

Curriculum Vitae

Prof. Dr. Christian Müller

Born: 17.01.1972 in Bielefeld/Germany

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| 1991-1996 | Chemistry studies at the University of Bielefeld/Germany and at the University of Michigan/Ann Arbor, USA. |
| 1995 | Internship in the group of Prof. A. J. Ashe III, University of Michigan, Ann Arbor, USA. Research on aminoboratabenzenes. |
| 1997 | Diploma in Chemistry (<i>with distinction</i>). |
| 1997-2000 | Dissertation in Inorganic Chemistry (Dialkylaminoethyl-functionalized Cyclopentadienyl Complexes of Zirconium and Hafnium) under the supervision of Prof. Dr. Peter Jutzi, University of Bielefeld/Germany (<i>with distinction</i>). |
| 2001 | Postdoc at the University of Rochester, New York/USA with Prof. Dr. W. D. Jones. Inorganic Chemistry. Postdoc-fellowship of the “ <i>Deutsche Forschungsgemeinschaft</i> ” (DFG). Research on carbon-carbon bond activation reactions. |
| 2002 | Postdoc at the University of Amsterdam/The Netherlands with Prof. Dr. P.W.N.M. van Leeuwen, Homogeneous Catalysis. Research on Ni-catalyzed oligomerization of ethylene. |
| 2002-2003 | Junior Researcher at Eindhoven University of Technology/The Netherlands. Inorganic Chemistry and Homogeneous Catalysis. |
| 2004 | Appointment to Assistant Professor for Inorganic Chemistry and Homogeneous Catalysis at Eindhoven University of Technology/The Netherlands. Group: Prof. Dr. Dieter Vogt. |
| 2008 | Vidi award of “The Netherlands Organization for Scientific Research” (NWO). |
| 2011 | Nomination to Associate Professor of Inorganic Chemistry and Homogeneous Catalysis at Eindhoven University of Technology/The Netherlands. Declined for offer from FU Berlin. |
| Since 2/2012 | Full Professor of Inorganic Chemistry at Freie Universität Berlin/Germany (FUB). |

Scientific contributions, honors, awards: Scientific Organizer (with Prof. E. Hey-Hawkins, Leipzig/Germany) of the “*International Conference on Phosphorus, Boron and Silicon (PBSi 2023)*”; Board Member of the Working Group “*Phosphorus Chemistry*” of the German Chemical Society (GDCh); Visiting Professor University of Rennes I, France; Organizer of the “*European Workshop on Phosphorus Chemistry*” (EWPC 2016); Member of the Scientific Advisory Council of the ScienceCampus Phosphorus Research, Rostock, Germany; Member of the Steering Committee “*International Conference on Phosphorus Chemistry*” (ICPC); prestigious Vidi research grant from the Netherlands Organization for Scientific Research for starting an independent career; *ChemComm* price for innovative research in the field of

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ligand design; Price of the „*Rheinisch-Westfälisch-Lippischen Universitätsgesellschaft*“ for the best Ph.D. thesis in Chemistry at the University of Bielefeld/Germany; Postdoc-fellowship of the Deutsche Forschungsgemeinschaft (DFG); IAS-fellowship of the „Deutscher Akademischer Austauschdienst“ (DAAD) for USA; Book-price for the best university-entrance diploma in chemistry.

Research interests: Molecular Inorganic Chemistry, Group-15-Elements in Low Coordination, Organometallic Chemistry, Coordination Chemistry, Molecular Materials, Homogeneous Catalysis

Ten significant contributions of the last 5 years (total 136 publications and 5 book chapters):

ORCID 0000-0003-4700-0502, *h*-index 41, 4834 citations, Scopus: 28.01.2023

1. L. Dettling, N. Limberg, R. Küppers, D. Frost, M. Weber, N. T. Coles, D. M. Andrada, C. Müller. „*Phosphorus Derivatives of Mesoionic Carbenes: Synthesis and Characterization of Triazaphosphole-5-ylidene*→BF₃ Adducts“, *Chem. Commun.* **2023**, 59, 10243-10246. **Hot paper. Cover**
2. T. Görlich, P. Coburger, J. Goicoechea, H. Grützmacher, C. Müller „*The Chemistry of the Cyaphide Anion (C≡P)*“ *Angew. Chem. Int. Ed.* **2023**, e202217749.
3. Nathan T. Coles, Lucie J. Groth, Lea Dettling, Daniel S. Frost, Massimo Rigo, Samuel E. Neale, and Christian Müller „*Triple dehydrofluorination as a route to amidine-functionalized, aromatic phosphorus heterocycles*“ *Chem. Commun.* **2022**, 58, 13580–13583. **Inside Front Cover**
4. E. Yue, A. Petrov, D. S. Frost, L. Dettling, L. Conrad, F. Wossidlo, N. T. Coles, M. Weber, C. Müller „*Highly Flexible Phosphabenzenes: A Missing Coordination Mode of 2,4,6-Triaryl-λ³-Phosphinines*“ *Chem. Commun.* **2022**, 58, 6184.
5. J. Lin, F. Wossidlo, N. T. Coles, M. Weber, S. Steinhauer, T. Böttcher, C. Müller „*Borane Adducts of Aromatic Phosphorus Heterocycles: Synthesis, Crystallographic Characterization and Reactivity of a Phosphine-B(C₆F₅)₃ Lewis Pair*“ *Chem. Eur. J.* **2022**, 28, e202104135.
6. T. Görlich, D. Frost, N. Boback, N. Coles, B. Dittrich, P. Müller, W. D. Jones, C. Müller „*Photochemical C(sp)-C(sp²) Bond Activation in Phosphaalkynes: a New Route to Reactive Terminal Cyaphido Complexes L_nM-C≡P*“ *J. Am. Chem. Soc.* **2021**, 143, 19365-19373.
7. S. Giese, K. Klimov, A. Mikeházi, Z. Kelemen, D. S. Frost, S. Steinhauer, P. Müller, L. Nyulászi, C. Müller „*2-(Dimethylamino)phosphine: A Phosphorus Containing Aniline Derivative*“ *Angew. Chem. Int. Ed.* **2021**, 133, 3625-3630.
8. N. T. Coles, A. Sofie Abels, J. Leitl, R. Wolf, H. Grützmacher, C. Müller „*Phosphine-Based Ligands: Recent Developments in Coordination Chemistry and Applications*“ *Coord. Chem. Rev.* **2021**, 433, 213729.

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9. J. Leitl, M. Marquardt, P. Coburger, D. J. Scott, V. Streitferdt, R. M. Gschwind, C. Müller, R. Wolf
"Facile C=O Bond Splitting of Carbon Dioxide Induced by Metal-Ligand Cooperativity in a Phosphinine Iron(0) Complex"
Angew. Chem. Int. Ed. **2019**, 58, 15407-15411.

10. Anja Wiesner, Simon Steinhauer, Helmut Beckers, Christian Müller, Sebastian Riedel
"[P₄H]⁺[Al(OTeF₅)₄]⁻: Protonation of White Phosphorus with the Brønsted Superacid H[Al(OTeF₅)₄](solv)"
Chem. Sci. **2018**, 9, 7169-7173.