

# *Curriculum Vitae: Prof. Dr. ing. Timothy Noël*

## *Personal Information*

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**Name** Timothy Noël

**Work Address** University of Amsterdam, Van 't Hoff Institute for Molecular Sciences (HIMS), Science Park 904 (C2.223), 1098 XH Amsterdam, The Netherlands.

**Private Address** [REDACTED]

**Work** + 31-(0)20-525-2184

**E-mail** t.noel@uva.nl

**Twitter** @NoelGroupUvA, @tnoel82

**Website** www.NoelResearchGroup.com

**Date of Birth** September 02, 1982

**Place of Birth** Aalst

**Nationality** Belgian

**Civil status** Married [REDACTED]  
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## *Professional Experience*

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**2020 – current** **Full Professor**  
Chair of Flow Chemistry Group  
Van 't Hoff Institute for Molecular Sciences (HIMS)  
University of Amsterdam (UvA), Amsterdam,  
The Netherlands

**2017 – 2020** **Associate Professor (UHD 1)**  
Head of Micro Flow Chemistry and Synthetic Methodology  
Department of Chemical Engineering and Chemistry  
Eindhoven University of Technology, Eindhoven  
The Netherlands

**2012 – 2017** **Assistant Professor**  
Micro Flow Chemistry and Process Technology  
Department of Chemical Engineering and Chemistry  
Eindhoven University of Technology, Eindhoven  
The Netherlands

**2013 – 2020** **10% Research Professor**  
Department of Organic Chemistry (S4)  
Ghent University, Ghent  
Belgium

**2010 – 2011**      **Post-doctoral Research: Fulbright Scholar**  
Department of Chemistry  
Novartis – MIT Center for Continuous Manufacturing  
Massachusetts Institute of Technology (MIT), Cambridge  
United States of America  
Host: Prof. Dr. Stephen L. Buchwald  
Collaboration with group of Prof. Dr. Klavs F. Jensen (Department of Chemical Engineering)  
Research Topic: *Cross-coupling reactions in continuous-flow – Towards a continuous manufacturing of pharmaceuticals.*

### ***Education***

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**2005 – 2009**      **Ph.D. in Sciences – Chemistry: BOF Research Fellow**  
Laboratory for Organic and Bioorganic Synthesis  
Department of Chemistry  
Ghent University, Ghent  
Belgium  
Supervisor: Prof. Dr. Johan Van der Eycken  
Ph.D. Thesis: *Synthesis and application of chiral dienes and chiral imidates for asymmetric transition metal catalysis.*

**2005 – 2008**      **Doctoral School**  
Department of Chemistry  
Ghent University, Ghent  
Belgium  
  
Graduated with marks equivalent to high distinction.  
  
*Courses: Organometallic Chemistry; Asymmetric Synthesis; Bioorganic Chemistry; Advanced NMR; Advanced Chromatography; Advanced Academic English Writing Skills; Management of Research and Development in University and Industry.*

**2004 – 2005**      **Predoctoral Training in Chemistry**  
Department of Chemistry  
Ghent University, Ghent  
Belgium  
  
Graduated with marks equivalent to high distinction – First of the year.

**2000 – 2004**      **Industrial Chemical Engineer (M.Sc.)**  
Department of Chemical Engineering  
KaHo Sint-Lieven, Ghent  
Belgium

M.Sc. Thesis: *The synthesis of a fluorescence label with improved spectral properties for labeling D10-p5-2k as an HIV-1 inhibitor.*

Graduated with high distinction – First of the year.

**1994 – 2000      High School – Latin-Sciences**

Sint-Jozefscollege, Aalst  
Belgium

Recipient of the Excellence Award and Science Award.

Graduated with high distinction – First of the year.

***Scientific Awards***

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- 2024**    - Fellow of the Royal Society of Chemistry
- 2023**    - ChemSocRev Pioneering Investigator Lectureship Award (Shared with Prof. Ryan Shenvi)
- 2022**    - ACS Sustainable Chemistry & Engineering Lectureship award
- 2022**    - ERC Consolidator Grant, 2 M€
- 2021**    - KNCV Golden Medal
- 2020**    - IUPAC-ThalesNano Prize for Flow Chemistry
- 2019**    - Hoogewerff Jongerenprijs
- 2017**    - DECHEMA award “in recognition of ground-breaking work on continuous photo-chemical conversion in microfluidic systems”.
- 2016**    - “Thieme Chemistry Journal Award” for promising young professors at the beginning of their career.
- 2015**    - VIDI grant (Netherlands Institute for Scientific Research, NWO), 800 k€.
- 2013**    - Marie Curie Career Integration Grant, 100 k€.
- 2012**    - VENI grant (Netherlands Institute for Scientific Research, NWO), 250 k€.  
- Finalist European Young Chemist Award, EuCheMS Conference.
- 2011**    - Incentive Award for Young Researchers 2011 (Comité de Gestion du Bulletin des Sociétés Chimiques Belges), 2,500 €.
- 2010**    - Fulbright – Hays Award.
- 2006**    - Best poster presentation in the chemistry section at the Ph.D. Symposium, Ghent University, 250 €.
- 2004**    - Extraordinary Research Fund Fellowship (BOF fellowship, Ghent University).
- 2000**    - Excellence Award at Sint-Jozefscollege, Aalst, Belgium.  
- Science Award at Sint-Jozefscollege, Aalst, Belgium.

