

Name: Ulrich Kortz, Ph.D.

Position: Professor of Chemistry

Date of Birth: 8 June 1963

Nationality: German

Education:

1983-1986 Study of Chemistry (B.Sc.), Giessen University, Germany

1986-1989 Study of Chemical Engineering (M.Sc.), Darmstadt University, Germany
(thesis title: Encapsulation of Biologically Active Substances in Polyelectrolyte Microparticles)

1990-1995 Study of Chemistry (Ph.D.), Georgetown University, USA (thesis title: Diphosphate Complexes of Polyoxotungstates and Polyoxomolybdates)

Research areas:

Synthetic inorganic and organometallic chemistry, structural inorganic chemistry, discrete metal-oxides (polyoxometalates), hybrid organic-inorganic assemblies, study of catalytic, magnetic, electrochemical, medicinal, supramolecular properties.

Career:

1995-1996 Postdoc, Università di Firenze, Italy

1996-1997 Postdoc, Université de Versailles, France

1997-2001 Assistant Professor, American University of Beirut (AUB), Lebanon

2001-2002 Associate Professor, American University of Beirut, Lebanon

2002-2007 Associate Professor, International University Bremen (IUB)

2007- Professor, Jacobs University Bremen (formerly IUB)

Honors/Awards:

1995 *Harold N. Glassman award* (Georgetown University, USA)

1995-1996 EU postdoctoral fellowship, Università di Firenze, Italy

1996-1997 *Alfred Kastler* postdoctoral fellowship, Université de Versailles, France

2001 (summer) Visiting Associate Research Professor, Georgetown Univ.

2002 (January) Visiting Professor, Université Paris-Sud, France

2006- Editorial Board Member, *Journal of Cluster Science* (Springer)

2013- Guest Professor of Henan Province, China

2015-2017 President's Internat. Visiting Scientist Fellowship, CAS, Beijing, China

5 most cited publications

Total publications: 285, citations 12015 (*h*-index: 60), 4 book chapters, 14 patents.

1. Polyoxometalates: Fascinating Structures, Unique Magnetic Properties
Kortz, U.; Müller, A.; van Slageren, J.; Schnack, J.; Dalal, N. S.; Dressel, M. *Coord. Chem. Rev.* **2009**, *253*, 2315-2327 (**citations: 396**).
2. Heteropolymolybdates of As^{III}, Sb^{III}, Bi^{III}, Se^{IV} and Te^{IV} Functionalized by Amino Acids
Kortz, U.; Savelieff, M. G.; Abou Ghali, F. Y.; Khalil, L. M.; Maalouf, S. A.; Sinno, D. I. *Angew. Chem. Int. Ed.* **2002**, *41*, 4070-4073 (**citations: 274**).
3. The Wheel-Shaped Cu₂₀-Tungstophosphate [Cu₂₀Cl(OH)₂₄(H₂O)₁₂(P₈W₄₈O₁₈₄)]²⁵⁻ Ion
Mal, S. S.; Kortz, U. *Angew. Chem. Int. Ed.* **2005**, *44*, 3777-3780 (**citations: 272**).
4. Synthesis and Characterization of Copper, Zinc, Manganese and Cobalt-Substituted, Dimeric Heteropolyanions, [(α -XW₉O₃₃)₂M₃(H₂O)₃]ⁿ⁻ (n = 12, X = As^{III}, Sb^{III}, M = Cu²⁺, Zn²⁺; n = 10, X = Se^{IV}, Te^{IV}, M = Cu²⁺) and [(α -AsW₉O₃₃)₂WO(H₂O)M₂(H₂O)₂]¹⁰⁻ (M = Zn²⁺, Mn²⁺, Co²⁺).
Kortz, U.; Al-Kassem, N. K.; Savelieff, M. G.; Al Kadi, N. A.; Sadakane, M. *Inorg. Chem.* **2001**, *40*, 4742-4749 (**citations: 232**).
5. Noble Metals in Polyoxometalates
Izarova, N. V.; Pope, M. T.; Kortz, U. *Angew. Chem. Int. Ed.* **2012**, *51*, 9492-9510 (**citations: 222**).

Third-party funded projects since 2008

- 2008-2010 DFG KO-2288/8-1, "Lanthanide Specific Functionalities in Molecules and Materials", priority program SPP 1166.
- 2008-2010 Industry grant, "Polyoxometalates as Medicinal Contrast Agents".
- 2008-2011 DFG KO-2288/9-1, "Synthesis and Structure of Ti-, Zr- and Hf-Containing Polyoxotungstates and Study of their Oxidation Catalysis Properties".
- 2010-2011 DFG KO-2288/14-1, "Synthesis of Ruthenium Containing Tungstoselenites- and -Tellurites and Investigation of their Catalytic Properties"
- 2010-2012 DFG IZ-60/1-1, "Noble Metal (Pd, Pt and Au) Based Polyoxometalates"
- 2012-2015 DFG KO-2288/20-1, "Highly Robust and Efficient Water Oxidation Catalysts based on Nanoscopic Metal Oxide Species (Polyoxometalates): from Fundamental Science to Devices".
- 2015-2017 Private industry grant, confidential.
- 2016-2017 DAAD-PPP (Serbia), "Polyoxopalladates: ATPases inhibition studies and toxicity evaluation"
- 2016-2019 DFG KO-2288/26-1, "PolyoxoNobleMetalate Chemistry Merged with Metal-Organic Frameworks: A Novel Class of Heterogeneous Catalysts"
- 2018 Australian Nuclear Science and Technology Organisation (ANSTO)
- 2018-2020 Private industry grant, confidential.

Scientific collaborators (within last 5 years)

Austria: Prof. B. Keppler (Vienna Univ.); **Belgium:** Prof. Tatjana Parac-Vogt (KU Leuven); **China:** Prof. Changwen Hu (BIT, Beijing), Prof. Lixin Wu (Jilin Univ.), Prof. Guangjin Zhang (CAS, Beijing); **France:** Pedro de Oliveira; **Germany:** Prof. Roland A. Fischer (TU Munich), Prof. Michael Wark (Oldenburg), Prof. Christa Müller (Bonn Univ.), Dr. Holger Stephan (HZDR, Dresden); Annie Powell (Karlsruhe); **Hungary:** Prof. Imre Tóth (Debrecen); **Italy:** Prof. Marcella Bonchio (Padova), Prof. Roberta Cavalli (Torino), Prof. David Lembo (Torino); **Japan:** Prof. Masahiro Sadakane (Hiroshima Univ.); **Poland:** Prof. Pawel Kulesza (Warsaw); **Romania:** Prof. Cristian Silvestru (Cluj-Napoca); **Serbia:** Prof. Danijela Krstić (Belgrade), Prof. Gordana Ćirić-Marjanović (Belgrade); **Spain:** Prof. Josep M. Poblet (Tarragona Univ.), Prof. Eugenio Coronado (Valencia Univ.), Prof. José Ramón Galán-Mascarós (ICIQ, Tarragona); **USA:** Prof. Naresh Dalal (Florida State University), Prof. Tianbo Liu (The University of Akron)