



Current positions

Director Institute for Technical Physics and
Professor for Superconducting Materials at KIT

Previous positions

Head of the department „Superconducting Materials" at the Institute for
Metallic Materials, IFW Dresden (2000-2013)
Postdoctoral researcher at Oak Ridge National Laboratory, US (1999-2000)

Scientific degrees

PhD in Physics, Friedrich-Alexander University Erlangen, Germany (1995)
Diploma in Physics, Friedrich-Alexander University Erlangen, Germany (1990)

Recent research topics

Superconducting materials, Current limitation mechanisms in superconductors,
Functional thin films

Awards, honors, memberships

Since 2015 President of the European Society of Applied Superconductivity
2006 Scientific award of the “Stifterverband für die deutsche Wissenschaft”

Publications/Patents (5 most important)

- P. Cayado, M. Erbe, S. Kauffmann-Weiss, C. Bühler, A. Jung, J. Hänisch and **B. Holzapfel**, Large critical current densities and pinning forces in CSD-grown superconducting $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}$ - BaHfO_3 nanocomposite films, *Supercond. Sci. Technol.* **30** (2017) 094007 [doi:10.1088/1361-6668/aa7e47](https://doi.org/10.1088/1361-6668/aa7e47)
- K. Iida, H. Sato, C. Tarantini, J. Hänisch, J. Jaroszynski, H. Hiramatsu, **B. Holzapfel** and H. Hosono, High-field transport properties of a P-doped BaFe_2As_2 film on technical substrate, *Scientific Reports*, Vol. 7, Article number: 39951 (2017), [doi:10.1038/srep39951](https://doi.org/10.1038/srep39951)
- L. Opherden, M. Sieger, P. Pahlke, R. Hühne, L. Schultz, A. Meledin, G. Van Tendeloo, R. Nast, **B. Holzapfel**, M. Bianchetti, J. L. MacManus-Driscoll and J. Hänisch, *Large pinning forces and matching effects in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films with $\text{Ba}_2\text{Y}(\text{Nb}/\text{Ta})\text{O}_6$ nano-precipitates*, *Scientific Reports*, Vol. 6, Article number: 21188 (2016), [doi:10.1038/srep21188](https://doi.org/10.1038/srep21188)
- M. Erbe, J. Hänisch, R. Hühne, T. Freudenberg, A. Kirchner, L. Molina-Luna, C. Damm, G. Van Tendeloo, S. Kaskel, L. Schultz and **B. Holzapfel**, BaHfO_3 artificial pinning centres in TFA-MOD-derived YBCO and GdBCO thin films, *Supercond. Sci. Technol.* **28** (2015) 114002 [doi:10.1088/0953-2048/28/11/114002](https://doi.org/10.1088/0953-2048/28/11/114002)
- J. Hänisch, K. Iida, F. Kurth, E. Reich, C. Tarantini, J. Jaroszynski, T. Förster, G. Fuchs, R. Hühne, V. Grinenko, L. Schultz and **B. Holzapfel**, *High field superconducting properties of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ thin films*, *Scientific Reports*, Vol. 5, Article number: 17363 (2015), [doi:10.1038/srep17363](https://doi.org/10.1038/srep17363)