

## Dr. Alfons Weisenburger



### Current positions

Group leader: Surface technologies at Institute for Pulsed Power and Microwave Technology, KIT (since 2006)

Responsible for liquid metal research for CSP at KIT (since 2017)

Spokes person for the Liquid metal competence platform Karlsruhe at KIT (since 2018)

### Previous position

Scientist in electron beam and corrosion lab IHM/FZK - KIT (2002-06)

### Scientific degree

Dr.-Ing. (PhD) in Mechanical Engineering TU Karlsruhe (1999)

### Recent research topics

Compatibility of materials with liquid metals, Liquid metal chemistry, Surface treatment using intense electron beams, Liquid metals for CSP and heat storage

### Awards, honors, memberships

Innovation Award German Gas Industry (2018)

EU Expert of the OECD-NEA liquid metal working group

### Publications/Patents (5 most important)

- **A. Heinzl, W. Hering, J. Konys, L. Marocco, K. Litfin, et. al.**, Liquid Metals as Efficient High-Temperature Heat-Transport Fluids, *Energy Technol.* 5, 1026 (2017) [doi:10.1002/ente.201600721](https://doi.org/10.1002/ente.201600721)
- **A. Heinzl, A. Weisenburger and G. Müller**, Corrosion behavior of austenitic steel AISI 316L in liquid tin in the temperature range between 280 and 700 °C, *Mater. Corros.* 8, 831 (2017) [doi:10.1002/maco.201609211](https://doi.org/10.1002/maco.201609211)
- **A. Jianu, R. Fetzer, A. Weisenburger, S. Doyle, M. Bruns, et. al.**, Stability domain of alumina thermally grown on Fe–Cr–Al-based model alloys and modified surface layers exposed to oxygen-containing molten Pb, *J. Nucl. Mater.* 470, 68 (2016) [doi:10.1016/j.jnucmat.2015.12.009](https://doi.org/10.1016/j.jnucmat.2015.12.009)
- **M. Del Giacco, A. Weisenburger, G. Mueller**, Fretting corrosion in liquid lead of structural steels for lead-cooled nuclear systems: Preliminary study of the influence of temperature and time, *J. Nucl. Mater.* 423, 79 (2012) [doi:10.1016/j.jnucmat.2012.01.007](https://doi.org/10.1016/j.jnucmat.2012.01.007)
- **G. Müller, V. Engelko, A. Weisenburger, A. Heinzl**, Surface alloying by pulsed intense electron beams, *Vacuum* 77, 469 (2005) [doi:10.1016/j.vacuum.2004.09.018](https://doi.org/10.1016/j.vacuum.2004.09.018)