## Research Publications

Google Scholar: *h-index* = 66; *Total citations* = 15,579 (updated on 16/05/2024)

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- 223** Open-Source 3D Printed Reactors for Reproducible Batch and Continuous-Flow Photon-Induced Chemistry: Design and Characterization.  
Masson, T.M.; Zondag, S. D. A.; Schuurmans, J. H. A. and Noël, T., *React. Chem. Eng.*, **2024**, *in revision*.
- 222** C1-4 Alkylation of Aryl Bromides with Light Alkanes enabled by Metallaphotocatalysis in Flow.  
Pulcinella, A.; Tiwari, P.; Luridiana, A.; Yamazaki, K.; Mazzarella, D.; Sadhoe, A.; Alfano, A.; Tiekink, E.; Hamlin, T and Noël, T., *submitted for publication*. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-7mk1c)
- 221** A Unified Flow Strategy for the Preparation and Use of Trifluoromethyl-heteroatom Anions.  
Spennacchio, M.; Bernus, M.; Stanic, J.; Mazzarella, D.; Colella, M.; Douglas, J.; Boutureira, O. and Noël, T., *submitted for publication*. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-3bqt6)
- 220** Light-assisted carbon dioxide reduction in an automated photoreactor system coupled to carbonylation chemistry.  
Schuurmans, J.; Masson, T.; Zondag, S.; Pilon, S.; Bragato, N.; Claros, M.; den Hartog, T. Sastre, F.; van den Ham, J.; Buskens, P.; Fiorani, G. and Noël, T., *submitted for publication*. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-sz6ng)
- 219** Photochemical organocatalytic heteroarylation of anilines and secondary alicyclic amines in continuous-flow.  
Boronin, E. N.; Svetlakova, M. M.; Vorobyov, I. I.; Malysheva, Y. B.; Polushtaytsev, Y. V.; Mensov, S. N.; Vladimirovich Vorotyntsev, A.; Fedorov, A.; Noël, T. and Nyuchev, A. V. *React. Chem. Eng.*, **2024**, DOI: 10.1039/D4RE00130C.
- 218** Graphitic carbon nitride as a photocatalyst for decarboxylative C(sp<sup>2</sup>)-C(sp<sup>3</sup>) couplings via nickel catalysis.  
Lukas, F.; Findlay, M.; Fillols, M.; Templ, J.; Savino, E.; Martin, B.; Allmendinger, S.; Furegati, M. and Noël, T., *Angew. Chem. Int. Ed.*, **2024**, *in revision*. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-b7kv6)
- 217** C(sp<sup>3</sup>)-H sulfinylation of light hydrocarbons with sulfur dioxide via hydrogen atom transfer photocatalysis in flow.  
Nagornii, D.; Raymenants, F.; Kaplaneris, N. and Noël, T., *Nat. Commun.*, **2024**, *in revision*. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-djx7b)
- 216** Better Together: Catalyzing Innovation in Organic Synthesis via Academic-Industrial Consortia.  
Icázar, J.; Anderson, E. A.; Davies, H. M. L.; Febrian, R.; Kelly, C. B.; Noël, T.; Voight, E. A.; Zarate, C; and Zysman-Colman, E. *Org. Lett.*, **2024**, *26*, 2677-2681.
- 215** Photocatalytic Functionalization of Dehydroalanine-derived Peptides in Batch and Flow.  
Kaplaneris, N.; Akdeniz, M.; Fillols, M.; Arrighi, F.; Raymenants, F.; Sanil, G.; Gryko, D. T. and Noël, T., *Angew. Chem. Int. Ed.*, **2024**, *63*, e202403271. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-6fgqv)
- 214** In-flow generation of thionyl fluoride (SOF<sub>2</sub>) enables the rapid and efficient synthesis of acyl fluorides from carboxylic acids.

