Lebenslauf

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Persönliche Daten

Geburtsdatum	22. April 1966 in Jülich
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Studium

03/1989 – 04/2002	Hauptstudium im Diplomstudiengang Chemie an der RWTH Aachen University, Abschluss: Diplom in Chemie
04/2002 – 10/2002	Diplomarbeit am Institut für Anorganische Chemie der RWTH Aachen University, Titel: Magnetochemie von $5f^N$-Systemen
11/2002 – 05/2008	Dissertation (Dr. rer. nat.) am Institut für Anorganische Chemie der RWTH Aachen University in der Arbeitsgruppe von Prof. Dr. H. Lueken, Titel der Arbeit: Magnetochemische Analyse und Modellierung von d^N-, $4f^7$- und $5f^N$-Systemen mit dem Computerprogramm CONDON
10/2003	Gastwissenschaftler am Paul Scherrer Institut (PSI), Schweiz, in der Arbeitsgruppe von Prof. Dr. A. Furrer
seit 05/2008	Wissenschaftlicher Mitarbeiter (Postdoc) am Inst. f. Anorg. Chemie der RWTH Aachen in der Arbeitsgruppe von Prof. Dr. P. Kögerler
09/2009	Gastwissenschaftler am Ames Laboratory, USA, in der Arbeitsgruppe von Prof. Dr. M. Luban
seit 09/2011	Praktikumsleiter für die lehramtsbezogenen Bachelorstudiengänge am Institut für Anroganische Chemie

Publikationen 2004 – 2009

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(3) M. Krott, X. Liu, B. Fokwa, M. Speldrich, H. Lueken, R. Dronskowski; Synthesis, Crystal-Structure Determination and Magnetic Properties of Two New Transition-Metal Carbodiimides: CoNCN and NiNCN, *Inorg Chem.* **2007**, 46, 2204-2207.

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(5) F. Hussain, R. W. Gable, M. Speldrich, P. Kögerler, C. Boskovic; Polyoxotungstate-Encapsulated Gd_6 and Yb_{10} Spin Clusters, *Chem. Commun.* **2009**, 3, 328-330.

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(10) S. Biswas, M. Tonigold, M. Speldrich, P. Kögerler, D. Volkmer; Nonanuclear Coordination Compounds Featuring $M_9L_{12}{}^{6+}$ Cores (M = Ni^{II}, Co^{II}, or Zn^{II}; L = 1,2,3-Benzotriazolate) *Eur. J. Inorg. Chem.*, **2009**, 21, 3094-3101.

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Publikationen 2010

(1) I. L. Malaestean, V. C. Kravtsov, M. Speldrich, G. Dulcevscaia, Y. A. Simonov, J. Lipkowski, A. Ellern, S. G. Baca, P. Kögerler; One-Dimensional Coordination Polymers from Hexanuclear Manganese Carboxylate Clusters Featuring a $\{Mn_4^{II}Mn_2^{III}(\mu_4 - O)_2\}$ Core and Spacer Linkers *Inorg. Chem.* **2010**, 49, 7764–7772.

(2) C. Ritchie, E. G. Moore, M. Speldrich, P. Kögerler, C. Boskovic; Terbium Polyoxometalate Organic Complexes: Correlation of Structure with Luminescence Properties, *Angew. Chem. Int. Ed.* **2010**, 49, 7702-7705.

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(4) X. Liu, M. Speldrich, P. Kögerler, R. Dronskowski, A. L. Tchougreeff; Synthesis, Characterization, and Quantum-Chemical Studies of $Ni(CN)_2MX$ (M = Rb, Cs; X = Cl, Br) *Inorg. Chem.* **2010**, 49, 7414-7423.

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(9) X. Fang, M. Speldrich, H. Schilder, R. Cao, K. P. O'Halloran, C. L. Hill, P. Kögerler; Switching slow relaxation in a $Mn_3^{III}Mn^{IV}$ cluster: an example of grafting single-molecule magnets onto polyoxometalates *Chem. Commun.* **2010**, 46, 2760-2762.

(10) S. Biswas, M. Tonigold, M. Speldrich, P. Kögerler, M. Weil, D. Volkmer; Syntheses and Magnetostructural Investigations on Kuratowski-Type Homo- and Heteropentanuclear Coordination Compounds $[MZn_4Cl_4(L)_6]$ (M^{II} = Zn, Fe, Co, Ni, or Cu; L = 5,6-Dimethyl-1,2,3-benzotriazolate) Represented by the Nonplanar $K_3, 3$ Graph *Inorg. Chem.* **2010**, 49, 7424-7434.

