

Subtopic 5.3: High Temperature Superconductivity

Dr. rer. nat. Tabea Arndt



Current positions

Principal Key Expert “Electromagnetic Systems” at Siemens Corporate Technology, Erlangen, Germany (since 2015)

(starting 01.10.2019:

Professorship at KIT, Faculty of Electrotechnology & Information Technology, Institute of Technical Physics, Superconducting Magnet Technology)

Previous positions (two selected)

Head of Research Group “Superconducting Components & Applications” at Siemens Corporate Technology, Erlangen, Germany (2009-2015)

Department Head/ Product Manager at Bruker EAS/HTS (2001-2009)

Scientific degree

Dr. rer. nat. (PhD) in Physics, University of Karlsruhe (TH) (1995)

Recent research topics

Transformers, Motors, Generators, Electric Aircrafts, Superconducting Fault Current Limiters, Power Transmission and Distribution, MRI Magnets, Winding Technology and application specific wire approaches & usage

Awards, honors, memberships

Panel Member & Vice Panel Chair at European Research Council Panel PE7 (2008-2017), Board Member of ESAS (2010-), Member of Executive Board of ISIS, Director of Conectus (2008-), Delegate to IEA TCP HTS (2008-)

Publications/Patents

- **K.S. Haran, S. Kalsi, T. Arndt, H. Karmaker, R. Badcock, et al.**, High Power Density superconducting rotating machines – development status and technology roadmap, *Superconductor Science and Technology* (2017) [doi:10.1088/1361-6668/aa833e](https://doi.org/10.1088/1361-6668/aa833e)
- **T. Arndt, A. Bauer, J. Grundmann, W. Nick, D. Steyn, M. Tenzer, P. van Haßelt**, Device for DC Current Transmission And Cooling Method, EP3281211 (2019)
- **T. Arndt, J. Grotendorst, D. Potoradi, M. Reinhard**, Cage Rotor for an Electric Machine, EP3120441 (2019)
- **T. Arndt**, Electric Machine, AU2015233650 (2017)
- **T. Arndt, D. Bayer, W. Herkert, P. Kummeth**, Supraleitende Spulenanordnung und Verfahren zu deren Herstellung, DE102011078592 (2013)