Bernd Gludovatz

Curriculum Vitæ

Education

2007–2010 **Ph.D., Materials Science**, *University of Leoben*, Austria.
advisor: Prof. Reinhard Pippan
thesis: Fracture Behavior of Tungsten

1999–2006 **M.S., Materials Science**, *University of Leoben*, Austria.
advisor: Prof. Reinhard Pippan
thesis: Investigation of the Fracture Toughness of Tungsten Wires

Research

2011–present **Post Doctoral Research Fellow**, *Materials Sciences Division, Lawrence Berkeley National Laboratory*, Berkeley, CA, USA.
advisor: Prof. Robert O. Ritchie

- Studying the fracture toughness and fatigue strength of bulk-metallic glasses and metallic glass matrix composites.
- Investigating the fracture resistance and fatigue crack-growth behavior of equiatomic, single-phase compositionally complex alloys ('medium-/high-entropy alloys') in the temperature range room temperature to liquid nitrogen temperature.
- Working on strength and toughness on multiple length scales of biological materials like bone, fish scales, shells and skin and studying the influence of drugs on the structural properties of bone using macroscopic mechanical testing methods, nano-indentation as well as small-angle x-ray scattering (SAXS) and wide-angle x-ray diffraction (WAXD) methods.
- Developing and extending systems to manufacture nature-inspired polymer/metal/metallic-glass reinforced ceramic-matrix composites and investigating their mechanical properties.
- Evaluating the deformation mechanisms and damage tolerance (strength and toughness) of polygranular nuclear graphite in the temperature range room temperature to $1000\,^{\circ}\mathrm{C}$ using synchrotron x-ray tomography.
- Characterizing the fatigue threshold and fatigue crack-growth behavior of ultra-high-molecular-weight polyethylen for hip and knee replacements.
- Testing the mechanical properties of nano-particle reinforced fibers & thin films with mechano-optical sensing capabilities and block copolymers for lithium metal batteries.
- Instructing UC Berkeley students in testing and characterizing various materials and collaborating with a number of scientific institutions like UC Davis, Caltech, Oregon State University, Oakridge National Laboratory, University of Leoben (Austria), Ruhr University Bochum (Germany) or University Medical Center Hamburg-Eppendorf (Germany).

2007–2010 **PhD**, *University of Leoben & Erich Schmid Institute of Materials Science, Austrian Academy of Sciences*, Leoben, Austria.
advisor: Prof. Reinhard Pippan

- Developed a system to measure crack propagation at room temperature as well as at elevated temperatures and analyzed the crack path using electron back-scatter diffraction.

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- Collaborated in a project with Plansee Metall GmbH to investigate the influence of factors like dislocations, impurities and microstructure on the fracture behavior of tungsten and tungsten alloys.
- Investigated the influence of grain boundary impurities on the brittleness of tungsten materials by means of Auger electron spectroscopy, atomprobe investigations and TEM-EDX analyses.
- Manufactured fracture toughness specimens and performed tests at different temperatures to determine the influence of, e.g. grain size, dislocation density and texture on the fracture behavior.
- Supervised students in different techniques to manufacture and test samples for mechanical characterization of tungsten materials.

1999–2006 **M.S.**, *University of Leoben & Erich Schmid Institute of Materials Science, Austrian Academy of Sciences*, Leoben, Austria.
advisor: Prof. Reinhard Pippan

- Studied the fracture toughness of tungsten wires - in particular aluminum potassium silicon tungsten (AKS-W) - by means of 3 point bending and double cantilever beam specimens in a collaboration with Plansee Metall GmbH.
- Investigated the influence of microstructure, texture, dislocation density and impurities by using electron backscatter diffraction, x-ray line profile analysis and Auger electron spectroscopy methods.
- Developed a high temperature testing module to investigate different alloys in vacuum using compact tension, double cantilever beam and 3-point bending specimens.

Technical Experience

2001–2010 **Network Administrator**, *ÖH-Heim/Student Dorm*, Leoben, Austria.

- Setup the entire network including wiring, hardware and software installation.
- Installing and administrating several linux servers including full user management.
- Setup complete wireless network integrated into the pre-existing LAN and the university network.

2001–2004 **Research/Laboratory Assistant**, *Materials Center Leoben*, Leoben, Austria.
Tooling Department

- Performed heat treatments for investigations on the precipitate formation and mechanical properties of high speed steels.
- Investigated the fracture toughness of tooling steels with 3 point bending specimens.
- Used Thermo-Calc to carry out phase formation calculations on high speed steels.

