cu-
Mg-Mn Alloy
Scripta Mater. 61, 383-386 (2009)
- *140) L.Zhang, A.Grytsiv, P.Rogl, E.Bauer, M.Zehetbauer
High thermoelectric performance of triple-filled n-type skutterudites
(Sr, Ba,Yb)(y)Co₄Sb₁₂

J.Phys. D – Appl. Physics 42, 225405 (2009)

- *141) M. Zehetbauer, Y. Estrin
Modelling of Strength and Strain Hardening of Bulk Nanostructured Materials
ch. 5 in: *Bulk Nanostructured Materials*, eds. M.J. Zehetbauer, Y.T.Zhu
2009 WILEY-VCH Verlag GmbH & Co, Weinheim, Germany

- *142) Y. Estrin, M. Zehetbauer
Niche Applications of Bulk Nanostructured Materials Processed by Severe Plastic
Deformation
ch. 28 in: *Bulk Nanostructured Materials*, eds. M.J. Zehetbauer, Y.T.Zhu
2009 WILEY-VCH Verlag GmbH & Co, Weinheim, Germany

- *143) G. Rogl, A. Grytsiv, E. Bauer, P. Rogl, M. Zehetbauer
Thermoelectric properties of novel skutterudites with didymium:
DDy(Fe_{1-x}Cox)₄Sb₁₂ and DDy(Fe_{1-x}Nix)₄Sb₁₂
Intermetallics 18, 57-64 (2010)

- *144) M. Krystian, D. Setman, B. Mingler, G. Krexner, M.J. Zehetbauer
On the formation of Super-Abundant Vacancies in Nano Pd–H achieved by High
Pressure Torsion
Scripta Mater. 62, 49-52 (2010)

- *145) G. Khatibi, J. Horky, B. Weiss, M. J. Zehetbauer
High cycle fatigue behaviour of copper deformed by high pressure torsion
Int. J. Fatigue 32, 269-278 (2010)

- *146) L.Zhang, A.Grytsiv, M.Kerber, P.Rogl, E.Bauer, M.Zehetbauer
Thermoelectric Performance of Mischmetal Skutterudites Mm_yFE_{4-x}Co_xSb₁₂ at
Elevated Temperatures
J. Alloys Comp. 490, 19-25 (2010)

- *147) G.Rogl, A. Grytsiv, E. Bauer, P. Rogl, M. Zehetbauer
Structural and Physical Properties of n-type Skutterudite Ca_{0.07}Ba_{0.23}Co_{3.95}Ni_{0.05}Sb₁₂
Intermetallics 18, 394-398 (2010)

- *148) L. Zhang, A. Grytsiv, B. Bonarski, M. Kerber, D. Setman, E. Schafner, P. Rogl,
E. Bauer, G. Hilscher, M. Zehetbauer
Impact of High Pressure Torsion on the microstructure and physical properties of
Pr_{0.67}Fe₃CoSb₁₂, Pr_{0.71}Fe_{3.5}Ni_{0.5}Sb₁₂, and Ba_{0.06}Co₄Sb₁₂
J.Alloys Comp. 494, 78-83 (2010)

- *149) G.Rogl, L. Zhang, P. Rogl, A. Grytsiv, M. Falmbigl, D. Rajs, M. Kriegisch,
H. Müller, E. Bauer, J. Koppensteiner, W. Schranz, M. Zehetbauer,

- Z. Henkie, M.B. Maple
 Thermal Expansion of Skutterudites
 J. Appl. Physics 107, 043507 (2010)
- *150) D.Setman, M. Kerber, E. Schafler, M.J. Zehetbauer
 Activation Enthalpies of Deformation Induced Lattice Defects in SPD Nanometals
 Measured By Differential Scanning Calorimetry
 Metall.Mater.Trans. A 41, 810-815 (2010)
- *151) B.J. Bonarski, E. Schafler, M. Perek, M. Szczerba, B. Mikulowski,
 M. J. Zehetbauer
 Effects of Recrystallization on Texture, Microstructure and Mechanical Properties in
 HPT-Deformed Pure Mg
 ICSMA 15, J. Phys.: Conf. Ser. 240, 012133 (2010)
- 152) G. Rogl, A. Grytsiv, P. Rogl, E. Bauer, M. Kriegisch, S. Puchegger, M. Zehetbauer
 On the Skutterudite $Pt_4Sn_{4.4}Sb_{7.6}$
 Int. J. Modern Physics B (IJMPB) 24, 711-721 (2010)
- *153) G. Wilde, J. Ribbe, G. Reglitz, M. Wegner, H. Rösner, Y. Estrin, M.J. Zehetbauer,
 D. Setman, S. Divinski
 Plasticity and Grain Boundary Diffusion at Small Grain Sizes
 Adv.Eng.Mater. Special Issue: Bulk Nanostructured Materials, 12, 758-764 (2010)
- *154) E.D. Tabachnikova, A. V. Podolskiy, B. Bonarski, C. Mangler, V. Z. Bengus,
 S.N. Smirnov, A. N. Velikodny, M. A. Tikhonovsky, M. J. Zehetbauer
 Mechanical Properties and Microstructure Evolution during Deformation of Ultrafine
 Grained Zirconium at Low Temperatures
 Rev. Adv. Mater. Sci. 25, 168-175 (2010)
- *155) L. Zhang, G. Rogl, A. Grytsiv, S. Puchegger, J. Koppensteiner, F. Spieckermann,
 H. Kabelka, M. Reinecker, P. Rogl, W. Schranz, M. Zehetbauer, M.A. Carpenter
 Mechanical properties of filled antimonide skutterudites
 Mater.Sci.Eng. B 170, 26-31 (2010)
- *156) M. J. Zehetbauer, R. Grössinger, H. Krenn, M. Krystian, R. Pippan, P. Rogl, T. Waitz,
 R. Wüschum
 Bulk Nanostructured Functional Materials by Severe Plastic Deformation
 Adv.Eng.Mater., **Feature Paper** of Special Issue: Bulk Nanostructured Materials,
 12, 692–700 (2010)
- *157) F. Spieckermann, H. Wilhelm, E. Schafler, M. Kerber, S. Bernstorff, M.J. Zehetbauer
 Plasticity and X-Ray Line Profile Analysis of Polymer Poly(3-hydroxybutyrate)
 ICSMA 15, J. Phys.: Conf. Ser. 240, 012146 (2010)

