

Curriculum Vitae

Prof. Dr. rer. nat. Wolfgang Schnick

Department of Chemistry · University of Munich (LMU)

current position: Professor for Inorganic Solid-State Chemistry (Chair)
University of Munich (LMU)

education/

course of studies: 1976 Abitur, Schillerschule (Gymnasium), Hannover
1983 Diploma in Chemistry, University of Hannover
1986 Dr. rer. nat., Inorganic Chemistry, University of Hannover
1992 Habilitation in Inorganic Chemistry, University of Bonn

scientific employments/

calls: 1986 - 87 scientific assistant (C1), University of Hannover
1987 - 88 guest scientist, Max-Planck Institute for
Solid-State Research MPI-FKF, Stuttgart
1988 - 93 scientific assistant (C1), University of Bonn
1992 offer C4 Professor for Inorganic and General Chemistry (Chair),
Humboldt University Berlin, declined
1993 - 98 C4 Professor for Inorganic Chemistry (Chair),
University of Bayreuth
1998 - 2006 C4 Professor for Inorganic Solid-State Chemistry (Chair),
University of Munich (LMU)
2005 offer scientific member of the Max-Planck Society and
Director at the Max-Planck Institute for Metals Research MPI-MF,
Stuttgart, declined
2005 offer W3 Professor for Fundamentals of Ceramic Materials (Chair),
University of Stuttgart, declined
Since 2006 W3 Professor for Inorganic Solid-State Chemistry (Chair),
University of Munich (LMU)

scientific awards:

Bennigsen-Foerder Award, Ministry for Science and Research,
Nordrhein-Westfalen (1989)
Heisenberg-Stipendium, Deutsche Forschungsgemeinschaft DFG (1992)
Dozentenstipendium, Fonds der Chemischen Industrie FCI (1992)
Chemistry Award, *Göttingen Academy of Sciences* (1992)
Otto-Klung Award, Free University of Berlin FU (1994)
Gottfried-Wilhelm-Leibniz Award, Deutsche Forschungsgemeinschaft
DFG (1996)
Steinhof-Award, University of Freiburg (1999)
Elected fellow of the *Berlin-Brandenburg Academy of Sciences and Humanities*
(since 2002)
Elected corresponding fellow of the *Bavarian Academy of Sciences* (since 2006)
Horst-Dietrich-Hardt Award, University of Saarland (2006)
Wilhelm-Klemm Award, German Chemical Society GDCh (2007)
Elected fellow of the *German Academy of Sciences Leopoldina* (since 2009)

**further activities/
memberships:**

Management Board Department of Chemistry, University of Munich
LMU (2000 – 02, 2007 – 16), Chairman (2000 – 01, 2010 – 12)
Member of the Scientific Council / Board of Trustees
Fonds der Chemischen Industrie FCI (since 2005)

Member of the editorial advisory boards of the scientific journals
Chemistry of Materials
Journal of Solid State Chemistry
Zeitschrift für Anorganische und Allgemeine Chemie
Zeitschrift für Naturforschung B (Chemical Sciences)

scientific interests:

The research interests of Professor Schnick are dedicated to the discovery, development and application of novel functional materials based on nitrides and oxonitrides of group 13 – 15 elements in combination with alkali, alkaline earth, rare earth metals or hydrogen.

Advanced synthetic approaches are being developed exploiting high-temperature and high-pressure syntheses (multianvil, DAC, solvothermal, ammonothermal) as well as molecular precursor and inorganic polymer chemistry.

New materials are being thoroughly investigated by crystallographic methods (X-ray and neutron diffraction), electron microscopy (ED, HRTEM, EELS, SEM), spectroscopy (solid-state NMR, FTIR, Raman) and with regard to materials properties (e.g. luminescence, nonlinear optical behavior, band gap, magnetism, ionic conductivity or mechanical properties). Structure, stability and properties of materials are being additionally investigated by theoretical methods (DFT and lattice energy calculations).

Recent research highlights of the Schnick group include novel synthetic approaches to nitridoaluminates, nitridosilicates and nitridophosphates, structure elucidation of binary α -P₃N₅ and its high-pressure polymorph γ -P₃N₅, discovery of the first nitridic zeolites (*NPO* and *NPT*) and clathrate structures, ab-initio structure determination of important carbon nitride precursor compounds, e.g. melam, melem and melon as well as the 2-dimensional polymeric carbon nitride-type materials poly(heptazine imide) PHI and poly(triazine imide) PTI.

A major application breakthrough has been achieved by the discovery and development of highly efficient Eu²⁺-doped nitridosilicate, oxonitridosilicate and nitridoaluminate luminescent materials that are now being industrially used for phosphor converted (pc)-LEDs.