

CORNELIUS GROPP

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EDUCATION

PhD & MS, Swiss Federal Institute of Technology (ETH) , Zurich, Switzerland	2013 – 2018
BS Chemistry, University of Heidelberg , Heidelberg, Germany	2007 – 2012
Research abroad program, The Scripps Research Institute , La Jolla, USA	2012 – 2013
Study abroad program, École Polytechnique , Palaiseau, France	2011 – 2012

EMPLOYMENT

Postdoctoral Researcher, UC Berkeley , Berkeley, USA	2018 – present
Graduate Researcher, Swiss Federal Institute of Technology (ETH) , Zurich, Switzerland	2014 – 2018
Civil Servant of the German Government, Chaitanya Special School , Kundapura, India	2008 – 2009

FELLOWSHIPS & AWARDS

Postdoctoral Fellowship , German National Academy of Sciences, Leopoldina	2020 – present
Postdoctoral Fellowship , Swiss National Science Foundation	2018 – 2020
ETH Medal for an outstanding doctoral thesis	2019
Doctoral Fellowship of the German Academic Scholarship Foundation (Studienstiftung)	2015 – 2018
Participant in the 67 th Lindau Nobel Laureate Symposium in Chemistry	2017
1st Poster Prize and Travel Award in Organic Chemistry, Swiss Chemical Society Fall Meeting	2017
Undergraduate Fellowship , German Academic Scholarship Foundation (Studienstiftung)	2010 – 2014
Biogen Idec Innovation Award , ETH Zurich	2014
<i>Redox-switchable resorcin[4]arene cavitands: molecular grippers</i>	

RESEARCH EXPERIENCE

Postdoctoral Fellow with Prof. O. M. Yaghi, UC Berkeley , USA	2018 – present
<i>Design of higher valency in covalent organic frameworks</i>	
PhD Student with Prof. F. Diederich, ETH Zurich , Switzerland	2014 – 2018
<i>Molecular recognition with enantiopure alleno-acetylenic cage receptors</i>	
Research intern with Dr. R. Löönd, Novartis Institute for Biomedical Research , Switzerland	2014
<i>Autoimmunity, transplantation, and inflammatory disease department</i>	

Undergraduate researcher with Prof. F. Diederich, ETH Zurich , Switzerland <i>Synthesis and investigation of alleno-heteroaryl oligomers</i>	2013
Undergraduate researcher with Prof. E. M. Carreira, ETH Zurich , Switzerland <i>Synthesis and conformational study of partially fluorinated alkoxy groups</i>	2013
Visiting undergraduate researcher with Prof. P. S. Baran, Scripps Research Institute , USA <i>Total synthesis of terpene natural products</i>	2012 – 2013
Visiting undergraduate researcher with Prof. F. Gagosz, École Polytechnique , France <i>Transition-metal catalyzed oxidative cyclization of alkynyl aziridines</i>	2011 – 2012

TEACHING EXPERIENCE

Supervision, <i>Master Thesis</i> : E. Wirth and F. W. Goetzke, ETH Zurich	2016 – 2017
Teaching Assistant, Lecturer, <i>Organic Chemistry VII – Supramolecular Chemistry</i> , ETH Zurich	2017
Laboratory Assistant, <i>Organic Chemistry I</i> , ETH Zurich	2015
Teaching Assistant, <i>Organic Chemistry II</i> , ETH Zurich	2014

OUTREACH EXPERIENCE

Participant in the 67 th Lindau Nobel Laureate Symposium in Chemistry	2017
Member of the Behringer-Simon-Lecture graduate committee at ETH Zurich <i>Organization of student-invited lectures</i>	2016 – 2017