- *158) B. Oberdorfer, B. Lorenzoni, K. Unger, W. Sprengel, M. Zehetbauer, R. Pippan, R. Würschum
Absolute Concentration of Free Volume-Type Defects in Ultra-Fine Grained Fe prepared by High Pressure Torsion
Scripta Mater. 63, 452-455 (2010)
- *159) F. Spieckermann, H. Wilhelm, M. Kerber, E. Schafler, G. Polt, S. Bernstorff, F. Addiego, M. Zehetbauer
Determination of Lamella Thickness Distributions in Isotactic Polypropylene by X-Ray Line Profile Analysis
Polymer 51, 4195-4199 (2010)
- *160) G. Rogl, A. Grytsiv, P. Rogl, E. Bauer, M.B. Kerber, M. Zehetbauer, S. Puchegger
Multifilled Nanocrystalline p-type Didymium - Skutterudites with $ZT > 1.2$
Intermetallics 18, 2435-2444 (2010)
- *161) B. Oberdorfer, E.-M. Steyskal, W. Sprengel, W. Puff, Ph. Pikart, Ch. Hugenschmidt, M. Zehetbauer, R. Pippan, R. Würschum
In-situ probing of fast defect annealing in Cu and Ni with a high-intensity positron beam
Phys.Rev.Lett. 105, 146101 (2010)
- 162) M.J. Zehetbauer, M. Krystian, P.F. Rogl
Bulk SPD Nanomaterials with enhanced Hydrogen Storage and Thermoelectric Properties
Proc. Conf.Giant Straining Adv.Mater. GSAM 2010, Kyushu Univ., Fukuoka, Japan (2010)
- 163) R. Groessinger, N. Mehboob, M. Kriegisch, A. Bachmaier, R. Pippan, S. Scheriau, M. Zehetbauer
Soft Magnetic and Magnetostrictive Properties of SPD Nanomaterials
Proc. Conf.Giant Straining Adv.Mater. GSAM 2010, Kyushu Univ., Fukuoka, Japan (2010)
- 164) G. Rogl, M. Zehetbauer, M. Kerber, P. Rogl, E. Bauer
Impact of Ball Milling and High-Pressure Torsion on the Microstructure and Thermoelectric Properties of p- and n-type Sb-based Skutterudites
Mater.Sci.Forum 667-669, 1089-1094 (2011)
- 165) A. V. Podolskiy, B. Bonarski, D. Setman, C. Mangler, E. Schafler, E. D. Tabachnikova, M. J. Zehetbauer
Microstructure and Properties of Nanostructured Zirconium Processed by High Pressure Torsion
Mater.Sci.Forum 667-669, 433-438 (2011)
- 166) M. Boenisch, M. Zehetbauer, M. Krystian, D. Setman, G. Krexner
Stabilization of Lattice Defects in HPT-deformed Palladium Hydride
Mater.Sci.Forum 667-669, 427-432 (2011)
- 167) S. Kahofer, M.J. Zehetbauer, H. Danninger, E. Schafler, M. Kerber, J. Horky

- Nanocrystallization and Dissolution of Immiscible Powder Alloys
Using High Pressure Torsion
Mater.Sci.Forum 667-669, 151-156 (2011)
- 168) G. Rogl, A. Grytsiv, P. Rogl, E. Bauer, M. Zehetbauer
Enhanced thermoelectric figure of merit in p-type $DD_y(Fe_{1-x}Co_x)_4Sb_{12}$
Proc. Int. Conf Sol.Comp. Trans. Elem. (SCTE 2010) , Annecy, France (2010)
Solid State Phenom.170, 240-243 (2011)
- *169) M. Krystian, M. Zehetbauer, G. Krexner, H. Kropik, B. Mingler
Hydrogen storage properties of bulk nanostructured ZK60 Mg alloy processed by
Equal Channel Angular Pressing
J. Alloys Comp. 509S, 449-455 (2011)
- *170) J. Horáky, G. Khatibi, B. Weiss, M.Zehetbauer
Role of Structural Parameters of Ultra-fine Grained Cu for its Fatigue and Crack
Growth Behaviour
J. Alloys Comp. 509S, S323-S327 (2011)
- *171) B. Oberdorfer, E.-M. Steyskal, W. Sprengel, R. Pippan, M. Zehetbauer, R.Würschum
Recrystallization kinetics of ultrafine grained Ni studied by dilatometry
J. Alloys Comp. 509S, S309-S311 (2011)
- *172) G. Rogl, A. Grytsiv, P. Rogl, E. Bauer, M. Zehetbauer
A New Generation of p-type Didymium Skutterudites with High ZT
Intermetallics 19, 546-555 (2011)
- 173) J. Horáky, M. Lederer, B. Weiss, M. Zehetbauer, B. Zagar
Application of a locally operating laser-speckle strain sensor on tensile deformation of
miniaturized nanostructured specimens
Proc. 20th IMEKO TC2 Sympos.Photonics in Measurement (20th ISPM 2011)
p.101-103 (2011)
- *174) M.B. Kerber, M.J. Zehetbauer, E. Schafner, F. C. Spieckermann, S. Bernstorff,
T. Ungar
X-ray Line Profile Analysis - An Ideal Tool to Quantify Structural Parameters of
Nanomaterials
JOM 63, 61-69 (2011)
- *175) A.V. Podolskiy, S.N. Smirnov, E.D. Tabachnikova, V.Z. Bengus, A.N. Velikodny,
M.A. Tikhonovsky, B. Bonarski, C. Mangler, M.J. Zehetbauer
Strain hardening and microstructure evolution during uniaxial compression of ultrafine
grained zirconium at temperatures of 4.2-300 K
Low Temp. Physics 37, 609-617 (2011)

