

Richard Dronskowski (* November 11, 1961 in Brilon)

Academic Training:

- 1981–1986 Studies of Chemistry and Physics at the University of Münster
1987 Chemistry Diploma with Bernt Krebs and Arndt Simon:
The Crystal Structure of Mn₂O₇
1989 Physics Diploma with Ole Krogh Andersen and Johannes Pollmann:
Calculations of the Electronic Structures of Corner-Sharing M₆X₈ Clusters
1990 Dissertation (s.c.l.) with Arndt Simon at the University of Stuttgart:
Condensed Clusters in Oxides and Arsenides of Molybdenum
1995 Habilitation and *venia legendi* at the University of Dortmund

Professional Experience:

- 1991–1992 Visiting Scientist at Cornell University with Roald Hoffmann
1992–1996 Senior Scientist at the Max Planck Institute for Solid State Research
(Stuttgart) with Arndt Simon
1993–1996 Lecturer at the University of Dortmund
1997–2005 Chair of Inorganic and Analytical Chemistry at RWTH Aachen University;
Director, Institute of Inorganic Chemistry
2004 Guest Professor (Quantum-Theoretical Materials Chemistry) at the Center of
Interdisciplinary Research of Tōhoku University (Sendai)
since 2006 Chair of Solid-State and Quantum Chemistry at RWTH Aachen University;
Director, Institute of Inorganic Chemistry
2013–2017 Director, *ab initio* Simulation Laboratory for Chemistry and Physics,
Jülich-Aachen Research Alliance (JARA-High Performance Computing)
since 2018 Distinguished Chair Professor, Hoffmann Institute of Advanced Materials,
Shenzhen Polytechnic University, Shenzhen, China
2022 Guest Professor at the Institute of Multidisciplinary Research for Advanced
Materials (IMRAM) at Tōhoku University (Sendai)

Scholarships and Awards:

- 1984 German National Academic Foundation
1987–1990 Kekulé Scholarship (Chemical Industry Association)
1990 Otto Hahn Medal (Max Planck Society)
1991–1993 Liebig Scholarship (Chemical Industry Association)
1996 Prize of *Angewandte Chemie*
1997 Chemistry Lecturer Prize (Chemical Industry Association)
2014 Distinguished Professorship (RWTH Aachen University)
2014 M. N. Saha Memorial Lecture (Indian Assoc. Cultivation Science, Kolkata)
2015 Innovation Award (RWTH Aachen University)
2017 Egon Wiberg Lecture (Ludwigs-Maximilians-Universität München)
2024 XingDa Lecture (Peking University, China)

Fields of Research:

Quantum Chemistry (Chemical Bonding, LOBSTER code development, Steel *ab initio*, Phase-Change Materials, Modelling and Phase Prediction, *ab initio* Thermochemistry, *ab initio* ORTEP), Synthetic Solid State Chemistry (Metastable Solids, Nitrides, Carbodiimides, Guanidines, Semiconductors, Intermetallics), Chemical Crystallography (Small Molecules), Neutron Diffraction (POWTEX instrument, Garching)

Memberships:

German Chemical Society (1990–2022), American Chemical Society (1997–2020), German Physical Society (1990–2022), Chinese Chemical Society, Working Association Theoretical Chemistry, World Association of Theoretically Oriented Chemists, German Crystallographic Society

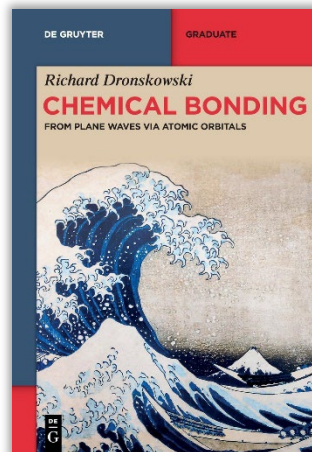
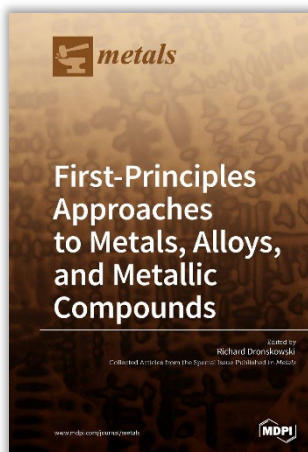
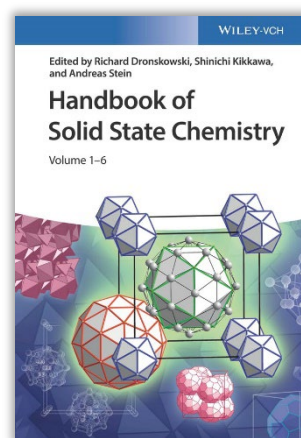
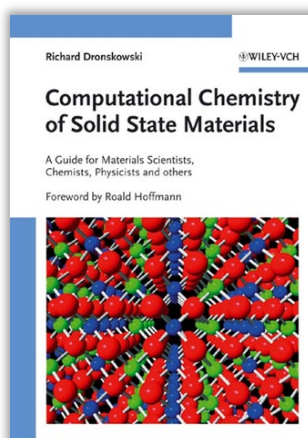
Professional Services:

Editorial Board (*Inorganics, J. Phys.: Condens. Matter*), Elected Member of the Review Board of the *German Research Foundation* (Department “Chemical Solid State Research, Theory and Modelling”, 2008–2012), Elected Member of the Committee *Research with Neutrons* (Department “Infrastructure & Instrumentation”, 2011–2017), Scientific Advisory Board of the *European Spallation Source*, Lund (2017–2020)

Publishing Activities:

- > 570 publications, > 28,000 citations, $h = 70$ according to [Google Scholar](https://scholar.google.com/)

- Author of *Computational Chemistry of Solid State Materials*, Wiley-VCH, Weinheim, New York 2005
- Editor of *Handbook of Solid State Chemistry* in 6 volumes (including 150 authors), Wiley-VCH, Weinheim, New York 2017
- Editor of *First-Principles Approaches to Metals, Alloys, and Metallic Compounds*, MDPI, Basel, Beijing, Wuhan, Barcelona, Belgrade 2018.
- Author of *Chemical Bonding from Plane Waves via Atomic Orbitals*, De Gruyter, Berlin, Boston 2023



- Director of the team behind the **LOBSTER** (Local-Orbital Basis Suite Towards Electronic Structure Reconstruction) software package for chemical-bonding analysis from plane waves: www.cohp.de (> 30,000 licensees worldwide)

