Dr. Ruth Schwaiger *ORCID: 0000-0001-8940-2361*

Current position
Head of the Division "Nanomechanics of Materials of Surfaces" at Institute for Applied Materials,, KIT (since 2010)
From Oct. 2019: Director of Institute of Energy and Climate Research 2, FZJ

Previous positions (two selected)
Senior Consultant, P3 Ingenieurgesellschaft (2007-2010)
Junior Group Leader, IMF II, FZK (2004-2007)

Scientific degree
Dr. rer. nat. (PhD) in Materials Science, University of Stuttgart and Max-Planck-Institute for Metals Research (2002)

Recent research topics	3D-printed mechanical metamaterials; Deformation mechanisms of refractory metals and alloys; Structure-property relationships of high entropy alloys; Properties and design of high strength nanolayered composites
Awards, honors, memberships	DFG research fellowship (2002) Board member of the Biomimetics Competence Network (2016)

Publications (5 most important)

- A. Schroer, J. M. Wheeler, **R. Schwaiger** Deformation behavior and energy absorption capability of polymer and ceramic-polymer composite microlattices under cyclic loading", J. Mater. Res. 33, 274 (2018). doi: 10.1557/jmr.2017.485 (invited article)
- D.H. Lee, I.C. Choi, G. Yang, Z. Lu, M. Kawasaki, U. Ramamurty, **R. Schwaiger,** J.I. Jang, Activation energy for plastic flow in nanocrystalline CoCrFeMnNi high-entropy alloy: A high temperature nanoindentation study. *Scripta Mater*., 156, 129 (2018) doi: 10.1016/j.scriptamat.2018.07.014
- I.C. Choi, C. Brandl, **R. Schwaiger**, Thermally activated dislocation plasticity in body-centered cubic chromium studied by high-temperature nanoindentation, *Acta Mater.* 140, 107 (2017). doi: 10.1016/j.actamat.2017.08.026
- J. Bauer, L.R. Meza, T.A. Schaedler, **R. Schwaiger**, X. Zheng, L. Valdevit, Nanolattices - An Emerging Class of Mechanical Metamaterials, Adv. Mater. 29, 1701850 (2017). doi: 10.1002/adma.20170185
- J. Bauer, A. Schroer, **R. Schwaiger**, O. Kraft, Approaching Theoretical Strength in Glassy Carbon Nanolattices, *Nature Materials* 15, 438 (2016) doi: 10.1038/nmat4561