- 176) G. Polt, F. Spieckermann, H. Wilhelm, M. Kerber, E. Schafler, M.J. Zehetbauer
Effects of dislocations in γ -phase polypropylene and comparison with other semi-crystalline polymers.
Proc.15th Int.Conf. Deformation, Yield & Fracture of Polymers, Kerkrade, The Netherlands, (2012)
- *177) E. Steyskal, B. Oberdorfer, W. Sprengel, M. Zehetbauer, R. Pippan, R. Würschum
Direct experimental determination of grain boundary excess vacancies in metals
Phys. Rev. Lett. 108, 055504 (2012)
- 178) G. Rogl, S. Puchegger, M. Zehetbauer, A. Grytsiv
Dependence of the Elastic Moduli of Skutterudites on Density and Temperature
Proc. 2011 MRS Spring Meeting & Exhibition, April 25-29, vol. 1325 (2012)
- *179) G. Rogl, D. Setman, E. Schafler, J. Horáky, M. Kerber, M. Zehetbauer, M. Falmbigl, P. Rogl, E. Royanian, E. Bauer
High Pressure Torsion, A New Processing Route For Thermoelectrics Of High ZTs By Means Of Severe Plastic Deformation
Acta Mater. 60, 2146-2157 (2012)
- 180) M. Wegner, J. Leuthold, S. Divinski, D. Setman, M. Zehetbauer, G. Wilde
Deformation Induced Percolating Porosity in High Pressure Torsioned (HPT) Copper
Mater.Sci.Forum 702-703, 105-108 (2012)
- 181) J. Leuthold, M. Wegner, S. Divinski, K. A. Padmanabhan, D. Setman, M. Zehetbauer, G. Wilde
Role of Texture in Understanding Creep Flow in HPT-Processed Ultrafine Grained Cu
Mater.Sci.Forum 702-703, 370-373 (2012)
- *182) H. Bahmanpour, K. Youssef, J. Horáky, D. Setman, M. Atwater, M. Zehetbauer, R. Scattergood, C. Koch
Deformation twins and related softening behavior in nanocrystalline Cu-30%Zn alloy
Acta Mater. 60, 3340–3349 (2012)
- *183) G. Rogl, A. Grytsiv, M. Falmbigl, E. Bauer, C. Mangler, C. Rentenberger, M. Zehetbauer, P. Rogl
Spinodal decomposition in $(\text{Ca}_x\text{Ba}_{1-x})_y\text{Fe}_4\text{Sb}_{12}$
Acta Mater. 60, 4487-4495 (2012)
- *184) G. Rogl, Z. Aabdin, E. Schafler, J. Horáky, D. Setman, M. Zehetbauer, M. Kriegisch, O. Eibl, A. Grytsiv, E. Bauer, M. Reinecker, W. Schranz, P. Rogl
Effect of HPT processing on the structure, thermoelectric and mechanical properties of $\text{Sr}_{0.07}\text{Ba}_{0.07}\text{Yb}_{0.07}\text{Co}_4\text{Sb}_{12}$,
J.Alloys & Comp. 537, 183–189 (2012)
- *185) G. Rogl, A. Grytsiv, M. Falmbigl, E. Bauer, P. Rogl, M. Zehetbauer, Y. Gelbstein
Thermoelectric properties of p-type didymium (DD) based skutterudites $\text{DD}_y(\text{Fe}_{1-x}\text{Ni}_x)_4\text{Sb}_{12}$ (0.13-x- 0.25, 0.46-y-0.68)
J.Alloys & Comp. 537, 242–249 (2012)

