

Curriculum Vitae

PERSONAL DATA

Name: **Bartholomäus Pieber**
Citizenship: Austria
Date of Birth: February, 5th 1988
Research ID: E-9121-2013
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EXPERIENCE

Starting June 2023 **Assistant Professor** at the Institute of Science and Technology Austria (ISTA), Klosterneuburg, Austria
Jan. 2018 – present **Group Leader** at the Max Planck Institute of Colloids and Interfaces (MPICI), Potsdam, Germany
April 2020 – present **Lecturer (Dozent)** at the University of Potsdam, Germany
Sept. 2022 – Oct. 2022 **Visiting Associate** at the California Institute of Technology (Caltech), Pasadena, CA, US
Jan. 2016 – Dez. 2017 **Postdoctoral researcher** with Prof. P. H. Seeberger at the Max Planck Institute of Colloids and Interfaces, Potsdam, Germany
Aug. 2015 – Dez. 2015 **Postdoctoral researcher** with Prof. C. O. Kappe at the Institute of Chemistry, University of Graz, Austria

HIGHER EDUCATION

August, 20th 2015 **PhD in Natural Science** (with distinction)
Nov. 2011 – Aug. 2015 **Doctoral thesis:** "Organic Chemistry in Single- and Multiphase Continuous Flow Regimes" under the supervision of Prof. C. Oliver Kappe at the Institute of Chemistry, University of Graz, Austria
November, 24th 2011 **Master's degree in chemistry** (with distinction)
Mar. 2011 – Nov. 2011 **Master thesis:** "Process Intensification in C-H Activation - Direct Arylation of Unactivated Benzene with Aryl Halides" under the supervision of Prof. C. Oliver Kappe at the Institute of Chemistry, University of Graz, Austria
2009-2011 Master studies of Chemistry at the University of Graz and Graz University of Technology, Austria
August, 31st 2009 **Bachelor's Degree in Chemistry**
Mar. 2009-Sep. 2009 **Bachelor thesis:** "Synthesis and analysis of sterol glycosides" under the supervision of Prof. Martin Mittelbach at the Institute of Chemistry, University of Graz, Austria
2006-2009 Bachelor studies of Chemistry at the University of Graz and Graz University of Technology, Austria

FURTHER EDUCATION

2019 Seminar "Leadership in a Junior Research Group", April 1, **2019**, Frankfurt, Germany

RESEARCH GRANTS

Total third-party funding granted: ~1 900 000 €

2023 Project grant, Cluster of Excellence, Unifying Systems in Catalysis (UniSysCat) - German Science Foundation - German Excellence Initiative (DFG)

2022 Plus 3 Perspectives Programme - Boehringer Ingelheim Foundation 2021 Research Grant - German Science Foundation

2019 Project grant, Cluster of Excellence, Unifying Systems in Catalysis (UniSysCat) - German Science Foundation - German Excellence Initiative (DFG)

2018 Project grant, International Max Planck Research School (MPI)

2018 Liebig Fellowship - German chemical Industry Funds (VCI)

AWARDS

2022 JSP Fellowship - Bürgenstock Conference (*Swiss Chemical Society, SCS*)

2020 Thieme Chemistry Journals Award (*Thieme*)

2018 Brandenburg Post-Doc Award (*Ministry of Science, Research & Cultural Affairs*)

2018 Science Award (*Austrian Chemical Society GÖCH*)

2017 Inventor Award (*University of Graz*)

2016 Doctoral Thesis Award (*Austrian Chemical Society GÖCH*)

2015 Merit Scholarship (*University of Graz*)

2013 IUPAC Poster Prize (*Bi-Annual Meeting of the Austrian Chemical Society*)

2013 Presentation Award (*DocDays, University of Graz*)

2012 Award of the Doctoral School (*University of Graz*)

2011 Merit Scholarship (*University of Graz*)

SCIENTIFIC AFFILIATIONS

Since 2020 GeCatS (German Catalysis Society)

Since 2018 GDCh (German Chemical Society)

Since 2018 Verein zur Förderung der Forschung an Biomolekularen Systemen e.V.