Summer 2000 **Laboratory Assistant**, *Böhler Edelstahl*, Kapfenberg, Austria.
Research & Development

- Studied heat treatment techniques and carried out a variety of heat treatment experiments on steel alloys in the laboratory.
- Prepared steel samples metallographically and characterized them via microscopy methods.
- Studied chemical polishing of different materials as part of the metallographical preparation process.

1993–1998 **Technical High School for Mechanical Engineering & Materials Technology**, *HTBLA Eisenstadt*, Eisenstadt, Austria.

- Studied theoretical and practical basics of chemical and materials technology as well as the treatment, design and application of materials.
- Developed basic knowledge of computer-aided design and product development as well as practical fundamentals on the production and processing of metals and polymers.

- Studied with a special emphasis on welding technology and quality management.

Teaching Experience

Spring 2013	Substitute lecturer for MSE c212/ME c225 "Deformation, Fracture and Fatigue" (graduate) taught by R. O. Ritchie at University of California, Berkeley
Fall 2012–2014	Substitute lecturer for MSE 113 "Mechanical Behavior of Engineering Materials" (undergraduate) taught by R. O. Ritchie at University of California, Berkeley
Fall 2010–2014	Guest lecturer for NE 120 "Nuclear Materials" (undergraduate) taught by P. Hosemann at University of California, Berkeley

Professional Affiliations

2008–present	Member of The Minerals, Metals and Materials Society (TMS)
2012–present	Member of The Materials Research Society (MRS)

Consulting Experience

2011–present	Failure analysis of numerous orthopedic, cardiac and respiratory medical implant devices involving oxidized zirconium, pyrolytic carbon and nickel-titanium shape memory alloys.

Technical Reviewer

2011–present	acs nano
2012–present	Engineering Fracture Mechanics
2013–present	Computational Materials
2014–present	Acta Biomaterialia
	Journal of Materials Engineering and Performance
	Journal of Materials Research
	Metallurgical and Materials Transactions A
2015–present	Materials
	Materials and Design
	Metals
	Scientific Reports