- 186) G. Rogl, D. Setman, E. Schafler, J. Horáky, M. Kerber, M. Zehetbauer, M. Falmbigl, P. Rogl, E. Bauer
Changes of Thermoelectric Properties and Hardness After HPT Processing of Micro- and Nanostructured Skutterudites
ch. 7 in: *New Materials for Thermoelectric Applications: Theory and Experiment*, NATO Science for Peace and Security Series B, Springer, Dordrecht, p.79-89 (2012)
- 187) G. Polt, F. Spieckermann, H. Wilhelm, M. Kerber, E. Schafler, M.J. Zehetbauer
Effects of dislocations on gamma phase polypropylene and comparison with other semi-crystalline polymers
Proc.Int.Conf. Deformation, Yield and Fracture of Polymers (DYFP 2012), Kerkrade, The Netherlands (2012)
- 188) S.N. Mathaudhu, X. Huang, H.S. Kim, T.G. Langdon, T.C. Lowe, R.Z. Valiev, X. Wu, M. Zehetbauer, Y.T. Zhu, Preface to the special issue on ultrafine-grained materials, *J. Mater. Sci.* 47, 7717-7718 (2012)
- *189) B. Jóni, E. Schafler, M. Zehetbauer, G. Tichy, T. Ungár
Correlation between the microstructure studied by X-ray line profile analysis and the strength of high-pressure-torsion processed Nb and Ta
Acta Mater. 61, 632-642 (2013)
- *190) Ch. Raju, M. Falmbigl, P. Rogl, X. Yan, E. Bauer, J. Horáky, M. Zehetbauer, Ramesh Chandra Mallik
Thermoelectric properties of chalcogenide based $Cu_{2+x}ZnSn_{1-x}Se_4$
AIP Advances 3, 032106-12 (2013)
- *191) X. Yan, M. Falmbigl, G. Rogl, A. Grytsiv, A. Prokofiev, E. Bauer, P. Rogl, M. Zehetbauer, S. Paschen
High-Pressure Torsion to Improve Thermoelectric Efficiency of Clathrates ?
J.Electron.Mater. 42, 1330-1334 (2013)
- *192) A. V. Podolskiy, C. Mangler, E. Schafler, E.D. Tabachnikova, M. J. Zehetbauer
Microstructure And Mechanical Properties Of High Purity Nanostructured Titanium Processed By High Pressure Torsion At Temperatures 300 And 77 K
J.Mater.Sci. 48, 4689–4697 (2013)
- *193) G.Rogl, A.Grytsiv, E.Royanian, P.Heinrich, E.Bauer, P.Rogl, M.Zehetbauer, S.Puchegger, M.Reinecker, W.Schranz
New p- And n-Type Skutterudites With $ZT > 1$ and Nearly Identical Thermal Expansion And Mechanical Properties
Acta Mater. 61, 4066–4079 (2013)
- 194) M.J. Zehetbauer, H. Garmestani, 'Mechanics of Materials: Special Issue "Nanostructured Materials", Preface, *Mechanics of Materials* 67, pp. 1 (2013)
- *195) J. Lohmiller, R. Baumbusch, M. B. Kerber, A. Castrup, H. Hahn, E. Schafler, M. Zehetbauer, O. Kraft, P.A. Gruber
Following The Deformation Behavior Of Nanocrystalline Pd Films On Polyimide Substrates Using In Situ Synchrotron XRD

- Mech.Mater. 67, 65-73 (2013)
- *196) G. Polt, F. Spieckermann, H. Wilhelm, M. B. Kerber, E. Schafner, S. Bernstorff, M. Zehetbauer
The Role of Dislocations in γ -iPP under Plastic Deformation investigated by X-ray Line Profile Analysis
Mech.Mater. 67, 126-132 (2013)
- *197) D. Setman, M. B. Kerber, H. Bahmanpour, J. Horky, R. Scattergood, C. C. Koch, M. J. Zehetbauer
Nature And Density Of Lattice Defects In Ball Milled Nanostructured Copper
Mech.Mater. 67, 59-64 (2013)
- *198) J. Horky, G. Khatibi, D. Setman, B. Weiss, M. J. Zehetbauer
Effect Of Microstructural Stability On Fatigue Crack Growth Behavior Of Nanostructured Cu
Mech.Mater. 67, 38-45 (2013)
- 199) G. Rogl, P. Rogl, E. Bauer, M. Zehetbauer
Severe Plastic Deformation, A Tool to Enhance Thermoelectric Performance
chapter 10 in: Thermoelectric Nanomaterials, K. Koumoto and T. Mori (eds.), Springer Series 1 in Materials Science 182, Springer Berlin Heidelberg 2013, p. 193-254
doi: 10.1007/978-3-642-37537-8_10
- *200) G. Rogl, A. Grytsiv, P. Rogl, E. Royanian, E. Bauer, J. Horky, D. Setman, E. Schafner, M. Zehetbauer
Dependence of Thermoelectric Behaviour on Severe Plastic Deformation Parameters: A Case Study on p-type Skutterudite $DD_{0.60}Fe_3CoSb_{12}$
Acta Mater. 61, 6778-6789 (2013)
- *201) M. Bönisch, M. Calin, T. Waitz, A. Panigrahi, M. Zehetbauer, A. Gebert, W. Skrotzki, J. Eckert
Thermal Stability And Phase Transformations Of Martensitic Ti-Nb Alloys
Sci.Technol.Adv.Mater. 14, 055004-055012 (2013)
- *202) M. Wegner, J. Leuthold, M. Peterlechner, D. Setman, M. Zehetbauer, R. Pippan, S. Divinski, G. Wilde
Percolating Porosity in Ultrafine Grained Copper Processed by High-Pressure Torsion
J.Appl.Phys. 114, 183509 (2013)
- 203) S.V.Polikutkina, V.P. Menushenkov, S.V. Skorodumov, M. Zehetbauer, J. Horky
Effect Of High-Pressure Torsion On The Structure And Magnetic Properties Of As-Cast $Nd_{9.5}Fe_{84.5}B_6$ Alloy
Proc. 22nd Int. Conf.Metall.Mater. (METAL), Brno, Czech Rep., p.1542-45 (2013)
- *204) G. Rogl, A. Grytsiv, P. Rogl, N. Peranio, E. Bauer, M. Zehetbauer, O. Eibl
n-type skutterudites $(R,Ba,Yb)_yCo_4Sb_{12}$ (R = Sr, La, Mm, DD, SrMm, SrDD)
approaching ZT ~ 2.0
Acta Mater. 63, 30-43 (2014)