Since 2011 GÖCH (Austrian Chemical Society)

BOARD MEMBERSHIPS & SERVICE IN SCIENTIFIC SOCIETIES

Since 2021 Member of the executive Board of the Cluster of Excellence Unifying Systems in Catalysis (UniSysCat)

Since 2020 Vice-chairman of the local GDCh section in Potsdam

TEACHING & SUPERVISION

- Since 2018 Supervisor of 9 PhD students, 1 visiting PhD student, 3 Master students, 2 Bachelor students, 2 interns
- 2020 - 2021 Teaching at the University of Potsdam:
- Organic Chemistry I (lecture course, 3 SWS, WS 2021/2022)
 - Organic Chemistry II (lecture course, 2 SWS, WS 2021/2022)
 - Flow chemistry (lecture course, 2 SWS, WS 2020/2021)
 - Advanced Organic Chemistry (lecture course, 3 SWS; SS 2020)
 - Advanced Organic Chemistry (seminar, 2 SWS; SS 2020)
- 2011 - 2017 Co-supervision of several postdocs, PhD and MSc students in research projects on single- and multiphase continuous flow processing techniques.
- 2009 - 2015 Teaching at the University of Graz.
- General Chemistry Laboratory (lab course)
 - Organic Chemistry Laboratory for Bachelor students (lab course)
 - Organic Chemistry Laboratory for Master students (lab course)
 - Chemical Informatics (lecture course)

RESEARCH GROUP

<u>Name</u>	<u>Role</u>	<u>Before PieberLab</u>
Lucia Anghileri	PhD student (since 2021)	HU Berlin & MPICI
Haralds Baunis	MSc student (since 2022)	FU Berlin
Aleksander Benda	PhD student (since 2022)	University of Thessaloniki
Valerio Cerrato	PhD student (since 2022)	University of Turin
Christos Giannoudis	PhD student (since 2022)	University of Thessaloniki

ALUMNI

<u>Name</u>	<u>Role</u>	<u>Position after PieberLab</u>
Sho Murakami	visiting PhD student (2022)	PhD Student, Kyoto Univ. - Takemoto Lab
Amiera Madani	PhD Student (2019 – 2022)	--
Moritz Bachmann	Intern (2022)	Student, University of Potsdam
Colm Maye	Intern (2022)	Student, University College Cork
Tommaso Bertolin	MSc Student (2021 – 2022)	Student, University of Padua
Susanne Reischauer	PhD Student (2019 – 2022)	Postdoc, Northwestern Univ. - Farha Lab
Sebastian Gisbertz	PhD Student (2018 – 2021)	Advanced Scientist, Momentive
Cristian Cavedon	PhD Student (2018 – 2021)	Postdoc, MIT - Jamison Group
Noah Richter	BSc Student (2020)	MSc Student, LMU Munich

ORGANIZATION OF SCIENTIFIC EVENTS

- 2022 Organization of the "Regional Meeting of Fellows of the German Chemical Industry Fonds", December 8, **2022**, Potsdam, Germany
- 2022 Organization of the workshop "Photocatalysis: Enlightening Organic Chemistry", October 17-20, **2022**, Leiden, Netherlands
- 2019 Organization of the "Ringberg Conference 2019", September 2-6, **2019**, Kreuth, Germany
- 2018 Organization of the "7th Biomolecular Systems Day", December 13, **2018**, Potsdam, Germany
- 2014 Organization of the "DocDays & Summer School 2014" June 5-6, **2013**, Graz, Austria

REFeree FOR SCIENTIFIC JOURNALS

Nature Catalysis, Journal of the American Chemical Society, Angewandte Chemie International Edition, Chemical Science, Science Advances, Nature Communications, JACS Au, ACS Sustainable Chemistry & Engineering, ACS Organic & Inorganic Au, Synthesis, Chemistry a European Journal, iScience, ACS Applied Materials & Interfaces, Advanced Synthesis & Catalysis, Journal of Organic Chemistry, European Journal of Organic Chemistry, ChemCatChem, ChemSusChem, Organic Process and Research Development, Advanced Energy Materials, Photochemical & Photobiological Sciences, Beilstein Journal of Organic Chemistry, Catalysis Letters, Journal of Flow Chemistry, Monatshefte für Chemie – Chemistry Monthly,...

