**Richard Dronskowski** (* November 11, 1961 in Brilon)

*Academic Training:*

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| 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 $Mn_2O_7$* |
| 1989 | Physics Diploma with Ole Krogh Andersen and Johannes Pollmann: *Calculations of the Electronic Structures of Corner-Sharing $M_6X_8$ 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:*

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| 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) |
| 2018 | Distinguished Guest Professor, Hoffmann Institute of Advanced Materials, Shenzhen Polytechnic University (Shenzhen) |
| 2022 | Guest Professor at the Institute of Multidisciplinary Research for Advanced Materials (IMRAM) at Tōhoku University (Sendai) |

*Scholarships and Awards:*

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| 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, Beijing) |

*Fields of Research:*

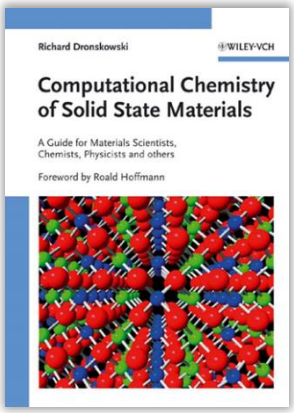
Quantum Chemistry (Chemical Bonding, LOBSTER code development, Steel *ab initio*, Phase-Change Materials, Modelling and Phase Prediction, *ab initio* Thermochemistry, *ab initio* ORTEP), Synthetic Solid State Chemistry (Metastable Solids, Nitrides, Carbodiimides, Guanidinates, Semiconductors, Intermetallics), 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), European Committee for Chemical Bonding, World Association of Theoretically Oriented Chemists, German Crystallographic Society

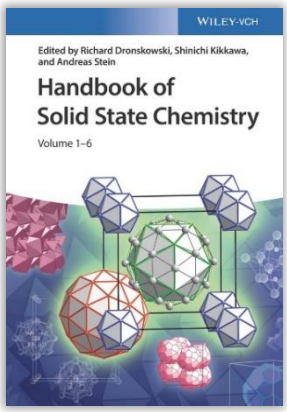
*Professional Services:*
Editorial Board (*Inorganics, J. Phys.: Condens. Matter*), Elected Member of the Review Board of the *German Research Foundation* (Department "Chemical Solid State Research, Theory and Modelling", 2008–2012), Elected Member of the Committee *Research with Neutrons* (Department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

*Publishing Activities:*
- > 600 publications, > 35,000 citations, $h$ = 75 according to *Google Scholar*

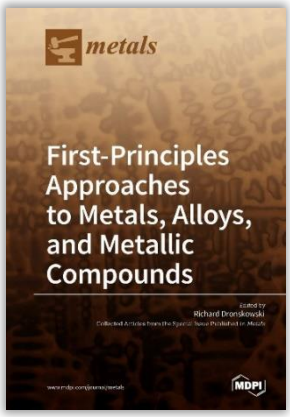
- Author of *Computational Chemistry of Solid State Materials*, Wiley-VCH, Weinheim, New York 2005



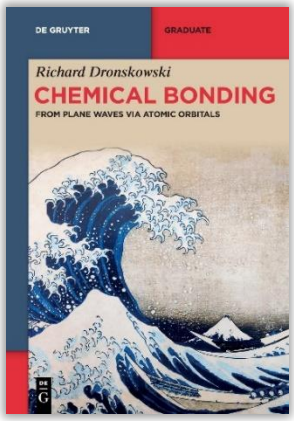

- Editor of *Handbook of Solid State Chemistry* in six volumes (including 150 authors), Wiley-VCH, Weinheim, New York 2017



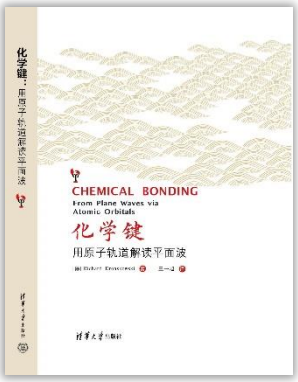

- Editor of *First-Principles Approaches to Metals, Alloys, and Metallic Compounds*, MDPI, Basel, Beijing, Wuhan, Barcelona, Belgrade 2018.




- Author of *Chemical Bonding from Plane Waves via Atomic Orbitals*, De Gruyter, Berlin, Boston 2023




- Author of 化学键：用原子轨道解读平面波 Tsinghua University Press, Beijing 2025




- 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)

- Founder and CEO of **Wellenfunktion GmbH**, CH-4104 Oberwil BL, wellenfunktion.ch, providing scientific consulting and quantum-chemical software development