

CURRICULUM VITAE

Prof. Dr. Edwin Kroke

Address: TU Bergakademie Freiberg
Institute for Inorganic Chemistry
Leipziger Strasse 29
09596 Freiberg (Germany)

PERSONAL INFORMATION

Born on 28th September 1966, in Coburg (Bayern)

Nationality: german

Married, three children

EDUCATION

09/1986 - 07/1992 Chemistry (Diplom), Carl-von-Ossietzky University of Oldenburg
09/1989 - 08/1990 University of Utah, Salt Lake City (USA), Fulbright scholarship
01/1992-07/1992 Diploma Thesis, C. v. University Oldenburg
12/1995 Dissertation (Dr. rer. nat.), inorganic chemistry, Carl v. Ossietzky
University Oldenburg, Prof. Dr. Manfred Weidenbruch
04/2004 Habilitation, materials science, TU Darmstadt, Prof. Dr. Ralf Riedel

POSITIONS

07/1992 – 09/1992 visiting scientist, Toray Industries, Otsu City (Japan), JISTEC-
scholarship
10/1999 – 12/1995 teaching assistant (graduate student), Carl v. Ossietzky University
Oldenburg
04/1996 – 10/1996 management training, RWE AG and Management Akademie (Essen)
11/1996 – 03/2001 postdoc and later junior professor, TU Darmstadt
04/2001 – 06/2002 visiting scientist at the Materials Research Laboratory (Prof. F.F.
Lange), University of California at Santa Barbara (USA)
07/2002 – 03/2003 junior professor, TU Darmstadt
04/2003 – 08/2005 associate professor (C3 Professur), University of Konstanz
since 09/2005 full professor (W3 Professor) TU Bergakademie Freiberg, Institute for
Inorganic Chemistry

PUBLICATIONS AND PATENTS

Publications in peer reviewed international journals ~ 175

Proceedings: ~ 65

Book chapters: 7

File patents: ~45, approved: ~25

HONORS AND AWARDS

1990 Fulbright Scholarship (Germany/USA)

1992 JISTEC-Scholarship (Japan)

2000 Messer-Award of the Adolf-Messer-Foundation

2002 Lynen-Scholarship of the A.v. Humboldt-Stiftung (Germany/USA)

2012 Visiting Professor University Center Zhendong (China)

Ten selected publications of the past five years

1. L. Guan, M. Schwarz, R. Zhang, E. Kroke, *Polymer-precursor derived (am-) SiC/TiC composites for resistive heaters in large volume multi-anvil high pressure/high-temperature apparatus*, High Pressure Research, **36** (2016), 167-186.
2. F. Bitto, E. Brendler, U. Böhme, J. Wagler, E. Kroke, *3,5-Dimethylpyrazolyl substituted di- and trisiloxanes*, Eur. J. Inorg. Chem. **2016**, 4207–4215.
3. C. Posern, U. Böhme, J. Wagler, C.-C. Höhne, E. Kroke, *Arylthio- and arylseleno-substituted s-heptazines*, Chemistry - A European Journal, **2017**, 23(51), 12510-12518.
4. A. Stapf, P. Nattrodt, E. Kroke, *On the Mechanism of the Anisotropic Dissolution of Silicon in Chlorine Containing Hydrofluoric Acid Solutions*, J. Electrochem. Soc., **2018**, 165, H3045-H3050.
5. J. Kowalke, C. Arnold, I. Ponomarev, C. Jager, P. Kroll, E. Brendler, E. Kroke, *Structural Insight into Layered Silicon Hydrogen Phosphates Containing [SiO₆] Octahedra Prepared by Different Reaction Routes*, Eur. J. Inorg. Chem., **2019**, 828–836.
6. C. Schimpf, M. R. Schwarz, C. Lathe, E. Kroke, D. Rafaja, *Effect of the microstructure of graphitic boron nitride on the kinetics of the formation of boron nitride high-pressure phases*, J. Eur. Ceram. Soc., **2019**, 39(4), 944-951.
7. M. Herbig, L. Gevorgyan, M. Pflug, J. Wagler, S. Schwarzer, E. Kroke, *CO₂ Capture with Silylated Ethanolamines and Piperazines*, ChemistryOpen, **2020**, 9, 894-902.
8. J. Kowalke, J. Wagler, C. Viehweger, E. Brendler, E. Kroke, *Ionic Dissociation of SiCl₄: Formation of [SiL₆]Cl₄ with L = Dimethylphosphinic acid*, Chem. Eur. J., **2020**, 26, 8003 – 8006 (hot paper).
9. F. Gründler, H. Scholz, M. Herbig, S. Schwarzer, J. Wagler, E. Kroke, *Formation of Aromatic O-Silylcarbamates from Aminosilanes and Their Subsequent Thermal Decomposition with Formation of Isocyanates*, Eur. J. Inorg. Chem., **2021**, 2211–2224.
10. P. Audebert, E. Kroke, C. Posern, S.-H. Lee, *State of art in the preparation and properties of molecular monomeric s-heptazines: syntheses, characteristics, and functional applications*, Chemical Reviews, **2021**, 121, 2512-2544.