EDITORIAL WORK

2022 - 2023 Guest editor *ChemCatChem*

2020 Guest editor *Frontiers in Chemical Engineering*

INVITED LECTURES AT UNIVERSITIES & RESEARCH INSTITUTIONS

Upcoming

23 *University of Innsbruck*, December 15, **2022**, Innsbruck, Austria

Past

21 *University of Göttingen*, December 5, **2022**, Göttingen, Germany

20 *California Institute of Technology (Caltech)*, September 28, **2022**, Pasadena, CA, USA

19 *University of Chicago*, September 23, **2022**, Chicago, IL, USA

18 *Purdue University*, September 22, **2022**, West Lafayette, IN, USA

17 *Northwestern University*, September 21, **2022**, Evanston, IL, USA

16 *University of Illinois at Urbana-Champaign*, September 20, **2022**, Champaign, IL, USA

15 **GÖCH lecture**, *Graz University of Technology*, June 8, **2022**, Graz, Austria

14 *Johannes Gutenberg University Mainz*, May 17, **2022**, Mainz, Germany

13 **John van Geuns Lecture**, *University of Amsterdam*, May 12, **2022**, Amsterdam, Netherlands

12 *University of Bern*, February 15, **2022**, Bern, Switzerland

11 *IST Austria*, January 27, **2022**, Klosterneuburg, Austria

10 *University of Geneva*, December 14, **2021**, Geneva, Switzerland

9 *RWTH Aachen*, November 12, **2021**, Aachen, Germany

8 *University of Potsdam*, May 21, **2021**, Potsdam, Germany

7 *University of Padua & University of Trieste*, December 3, **2020**, Virtual Seminar

6 *WWU Münster*, November 26, **2020**, Virtual Seminar

5 *Free University of Berlin*, June 18, **2020**, Virtual Seminar

4 *University of Graz*, October 2, **2019**, Graz, Austria

3 *University of Potsdam*, June 26, **2019**, Potsdam, Germany

2 *Technical University of Berlin*, October 18, **2017**, Berlin, Germany

1 *Max Planck Institute for Colloids and Interfaces*, July 28, **2015**, Potsdam, Germany

LECTURES AT CONFERENCES, SYMPOSIA & WORKSHOPS

Upcoming

- 16 **Invited lecture:** *KAUST Research Conference 2023: Advances in Sustainable Catalysis*, February 13-16, **2023**, Thuwal, Saudi Arabia

Past

- 15 **Invited lecture:** *Japanese-American-German Frontiers of Science Symposium*, September 15-18, **2022**, Irvine, CA, USA
- 14 *29. Nachwuchswissenschaftler-Symposium (Bio)Organische Chemie*, August 3-5, **2022**, Karlsruhe, Germany
- 13 *Chemiedozententagung*, March 21-23, **2022**, Saarbrücken, Germany
- 12 *The Florida Heterocyclic and Synthetic Chemistry Conference*, March 6-9, **2022**, Gainesville, FL, USA
- 11 **Invited lecture:** *Symposium of the Chemistry, Physics and Technology Section - Max Planck Society*, November 3, **2021**, Virtual Event
- 10 *Chemiedozententagung*, March 15-17, **2021**, Rostock, Germany (virtual event)
- 9 **Invited lecture:** *Austrian Chemistry Days*, September 24, **2019**, Linz, Austria
- 8 *Ringberg Conference*, September 2-6, **2019**, Kreuth, Germany
- 7 *Chemiedozententagung*, March 18-20, **2019**, Koblenz, Germany
- 6 *IMPRS Autumn Workshop*, October 11, **2018**, Potsdam, Germany
- 5 *7th Biomolecular Systems Day*, December 13, **2018**, Potsdam, Germany
- 4 *Ringberg Conference*, September 25-29, **2017**, Kreuth, Germany
- 3 *16th Brazilian Meeting on Organic Synthesis*, November 15-18, **2015**, Búzios, Brazil
- 2 *248th ACS National Meeting & Exposition*, August 10-14, **2014**, San Francisco, CA, USA
- 1 *Doc Days*, June 5-6, **2013**, Graz, Austria

