

Univ.-Prof. Dr. Fabian Dielmann



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Expertise: Molecular inorganic chemistry, phosphorus chemistry,
coordination chemistry, organometallic chemistry,
homogeneous catalysis, functional molecules

Academic education and relevant positions

- since 2020 Full professor, Leopold-Franzens-Universität Innsbruck (Austria)
- 2018 Guest professor, Université Paul Sabatier Toulouse III (France)
- 2013-20 Group leader (Habilitation), Westfälische Wilhelms-Universität Münster (Germany, associated with Prof. F. Ekkehardt Hahn)
- 2011-13 Postdoctoral Fellow, University of California, San Diego und University of California, Riverside (USA, Prof. Guy Bertrand)
- 2011 Postdoctoral Fellow, Universität Regensburg (Germany, Prof. Manfred Scheer)
- 2006-11 Doctoral studies (Dr. rer. nat.; eqv. Ph.D.) in Chemistry, Universität Regensburg (Germany, Prof. Manfred Scheer), The Ohio State University (USA, 06/2008 und 01/2007-05/2007, Prof. Malcolm Chisholm), Université Rennes (France, 12/2007, Prof. Régis Réau)
- 2006 Diploma (Dipl.-Chem.; eqv. M.Sc.) in Chemistry, Universität Regensburg (Germany, Prof. Manfred Scheer)
- 2001-05 Studies of Chemistry, University of Regensburg (Germany)

Honors, Awards and other Professional Recognition

- 2020 Karl-Arnold Prize of the North Rhine-Westphalian Academy of Sciences, Humanities and the Arts
- 2019 Prize of the Dr. Otto Röhm Gedächtnisstiftung
- 2019 Heinz Maier-Leibnitz Prize of the DFG and the BMBF
- 2019 Thieme Chemistry Journals Award
- 2018 Wöhler-BASF Young Investigator Prize of the Wöhler-Vereinigung within the GDCh
- 2018 Dozentenpreis of the German Chemical Industry Fund (FCI)
- 2017 EurJIC-Wöhler Young Investigator Prize of the Wöhler-Vereinigung within the GDCh and the European Journal of Inorganic Chemistry
- 2017 Junior Researcher Prize awarded by the Universitätsgesellschaft Münster e.V.
- 2017-20 Emmy Noether Research Group of the DFG

2015-18	Membership of the „Young Academy“ of the North Rhine-Westphalian Academy of Sciences, Humanities and the Arts
2014-17	Liebig Fellowship of the German Chemical Industry Fund
2013-14	Return Fellowship of the Alexander von Humboldt Foundation
2011-13	Feodor Lynen Research Fellowship for postdoctoral researchers of the Alexander von Humboldt Foundation
2012	Doctoral thesis award of the Dr. Alfons Paulus University Foundation
2009	Oral presentation award (6th European Workshop on Phosphorous Chemistry, Florence)
2008	Poster presentation award (Dalton Discussion 11 Conference, Berkeley)
2007-10	Ph.D. fellowship of the German National Academic Foundation
2007	Final degree award of the Dr. Alfons Paulus University Foundation
2005-06	Scholarship candidate of the German National Academic Foundation
2005	Bachelor degree award of the German Chemical Society (GDCh)
2004	Undergraduate studies award of the Dr. Alfons Paulus University Foundation
2000	Book award of the German Chemical Industry Fund (FCI)

Selected publications

(For a full list of publications, please see ORCID: <https://orcid.org/0000-0002-7025-5450> or Google scholar: <https://scholar.google.de/citations?user=2bdhlnkAAAAJ&hl=de>)

1. Photoswitchable Nitrogen Superbases: Using Light for Reversible Carbon Dioxide Capture; L. F. B. Wilm, M. Das, D. Janssen-Müller, C. Mück-Lichtenfeld, F. Glorius, F. Dielmann, *Angew. Chem. Int. Ed.* **2022**, e202112344; <https://doi.org/10.1002/anie.202112344>
2. NHC and NHC Complex Synthesis by Chloronium Ion Abstraction from 2-Chloroazolium Salts Using Electron-Rich Phosphines; M. D. Böhme, T. Eder, M. B. Röthel, P. D. Dutschke, L. F. B. Wilm, F. E. Hahn, F. Dielmann *Angew. Chem. Int. Ed.* **2022**, e202202190; <https://doi.org/10.1002/anie.202202190>
3. Heterobimetallic complexes composed of bismuth and lithium carboxylates as polyurethane catalysts – alternatives to organotin compounds; E. Levent, O. Sala, L. F.B. Wilm, P. Löwe, F. Dielmann *Green Chem.* **2021**, 23, 2747-2755; DOI: [10.1039/D1GC00446H](https://doi.org/10.1039/D1GC00446H)
4. Oxophosphonium-alkyne metathesis via isolable 1,2-oxaphosphete intermediates; P. Löwe, M. Feldt, M. A. Wünsche, L. F. B. Wilm, F. Dielmann, *J. Am. Chem. Soc.* **2020**, 142, 9818-9826; <https://pubs.acs.org/doi/10.1021/jacs.0c03494>
5. Isolation, characterization and reactivity of three-coordinate phosphorus dications isoelectronic to alanes and silylium cations; P. Mehlmann, T. Wittler, L. F. B. Wilm, F. Dielmann, *Nat. Chem.* **2019**, 11, 1139-1143; <https://doi.org/10.1038/s41557-019-0348-0>
6. Reversible CO₂ fixation by N-heterocyclic imines forming water-stable zwitterionic nitrogen-base–CO₂ adducts; L. F. B. Wilm, T. Eder, C. Mück-Lichtenfeld, P. Mehlmann, M. Wünsche, F. Buß, F. Dielmann, *Green. Chem.*, **2019**, 21, 640; <https://doi.org/10.1039/C8GC02952K>

7. Lewis Base Free Oxophosphonium Ions: Tunable, Trigonal-planar Lewis Acids;
M. Wünsche, T. Witteler, F. Dielmann,
Angew. Chem. Int. Ed. **2018**, *57*, 7234-7239; <https://doi.org/10.1002/anie.201802900>
8. Nucleophilic Activation of Sulfur Hexafluoride: Metal-free, Selective Degradation by Phosphines;
F. Buß, C. Mück-Lichtenfeld, P. Mehlmann, F. Dielmann,
Angew. Chem. Int. Ed. **2018**, *57*, 4951-4955; <https://doi.org/10.1002/anie.201713206>
9. Reversible Carbon Dioxide Binding by Simple Lewis Base Adducts with Electron-Rich Phosphines;
F. Buß, P. Mehlmann, C. Mück-Lichtenfeld, K. Bergander, F. Dielmann,
J. Am. Chem. Soc. **2016**, *138*, 1840-1843; <https://doi.org/10.1021/jacs.5b13116>
10. Imidazolin-2-ylidenaminophosphines as Highly Electron-Rich Ligands for Transition-Metal Catalysts;
M. A. Wünsche, P. Mehlmann, T. Witteler, F. Buß, P. Rathmann, F. Dielmann,
Angew. Chem. Int. Ed. **2015**, *54*, 11857-11860; <https://doi.org/10.1002/anie.201504993>