Publications

Journals

1. B. Gludovatz, A. Hohenwarter, K. V. S. Thurston, H. Bei, Z. Wu, E. P. George, R. O. Ritchie, "Exceptional damage-tolerance of a medium-entropy alloy CrCoNi at cryogenic temperatures," *Nature Communications* submitted.
2. Z.J. Zhang, M. M. Mao, J. Wang, B. Gludovatz, Z. Zhang, S. X. Mao, E. P. George, Q. Yu, R. O. Ritchie, "Nanoscale origins of the damage tolerance of the highentropy alloy CrMnFeCoNi," *Nature Communications* accepted.
3. H. Bai, F. Walsh, B. Gludovatz, B. Delattre, C. Huang, Y. Chen, A. P. Tomsia, R. O. Ritchie, "Bioinspired hydroxyapatite/poly(methyl methacrylate) composite with nacre-mimetic architecture by a bidirectional freezing method," *Advanced Materials* accepted.
4. B. Gludovatz, E. P. George, R. O. Ritchie, "Processing, microstructure and mechanical properties of the FeMnCoNiCr high-entropy alloy," *JOM*, vol. 67 (10), 2015, pp. 2262-2270. (doi: 10.1007/s11837-015-1589-z)
5. C. Acevedo, H. Bale, B. Gludovatz, A. Wat, S. Y. Tang, M. Wang, B. Busse, E. A. Zimmermann, E. Schaible, M. R. Allen, D. B. Burr, R. O. Ritchie, "Alendronate treatment alters bone tissues at multiple structural levels in healthy canine cortical bone," *Bone*, vol. 81, 2015, pp. 352-363. (doi: 10.1016/j.bone.2015.08.002)
6. V. Naglieri, B. Gludovatz, A. P. Tomsia, R. O. Ritchie, "Developing strength and toughness in bio-inspired silicon carbide hybrid materials containing a compliant phase," *Acta Materialia*, vol. 98, 2015, pp. 141-151. (doi: 10.1016/j.actamat.2015.07.022)
7. W. Yang, V. R. Sherman, B. Gludovatz, E. Schaible, P. Stewart, R. O. Ritchie, M. A. Meyers, "On the tear resistance of skin," *Nature Communications*, vol. 6, 2015, pp. 6649-6658. (doi: 10.1038/ncomms7649)
8. E. A. Zimmermann, T. Köhne, H. A. Bale, B. Panganiban, B. Gludovatz, J. Zustin, M. Hahn, M. Amling, R. O. Ritchie, B. Busse, "Modifications to Nano- and Microstructural Quality and the Effects on Mechanical Integrity in Paget's Disease of Bone," *Journal of Bone and Mineral Research*, vol. 30 (2), 2015, pp. 264-273. (doi: 10.1002/jbmr.2340)
9. B. Gludovatz, A. Hohenwarter, D. Catoor, E. H. Chang, E. P. George, R. O. Ritchie, "A fracture-resistant high-entropy alloy for cryogenic applications," *Science*, vol. 345 (6201), 2014, pp. 1153-1158. (doi: 10.1126/science.1254581)
10. W. Yang, V. R. Sherman, B. Gludovatz, M. Mackey, E. A. Zimmermann, E. H. Chang, E. Schaible, Z. Qin, M. J. Buehler, R. O. Ritchie, M. A. Meyers, "Protective role of Arapaima gigas fish scales: Structure and mechanical behavior," *Acta Biomaterialia*, vol. 10 (8), 2014, pp. 3599-3614. (doi: 10.1016/j.actbio.2014.04.009)
11. E. A. Zimmermann, B. Gludovatz, E. Schaible, B. Busse, R. O. Ritchie, "Fracture resistance of human cortical bone across multiple length-scales at physiological strain rates," *Biomaterials*, vol. 35 (21), 2014, pp. 5472-5481. (doi: 10.1016/j.biomaterials.2014.03.066)
12. B. Gludovatz, S. E. Naleway, R. O. Ritchie, J. J. Kruzic, "Size-dependent fracture toughness of bulk-metallic glasses," *Acta Materialia*, vol. 70, 2014, pp. 198-207. (doi: 10.1016/j.actamat.2014.01.062)
13. S. E. Naleway, R. B. Greene, B. Gludovatz, N. K. N. Dave, R. O. Ritchie, J. J. Kruzic, "A Highly Fatigue Resistant Zr-based Bulk Metallic Glass," *Metallurgical Transactions A: Structural Materials*, vol. 44 (13), 2013, pp. 5688-5693. (doi: 10.1007/s11661-013-1923-4)
14. M. Rieth, et al., "A brief summary of the progress on the EFDA tungsten materials program," *Journal of Nuclear Materials*, vol. 442 (1-3), 2013, pp. S172-S180. (doi: 10.1016/j.jnucmat.2013.03.062)