Publications

FIVE MOST IMPORTANT PUBLICATIONS - ALL PUBLISHED AS AN INDEPENDENT PI

- 1) C. Cavedon, S. Gisbertz, S. Reischauer, S. Vogl, E. Sperlich, J. H. Burke, R. F. Wallick, S. Schrottke, W.-Hs. Hsu, L. Anghileri, Y. Pfeifer, N. Richter, C. Teutloff, H. Müller-Werkmeister, D. Cambié, P. H. Seeberger, J. Vura-Weis, R. M. van der Veen,* A. Thomas,* **B. Pieber,*** Intraligand Charge Transfer Enables Visible-Light-Mediated Nickel-Catalyzed Cross-Coupling Reactions. *Angewandte Chemie International Edition* **2022**, 61, e202211433.
→ *We demonstrate visible-light mediated carbon-heteroatom cross-couplings can be carried out using the photoactive precatalyst Ni(czbpy)Cl₂. Theoretic and spectroscopic investigations revealed that irradiation of Ni(czbpy)Cl₂ with visible-light causes an initial intra-ligand charge transfer event that triggers productive catalysis. Ligand polymerization affords a porous, recyclable organic polymer for heterogeneous nickel catalysis. The heterogeneous catalyst shows stable performance in a packed-bed flow reactor during a week of continuous operation.*
- 2) S. Gisbertz, S. Reischauer, **B. Pieber,*** Overcoming Limitations in Dual Photoredox/Nickel-catalysed C–N Cross-Couplings due to Catalyst Deactivation. *Nature Catalysis* **2020**, 3, 611–620.
→ *From a mechanistic perspective, the well-known limitation of metallaphotocatalytic C–N cross-couplings to electron-poor aryl bromides is not understood. We discovered that the origin of this limitation is catalyst deactivation. Using a mechanistically-driven approach, we overcame this problem and significantly expanded the scope of this important widely used transformation.*
- 3) S. Reischauer, V. Strauss, **B. Pieber,*** Modular, Self-assembling Metallaphotocatalyst for Cross Couplings using the full Visible-light Spectrum. *ACS Catalysis*, **2020**, 10, 13269–13274.
→ *Inspired by work on solar cells, I hypothesized that depositing a dye and a nickel complex on TiO₂ would enable the use of dyes with short excited state lifetimes for light-mediated cross-couplings. We showed that this is indeed possible for C–O, C–S, C–N, and C–C cross-couplings. This approach also enabled us to use dyes that absorb at long wavelengths, which was key to avoid selectivity issues for some substrates.*
- 5) L. Schmermund, S. Reischauer, S. Bierbaumer, C. K. Winkler, A. Diaz-Rodriguez, L. J. Edwards, S. Kara, T. Mielke, J. Cartwright, G. Grogan, **B. Pieber,*** W. Kroutil,* Chromoselective Photocatalysis Enables Stereocomplementary Biocatalytic Pathways. *Angewandte Chemie International Edition*, **2021**, 60, 6965–6969.
→ *I assumed the oxidation potential of a photocatalyst can be controlled via the irradiation wavelength and anticipated that this would allow the powerful combination of photo- and biocatalysis. I initiated a collaboration with the group of Prof. Kroutil to demonstrate this. Together, we developed photo-/biocatalytic cascades that, depending on the wavelength and enzyme, produce different enantiomers.*
- 5) C. Cavedon, E. Sletten, A. Madani, O. Niemeyer, P. H. Seeberger,* **B. Pieber,*** Visible-Light-Mediated Oxidative Debenzylation Enables the Use of Benzyl Ethers as Temporary Protecting Groups. *Organic Letters*, **2021**, 23, 514–518.
→ *The carbohydrate chemists at MPICI looked for a debenzylation method with a high functional group compatibility to enable new strategies for glycan synthesis. I was keen to solve this challenge and led a collaboration with the carbohydrate group of Prof. Seeberger that resulted in a mild photocatalytic method that meets all requirements.*

