

## Curriculum Vitae

Address: Ludwig-Maximilian University,  
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Surname Karaghiosoff  
First Name Konstantin  
Date of Birth 27th August 1956  
Place of Birth Sofia (Bulgaria)  
Citizenship Italian  
Marital Status married  
Languages German (fluent), English (fluent), Italian (fluent), Bulgarian (fluent), Russian (basics)

### **Education**

1963 - 1971 Elementary School (year 1-8) in Sofia (Bulgaria)  
1971 - 1975 German School in Genova (Italy), completed with the Abitur

### **Scientific Career**

1975 - 1981 Study of chemistry at the Ludwig-Maximilian University of Munich, completed with Diploma  
1980 - 1981 Diploma thesis under supervision of Prof. Dr. A. Schmidpeter; Topic: 1,3,2-Diazaphospholes  
1981 - 1986 PhD thesis under supervision of Prof. Dr. A. Schmidpeter; Topic: Heterophospholes  
Since 1987 Head of the division NMR spectroscopy and scientific advisor for questions regarding NMR spectroscopy  
Since 1994 Member of the EDV commission of the faculty  
1995 Organizer of the 3rd Workshop "NMR spectroscopy of phosphorus compounds" in Fischbachau near Munich  
1997 Co-organizer of the 4th Workshop "NMR spectroscopy of phosphorus compounds" in Chorin near Berlin  
1997 Habilitation in inorganic chemistry; Topic:  $(RP)_nSe_m$  rings  
2000 Appointment as "Privatdozent" in inorganic chemistry  
1999 - 2001 Substitute for a C3-Professor in inorganic chemistry at the Department of Chemistry of the LMU  
Since 2001 Member of the examiners board of the faculty  
2002 Co-organizer of the 6th International Conference on Inorganic Chemistry AGICHEM 2002 in Munich  
2006 Appointment as Professor for inorganic chemistry at the University of Munich  
2006-2013 President of the Munich Chemical Society

## **Scientific Interests**

### Chemistry of Main Group Elements:

- Phosphorus-chalcogen heterocycles
- Selenophosphinates and selenophosphonates
- Thio-, seleno- and tellurophosphates
- Heterophospholes
- Phosphorus-chalcogen cations
- Functionalized electron-rich phosphines
- Fluorescent complexes of phosphines and phosphine oxides
- Inorganic frameworks with phosphonates and phosphinates
- Phosphonate based porous materials
- Biologically active phosphonates and phosphinates
- Structural characterization of energetic compounds
- Organofluorine chemistry

### One- and two-dimensional multinuclear NMR Spectroscopy:

- Structure elucidation of molecules with modern NMR spectroscopical methods
- Analysis of the NMR spectra of complex spin systems and isotopomeric systems
- NMR spectroscopy of colloid solutions
- Dynamic NMR spectroscopy in solution

## **Publications**

therefrom      A total of 289 publications  
                  274 full papers  
                  5 reviews  
                  10 book contributions

## **Memberships**

GDCh, MChG, Section Magnetic Resonance of the GDCh, Wöhler  
Section of the GDCh, German University Association

## **Editorial Activities**

2002                      Guest Editor for *Heteroatom Chemistry* **2002**, 13, Issue 6.  
Since 2005              European Editor of *Phosphorus, Sulfur, Silicon and the Related  
Elements*

## **Awards**

2002                      Award for Excellent Teaching 2001 of the Bavarian Ministry of  
Science, Research and Art

## List of the most important publications

- 1. Investigation of Structural Changes of Cu(I) and Ag(I) Complexes Utilizing a Flexible, Yet Sterically Demanding Multidentate Phosphine Oxide Ligand**  
Kirst, Ch.; Zoller, F.; Bräuniger, Th.; Mayer, P.; Fattakhova-Rohlfing, D.; Karaghiosoff, K. *Inorg. Chem.* **2021**, *60*, 2437-2445.  
DOI: 10.1021/acs.inorgchem.0c03334
- 2. N-Fluoromethylated (Amino)Tetrazoles: Manipulating Thermal and Energetic Properties**  
Reichel, M.; Wurzenberger, M. H. H.; Lommel, M.; Kofen, M.; Krumm, B.; Stierstorfer, J.; Karaghiosoff, K. *Z. Anorg. Allg. Chem.* **2021**, *647*, 341-349.  
DOI: 10.1002/zaac.202000341
- 3. Coordination Complexes of di(2-pyridyl)ketone with Copper(I) and Their Formation in Solution and Under Solvent-Free Conditions**  
Kirst, Ch.; Reichel, M.; Karaghiosoff, K. *Inorg. Chim. Acta* **2021**, *514*, 119951.  
DOI: 10.1016/j.ica.2020.119951
- 4. Reagents for Selective Fluoromethylation: A Challenge in Organofluorine Chemistry**  
Reichel, M.; Karaghiosoff, K. *Angew. Chem., Int. Ed.* **2020**, *59*, 12268-12281.  
DOI: 10.1002/anie.201913175
- 5. Fluorine in Small Molecules: Fluoromethyl Azide and Chalcogenocyanates**  
Reichel, M.; Egenhöfer, M.; Krumm, B.; Karaghiosoff, K. *Z. Anorg. Allg. Chem.* **2020**, *646*, 328-331. DOI: 10.1002/zaac.202000055
- 6. Correlation between Structure and Energetic Properties of Three Nitroaromatic Compounds: Bis(2,4-dinitrophenyl) Ether, Bis(2,4,6-trinitrophenyl) Ether, and Bis(2,4,6-trinitrophenyl) Thioether**  
Reichel, M.; Dosch, D.; Klapötke, T.; Karaghiosoff, K. *J. Am. Chem. Soc.* **2019**, *141*, 19911-19916. DOI: 10.1021/jacs.9b11086
- 7. Solid-State and Gas-Phase Structures and Energetic Properties of the Dangerous Methyl and Fluoromethyl Nitrates**  
Reichel, M.; Krumm, B.; Vishnevskiy, Y. V.; Blomeyer, S.; Schwabedissen, J.; Stammeler, H.-G.; Karaghiosoff, K.; Mitzel, N. W. *Angew. Chem., Int. Ed.* **2019**, *58*, 18557-18561. DOI: 10.1002/anie.201911300
- 8. Synthesis and Investigation of Highly Energetic and Shock-Sensitive Fluoromethyl Perchlorate**  
Reichel, M.; Krumm, B.; Karaghiosoff, K. *J. Fluorine Chem.* **2019**, *226*, 109351.  
DOI: 10.1016/j.jfluchem.2019.109351
- 9. The Resolution of Acyclic P-Stereogenic Phosphine Oxides via the Formation of Diastereomeric Complexes: A Case Study on Ethyl-(2-methylphenyl)-phenylphosphine Oxide**  
Bagi, P.; Varga, B.; Szilagyi, A.; Karaghiosoff, K.; Czugler, M.; Fogassy, E.; Keglevich, G. *Chirality* **2018**, *30*, 509-522. DOI: 10.1002/chir.22816
- 10. Reversible Oxidative Se-Se Coupling of Phosphine Selenides by Ph<sub>3</sub>Sb(OTf)<sub>2</sub>**  
Poller, M. J.; Burford, N.; Karaghiosoff, K. *Chem. Eur. J.* **2018**, *24*, 85-88.  
DOI: 10.1002/chem.201704753