



born: Sept. 24, 1951 in Frankfurt/Main, Germany

spouse: Dr.-Ing. Thomas Ivers-Tiffée

child: Anna (1985)

### Affiliation

KIT Distinguished Senior Fellow, Karlsruhe Institute of Technology (KIT)

business address: Institute for Applied Materials – Electrochemical Technologies (IAM-ET)  
Karlsruhe Institute of Technology (KIT)  
Adenauerring 20b, 76131 Karlsruhe/Germany

phone: +49 721 608-47491

fax: +49 721 608-47492

e-mail: ellen.ivers@kit.edu

### University Education and Professional Experience

1970 – 1975 Study of Mineralogy/Crystallography (Dipl.-Min.) at Philipps-Universität Marburg/Germany

1975 – 1980 Ph.D. thesis (Dr.-Ing.) at Friedrich-Alexander-Universität Erlangen/Germany

1980 – 1996 Siemens AG, Corporate Research and Technology, Center of Applied Materials Research, Fields of Research & Development: Functional Ceramics for Electronic Devices and Electrochemical Devices

1996 – 2019 Full Professorship for Electrical Engineering and Information Technology and Head of the Institute for Applied Materials – Materials for Electrical and Electronic Engineering (IAM-WET), Karlsruhe Institute of Technology (KIT) (until 2009: Universität Karlsruhe (TH))

since 2019 KIT Distinguished Senior Fellow

### Research Areas

Electrochemical energy conversion (solid electrolyte and polymer fuel cells) and storage (lithium-ion and all-solid-state-batteries):

- electrical/electrochemical reaction and transport processes at surfaces and interfaces
- electrical/electrochemical measurement and evaluation procedures
- electrochemical modelling, model-based material development and simulation, 3D-analysis of porous media (tomography)
- model-based in-situ diagnosis and lifetime prediction

**Honors and Awarded Memberships**

- Member of acatech – the German Academy of Science and Engineering (since 2007)
- Member of the German Academy of Sciences Leopoldina (Engineering Sciences) (since 2005)
- Fellow of The Electrochemical Society (ECS) (since 2015)
- Fellow of the School of Engineering, The University of Tokyo, Japan (since 2015)
- Christian Friedrich Schönbein medal in gold, European Fuel Cell Forum (2014)
- Academician of the World Academy of Ceramics, Faenza/Italy (since 2009)
- Swiss Society for Thermal Analysis and Calorimetry (STK) Award for Applied Chemical Thermodynamics (1996)

**Honorary Positions**

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|-------------|--|
| 1996 – 1998 | Member of the Senate of Universität Karlsruhe (TH)   |
| 1998 – 2002 | Vice-President of Studies and Teaching, Universität Karlsruhe (TH)   |
| 1999 – 2002 | Member of the Research Council of the State of Baden-Württemberg   |
| 2001 – 2007 | Member of the Senate of the Helmholtz Association of the National Research Centers (HGF), Bonn/Germany   |
| 2003 – 2007 | Member of the Board of Directors of the International Society for Solid State Ionics   |
| 2006 – 2011 | Member of the Senate of the Karlsruhe Institute of Technology (KIT)<br>(until 2009: Universität Karlsruhe (TH))  |
| 2007 – 2010 | Member of the Innovation Think-Tank of the State Government of Baden-Württemberg, Germany  |
| 2010 – 2020 | Working group member of the “World Premier International Research Center (WPI) Initiative” of the Japan Society for the Promotion of Science (JSPS)                              |
| 2012 – 2014 | Member of the Review Board “Materials Science” of the German Research Foundation (“Deutsche Forschungsgemeinschaft”, DFG)  |
| 2014 – 2016 | Member of the Council for Innovation and Competitiveness (“Rat für Innovation und Wettbewerbsfähigkeit”) of the Baden-Württemberg State Ministry of Finance and Economy, Germany |
| since 2014  | Member of the Senate of the German Research Foundation (“Deutsche Forschungsgemeinschaft”, DFG)  |