PUBLICATION RECORD SUMMARY

- Co-author of **44 scientific publications (+ 2 submitted)**:
 - 34 research articles (+ 1 submitted)** - 10 x first author, 20 x corresponding author
 - 7 reviews (+ 1 submitted)** - 3 x first author, 5 x corresponding author
 - 1 perspective** - 1 x first author
 - 1 essay**
 - 1 book chapter**
- Inventor on **2 patents**.

The impact of my work is well reflected by typical bibliographic indicators: Overall, my publications have received **2716 citations**, an **average of ~70 citations per article**, giving me a **Hirsch index of 25** (Web of Science, December 13, 2022).

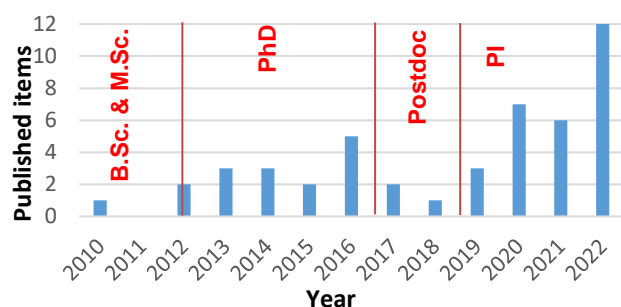


Figure 1. Published items per year (incl. submitted, 13.12.2022)

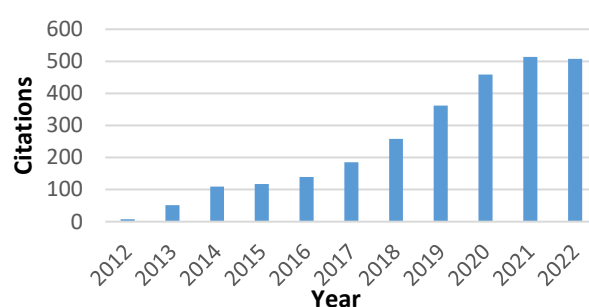


Figure 2. Citations per year (Web of Science; 13.12.2022)

RESEARCH ARTICLES

- 34 S. Murakami, C. Brudy, M. Bachmann, Y. Takemoto, **B. Pieber,*** Photocatalytic cleavage of trityl protected thiols and alcohols. *Synthesis* **2022**, *in press*, DOI: 10.1055/a-1979-5933.
- 33 M. Traxler, S. Reischauer, S. Vogl, J. Roeser, J. Rabeah, C. Penschke, P. Saalfrank, **B. Pieber,*** A. Thomas,* Programmable Photocatalytic Activity of Multivariate Covalent Organic Frameworks Used as Metallaphotocatalysts, *Chemistry, a European Journal* **2022**, *in press*, DOI: 10.1002/chem.202202967
- 32 Z. Zhao, **B. Pieber,*** M. Delbianco,* Modulating the surface and photophysical properties of carbon dots to access colloidal photocatalysts for cross-couplings, *ACS Catalysis* **2022**, *12*, 13831-13837.
- 31 E. Lepre, S. Rat, C. Cavedon, P.H. Seeberger, **B. Pieber**, M. Antonietti, N. López-Salas,* Catalytic Properties of High Nitrogen Content Carbonaceous Materials. *Angewandte Chemie International Edition* **2022**, *61*, e202211663.
- 30 C. Cavedon, S. Gisbertz, S. Reischauer, S. Vogl, E. Sperlich, J. H. Burke, R. F. Wallick, S. Schrottke, W.-Hs. Hsu, L. Anghileri, Y. Pfeifer, N. Richter, C. Teutloff, H. Müller-Werkmeister, D. Cambié, P. H. Seeberger, J. Vura-Weis, R. M. van der Veen,* A. Thomas,* **B. Pieber,*** Intraligand Charge Transfer Enables Visible-Light-Mediated Nickel-Catalyzed Cross-Coupling Reactions. *Angewandte Chemie International Edition* **2022**, *61*, e202211433.
- 29 W.-H. Su, S. Reischauer, P. H. Seeberger, **B. Pieber,*** D. Cambie,* Heterogeneous metallaphotoredox catalysis in a continuous-flow packed bed reactor. *Beilstein Journal of Organic Chemistry* **2022**, *18*, 1123-1130.
- 28 A. Madani, L. Anghileri, M. Heydenreich, H. M. Möller, **B. Pieber,*** Benzylic Fluorination Induced by a Charge-Transfer Complex with a Solvent-Dependent Selectivity Switch. *Organic Letters* **2022**, *24*, 5376-5380.