15. B. Gludovatz, M. D. Demetriou, M. Floyd, A. Hohenwarter, W. L. Johnson, R. O. Ritchie, "Enhanced fatigue endurance of metallic glasses through a "staircase-like" fracture mechanism," *Proceedings of the National Academy of Sciences*, vol. 110 (46), 2013, pp. 18419-18424. (doi: 10.1073/pnas.1317715110)
16. E. A. Zimmermann, B. Gludovatz, E. Schaible, N. K. N. Dave, W. Yang, M. A. Meyers, R. O. Ritchie, "Mechanical adaptability of the Bouligand-type structure in natural dermal armor," *Nature Communications*, vol. 4, 2013, pp. 2634-2640. (doi: 10.1038/ncomms3634)
17. V. Naglieri, H. A. Bale, B. Gludovatz, A. P. Tomsia, R. O. Ritchie, "On the Development of Ice-Templated Silicon Carbide Scaffolds for Nature-Inspired Structural Materials," *Acta Materialia*, vol. 61 (18), 2013, pp. 6948-6957. (doi: 10.1016/j.actamat.2013.08.006)
18. I. Gurevitch, R. Buonsanti, A. Teran, B. Gludovatz, R. O. Ritchie, N. P. Balsara, "Nanocomposites of Titanium Dioxide and Polystyrene-Poly(ethylene oxide) Block Copolymer as Solid-State Electrolytes for Lithium Metal Batteries," *Journal of The Electrochemical Society*, vol. 160 (9), 2013, pp. A1611–A1617. (doi: 10.1149/2.117309jes)
19. S. N. Raja, et al., "Tetrapod Nanocrystals as Fluorescent Stress Probes of Electrospun Nanocomposites," *Nano Letters*, vol. 13 (8), 2013, pp. 3915-3922. (doi: 10.1021/nl401999t)
20. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "A study into the crack propagation resistance of pure tungsten," *Engineering Fracture Mechanics*, vol. 100, 2013, pp. 76–85. (doi: 10.1016/j.engfracmech.2012.07.021)
21. W. Yang, B. Gludovatz, E. A. Zimmermann, H. A. Bale, R. O. Ritchie and M. A. Meyers, "Structure and Fracture Resistance of Alligator Gar (Atractosteus Spatula) Armored Fish Scales," *Acta Biomaterialia*, vol. 9 (4), 2013, pp. 5876-5889. (doi: 10.1016/j.actbio.2012.12.026)
22. W. Yang, I. H. Chen, B. Gludovatz, E. A. Zimmermann, R. O. Ritchie, M. A. Meyers, "Natural Flexible Dermal Armor," *Advanced Materials*, vol. 25 (1), 2013, pp. 31-48. (doi: 10.1002/adma.201202713)
23. M. Rieth, et al., "Recent progress in research on tungsten materials for nuclear fusion applications in Europe," *Journal of Nuclear Materials*, vol. 432, 2013, pp. 482–500. (doi: 10.1016/j.jnucmat.2012.08.018)
24. J. A. Lemberg, M. R. Middlemas, T. Weingärtner, B. Gludovatz, J. K. Cochran, R. O. Ritchie, "On the fracture toughness of fine-grained Mo-3Si-1B (wt.%) alloys at ambient to elevated ($1300\,^{\circ}\mathrm{C}$) temperatures," *Intermetallics*, vol. 20 (1), 2012, pp. 141–154. (doi: 10.1016/j.intermet.2011.09.003)
25. B. Gludovatz, S. Wurster, T. Weingärtner, A. Hoffmann, R. Pippan, "Influence of Impurities on the Fracture Behavior of Tungsten," *Philosophical Magazin*, vol. 91 (22), 2011, pp. 3006–3020. (doi: 10.1080/14786435.2011.558861)
26. S. Wurster, B. Gludovatz, A. Hoffman, R. Pippan, "Fracture behaviour of tungsten-vanadium and tungsten-tantalum alloys and composites," *Journal of Nuclear Materials*, vol. 413 (3), 2011, pp. 166–176. (doi: 10.1016/j.jnucmat.2011.04.025)
27. M. Rieth, et al., "Review on the EFDA programme on tungsten materials technology and science," *Journal of Nuclear Materials*, vol. 417 (1-3), 2011, pp. 463–467. (doi: 10.1016/j.jnucmat.2011.01.075)
28. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture toughness of polycrystalline tungsten alloys," *International Journal of Refractory Metals and Hard Materials*, vol. 28 (6), 2010, pp. 674–678. (doi: 10.1016/j.ijrmhm.2010.04.007)
29. S. Wurster, B. Gludovatz, R. Pippan, "High temperature fracture experiments on tungsten-rhenium alloys," *International Journal of Refractory Metals and Hard Materials*, vol. 28 (6), 2010, pp. 692–697. (doi: 10.1016/j.ijrmhm.2010.03.002)

30. A. Hohenwarter, A. Bachmaier, B. Gludovatz, S. Scheriau, R. Pippan, "Technical parameters affecting grain refinement by high pressure torsion," *International Journal of Materials Research*, vol. 100 (12), 2009, pp. 1653–1661. (doi: 10.3139/146.110224)

Conference Proceedings

1. Gludovatz, S. Wurster, A. Hoffmann, and R. Pippan: "Fracture Toughness of Polycrystalline Tungsten Alloys," *Conference Proceedings of the* 12^{th} *International Conference on Fracture*, 2009.
2. B. Gludovatz, S. Wurster, A. Hoffmann, and R. Pippan: "Fracture Toughness of Polycrystalline Tungsten Alloys," 17^{th} *Plansee Seminar – International Conference on High Performance P/M Materials - Proceedings Vol. 1: P/M Refractory Metals, Plansee Group*, 2009.
3. S. Wurster, B. Gludovatz, R. Pippan, "High Temperature Fracture Experiments on Tungsten–Rhenium Alloys," 17^{th} *Plansee Seminar – International Conference on High Performance P/M Materials - Proceedings Vol. 1: P/M Refractory Metals, Plansee Group*, 2009.
4. B. Gludovatz, M. Faleschini, S. Wurster, A. Hoffmann, and R. Pippan, "Influence of the Microstructure on the Fracture Toughness of Tungsten Alloys," *Refractory Metals 2008, The Minerals, Metals, and Materials Society*, vol. 1, 2008, pp. 449–454.
5. B. Gludovatz, M. Faleschini, S. Wurster, A. Hoffmann, and R. Pippan, "Influence of Grain Boundaries on the Fracture Toughness of Tungsten Alloys," *Conference Proceedings of the* 13^{th} *International Conference on Fusion Reactor Materials*, 2007.