LIST OF PUBLICATIONS & PATENTS

- C. Gropp, T. Ma, N. Hanikel, O. M. Yaghi, *Science*, *accepted research article*. Design of Higher Valency in Covalent Organic Frameworks.
- C. Gropp, O. M. Yaghi, *US Patent* 63/080,786. Covalent organic frameworks from borophosphonic acids.
- H. L. Nguyen, C. Gropp, Y. Ma, C. Zhu, O. M. Yaghi, *manuscript in preparation*. Selective Formation of a Three-Dimensional Covalent Organic Framework Topology by Conformational Design.
- C. Gropp,* S. Canossa,* S. Wuttke,* F. Gándara,* Q. Li,* L. Gagliardi,* O. M. Yaghi,* *ACS Central Science* **2020**, *6*, 1255–1273. Standard Practices of Reticular Chemistry.
- H. L. Nguyen, C. Gropp, O. M. Yaghi, *J. Am. Chem. Soc.* **2020**, *142*, 2771–2776. Reticulating 1D Ribbons into 2D Covalent Organic Frameworks by Imine and Imide Linkages.
- C. Gropp, F. Fischer, T. Husch, N. Trapp, E. M. Carreira, F. Diederich, *J. Am. Chem. Soc.* **2020**, *142*, 4749–4755. Molecular Recognition and Co-crystallization of Methylated and Halogenated Fragments of Danicalipin A by Enantiopure Alleno-Acetylenic Cage Receptors.
- C. Gropp, T. Husch, N. Trapp, M. Reiher, F. Diederich, *Angew. Chem. Int. Ed.* **2018**, *57*, 16296–16301; *Angew. Chem.* **2018**, *130*, 16534–16539. Hydrogen-Bonded Networks: Molecular Recognition of Cyclic Alcohols in Enantiopure Alleno-Acetylenic Cage Receptors.

- 5 [C. Gropp](#),* N. Trapp, *Chimia* **2018**, *72*, 245–248. Complexation and Structure Elucidation of the Axial Conformers of Mono- and (\pm)-*trans*-Disubstituted Cyclohexanes by Enantiopure Alleno-Acetylenic Cage Receptors.
- 4 [C. Gropp](#), B. L. Quigley, F. Diederich, *J. Am. Chem. Soc.* **2018**, *140*, 2705–2717. Molecular Recognition with Resorcin[4]arene Cavitands: Switching, Halogen-Bonded Capsules, and Enantioselective Complexation. (*JACS Spotlight*)
- 3 [C. Gropp](#), T. Husch, N. Trapp, M. Reiher, F. Diederich, *J. Am. Chem. Soc.* **2017**, *139*, 12190–12200. Dispersion and Halogen-Bonding Interactions: Binding of the Axial Conformers of Monohalo- and (\pm)-*trans*-1,2-Dihalocyclohexanes in Enantiopure Alleno-Acetylenic Cages. (*JACS Cover Article and Spotlight*)
- 2 [C. Gropp](#), N. Trapp, F. Diederich, *Angew. Chem. Int. Ed.* **2016**, *55*, 14444–14449; *Angew. Chem.* **2016**, *128*, 14659–14664. Alleno-Acetylenic Cage (AAC) Receptors: Chiroptical Switching and Enantioselective Complexation of *trans*-1,2-Dimethylcyclohexane in a Diaxial Conformation. (*F1000 Prime Highlight*, Pharmacology and Drug Discovery)
- 1 I. Pochorowski, J. Milić, D. Kolarski, [C. Gropp](#), W. B. Schweizer, F. Diederich, *J. Am. Chem. Soc.* **2014**, *136*, 3852–3858. Evaluation of Hydrogen Bond Acceptors for Redox-Switchable Resorcin[4]arene Cavitands.

PRESENTATIONS

Conferences and Workshops

American Chemical Society Fall Meeting, San Francisco – virtual **2020**, USA

Advances in reticular chemistry: the design and synthesis of new 2D and 3D covalent organic framework topologies

[C. Gropp](#), H. L. Nguyen, O. M. Yaghi

Kavli Energy NanoScience Institute Retreat **2020**, Berkeley, USA

GDCh Scientific Forum Chemistry **2017** – Anniversary Congress “GDCh – 150 Years”. Berlin, Germany

Chiral Recognition Purely by Dispersion and Halogen-Bonding Interactions – 150 Degrees of Cyclohexane

[C. Gropp](#), T. Husch, N. Trapp, M. Reiher, F. Diederich

Swiss Chemical Society, Fall Meeting **2017**, Bern, Switzerland

Chiral Recognition by Dispersion and Halogen-Bonding Interactions

[C. Gropp](#), T. Husch, N. Trapp, M. Reiher, F. Diederich

Gordon Research Conference (GRC) **2017**, Les Diablerets, Switzerland

Alleno-Acetylenic Cage Receptors: Chiroptical Switching and Enantioselective Complexation

[C. Gropp](#), T. Husch, N. Trapp, M. Reiher, F. Diederich

International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC) **2016**, Seoul, South Korea

Molecular Recognition with Enantiopure Cage Receptors

[C. Gropp](#), N. Trapp, F. Diederich

Swiss Chemical Society Spring Meeting **2016**, Zurich, Switzerland

Alleno-Acetylenic Cage (AAC) Receptors: Molecular Recognition

[C. Gropp](#), N. Trapp, F. Diederich