

Curriculum Vitae

CONTACT INFORMATION

Dr Bernhard Zettl
Am Wiesenhang 9
A-4565 Inzersdorf im Kremstal
bernd.zettl@gmx.at
www.researchgate.net/profile/Bernhard_Zettl



PERSONAL INFORMATION

Date of Birth 1966, May 3rd
Place of Birth Bludenz, Austria
Citizenship Austria
Marital Status Married
Children 3, born in 1994, 1999, 2008

EMPLOYMENT HISTORY

Since 2010 Avocational lector for energy storage at the University of Applied Sciences in Wels

Since 2009 Senior Scientist at ASIC (Austria Solar Innovation Center) in Wels (Upper-Austria), Scientific research activities in the field of thermo-chemical heat storage, R&I management in the field of energy storage and solar applications

2007-2008 employed at GF-Automotive, Light-Metal Casting Company in Herzogenburg (Lower-Austria), Department of Quality-Management (Measurement and Material Testing)

- Head of Quality-Techniques
- Leadership for 14 staff members
- Sampling and prototype inspections
- SPC and CIP for Aluminium casting production

2004-2007 Post-Doc at the Department of Material Sciences

Project Manager for Industrial Research in the field of

- Fatigue measurements of spring steels (BOSCH AG)
- Ultrasonic assisted machining (HILTI AG)
- Fatigue and crack propagation measurements of Aluminium and Magnesium alloys (AUDI AG)

Lectures in Physics and Material Sciences as Assistant Professor

1997-2004 Academic Positions

Research Scientist at the Dept of Material Sciences / University of Agricultural Sciences / Vienna
Experimental Work: Material testing of steel, fibre reinforced, light metal, and wood-based materials, Metallography and Microscopy (SEM, EDX)

Publications: Peer-reviewed articles and Conference Contribution

Doctoral Thesis: Fatigue and crack behaviour of Aluminium foam

RESEARCH AND TRAININGS

1986-1995 (University period)

CERN- Nuclear research Centre (Geneva, Switzerland), 3.5 month, programming (FORTRAN 77, IBM-VM), assembly and testing of electronic circuits,

PAN-AM-World-Airways/ Sales and Marketing, (Vienna), 13 month, reporting of yield and revenue

ALL-TRAIN Software Training (Vienna)- 2 years, Mac-OS Training, MS Excel-workshops

Institute for Experimental Physics (TU Vienna)-2 month: experiments on UV-Excimer-Lasers

Institute for Applied Physics (TU Vienna)-2 month: design and assembly of a tension testing machine

1980-1985 (High school period)

Fa. Gantner, Liftkarten-Lesesysteme (Götzis/Vbg)- 3.5 month, maintenance works

Fa. Hug (Götzis/Vbg)-4 month, programming in BASIC

Fa. Alge-Timing (Lustenau/Vbg)- 1.5 month, assembly of electronic circuits

Fa. Markovski-Vermessungsbüro (Feldkirch/Vbg)- 5 month, geodesic measurements

Fa. Marte Sonderfahrzeugbau (Weiler/Vbg)- 2 month, assembly of electronic vehicle-components

EDUCATION

High School HTL for Electronics, 1980-85, Matura

University TU Vienna, 1986-97,

Diploma Thesis Fatigue and crack initiation behaviour of Magnesium Alloy AZ91

PhD Univ. of Agric. Sciences-Vienna, Dept. of Material Sciences, 2004, Dissertation

PROFESSIONAL QUALIFICATIONS

8D-Report Training

QS-Stat Training (SPC)

Computer Skills

AWARD

Klaus Fischer- Innovationspreis für Technik und Umwelt 2006 / Bereich Materialwissenschaften und Prozesstechnik.

PUBLICATIONS (reviewed articles and conference proceedings)

B. Zettl:

Masterplan TES-AT: presentation of the Austrian initiative

WS on Thermal Energy Storage, RHC-European Technology Platform, 10. Feb. 2011, Brussels, 2011

B. Zettl, W.v. Helden, D. Jähnig, A. Heinz, M. Monsberger, G. Steinmaurer:

Austrian Masterplan Thermal Energy Storage

In: Proceedings of the Int. Conf. on Solar Heating, Cooling and Buildings,

28. Sep.-1. Oct. 2010, Graz, 2010

Mayer, H., Stojanovic, S., Stanzl-Tschegg, S., Zettl, B.:

High cycle fatigue behavior of normalized 0.15%C steel under tension-compression and torsion loading