- *205) M.S. Khoshkhoo, S. Scudino, J. Bednarcik, A. Kauffmann, H. Bahmanpour, J. Freudenberger, R. Scattergood, M. J. Zehetbauer, C.C. Koch, J. Eckert
Mechanism Of Nanostructure Formation In Ball-Milled Cu And Cu-3wt%Zn Studied By X-Ray Diffraction Line Profile Analysis
J. Alloys & Comp. 588, 138-143 (2014)
- *206) R. Sato Turtelli, C. Bormio-Nunes, K. T. Tiguman, D. Geist, A. Panigrahi, C. Grijalva, S. Sorta, R. Grössinger, M. Zehetbauer
Antiferromagnetism and Low Magnetostriction in Fe_{100-x}Mn_x (x = 38,42,46,50,55 at %) Alloys
IEEE Transactions on Magnetics 50 (4) (2014)
- 207) R. Grössinger, N. Mehboob, M. Zehetbauer
Frequency behaviour of SPD treated soft magnetic materials
13th Int.Symp.Adv.Mater. (ISAM), Islamabad, Pakistan 2013
IOP Conf.Series-Mater.Sci.Eng. 60, 012019 (2014)
- 208) R. Sato Turtelli, C. Grijalva, F. Kubel, D. Geist, R. Grössinger, M. Kriegisch, S. Sorta, M. Zehetbauer, N. Mehmood
Low magnetostriction in Fe_{100-x}Mn_x (x = 45, 48, 50, 52, 55 at%) Alloys
13th Int.Symp.Adv.Mater. (ISAM), Islamabad, Pakistan 2013
IOP Conf.Series-Mater.Sci.Eng. 60, 012006 (2014)
- 209) W. Paschinger, G. Rogl, A. Grytsiv, P.F. Rogl, E. Bauer, H. Michor, C. Eisenmenger-Sittner, E. Royanian, P. Heinrich, M. Zehetbauer, J. Horkey, S. Puchegger, M. Reinecker, M. G. Giester, P. Broz, A. Bismarck
Novel Thermoelectric Skutterudites in the system Ni-Sb-Sn
16th Ann.Conf. YUCOMAT 2014, Serbia, Sept. 1-5, 2014, Abstract Booklet (2014)
- *210) F. Spieckermann, H. Wilhelm. G. Polt, S. Ahzi. M. J. Zehetbauer
Rate Mechanism and Dislocation Generation in High Density Polyethylene and other Semicrystalline Polymers
Polymer 55, 1217-1222 (2014)
- *211) B. Oberdorfer, D. Setman, E. Steyskal, A. Hohenwarter, W. Sprengel, M. Zehetbauer, R. Pippan, R. Wuerschum
Grain boundary excess volume and defect annealing of copper after high-pressure torsion
Acta Mater. 68, 189–195 (2014)
- *212) B. Sulkowski, A. Panigrahi, K. Ozaltin, M. Lewandowska, B. Mikułowski, M. Zehetbauer
Evolution Of Strength And Structure During SPD Processing Of Ti-45Nb Alloys: Experiments And Simulations
J.Mater.Sci. 49, 6648–6655 (2014)
- *213) K. Ozaltin, W. Chrominski, M. Kulczyk, A. Panigrahi, J. Horkey, M. Zehetbauer, M. Lewandowska

Enhancement of mechanical properties of biocompatible Ti-45Nb alloy
by hydrostatic extrusion
J.Mater.Sci. 49, 6930-6936 (2014)

- 214) A.V. Podolskiy, D. Geist, E. Schafler, E. D. Tabachnikova,
M. J.Zehetbauer,
Structure and Properties of Nanostructured Cobalt Processed by High Pressure Torsion
at Temperatures 300 and 77 K
6th Int.Conf.Nanomater.Severe Plastic Deformation, Metz (France) July 2014
IOP Conf.Series–Mater.Sci.Eng. 63, 012103 (2014)
- 215) C. Tränkner, R. Chulist, W. Skrotzki, B. Beausir, T. Lippmann, J. Horky,
M. Zehetbauer
Influence Of Deformation Temperature On Texture Evolution In HPT Deformed NiAl
6th Int.Conf.Nanomater.Severe Plastic Deformation, Metz (France) July 2014
IOP Conf.Series–Mater.Sci.Eng. 63, 012154 (2014)
- *216) R. Anbalagan, G. Rogl, M. Zehetbauer, P. Rogl, S. Suwas, R.C. Malli
Effect of High-Pressure Torsion on Texture, Microstructure, and Raman Spectroscopy:
Case Study of Fe- and Te-Substituted CoSb₃
J.Electron.Mater. 43, 3817-23 (2014)
- *217) I.V. Ditenberg, E.A. Korznikova, A.N. Tyumentsev, D. Setman, M. Kerber,
M.J. Zehetbauer
Nonequilibrium structural states in nickel after large plastic deformation
Letters on Materials 4, 100-103 (2014)
- *218) M. S. Khoshkhoo, S. Scudino , T. Gemming , J. Thomas, J. Freudenberger,
M. Zehetbauer, C.C. Koch, J. Eckert
Nanostructure Formation Mechanism During In-Situ Consolidation Of Cu By Room
Temperature Ball Milling
Materials & Design 65, 1083-1090 (2015)
- *219) G. Rogl, A. Grytsiv, J. Bursik, J. Horky, R. Anbalagan, E. Bauer, R.C. Mallik, P.
Rogl, M. Zehetbauer
Changes in Microstructure and Physical Properties of Skutterudites after Severe Plastic
Deformation
Phys.Chem.Chem.Phys. 17, 3715-3722 (2015)
- *220) A. Panigrahi, M. Bönisch, T.Waitz, E. Schafler, M. Calin, J. Eckert, W. Skrotzki, M.
Zehetbauer
Phase transformations and mechanical properties of biocompatible Ti-16.1Nb
processed by severe plastic deformation
J. Alloys & Compounds 628, 434-441 (2015)
- 221) C. Tränkner, A. Pukenas, J. Horky, M. Zehetbauer, W. Skrotzki

