

Prof. Dr. Martin Heilmaier



Current positions

Full professor (W3) for Materials Science and Engineering (since 2011)
Head of the Institute of Applied Materials –Materials Engineering (IAM-WK)
at Karlsruhe Institute of Technology (since 2013)

Previous positions (two selected)

Professor (W3) in Physical Metallurgy at TU Darmstadt (2008-2011)
Professor (C4) in Materials Science & Technology at the Otto-von-Guericke
University Magdeburg (2002-2008)

Scientific degree

Dipl. Engineer in Materials Science (1988), Dr. Ing. Materials Science (1992),
both at University Erlangen-Nürnberg

Recent research topics

High temperature structural materials, intermetallic compounds, high entropy
alloys, mechanical testing under extreme environmental conditions

Awards, honours, memberships

Spokesperson and Member of the DFG Review Board 405 “Materials
Technology”; Member of Research Council of TU Kaiserslautern; Editor of
Elsevier Journal “Intermetallics”

Publications/Patents (5 most important)

- **M. Krüger, S. Franz, H. Saage, M. Heilmaier, J.H. Schneibel, P. Jéhanno, M. Böning, H. Kestler:** Mechanically alloyed Mo-Si-B alloys with a continuous β -Mo matrix and improved mechanical properties, *Intermetallics* 16 (2008), 933-941, [doi:10.1016/j.intermet.2008.04.015](https://doi.org/10.1016/j.intermet.2008.04.015)
- **J. H. Schneibel, M. Heilmaier, G. Hasemann, T. Shanmugasundaram:** Temperature dependence of the strength of fine- and ultrafine-grained materials, *Acta Materialia* 59 (2011), 1300-1308, [doi:10.1016/j.actamat.2010.10.062](https://doi.org/10.1016/j.actamat.2010.10.062)
- **B. Gorr, M. Azim, H.-J. Christ, T. Mueller, D. Schliephake, M. Heilmaier:** Phase Equilibria, Microstructure, and High Temperature Oxidation Resistance of Novel Refractory High-Entropy Alloys, *J. All. Comp.* 624 (2015), 270-278, [doi:10.1016/j.jallcom.2014.11.012](https://doi.org/10.1016/j.jallcom.2014.11.012)
- **H. Chen, A. Kauffmann, B. Gorr, D. Schliephake, C. Seemüller, J.N. Wagner, H.-J. Christ, M. Heilmaier:** Microstructure and mechanical properties at elevated temperatures of a new Al-containing refractory high-entropy alloy Nb-Mo-Cr-Ti-Al, *J. All. Comp.* 661 (2016), 206-215, [doi:10.1016/j.jallcom.2015.11.050](https://doi.org/10.1016/j.jallcom.2015.11.050)
- **D. Tomus, Y. Tian, P.A. Rometsch, M. Heilmaier, X. Wu:** Influence of post heat treatments on anisotropy of mechanical behaviour and microstructure of Hastelloy-X parts produced by selective laser melting, *Mater. Sci. Eng. A* 667 (2016), 42-53, [doi:10.1016/j.msea.2016.04.086](https://doi.org/10.1016/j.msea.2016.04.086)