

**Current position**

Head of Helmholtz Young Investigator Group on Advanced Optics and Materials for Next Generation Photovoltaics, Karlsruhe Institute of Technology (since 2016)

**Previous positions (two selected)**

Scientist at the at the Interuniversity Microelectronics Centre (imec), Leuven, Belgium (2014-2016)

Scientist at Institute of Energy and Climate 5 – Photovoltaics, Forschungszentrum Jülich GmbH, Germany (2013 -2014)

**Scientific degree**

Dr. rer. nat. in physics, RWTH Aachen University (2013)

**Recent research topics**

Perovskite optoelectronics, tandem solar cells, photovoltaics, printed optoelectronics, perovskite lasing, light management, functional materials, nanophotonics for energy harvesting.

**Awards, honors, memberships**

“DAAD fellowship”, awarded by the DAAD (2014)

“Young Scientist Award”, Spring Meeting 2012 of the EMRS (2012).

“Springorum - Denkmünze” and “Schöneborn - Preis”, RWTH Aachen (2009).

**Publications (5 most important)**

- **I.A. Howard, T. Abzieher, I. M. Hossain, H. Eggers, F. Schackmar**, et al., Coated and Printed Perovskites for Photovoltaic Applications, *Adv. Mater.* (2019) [doi:10.1002/adma.201806702](https://doi.org/10.1002/adma.201806702)
- **T. Abzieher, S. Moghadamzadeh, F. Schackmar, H. Eggers, F. Sutterlüti**, et al., Electron-Beam-Evaporated Nickel Oxide Hole Transport Layers for Perovskite-Based Photovoltaics, *Adv. Energy Mater.* (2019) [doi:10.1002/aenm.201802995](https://doi.org/10.1002/aenm.201802995)
- **S. Gharibzadeh, B. Abdollahi Nejand, M. Jakoby, T. Abzieher**, D. Hauschild, et al., Record Open-Circuit Voltage Wide-Bandgap Perovskite Solar Cells Utilizing 2D/3D Perovskite Heterostructure, *Adv. Energy Mater.* 1803699 (2019) [doi:10.1002/aenm.201803699](https://doi.org/10.1002/aenm.201803699)
- **U.W. Paetzold**, S. Lehnen, **K. Bittkau, U. Rau, and R. Carius**, Nanoscale observation of waveguide modes enhancing the efficiency of solar Cells, *Nano Lett.* 14 6599–605 (2014) [doi:10.1021/nl503249n](https://doi.org/10.1021/nl503249n)
- **U. Rau, U.W. Paetzold, T. Kirchartz**, Thermodynamics of light management in photovoltaic devices, *Phys. Rev. B - Condens. Matter Mater. Phys.* 90 035211 (2014), [doi:10.1103/PhysRevB.90.035211](https://doi.org/10.1103/PhysRevB.90.035211)