Peculiarities in the Texture Formation of Intermetallic Compounds Deformed by High Pressure Torsion

MRS Proc. 1760, MRS Fall Meeting, Boston, Mass., USA (2015)

- *222) G. Rogl, A. Grytsiv, P. Heinrich, E. Bauer, P. Kumar, N. Peranio, O. Eibl, J. Horky, M. Zehetbauer, P. Rogl
New p-type skutterudites $DD_{0.7}Fe_{2.7}Co_{1.3}Sb_{12-x}X_x$ ($X = Ge, Sn$) reaching $ZT > 1.3$
Acta Mater. 91, 227–238 (2015)
- 223) C. Tränkner, R. Chulist, W. Skrotzki, T. Lippmann, J. Horky, M. Zehetbauer
Influence of hydrostatic pressure on texture evolution in HPT deformed NiAl
6th Int. Conf. Texture of Materials, ICOTOM, Dresden (Germany) August 2014
IOP Conf. Series–Mater. Sci. Eng. 82, 012026 (2015)
- *224) G. Polt, F. Spieckermann, H. Wilhelm, Ch. Fischer, E. Schafner, S. Bernstorff, M. Zehetbauer
Crystalline Plasticity In Isotactic Polypropylene Below And Above The Glass Transition Temperature
Express Polym. Letters 9, 894-900 (2015)
- 225) M. Zareghomsheh, F. Spieckermann, G. Polt, H. Wilhelm, M. Zehetbauer
Dislocations Induced Jerky Creep By High-Resolution Nanoindentation In High Density Polyethylene
Proc. 16th Int. Conf. Deformation, Yield & Fracture of Polymers, Kerkrade, The Netherlands (2015)
- *226) A. Grill, J. Horky, A. Panigrahi, G. Krexner, M. Zehetbauer
Long-term Hydrogen Storage in Mg and ZK60 after Severe Plastic Deformation
Int. J. Hydrogen Energy 40, 17144-52 (2015)
- 227) M. Zehetbauer, F. Spieckermann
In Focus-6(th) International Conference on Polymer Behavior (ICPB6), Preface
Polym. Int. 64, 1505 (2015)
- *228) M. Zareghomsheh, F. Spieckermann, G. Polt, H. Wilhelm, M. Zehetbauer
Analysis Of Strain Bursts During Nanoindentation Creep Of High Density Polyethylene
Polym. Int. 64, 1537-1543 (2015)
- *229) F. Failamani, A. Grytsiv, G. Giester, G. Polt, P. Heinrich, H. Michor, E. Bauer, M. Zehetbauer, P. Rogl
 $Ba_5\{V,Nb\}_{12}Sb_{19+x}$, Novel Variants Of The $Ba_5Ti_{12}Sb_{19+x}$ -Type:
Crystal Structure And Physical Properties
Phys. Chem. Chem. Phys. 17, 24248-24261 (2015)
- 230) A. Panigrahi, M. Bönisch, T. Waitz, M. Calin, W. Skrotzki, J. Eckert, M. Zehetbauer,
Thermal stability of HPT-induced omega phase in biocompatible Ti-16.1Nb alloys
Proc. 7th Int. Conf. Solid-Solid Phase Transformations in Inorganic Materials – PTM, pp. 263-268 (2015)