- 27 M. Traxler, S. Gisbertz, P. Pachfule, J. Schmidt, J. Roeser, S. Reischauer, J. Rabeah, **B. Pieber,*** A. Thomas,* Acridine Functionalized Covalent Organic Frameworks (COFs) as Photocatalysts for Metallaphotocatalytic C–N cross-coupling. *Angewandte Chemie International Edition* **2022**, *61*, e202117738
- 26 Z. Zhao, S. Reischauer **B. Pieber,*** M. Delbianco,* Carbon dot/TiO₂ nanocomposites as photocatalysts for metallaphotocatalytic carbon-heteroatom cross-couplings. *Green Chemistry* **2021**, *23*, 4524-4530
- 25 S. Reischauer, **B. Pieber,*** Recyclable, bifunctional metallaphotocatalysts for C-S cross-couplings. *ChemPhotoChem*, **2021**, *5*, 716-720.
- 24 L. Schermund, S. Reischauer, S. Bierbaumer, C. K. Winkler, A. Diaz-Rodriguez, L. J. Edwards, S. Kara, T. Mielke, J. Cartwright, G. Grogan, **B. Pieber,*** W. Kroutil,* Chromoselective Photocatalysis Enables Stereocomplementary Biocatalytic Pathways. *Angewandte Chemie International Edition*, **2021**, *60*, 6965-6969
- 23 C. Cavedon, E. Sletten, A. Madani, O. Niemeyer, P. H. Seeberger,* **B. Pieber,*** Visible-Light-Mediated Oxidative Debenzylation Enables the Use of Benzyl Ethers as Temporary Protecting Groups. *Organic Letters*, **2021**, *23*, 514-518
- 22 S. Reischauer, V. Strauss, **B. Pieber,*** Modular, self-assembling metallaphotocatalyst for cross couplings using the full visible-light spectrum. *ACS Catalysis*, **2020**, *10*, 13269-13274.
- 21 S. Gisbertz, S. Reischauer, **B. Pieber,*** Overcoming Limitations in Dual Photoredox/Nickel-catalysed C–N Cross-Couplings due to Catalyst Deactivation. *Nature Catalysis* **2020**, *3*, 611-620.
- 20 J. A. Malik, A. Madani, **B. Pieber,*** P. H. Seeberger,* Evidence for Photocatalyst Involvement in Oxidative Additions of Nickel-Catalyzed Carboxylate *O*-Arylations. *Journal of the American Chemical Society* **2020**, *142*, 11042-11049
- 19 C. Rosso, S. Gisbertz, J.D. Williams, H.P.L. Gemoets, W. Debrouwer, **B. Pieber,*** C. O. Kappe,* An oscillatory plug flow photoreactor facilitates semi-heterogeneous dual nickel/carbon nitride photocatalytic C-N couplings. *Reaction Chemistry & Engineering* **2020**, *5*, 597-604.
- 18 S. Mazzanti, B. Kurpil, **B. Pieber**, M. Antonietti, A. Savateev,* Dichloromethylation of Enones by Carbon Nitride Photocatalysis. *Nature Communications*, **2020**, *11*, 1387.
- 17 M. Guberman, **B. Pieber**, P. H. Seeberger* Safe and Scalable Continuous Flow Azidophenylselenylation of Galactal to Prepare Galactosamine Building Blocks. *Organic Process and Research Development* **2019**, *23*, 2764-2770.
- 16 C. Cavedon, A. Madani, P. H. Seeberger, **B. Pieber,*** Semi-Heterogeneous Dual Nickel/Photocatalytic (Thio)Etherification using Carbon Nitrides. *Organic Letters* **2019**, *21*, 5331-5334.
- 15 **B. Pieber,*** J. A. Malik, C. Cavedon, S. Gisbertz, A. Savateev, D. Cruz, T. Heil, G. Zhang, P. H. Seeberger, Semi-Heterogeneous Dual Nickel/Photo-catalysis using Carbon Nitrides: Esterification of Carboxylic Acids with Aryl Halides. *Angewandte Chemie International Edition* **2019**, *58*, 9575-9580
- 14 **B. Pieber**, M. Shalom, M. Antonietti, P. H. Seeberger,* K. Gilmore,* Continuous Heterogeneous Photoredox Catalysis in Serial Micro-Batch reactors. *Angewandte Chemie International Edition* **2018**, *57*, 9976-9979.
- 13 **B. Pieber,*** C. O. Kappe,* Generation and Synthetic Application of Trifluoromethyl Diazomethane Utilizing Continuous Flow Technologies. *Organic Letters* **2016**, *18*, 1076-1079.
- 12 **B. Pieber**, P. D. Cox, C. O. Kappe,* Selective Olefin Reduction of Thebaine Using Hydrazine Hydrate and O₂ under Intensified Continuous Flow Conditions. *Organic Process Research & Development* **2016**, *20*, 376-385.