Conference presentations

1. B. Gludovatz, K. V. S. Thurston, A. Hohenwarter, D. Catoor, H. Bei, E. P. George, R.O. Ritchie, "On the Fracture Toughness of FCC Medium- and High-Entropy Alloys at Ambient to Cryogenic Temperatures", 17^{th} International Conference on the Strength of Materials, Brno, Czech Republic, August 2015. (***Invited presentation***)
2. B. Gludovatz, J. J. Kruzic, M. D. Demetriou, W. L. Johnson, R. O. Ritchie, "The role of bending vs. tension loading on the fracture toughness of metallic glasses", 17^{th} International Conference on the Strength of Materials, Brno, Czech Republic, August 2015.
3. B. Gludovatz, J. J. Kruzic, M. D. Demetriou, W. L. Johnson, R. O. Ritchie, "On the Contrasting Role of Bending vs. Tension on the Fracture Toughness of Metallic Glasses", The Minerals, Metals, and Materials Society Annual Meeting, Orlando, FL, March 2015. (***Keynote***)
4. B. Gludovatz, J. J. Kruzic, M. D. Demetriou, W. L. Johnson, R. O. Ritchie, "Fracture Behavior of Metallic Glasses in Bending vs. Tension", The Minerals, Metals, and Materials Society Annual Meeting, San Diego, CA, February 2014. (***Invited presentation***)
5. B. Gludovatz, J. J. Kruzic, M. D. Demetriou, W. L. Johnson, R. O. Ritchie, "On the Fracture Toughness of Metallic Glasses in Bending and Tension", Materials Research Society Fall Meeting & Exhibit, Boston, MA, December 2013. (***Invited presentation***)
6. B. Gludovatz, M. D. Demetriou, J. J. Kruzic, A. Hohenwarter, W. L. Johnson, R. O. Ritchie, "On the fracture toughness and fatigue strength of bulk-metallic glasses", 8^{th} Pacific Rim International Congress on Advanced Materials and Processing, Waikoloa, HI, August 2013. (***Invited presentation***)
7. B. Gludovatz, M. D. Demetriou, J. J. Kruzic, A. Hohenwarter, W. L. Johnson, R. O. Ritchie, "Fracture and Fatigue of Bulk Metallic Glasses", 12^{th} International Conference on Fracture, Beijing, China, June 2013.
8. B. Gludovatz, M. D. Demetriou, A. Hohenwarter, R. Pippan, W. L. Johnson, R. O. Ritchie, "A Shear-band toughened monolithic metallic glass under cyclic loading", The Minerals, Metals, and Materials Society Annual Meeting, San Antonio, TX, March 2013. (***Invited presentation***)
9. B. Gludovatz, M. D. Demetriou, M. E. Launey, D. C. Hofmann, W. L. Johnson, R. O. Ritchie, "Bulk-Metallic Glasses under Cyclic Loading", Materials Research Society Fall Meeting & Exhibit, Boston, MA, November 2012. (***Invited presentation***)
10. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture Behavior of Tungsten", The Minerals, Metals, and Materials Society Annual Meeting, Orlando, FL, March 2012.
11. B. Gludovatz, M. D. Demetriou, M. E. Launey, D. C. Hofmann, W. L. Johnson, R. O. Ritchie, "On the Fracture Toughness and Fatigue Strength of Monolithic and Composite Bulk-Metallic Glasses", The Minerals, Metals, and Materials Society Annual Meeting, Orlando, FL, March 2012.
12. S. Wurster, Th. Leitner, B. Gludovatz, P. Kutleša, R. Pippan, "Fracture Behaviour of HPT-deformed W-materials", EFDA Monitoring Meeting, Frascati (Italy), June 2011.
13. S. Wurster, B. Gludovatz, R. Pippan, "On the brittle fracture of tungsten and tungsten alloys and its impact on the materials usage for fusion applications", 13^{th} International Workshop on Plasma-Facing Materials and Components for Fusion Applications / 1^{st} International Conference on Fusion Energy Materials Science, Rosenheim, May 2011.
14. S. Wurster, B. Gludovatz, H. Li, L. Romaner, R. Pippan, G. Dehm, "Wolfram für die Fusion," Fusion Expo, Vienna, March 2011.