- 231) M. Lewandowska, A.Krawczynska, A. Panigrahi, E. Schafler, M. Zehetbauer
Precipitation processes in nanostructured 7475 aluminium alloy
Proc. 7th Int.Conf. Solid-Solid Phase Transformations in Inorganic Materials – PTM,
pp. xx (2015)
- *232) A.V. Podolskiy, E.D.Tabachnikova, B. Bonarski, D. Setman, C.Mangler, E. Schafler,
M.J. Zehetbauer
Temperature Dependent Mechanical Properties Of Nanostructured Zirconium
Processed By High Pressure Torsion At 300 And 77 K
Kovove Materialy – Metallic Materials 54 (1), 1-8 (2016)
- *233) R. Z. Valiev, Y. Estrin, Z. Horita, T. G. Langdon, M. J. Zehetbauer, Y. T. Zhu
Fundamentals of Superior Properties in Bulk NanoSPD Materials
Mater.Res.Lett. 4, 1-21 (2016)
- *234) G. Rogl, M. Gürth, A. Tavassoli, C. Ebner, S. Puchegger, V. Soprunyuk, W. Schranz,
A. Grytsiv, E. Bauer, H. Müller, M. Zehetbauer, P. Rogl
Mechanical Properties Of Half-Heusler Alloys
Acta Mater. 107, 178-195 (2016)
- *235) R.Z. Valiev, Y. Estrin, Z. Horita, T. G. Langdon, M. J. Zehetbauer, Y. T. Zhu
Producing Bulk Ultrafine-Grained Materials by Severe Plastic Deformation:
Ten Years Later (invited paper)
JOM 68, 1216-1226 (2016)
- 236) G. Rogl, R. Sykora, D. Legut, H. Müller, E. Bauer, S. Puchegger, M. Zehetbauer,
P.F. Rogl
Mechanical Properties of Non-Centrosymmetric CePt₃Si and CePt₃B
Book of Abstracts of 20th Int.Conf.Solid Comp.Transition Elements *SCTE 2016*,
Zaragoza, Spain (2016)
- 237) A. Tavassoli, A. Grytsiv, G. Rogl, P. Broz, E. Bauer, G. Giester, M. Zehetbauer,
P.F. Rogl
On the system Ti_{1-x}Fe_{1.33+x}Sb - TiCoSb with Sb/Sn substitution: Phase relations,
crystal structure and thermoelectric properties
Book of Abstracts of 20th Int.Conf.Solid Comp.Transition Elements *SCTE 2016*,
Zaragoza, Spain (2016)
- 238) G. Rogl, A. Grytsiv, E. Bauer, M. Zehetbauer, P.F. Rogl,
High ZT p- and n-type half-Heusler alloys and skutterudites and their mechanical
properties in comparison with other thermoelectric materials.
Book of Abstracts, 35th Int. Conf. & 1st Asian Conf. Thermoelectrics (ICT/ACT 2016),
Wuhan, China, May 29 – June 2 (2016)
- *239) R.S. Turtelli, S. Hartl, R. Groessinger, R.Woehrschimmel, D. Horwatitsch, F.
Spieckermann, G. Polt, M. Zehetbauer
Calculation of the classical losses of deformed Fe-(wt3%)Si under sinusoidal and
triangular external field

- IEEE Trans.Magn. 52, 1007 (2016)
- *240) A. Panigrahi, B.Sulkowski, T.Waitz, K. Ozaltin, J. Horky. M. Lewandowska, W.Skrotzki, M. Zehetbauer
Mechanical Properties and Texture Evolution in Biocompatible Ti-45Nb Alloy Processed By Severe Plastic Deformation
J.Mech.Beh.Biomed.Mater. 62, 93–105 (2016)
- *241) M. Paschinger, G. Rogl, A.Grytsiv, H.Michor, P.R. Heinrich, H.Mueller, S. Puchegger, B. Klobes, R.P. Hermann, M. Reinecker, Ch. Eisenmenger-Sitter, P.Broz, E. Bauer, G. Giester, M. Zehetbauer, P. F. Rogl
Ba-filled Ni-Sb-Sn based skutterudites with anomalously high lattice thermal conductivity
Dalton Trans. 45, 11071–11100 (2016)
- 242) G. Krexner, M. Zehetbauer
Long-Term Hydrogen Storage in Mg and ZK60 after Severe Plastic Deformation
Proc. Int.Workshop Giant Straining Adv.Mater. GSAM 2016, eds. K. Edalati et al., Kyushu Univ., Fukuoka, Japan, p. 30 (2016)
- *243) B. Czerny, A. Mazloun-Nejadari, G. Khatibi, L.Weiss, M. Zehetbauer
Fatigue testing method for fine bond wires in an LQFP package
Microelectr.Reliab. 64, 270-275 (2016)
- 244) A. Tavassoli, A. Grytsiv, A, G. Rogl, V. Romaka, P. Broz, E. Bauer, G. Giester, M. Zehetbauer, P.F. Rogl,
Half Heusler Thermoelectrics $Ti_{1-x}Fe_{1.33+x}Sb - TiCoSb$. in DP Uskoković & VR Radmilović (eds), Int. Conf.YUCOMAT 2016 - Book of Abstracts. Materials Research Society of Serbia, Herceg Novi, Montenegro, Sept. 5-10
- 245) M. Zehetbauer, P. Cengeri, G. Krexner
H₂desorb : H₂ Speicher aus mikro-und nanostrukturiertem Magnesium für optimale De- und Adsorption
Brochure No.5: Wasserstoff & Brennstoffzelle, Science Brunch des Österr. Klima- & Energiefonds, TU Graz, p.17-24 (2016)
- *246) P. Rafiee, G. Khatibi, M. Zehetbauer
A Review of the Most Important Failure, Reliability and Nonlinearity Aspects in the Development of Microelectromechanical Systems (MEMS)
Microelectr.International 34, 9-21 (2017)
- 247) M. Delshadmanesh, G. Khatibi, M. Lederer, M. Zehetbauer, H. Danninger
Influence of Defects on High Cycle Fatigue Response of Ti45Nb Biocompatible Alloy
Solid State Phenom. 258, 337-340 (2017)
- *248) B. Voelker, N. Jaeger, M. Calin, M. Zehetbauer, J. Eckert, A. Hohenwarter