- 11 J. L. Monteiro, **B. Pieber**, A. G. Corrêa, C. O. Kappe,* Continuous Synthesis of Hydantoins: Intensifying the Bucherer-Bergs Reaction. *Synlett* **2016**, *27*, 83-87.
- 10 C. E. M. Salvador, **B. Pieber**, P. M. Neu, A. Torvisco, C. K. Z. Andrade, C. O. Kappe,* A Sequential Ugi Multicomponent/Cu-Catalyzed Azide-Alkyne Cycloaddition Approach for the Continuous Flow Generation of Cyclic Peptoids. *Journal of Organic Chemistry* **2015**, *80*, 4590-4602.
- 9 **B. Pieber**, T. Glasnov, C. O. Kappe,* Continuous Flow Reduction of Artemisinin Acid Utilizing Multi-Injection Strategies – Closing the Gap Toward a Fully Continuous Synthesis of Antimalaria Drugs. *Chemistry a European Journal* **2015**, *21*, 4368-4376.
- 8 M. M. Moghaddam, **B. Pieber**, T. Glasnov, C. O. Kappe,* Immobilized Iron Oxide Nanoparticles as Stable and Reusable Catalysts for Hydrazine-mediated Nitro Reductions in Continuous Flow. *ChemSusChem* **2014**, *7*, 3122-3131.
- 7 F. F. Hofbauer, F. H. Schopf, H. Schleifer, O. L. Knittelfelder, **B. Pieber**, G. N. Rechberger, H. Wolinski, M. L. Gaspar, C. O. Kappe, J. Stadlmann, K. Mechtler, A. Zenz, K. Lohner, O. Tehlivets, S. A. Henry, S. D. Kohlwein,* Regulation of Gene Expression through a Transcriptional Repressor that Senses Acyl-Chain length in Membrane Phospholipids. *Developmental Cell* **2014**, *29*, 729-739.
- 6 **B. Pieber**, T. N. Glasnov, C. O. Kappe,* Flash Carboxylation: Fast Lithiation – Carboxylation Sequence at Room Temperature in Continuous Flow. *RSC Advances* **2014**, *4*, 13430-13433.
- 5 **B. Pieber**, S. Teixeira Martinez, D. Cantillo C. O. Kappe,* *In situ* Generation of Diimide from Hydrazine and Oxygen – Transfer Hydrogenation of Olefins in Continuous Flow. *Angewandte Chemie International Edition* **2013**, *52*, 10241-10244.
- 4 **B. Pieber**, C. O. Kappe,* Direct aerobic oxidation of 2-benzylpyridines in a gas-liquid continuous-flow regime using propylene carbonate as solvent. *Green Chemistry* **2013**, *15*, 320-324.
- 3 G. S. Kumar, **B. Pieber**, K. R. Reddy,* C. O. Kappe,* Copper-Catalyzed Formation of C-O Bonds by Direct α -C-H Bond Activation of Ethers Using Stoichiometric Amounts of Peroxide in Batch and Continuous-Flow Formats. *Chemistry a European Journal* **2012**, *18*, 6124-6128.
- 2 **B. Pieber**, D. Cantillo, C. O. Kappe,* Direct Arylation of Benzene with Aryl Bromides using High-Temperature/High-Pressure Process Windows: Expanding the Scope of C-H Activation Chemistry. *Chemistry a European Journal* **2012**, *18*, 5047-5055.
- 1 **B. Pieber**, S. Schober, C. Göbl, M. Mittelbach,* Rapid and sensitive determination of steryl glycosides in biodiesel by gas chromatography-mass spectroscopy. *Journal of Chromatography A* **2010**, *1217*, 6555-6561