(11) X. Tang, H. Xiang, X. Liu, M. Speldrich, R. Dronskowski; The first ferromagnetic carbodiimide: $Cr_2(NCN)_3$ *Angew. Chem. Int. Ed.*, **2010**, 49, 4738–4742.

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(3) S. G. Baca, M. Speldrich, A. Ellern, P. Kögerler; $\{Fe_6O_2\}$-Based Assembly of a Tetradecanuclear Iron Nanocluster *Materials* **2011**, 4, 300-310.

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(6) M.-D. Serb, M. Speldrich, H. Lueken, U. Englert; Isomorphous Catena Transition Metal Squarates $[M^{II}(C_4O_4)(dmso)_2(OH_2)_2]$ (M = Co, Mn) and Magnetic Investigation into their Solid Solution Co_xMn_{1-x} *Z. Anorg. Allg. Chem.* **2011**, 637, 536-542.

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(8) C. Ritchie, M. Speldrich, R. W. Gable, L. Sorace, P. Kögerler, C. Boskovic; Utilizing the Adaptive Polyoxometalate $[As_2W_{19}O_{67}(H_2O)]^{14-}$ To Support a Polynuclear Lanthanoid-Based Single-Molecule Magnet *Inorg. Chem.* **2011**, 50, 7004-7014.

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Publikationen 2012

(1) I. L. Malaestean, M. Kutluca, M. Speldrich, A. Ellern, P. Kögerler; Macrocycles based on magnetically functionalized zirconium oxide clusters *Inorg. Chim. Acta* **2012**, 380, 72-77.

(2) I. L. Malaestean, M. Kutluca-Alici, A. Ellern, J. van Leusen, H. Schilder, M. Speldrich, S. G. Baca, P. Kögerler; Linear, Zigzag, and Helical Cerium(III) Coordination Polymers, Crystal Growth & Design **2012**, 12, 1593-1602.

(3) J. Fielden, M. Speldrich, C. Besson, P. Kögerler; Chiral Hexanuclear Ferric Wheels, *Inorg. Chem.* **2012**, 51, 2734-2736.

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(8) M. Kuiper, M. Speldrich, H. Schilder, H. Lueken; Magnetic Anisotropy of Dichlorobis(η^5-cyclopentadienyl) Complexes of Vanadium, Niobium, and Tantalum, *Z. Anorg. Allg. Chem.* **2012**, submitted.

Präsentationen

08/2003	5th International Conference on f-elements (ICfe'5), Geneva, Switzerland; Titel: The valence state of uranium in $K_6Cu_{12}U_2S_{15}$
05/2007	Colloquium of SPP 1137 "Molekularer Magnetismus", Bad Dürkheim; Titel: Elucidation of the magnetic properties of $4f^7$ systems under consideration of zero field splitting, interatomic spin-spin coupling and applied magnetic filed.
02/2009	Colloquium of SPP 1137 "Molekularer Magnetismus", Bad Dürkheim; Titel: Isomorphous Catena Transition Metal Squarates (M = Co(II), Mn(II)) and magnetic investigation into their solid solutions ($M = Co(II)_xMn(II)_{1-x}$)
05/2009	XVI-th Conference "Physical Methods in Coordination and Supramolecular Chemistry", Chisinau, Republic of Moldova; Titel: A new heptanuclear iron(III) carboxylate cluster
07/2009	Vortrag beim Leverhulme Meeting 2009, Manchester, Großbritanien; Titel: Computational chemistry – The program CONDON –
12/2011	Vortrag an der Universität von Barcelona, Spanien; Titel: A Computational Framework for Molecular Spin Structures: CONDON 2.0

EDV Kenntnisse

Magnetochemie	Programm CONDON (Simulation von Molekularen Magneten) HTSE-Package (Magnetisch konzentierter Systeme)
Betriebssysteme	UNIX (Linux, Solaris, etc.), Windows, MacOS
Sprachen	FORTRAN77, C/C++
Software	MS Office Anwendungen, Origin, CorelDraw Graphic Suite, ChemOffice, ISIS Draw, Sci-finder
Sonstiges	Grundkenntnisse im Bereich Hardware