- Influence of testing orientation on mechanical properties of Ti45Nb deformed by high pressure torsion
Materials & Design 114, 40-46 (2017)
- *249) M. Boenisch, A. Panigrahi, M. Calin, Th. Waitz, M. Zehetbauer, W. Skrotzki, J. Eckert
Thermal stability and latent heat of Nb-rich martensitic Ti-Nb alloys
J.Alloys Comp. 697, 300-309 (2017)
- *250) P. Denis, C.M. Meylan, C. Ebner, A.L. Greer, M. Zehetbauer, H.-J. Fecht
Rejuvenation decreases shear band sliding velocity in Pt-based metallic glasses
Mater.Sci.Eng.A 684, 517-523 (2017)
- 251) P.Rafiee, G. Khatibi, M. Lederer, M. Zehetbauer.
Evaluation of thermal degradation of polymer based electronic materials by non-destructive testing
Proc. 2nd Int.Conf.Rheology & Modeling of Materials (IC-RMM2), Lillafured, Hungary, 5-9 Oct.2015
J.Phys.Conf.Series 790, 012026-10 (2017)
- *252) G. Rogl, D. Legut, R. Sykora, P. Mueller, H. Mueller, E. Bauer, S. Puchegger, M. Zehetbauer, P. Rogl
Mechanical Properties of Non-Centrosymmetric CePt₃Si and CePt₃B
J.Phys.Cond.Matter 29. 85402 (2017)
- *253) A. Tavassoli, F. Failamani, A. Grytsiv, G. Rogl, P. Heinrich, H. Müller, E. Bauer, M. Zehetbauer, P. Rogl
On the Half-Heusler compounds Nb_{1-x}{Ti,Zr,Hf}_xFeSb: phase relations, thermoelectric properties at low and high temperature, and mechanical properties
Acta Mater. 135, 263-276 (2017)
- *254) F. Spieckermann, G. Polt, H. Wilhelm, M. Kerber, E. Schafner, V. Soprunyuk, M. Reinecker, S. Bernstorff, M. Zehetbauer
Dislocation movement induced by molecular relaxations in isotactic polypropylene
Macromolecules, accepted for publication (2017),
doi:10.1021/acs.macromol.7b00931
- *255) K. Ozaltin, A. Panigrahi, W. Chrominski, A.G. Bulutsuz, M. Kulczyk, M.J. Zehetbauer, M. Lewandowska
Microstructure and Texture Evolutions of Biomedical Ti-13Nb-13Zr Alloy Processed by Hydrostatic Extrusion
Met.Mater.Trans.A, accepted for publication (2017)
doi: 10.1007/s11661-017-4278-4
- *256) M. Boenisch, A. Panigrahi, M. Stoica, M. Calin, E. Ahrens, M. Zehetbauer, W. Skrotzki, J. Eckert
Colossal thermal expansion and α -precipitation pathways in martensitic Ti-Nb alloys
Nature Comm., accepted for publication (2017)

*257) M. Delshadmanesh, G. Khatibi, M. Zare Ghomsheh, M. Lederer,
M. Zehetbauer, H. Danninger
Influence of microstructure on fatigue of biocompatible β -phase Ti-45Nb
Mater.Sci.Eng. A, accepted for publication (2017)
doi: 10.1016/j.msea.2017.08.098

BOOKS AND SPECIAL ISSUES OF JOURNALS

(1) Nanomaterials by Severe Plastic Deformation

Proceedings (peer reviewed papers) of Conference
“Nanomaterials by Severe Plastic Deformation – NANOSPD2”, December 9-13, 2002,
Vienna, Austria
Edited by **Michael Zehetbauer** and Ruslan Z. Valiev
2004 WILEY-VCH Verlag GmbH & Co, Weinheim, Germany

(2) Advanced Engineering Materials Vol. 5, No. 5 (May 2003)

Guest Editor: **M. J. Zehetbauer**
Keynote papers (ISI registered and peer reviewed) of Conference
‘Nanomaterials by Severe Plastic Deformation – NANOSPD2’, December 9-13, 2002,
Vienna, Austria

(3) Ultrafine Grained Materials IV

Proceedings of Symposium TMS (The Minerals, Metals & Materials Society),
TMS 2006 Annual Meeting, San Antonio, Texas, USA (March 12-16, 2006)
Edited by
Yuntian T. Zhu, Terence G. Langdon, Zenji Horita, **Michael J. Zehetbauer**, S. Lee Semiatin,
Terry C. Lowe
2006 TMS Publications, Warrendale, Pennsylvania (USA)

(4) Bulk Nanostructured Materials

Book with 30 review articles (4 by members of Group Physics of Nanostructured Materials)
Edited by **Michael J. Zehetbauer** and Yuntian T. Zhu
2009 WILEY-VCH Verlag GmbH & Co, Weinheim, Germany

(5) Journal of Materials Science Vol. 47, Issue 22 (Nov. 2012)

Special Issue “Ultrafine Grained Materials”

Edited by Suveen N. Mathaudhu, Xiaoxu Huang, Hyoung Seop Kim,
Terence G. Langdon, Terry C. Lowe, Ruslan Z. Valiev, Xiaolei Wu, **Michael J. Zehetbauer**,
Yuntian Th. Zhu
Selected Papers (ISI registered and peer reviewed) of Symposium “Ultrafine Grained
Materials VIII” at TMS 2012 Annual Meeting, March 11-15, 2012, Orlando FL, USA

(6) Mechanics of Materials Vol. 67 (Dec. 2013)

Special Issue “Nanostructured Materials”

Associated Editors: **M.J. Zehetbauer**, H. Garmestani

Selected Papers (ISI registered and peer reviewed) of Conference E-MRS 2011,
Symposium C „Mechanical Properties of Nanomaterials: Experiment and Modelling“,
Sept. 19-23, 2011, Warszawa, Poland

(7) Polymer International (2015)

In Focus ICPB 6

Guest Editors: **M.J. Zehetbauer**, F. Spieckermann

Selected Papers (ISI registered and peer reviewed) of Conference “International Conference
on Polymer Behavior 6 – ICPB6”, Sept 22-26, 2014, Wien, Austria