REVIEWS

- 7 E. T. Sletten, P. H. Seeberger, **B. Pieber**,* tert-Butyl Nitrite (First Update). *Encyclopedia of Reagents for Organic Synthesis*, **2022**, <https://doi.org/10.1002/047084289X.rn01922.pub2>
- 6 S. Reischauer, **B. Pieber**,* Emerging Concepts in Photocatalytic Organic Synthesis. *iScience*, **2021**, *24*, 102209.
- 5 S. Gisbertz, **B. Pieber**,* Heterogeneous photocatalysis in organic synthesis. *ChemPhotoChem* **2020**, *4*, 456-475.
- 4 C. Cavedon, Peter. H. Seeberger, **B. Pieber**,* Photochemical Strategies for Carbon-Heteroatom Bond Formation. *European Journal of Organic Chemistry* **2020**, 1379-1392.
- 3 M. B. Plutschak^a, **B. Pieber**^a, K. Gilmore,* P. H. Seeberger,* The Hitchhikers Guide to Flow Chemistry. *Chemical Reviews* **2017**, *117*, 11796-11893. [^acontributed equally]

- 2 **B. Pieber**, C. O. Kappe,* Taming "Forbidden" Olefin Reductions Using Hydrazine and Oxygen by Continuous Flow Technology. *Chimica Oggi/Chemistry Today* **2016**, 34, 38-42.
- 1 **B. Pieber**, C. O. Kappe, Aerobic Oxidations in Continuous Flow. *Topics in Organometallic Chemistry* **2016**, 57, 97-136

ESSAYS, COMMENTARIES, PERSPECTIVES, ETC.

- 2 **B. Pieber**, K. Gilmore,* P. H. Seeberger,* Integrated Flow Processing – Challenges in Continuous Multistep Synthesis. *Journal of Flow Chemistry* **2017**, 7, 129-136
- 1 C. O. Kappe,* **B. Pieber**, D. Dallinger, Microwave Effects in Organic Synthesis – Myth or Reality. *Angewandte Chemie International Edition* **2013**, 52, 1088-1094.

BOOK CHAPTERS

- 1 **B. Pieber**, Photocatalytic Continuous-Flow Methods for C-H Functionalization. *Handbook of C-H Functionalization*, **2022**, in press

PATENTS

- 2 K. Gilmore, P. H. Seeberger, S. Chatterjee, **B. Pieber**, Modular Continuous Flow Device. WO 2017/148874.
- 1 P. D. Cox, C. O. Kappe, **B. Pieber**, Selective reduction of morphinan alkaloids. US 2017/0137432 A1.

MISCELLANEOUS

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