15. S. Wurster, B. Gludovatz, C. Motz, R. Pippan, "Structural Material Development – Plasticity Fracture Mechanisms – Micro Plasticity W-Alloys", EFDA Monitoring Meeting, Garching bei München, February 2011.
16. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture Toughness of Polycrystalline Tungsten", 2^{nd} ESI-Seminar, Planneralm, Austria, March 2010.
17. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture Toughness of Polycrystalline Tungsten", The Minerals, Metals, and Materials Society Annual Meeting, Seattle, WA, February 2010.
18. S. Wurster, B. Gludovatz, H. Li, D. Luef, L. Romaner, C. Ambrosch-Draxl, R. Pippan, "Intrinsic brittleness of tungsten & possible ductilization mechanisms, plasticity studies with focus on impurities & Re effects", MAT – W & W-ALLOYS Monitoring meeting, Garching bei München, February 2010.
19. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture Behavior of Tungsten & Tungsten Alloys: Effect of Microstructure on Re Alloying", 14^{th} International Conference on Fusion Reactor Materials, Sapporo, Japan, September 2009 – Poster.
20. B. Gludovatz, L. Romaner, S. Wurster, C. Ambrosch-Draxl, R. Pippan, "Development and Modelling of Tungsten Alloys for Divertor Applications", W-satellite meeting of the IEA at the 14^{th} International Conference on Fusion Reactor Materials, Sapporo, Japan, September 2009.
21. S. Wurster, B. Gludovatz, A. Hoffmann, R. Pippan, "High Temperature Fracture Experiments on different Tungsten–Rhenium Alloys", 15^{th} International Conference on the Strength of Materials, Dresden, August 2009.
22. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture Toughness of Polycrystalline Tungsten Alloys", 12^{th} International Conference on Fracture, Ottawa, Canada, July 2009.
23. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Fracture Toughness of Polycrystalline Tungsten Alloys", 17^{th} Plansee Seminar, Reutte, Austria, May 2009.
24. S. Wurster, B. Gludovatz, R. Pippan, "High Temperature Fracture Experiments on Tungsten-Rhenium Alloys", 17^{th} Plansee Seminar, Reutte, Austria, May 2009.
25. B. Gludovatz, M. Faleschini, S. Wurster, A. Hoffmann, R. Pippan, "Influence of Grain Boundaries on the Fracture Toughness of Tungsten Alloys", 9. Tagung Gefüge und Bruch, Leoben, Austria, April 2009 – Poster.
26. S. Wurster, B. Gludovatz, R. Pippan, "Fracture Behaviour of Tungsten and Tungsten Alloys", ESIS TC2 Meeting, Leoben, April 2009.
27. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Influence of Microstructure on the Fracture Toughness of Tungsten and Tungsten Alloys", 2^{nd} ESI-Seminar, Seggau, Austria, September 2008.
28. B. Gludovatz, S. Wurster, A. Hoffmann, R. Pippan, "Influence of Microstructure on the Fracture Toughness of Tungsten and Tungsten Alloys", 17^{th} European Conference on Fracture, Brno, Czech Republic, September 2008.
29. S. Wurster, B. Gludovatz, L. Romaner, R. Pippan, "Influence of Microstructure on the Fracture Toughness of Tungsten Alloys", 1^{th} International Conference on New Material for Extreme Environments, San Sebastian, July 2008.
30. B. Gludovatz, M. Faleschini, S. Wurster, A. Hoffmann, R. Pippan, "Influence of Microstructure on the Fracture Toughness of Tungsten Alloys", The Minerals, Metals, and Materials Society Annual Meeting, New Orleans, LA, March 2008.
31. B. Gludovatz, M. Faleschini, S. Wurster, A. Hoffmann, R. Pippan, "Influence of Grain Boundaries on the Fracture Toughness of Tungsten and Tungsten Alloys", 8^{th} International Conference on Fundamentals of Fracture, Hong Kong, China, January 2008.

32. B. Gludovatz, M. Faleschini, S. Wurster, A. Hoffmann, R. Pippan, "Influence of Grain Boundaries on the Fracture Toughness of Tungsten Alloys", 13^{th} International Conference on Fusion Reactor Materials, Nice, France, November 2007 – Poster.
33. B. Gludovatz, R. Pippan, A. Hoffmann "Bestimmung der Bruchzähigkeit an Wolframdrähten", 8. Tagung Gefüge und Bruch, Bochum, Germany, February 2007 – Poster.

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