KEY ENG MATER, 378-379, 29-38; ISSN 1013-9826, 2008

Mayer, H., Stojanovic, S., Ede, C., Zettl, B.:

Beitrag niedriger Lastamplituden zur Ermüdungsschädigung von 0,15%C Stahl

MATERIALWISS WERKST, 38, 581-590; ISSN 0933-5137, 2007

Zettl, B., Mayer, H., Ede, C., Stanzl-Tschegg, S.:

Very high cycle fatigue of normalized carbon steels

Int. J. Fatigue, 28, 11, 1583-1589, 2006

Mayer, H., Papakyriacou, M., Zettl, B., Vacic, S.:

Endurance limit and threshold stress intensity of die cast magnesium and aluminium alloys at elevated temperatures

Int. J. Fatigue, 27, 9, 1076-1088, 2005

Sinn, G., Zettl, B., Mayer, H., Stanzl-Tschegg, S.:

Ultrasonic-Assisted Cutting of Wood

J. Mater. Process. Technol., 170, 42-49, 2005

Sinn, G., Mayer, H., Zettl, B., Ede, Ch., Beer, P., Stanzl-Tschegg, S.:

Application of Ultrasonic-Assisted Cutting in Wood Machining

In: S. Stanzl-Tschegg, M. Gindl: 2nd International Symposium on Wood Machining, 5-7 July, Vienna, 499-503; ISBN 3-9501315-2-3, 2004

Zettl, B., Mayer, H., Stanzl-Tschegg, S.E.:

Very high cycle fatigue of normalized steels

In: T. Sakai, Y. Ochi: 3rd Int. Conf. Very High Cycle Fatigue, 23.09.2004 - 25.09.2004, Kyoto, Japan, pp.398-405; The Society of Mater. Sci.

Japan, Kyoto, Japan, 2004

Mayer, H., Holper, B., **Zettl, B.,** Stanzl-Tschegg, S.E.:

Slow Fatigue Crack Growth in 2024-T3 and Ti-6Al-4V at Low and Ultrasonic Frequency

Z. Metallkde., 94, 5, 539-546, 2003

Mayer, H., Papakyriacou, M., **Zettl, B.,** Stanzl-Tschegg, S.E.:

Influence of porosity on the fatigue limit of die cast magnesium and aluminium alloys

Int. J. Fatigue, Vol. 25, 3, 245-256, 2003

Mayer, H., Stich, A., **Zettl, B.,** Haldenwanger, H.G.:

High cycle fatigue of magnesium alloys.

In: Ed.: K.U. Kainer: 6th Int. Conf. on magnesium alloys and their applications, 18.-20. Nov. 2003, Wolfsburg, Germany, 444-449; Wiley-VCH, Weinheim, Germany, 2003

Sinn, G., Beer, P., **Zettl, B.,** Mayer, H.:

Influence of ultrasonic vibrations on low speed cutting of spruce wood

In: (Hrsg.) / (Ed.) / (Eds.): Organizing Committee of the 16 IWMS, Prof Chaiki Tanaka: 16th international wood machining seminar, Aug. 24-

27,2003, Matsue, Japan, 1, 203-209, Matsue; ISBN 4-9901767-0-7, 2003

Fuchs, U., Lipowsky, H., Mayer, H., Papakyriacou, M., Stich, A., Tschegg, S., **Zettl, B.:**

Langsames Ermüdungsrisswachstum in Aluminium- und Magnesiumgusslegierungen in Raumluft und in Vakuum., Mat.-wiss. u. Werkstofftech., 33, 15-23, 2002

Fuchs, U., Lipowsky, H., Mayer, H., Papakyriacou, M., Stich, A., Tschegg, S., **Zettl, B.:**

Einfluss von Gussfehlern auf die Dauerfestigkeit von Aluminium- und Magnesiumgusslegierungen.

Mat.-wiss. u. Werkstofftech., 33, 3, 117-127, 2002

Fuchs, U; Lipowsky, H; Mayer, H; Papakyriacou, M; Stich, A; Tschegg, S; **Zettl, B:**

Influence of casting defects on the endurance limit of aluminium and magnesium cast alloys

MATERIALWISS WERKSTOFFTECH. 2002; 33(3): 117-127. , 2002

Zettl, B., Mayer, H., Stanzl-Tschegg, S.:

Fracture Energy and Fracture Toughness of Alulight foams.

