



Dr. Peter Coburger

Emmy-Noether Research Group Leader



peter.coburger@tum.de | Department of Chemistry, TU München, Germany | @CoburgerPeter
+49 (0)89 289 13132 | <https://www.professoren.tum.de/tum-junior-fellows/coburger-peter>

Education & Research Experience

Emmy-Noether Research Group Leader

Carbene- and phosphonium substituted heterocycles for sustainable catalysis" (CarPhoScaT)

TU Munich

since 2024

Liebig Junior Research Group Leader

Carbene-substituted heterocycles for sustainable catalysis

TU Munich

01/2023 - 2024

Postdoctoral researcher

with Prof. Hansjörg Grützmacher, Research on main-group biradicaloids

ETH Zurich

06/2020 – 12/2022

Postdoctoral researcher

with Prof. Robert Wolf, Computational and experimental investigations on first-row transition-metal complexes

*University of
Regensburg*

04/2019 – 05/2020

Research stay at the group of Prof. Robert Wolf

collaboration as part of the PhD project

*University of
Regensburg*

08/2016 – 10/2016

Doctoral project

A carborane-substituted 1,2-Diphosphetane as Building Block for the Development of new Ligands with Potential Application in Homogeneous Catalysis, grade: summa cum laude) under the supervision of Prof. Dr. Dr. h.c. mult. E. Hey-Hawkins, associated member of the Leipzig Graduate School of Natural Sciences – Building with Molecules and Nano-objects (BuildMoNa)

*University of
Leipzig*

10/2015 – 4/2019

Research stays as part of the M.Sc. chemistry studies

Advanced laboratory course and experimental for the M.Sc. thesis in the group of Dr. Petr Kilian

*University of St.
Andrews*

07/2014 – 09/2014;
5/2015 – 7/2015

M.Sc. Chemistry

overall grade: 1.3, Masters's Thesis: Reactivity of rigid Backbone-supported Diphosphanes, grade: 1.0

*University of
Leipzig*

10/2013 – 9/2015

B.Sc. Chemistry

overall grade: 1.4, B.Sc. Thesis: Synthese *P*-chiraler Phosphansulfide als Vorläufer von Phosphanliganden für die Homogene Katalyse, grade: 1.0

*University of
Leipzig*

10/2010 – 9/2013

High school degree

(Abitur, grade: 1.0)

Gymnasium Greiz

05/2010

Scientific Output

Research works: 37, **h-index:** 11, **i10-index:** 11, **Number of citations:** 352 (determined from Google Scholar, 09.01.2024)

Teaching Experience

Supervision of a Highschool Research Project	<i>ETH Zurich</i> 02/2021
Supervision of a Laboratory Course in Analytical Chemistry (for first semester students in biology)	<i>University of Regensburg</i> 06/2019
Seminar in General Chemistry (for first semester students in medicine)	<i>ETH Zurich</i> 06/2020 – 12/2022
Supervision of Advanced Laboratory Courses (for master's students, organometallic and inorganic chemistry)	<i>University of Leipzig</i> 10/2018 – 03/2019
Tutorials and Seminars Physical Chemistry, Inorganic Chemistry and Organic Chemistry for undergraduate chemistry students (2 nd to 4 th semester)	<i>University of Leipzig</i> 04/2012 – 12/2014

Scholarships & Awards

Emmy-Noether Fellowship	<i>2024</i>
Liebig Fellowship	<i>2023</i>
Research Fellowship (Postdoc, funded by DFG)	<i>2020</i>
BuildMoNa Award (3rd place) for "Outstanding Scientific Results"	<i>2020</i>
PhD Fellowship (Studienstiftung des Deutschen Volkes)	<i>2016</i>
Fellowship of the Studienstiftung des Deutschen Volkes (Chemistry Studies)	<i>2014</i>
Deutschlandstipendium	<i>2014</i>

Outreach

Guest Editor

joint special collection **Non-Innocent Ligands in Sustainable Catalysis** (European Journal of Inorganic Chemistry, ChemCatChem, Chemistry Open)

2023- 2024

Author for the “Nachrichten aus der Chemie”

Joint author of the “Blickpunkt Anorganik” for the “Nachrichten aus der Chemie” (monthly issued magazine of the German Chemical Society).

2022 - 2023

Organisation and supervision of the “Vierländerwettbewerb”

Chemical Olympiad for senior high school students from Berlin, Brandenburg, Sachsen and Sachsen-Anhalt

2013 - 2015

Member of the “Friends of the Chemical Olympiad” (Förderverein Chemieolympiade, FChO).

since 2013

Member of the German Chemical Society (Gesellschaft Deutscher Chemiker, GDCh)

since 2010

Conferences & Summer Schools

6th EuChemS Inorganic Chemistry Conference

„Phosphonium-Substituted Diphospha-indenylide (PPI): electronic structure and ligand properties” (Poster presentation)

Vienna

09/2023

6th International Conference on Phosphorus, Boron, Silicon (PBSi),

„From Polycycles with a $[C_3P_3]^{2-}$ core to a Triphosphinine in Single-Electron Redox Steps” (oral presentation)

Berlin

03/2023

Chemiedozententagung

Dresden

03/2023

44th International Conference on Coordination Chemistry (ICCC)

„From Wade-Mingos clusters to Huckel-Aromatics in single-electron transfer steps” (oral presentation)

Rimini

08/2022

18th European Workshop on Phosphorus Chemistry (EWPC)

„Redox-chemistry of a carbene-stabilised Triphosphinine Dianion” (poster presentation)

Rostock

09/2022

Inorganic Colloquium

„Oxidative P-P Bindungsaddition an 3d-Übergangsmetalle“ (oral presentation)

Hirschegg

08/2019

16th Mitteldeutsches Anorganiker-Nachwuchssymposium (MANS),

„Neue Zugänge zu Phosphanliganden mit nido-Carboranrückgrat“ (oral presentation)

Jena

09/2018

15th European Workshop on Phosphorus Chemistry (EWPC)

„Oxidative P-P Bond Addition to Cobalt(-I)“ (oral presentation)

Uppsala

03/2018

6th Annual Conference of the Graduate School BuildMoNa (ABC)

„Oxidative P-P Bond Addition to Cobalt(-I)“ (oral presentation)

Leipzig

03/2018

Summer School “Electronic Structure and Spectroscopy of Transition Metal Complexes”

Gelsenkirchen

09/2017

Inorganic Colloquium

„Oxidative Additionsreaktion von carboran-substituierten Diphosphetanen mit Bis(1,5-cyclooctadien)cobaltat(-I)“ (oral presentation)

Hirschegg

08/2017

22nd European Conference on Organometallic Chemistry (EuCOMC)

“Synthesis and Characterisation of a Homoleptic Cobalt(III)-phosphanido Complex“ (poster presentation)

Amsterdam

07/2017

5th Annual Conference of the Graduate School BuildMoNa (ABC)

„Ortho-Carborane as backbone for the development of hemilabile ligands“ (oral presentation)

Leipzig

03/2017

42nd International Conference on Coordination Chemistry (ICCC)

„Synthesis of Tetradentate Ligands starting from Carborane-substituted 1,2-Diphosphetanes“ (poster presentation)

Brest

07/2016

13th European Workshop on Phosphorus Chemistry (EWPC)

„Synthesis of new Bisphosphanes starting from carborane-substituted 1,2-Diphosphetanes “ (poster presentation)

Berlin

03/2016