



Dr. Peter Coburger

Emmy-Noether Research Group Leader



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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

ETH Zurich

02/2021

Supervision of a Laboratory Course in Analytical Chemistry

(for first semester students in biology)

University of

Regensburg

06/2019

Seminar in General Chemistry

(for first semester students in medicine)

ETH Zurich

06/2020 – 12/2022

Supervision of Advanced Laboratory Courses

(for master's students, organometallic and inorganic chemistry)

University of

Leipzig

10/2018 – 03/2019

Tutorials and Seminars

Physical Chemistry, Inorganic Chemistry and Organic Chemistry for undergraduate chemistry students (2nd to 4th semester)

University of

Leipzig

04/2012 – 12/2014

Scholarships & Awards

Emmy-Noether Fellowship

2024

Liebig Fellowship

2023

Research Fellowship (Postdoc, funded by DFG)

2020

BuildMoNa Award (3rd place) for "Outstanding Scientific Results"

2020

PhD Fellowship (Studienstiftung des Deutschen Volkes)

2016

Fellowship of the Studienstiftung des Deutschen Volkes (Chemistry Studies)

2014

Deutschlandstipendium

2014

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