In: Banhart, J., Ashby, M.F., Fleck, N.A. (Eds.): Proc. of the 2nd Int. Conf. on Cellular Metals and Metal foaming Technology - MetFoam 2001,

Verlag Metall Innovation Technik MIT, Bremen, 2001

Zettl, B., Mayer, H., Stanzl-Tschegg, S.:

Fatigue Properties of Aluminium Foam at Very High Numbers of Cycles.

In: Stanzl-Tschegg, S., Mayer, H. (Eds.): Proc. of Int. Conf. on Fatigue in the Very High Cycle Regime, 237-244. Inst. of Met. and Physics, Univ. of

Agricult. Sci., Vienna, Austria, ISBN 3-9501315-1-5, 2001

Zettl, B., Mayer, H., Stanzl-Tschegg, S.:

Fatigue Properties of Al-1Mg-0.6Si Foam at Low and Ultrasonic Frequencies.

Int. J. Fatigue, 23, 565-573, 2001

Zettl, B., Mayer, H., Stanzl-Tschegg, S.E., Degischer, H.P.:

Fatigue Properties of Aluminium Foams at High Numbers of Cycles.

Mat. Sci. Eng. A, 292, 1-7, 2000

Zettl, B., Stanzl-Tschegg, S.:

Ermüdungsschäden in Aluminiumschaum.

Proceeding of Symp. Metallschäume 2000, Deutsche Gesellschaft für Materialkunde, Feb 2000, Wien.

Materialwissenschaften und

Werkstofftechnik, Sonderband, Vol 31, 6, 484-487, 2000

Mayer, H. R., Papakyriacou, M., Stanzl-Tschegg, S. E., Tschegg, E. K., Zettl, B., Lipowsky, H., Rösch, R., Stich, A.:

Korrosionsermüdung verschiedener Aluminium- und Magnesium-Gußlegierungen.

Materials and Corrosion, 50, 81-89, 1999

Mayer, H.R., Lipowsky, H., Papakyriacou, M., Rösch, R., Stich, A., Zettl, B., Stanzl-Tschegg, S.E.:

Fatigue properties of high pressure die cast magnesium alloys at high numbers of cycles.

In: Wu, X., Wang, Z. (Eds.): Proc. of 7th Int. Fatigue Conf., Vol. III, 2059-2064, Cradley Heath, UK, 1999

Zettl, B., Stanzl-Tschegg, S.:

Fatigue of Al Foams at ultrasonic frequencies.

In: Banhart, J., Ashby, M.F., Fleck, N.A. (Eds.): Proceedings of Metal Foams and Porous Metal Structures, 373 -378.

MetFoam '99, Bremen,

Germany, Verlag Metall Innovation Technik MIT, 1999, Bremen, 1999

Kritzt, B., Gradinger, R., Zettl, B.:

Untersuchung von Aluminiumschaum, im speziellen der mechanischen Eigenschaften

In: Deutscher Verband für Materialforschung und -prüfung e.V. (Hrsg.): Symp. Werkstoffprüfung, 167-176, Bad Nauheim, 1998

Mayer, H., Rösch, R., Lipowsky, H., Zettl, B., Papakyriacou, M., Stanzl-Tschegg, S. E.:

Fatigue properties of high pressure die cast magnesium alloys.

Proc. 1st Israeli Conf. on Magnesium Science and Technology, Jerusalem, Israel, 1998

Zettl, B.E., Stanzl-Tschegg, S.E., Gradinger, R., Degischer, H.P.:

High Cycle Fatigue Properties of Aluminium Foams.

In: Schwarz, D.S., Shih, D.S., Evans, A.G., Wadley, H.N.G. (Eds.): Porous and Cellular Material for Structural Application. Proceedings of the

Material Research Society . Volume 521, 97-102. Spring meeting 1998, San Francisco, 1998

BOOKS

Zettl, B., Mayer, H., Stanzl-Tschegg, S.:

Fatigue Damage and Lifetime Prediction of Aluminium Foams

In: Degischer, H.P., Kriszt, B. (Eds.): Handbook of Cellular, Metals, Wiley-VCH Verlag. ISBN 3-527-29320-5 (2000)

PATENT

P. Mugg, T. Cramer, S. Tschegg, H. Mayer, B. Zettl,

Werkzeug zur Bearbeitung eines mineralischen Untergrundes

Deutsches Patent und Markenamt, München, Antr.# 1002392, applied June 2004 by Hilti AG, FL, published Jan. 2006

PERSONAL INTERESTS

Skiing, Hiking, Archery