

Curriculum Vitae — Prof. Dr. Dr. h. c. Jürgen Janek

Office Address

Institute of Physical Chemistry
Justus Liebig University Giessen
Heinrich-Buff-Ring 17
35392 Giessen
Phone +49641-99-34501
Fax +49641-99-34509
juergen.janek@pc.jlug.de
www.uni-giessen.de/pci/janek
www.uni-giessen.de/fbz/zentren/lama
www.int.kit.edu/bella.php



Photo: Rolf K. Wegst

Jürgen Janek is a German physical chemist. He researches in innovative materials and concepts for electrochemical energy storage and conversion systems, as well as fundamentals of solid-state reactions and transport. Currently, solid-state batteries are the focus of his research. Analytical studies on the formation of interphases on anodes and cathodes complement the work. Janek is particularly interested in transport phenomena and reactions in mixed conducting solids and in solid electrolytes. He is also investigating new cell concepts for batteries based on metal-oxygen reactions (Li/O_2 , Na/O_2) and metal-sulfur (Li/S_8 , Na/S_8).

Research Areas

Physical chemistry of solids, solid state electrochemistry, materials for electrochemical technologies, lithium-ion batteries, solid state reactions and transport processes, high temperature chemistry, plasma chemistry, chemistry of interfaces and defects in ionic systems, solid state analytical chemistry

Publications and Scientific Lectures

About 450 full (peer reviewed) papers, about 50 other papers, 20 patents, about 400 invited lectures

Professional Experience

- since 2016 Director of Center for Materials Research (ZfM/LaMa), Justus Liebig University (JLU) Giessen
- since 2011 Scientific head of the joint battery lab "BELLA" of BASF SE and KIT at Karlsruhe/Germany, Research Unit Chair at Institute of Nanotechnology
- 2008 Visiting professor, University Aix-Marseille, Marseille, France
- 2008 Chair for Materials Science for Novel Energy Storage Systems at Karlsruhe Institute of Technology offered, declined
- 2004 Visiting professor, Department of Materials Science and Engineering, Seoul National University, Seoul, South Korea
- 2004 Visiting professor, Institute of Multidisciplinary Research on Advanced Materials, Tohoku University, Sendai, Japan
- 2004 Chair for Physical Chemistry/Electrochemistry at Technical University of Dresden offered, declined
- since 1999 Professor (C4, chair) for Physical Chemistry, Justus Liebig University Giessen
- 1999 Professor (C3) for Physical Chemistry, Kiel University
- 1997 Habilitation in Physical Chemistry (venia legendi), Leibniz University Hannover
- 1997–1999 Assistant Professor (C2), Physical Chemistry, Leibniz University Hannover
- 1992–1997 Scientific Assistant (C1), Physical Chemistry, Leibniz University Hannover
- 1992 Dr. rer. nat., Physical Chemistry (Supervisor: Prof. H. Schmalzried), Leibniz University Hannover
- 1989 Diploma in Chemistry, Leibniz University Hannover

1983 Abitur, Gymnasium Adolfinum, Bückeberg
20.08.1964 Born in Bückeberg, Lower Saxony, Germany

Positions in Scientific Organisations

since 2020 Member, Advisory Board, Bavarian Centre for Battery Technology (BayBatt),
Bayreuth, Germany
since 2020 Member, Advisory Board, Centre for Solar Energy and Hydrogen Research Baden-
Württemberg (ZSW), Stuttgart, Germany
2019–2020 1st Chairperson, German Bunsen Society for Physical Chemistry (DBG), Germany
2018–2021 Dean of Department of Biology and Chemistry, JLU Giessen
since 2018 Deputy Chairperson, Advisory Board “Battery Forum Germany“, Federal Ministry of
Education and Research (BMBF), Germany
since 2018 Member, Advisory Board, Battery Research Centre, Münster Electrochemical Energy
Technology (MEET), Westfalian Wilhelms University (WWU) Münster, Münster,
Germany
2017–2022 Member of Research Council of Research Campus of Central Hessen (FCMH), Giessen
2015–2018 Vice-Dean of Department of Biology and Chemistry, JLU Giessen
since 2015 Member of the Scientific Advisory Board of the Max-Planck-Institute for Solid State Research
Stuttgart, Germany
2011–2015 Scientific Member of DFG Senate Committee for Collaborative Research Centres (SFB), DFG
2009–2011 Chairman of BV MatWerk, Head organisation of national societies for materials science and
technology
2007–2009 Chairman of the German University Professors in Chemistry (ADUC)
2007–2009 Member of advisory board of BV MatWerk (German Association of Societies in Materials Science
and Engineering), Delegate of GDCh
2006–2012 Member of Executive Committee, Solid State Research and Materials Science Division, GDCh
2004–2010 Deputy Spokesperson, Review Board for Chemical Solid State Research, DFG, Germany
2004–2006 Vice-rector (research, international affairs, federal/state excellence initiative), JLU Giessen
2001–2003 Dean, Faculty of Biology, Chemistry and Geosciences, JLU Giessen
2000 Vice-Dean, Faculty of Biology, Chemistry and Geosciences, JLU Giessen