### Further Professional Activities

- 1986 – 1996 Head of Technical Committee on “Continuing Education” within the German Ceramic Society (DKG)
- 1991 – 1994 Teaching assignment (Dept. of Geosciences), Philipps-Universität Marburg/ Germany
- 1996 – 1998 Member of the Review Board BMBF-NMT, Project Management Jülich (PTJ), Germany
- 1996 – 2002 Liaison Officer for the Foundation of German Business (“Stiftung der deutschen Wirtschaft”), Klaus Murmann Fellowship Programme
- 1997 – 2000 Member of the Board of Trustees of the Academy for Technology Assessment in the State of Baden-Württemberg
- 1997 – 2000 Member of the Selection Committee of the “Margarethe von Wrangell” Habilitation Program for Female Scientists, Baden-Württemberg
- 1999 – 2004 Member of the Selection Committee for the State Research Prize of Baden-Württemberg
- 1999 – 2006 Member of the Scientific Advisory Board of the Leibniz Institute for Solid State and Materials Research (IFW) Dresden/Germany
- 2000 Visiting Professor at Oita University, Japan
- 2001 – 2014 Member of the Coordination Board of the DFG-Center for Functional Nanostructures (CFN), Karlsruhe Institute of Technology (KIT) (until 2009: Universität Karlsruhe (TH)) and Spokesperson for Research Area F (“Nano-Energy”)
- 2002 – 2008 Member of the Scientific Advisory Board of the Fraunhofer Institute for Silicate Research (ISC) Würzburg/Germany
- 2004 Member of the Perspective Committee of Forschungszentrum Jülich/Germany
- 2004 – 2006 Member of the Search Committee “Technical Sciences” of the Körber European Science Award
- 2008 – 2018 Member of the Board of Trustees of the Institut für Mikroelektronik Stuttgart/Germany (IMS CHIPS)
- since 2013 Member of the Executive Board, KIT-Freundeskreis und Fördergesellschaft e.V. (KFG, friends of KIT)
- 2014 – 2020 Member of the Board of Trustees, “Friedrich und Elisabeth Boysen-Stiftung”
- 2016 – 2018 Scientific Member, “Senate Committee on Strategic Planning” of the German Research Foundation (“Deutsche Forschungsgemeinschaft”, DFG)
- 2016 – 2020 Member of the KIT Sounding Board for the German “Excellence Strategy”
- since 2019 Member of the Foundation Board of the “Hanse-Wissenschaftskolleg” (Institute for Advanced Study, HWK)

### Publications

Author or co-author of more than 400 papers in refereed journals, books & book chapters and conference proceedings as well as 26 patents granted or pending; *h*-index: 52 (Web of Science)

**Organization of International Symposia, Workshops and Conferences**

- 2005 “International Conference on Solid State Ionics (SSI-15)”, in cooperation with Prof. Dr. J. Maier (Max Planck Institute for Solid State Research, Stuttgart/ Germany), Baden-Baden/Germany, July 17-22, 2005
- 2009 2<sup>nd</sup> Indo-German Workshop on “Fuel Cells & Hydrogen Energy”, in cooperation with Prof. Dr. D. Stöver (FZ Jülich/Germany), at Universität Karlsruhe (TH), Karlsruhe/Germany, March 16-19, 2009
- 2010 Symposium on “Materials for Fuel Cells”, in cooperation with Dr. W. J. Quadackers (FZ Jülich/Germany), in the framework of the “DECHEMA 1<sup>st</sup> International Conference on Materials for Energy”, Karlsruhe/Germany, July 4-8, 2010
- 2010 “Functional nanostructures applied in energy storage and energy conversion systems” – CFN Workshop for graduate students as part of the “DECHEMA 1<sup>st</sup> International Conference on Materials for Energy”, Karlsruhe/Germany, July 6-7, 2010
- 2012 CFN Summer School 2012 on “Nano-Energy (Solar Cells, Fuel Cells, and Membranes)”, Bad Herrenalb/Germany, September 14-17, 2012
- 2015 Symposium I05 “Solid-Gas Electrochemical Interfaces”, in cooperation with Prof. Dr. M. Mogensen (DTU, Roskilde/Denmark), Prof. Dr. T. Kawada (Tohoku University, Japan), Prof. Dr. S. B. Adler (University of Washington, USA), Prof. Dr. P. J. Kulesza (University of Warsaw, Poland) and Prof. Dr. S. Mukerjee (Northeastern University, USA), in the framework of the 227<sup>th</sup> Meeting of The Electrochemical Society (ECS), Chicago IL/USA, May 24-28, 2015
- 2018 Conference Chair of the 13<sup>th</sup> “European Fuel Cell Forum”, in cooperation with Dr. André Weber (KIT), Lucerne/Switzerland, July 3-6, 2018
- 2018 German-Japanese Joint Workshop on “Advanced Secondary Battery Technologies”, in cooperation with Prof. Dr. Jens Tübke (Fraunhofer Institute Chemical Technology (ICT), Pfintzal/Germany), Karlsruhe, September 19-21, 2018

**Current Memberships in Scientific Committees and Professional Societies**

- Senate of the German Research Foundation (“Deutsche Forschungsgemeinschaft”, DFG)
- Advisory Board, CIMTEC – International Ceramics Congress
- DGM – Deutsche Gesellschaft für Materialkunde (German Society for Materials Science)
- ECS – The Electrochemical Society
- MRS – Materials Research Society