Project Coordination, Membership in Collaborative Research Projects

since 2021 Member, Competence Cluster Analytics & Quality Assurance (AQua), BMBF, Germany
since 2021 Applicant, Subproject “Ion- and Electron-conductive hetero-aggregates for
electrochemical applications“, Priority Programme (SPP) 2289, DFG, Germany
since 2020 Applicant, Project “Catalysis mediated by oxygen storage: HCl oxidation reaction by
CeO_{2-x}(111)-based model catalysts“, DFG, Germany
since 2020 Member, Project “NFDI4Ing – National Research Data Infrastructure for Engineering“,
DFG, Germany
since 2019 Member, Cluster of Excellence (EXC) 2154 „POLiS – Post Lithium Storage Cluster of Excellence“,
DFG, Germany
since 2018 Scientific Coordinator, Cluster of Competence for Solid-state Batteries (FestBatt), BMBF, Germany
since 2017 Head, various projects, battery research programmes, BMBF, Germany
since 2016 Scientific Coordinator, German-Israeli Battery School (GIBS), BMBF, Germany
2014–2016 Coordinator of Hessen Graduate School for Electromobility (HGP-E), Germany
2013–2016 Coordinator of LOEWE state research program STORE-E on storage materials, Germany
2010–2018 Head, Interfacial chemistry and 3-D analysis of interfaces of implants and osteoporotic bone,
Transregio (TRR) 79, DFG, Germany

- 2010–2020 Member of International Research Network „Electrochemistry and Batteries“, funded by BASF SE, Ludwigshafen, Germany
- 2002–2008 Scientific Coordinator, DFG priority program 1136 “Substitutional effects in ionic solids (e. g. oxinitrides)”, DFG, Germany
- 1992–1997 Member of SFB 173 „Local dynamics, transport and chemical reactions in ionic crystals“, DFG, Germany

Grants, Awards and Prizes

- 2022 Greve Prize, German National Academy of Sciences Leopoldina
- since 2022 Member, German National Academy of Sciences Leopoldina
- 2022 Honorary Degree, Delft University of Technology (TU Delft), Delft, Netherlands
- 2021 Highly Cited Researcher, Cross-Field – 2021, Web of Science, Clarivate, London, UK
- 2020 Highly Cited Researcher, Cross-Field – 2020, Web of Science, Clarivate, London, UK
- 2016 Wilhelm Jost Memorial Lecture and Wilhelm Jost Commemorative Medal, Göttingen Academy of Sciences and Humanities and German Bunsen Society for Physical Chemistry, Germany
- 2010 WCU-Programm (World Class University), Seoul National University, Seoul, South Korea
- 1999 Gerhard-Hess-Award, DFG, Germany
- 1998 Karl-Winnacker-Award, Karl-Winnacker-Foundation, Hoechst AG, Frankfurt am Main, Germany
- 1998 Nernst-Haber-Bodenstein-Award, German Bunsen Society for Physical Chemistry (DBG), Germany
- 1989 Dr. rer. nat. scholarship, Fund of the Chemical Industry (FCI), Germany

Scientific Publishing

Chair of Editorial Board of “Batteries & Supercaps”, Regional Editor of “Science and Technology of Advanced Materials”, Member of the Editorial Advisory Boards of “Solid State Sciences”, “Progress on Solid State Chemistry”, and “ChemElectroChem”

Giessen, October 2022