- Mazzarella, D.; Stanic, J.; Bernus, M.; Mehdi, A. S.; Henderson, C. J.; Boutureira, O. and Noël, T., *submitted for publication*. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-z41gc)
- 213** A facile strategy to determine photon flux and effective optical path length in intensified continuous-flow photoreactors.  
Zondag, S. D. A.; Schuurmans, J. H. A.; Chaudhuri, A.; Visser, R. P. L.; Soares, C.; Padoin, N.; Kuijpers, K. P. L.; Dorbec, M.; van der Schaaf, J. and Noël, T., *Nature Chemical Engineering* **2024**, accepted for publication. (For the preprint version, see: DOI: 10.26434/chemrxiv-2024-gfk84)
- 212** Multiphasic Continuous-Flow Reactors for Handling Gaseous Reagents in Organic Synthesis: Enhancing Efficiency and Safety in Chemical Processes.  
Laporte, A. A. H.; Masson, T. M.; Zondag, S. D. A. and Noël, T. *Angew. Chem. Int. Ed.*, **2024**, *63*, e202316108 .
- 211** Metal-free Photocatalytic Cross-Electrophile Coupling enables C1 Homologation and Alkylation of Carboxylic Acids with Aldehydes.  
Bonciolini, S.; Pulcinella, A.; Leone, M.; Schiroli, D.; Luguera Ruiz, A.; Sorato, A.; Dubois, M.; Gopalakrishnan, R.; Masson, G.; Della Ca', N.; Protti, S.; Fagnoni, M.; Zysman-Colman, E.; Johansson, M. and Noël, T. *Nature Communications* **2024**, *15*, 1509. (For the preprint version, see: DOI: 10.26434/chemrxiv-2023-fcl2j)
- 210** Modular Synthesis of Congested  $\beta$ , $\gamma$ -Amino Acids via the Merger of Photocatalysis and Oxidative Functionalizations.  
Anwar, K.; Capaldo, L.; Wan, T.; Noël, T. and Gómez-Suárez, A. *Chemical Communications*, **2024**, *60*, 1456-1459. (For the preprint version, see: DOI: 10.26434/chemrxiv-2023-dbc9d)
- 209** Rapid and Scalable Photocatalytic C(sp<sup>2</sup>)-C(sp<sup>3</sup>) Suzuki-Miyaura Cross-Coupling of Aryl Bromides with Alkyl Boranes.  
Wan, T.; Capaldo, L.; Djossou, J.; Staffa, A.; de Zwart, F.; de Bruin, B. and Noël, T. *Nature Communications* **2024**, *15*, 4028. (For the preprint version, see: DOI: 10.26434/chemrxiv-2023-4g3xz.)
- 208** Automated self-optimization, intensification and scale-up of photocatalysis in flow.  
Slattery, A.; Wen, Z.; Tenblad, P.; Pintossi, D.; Sanjose-Orduna, J.; den Hartog, T. and Noël, T. *Science* **2024**, *383*, eadj1817. (For the preprint version, see ChemRxiv, 2023, DOI: 10.26434/chemrxiv-2023-r0drq)
- 207** A modular flow platform for sulfur(VI) fluoride exchange ligation of small molecules, peptides and proteins.  
Bernus, M.; Mazzarella, D.; Stanic, J.; Zhai, Z.; Vazquez A. Y.; Boutureira, O. Gargano, A. F. G.; Grossmann, T. and Noël, T. *Nature Synthesis*, **2024**, *3*, 185-191. (For the preprint version, see: 10.26434/chemrxiv-2023-gngqd)
- 206** Telescoped synthesis of vicinal diamines via ring-opening of electrochemically generated aziridines in flow.  
Laktsevich-Iskryk, M.; Krech, A.; Fokin, M.; Kimm, M.; Jarg, T.; Noël, T. and Ošeka, M. *J. Flow Chem.*, **2024**, *14*, 139-147.
- 205** Solar-Driven Continuous CO<sub>2</sub> Reduction to CO and CH<sub>4</sub> using Heterogeneous Photothermal Catalysts: a Review Outlining Recent Progress and Remaining Challenges.

- Schuermans, J.; Masson, T. M.; Zondag, S. D. A.; Buskens, P; and Noël, T. *ChemSusChem*, **2024**, *17*, e202301405.
- 204** Electrosynthesis of Aryliminophosphoranes in Continuous Flow.  
Costa, R.; Vega, C.; Regnier, M.; Capaldo, L.; Wesenberg, L.; Lowe, G.; de Oliveira, K. and Noël, T. *Adv. Synth. Catal.*, **2024**, *366*, 955-960. (VIP article)
- 203** Ni-Catalyzed Electro-Reductive Cross-Electrophile Couplings of Alkyl Amine-Derived Radical Precursors with Aryl Iodides.  
Wesenberg, L. J.; Sivo, A.; Vilé, G. and Noël, T. *J. Org. Chem.* **2023**, DOI: 10.1021/acs.joc.3c00859
- 202** Accelerated Electrophotocatalytic C(sp<sup>3</sup>)-H Heteroarylation Enabled by an Efficient Continuous-Flow Reactor.  
Ioannou, D.; Capaldo, L.; Sanramat, J.; Reek, J. and Noël, T. *Angew. Chem. Int. ed.*, **2023**, e202315881 (For the preprint version, see 10.26434/chemrxiv-2023-1xbvv) (VIP article)
- 201** A field guide to flow chemistry for synthetic organic chemists.  
Capaldo, L.; Wen, Z. and Noël, T. *Chem. Sci.*, **2023**, *14*, 4230-4247
- 200** Scale-Up of Photochemical Reactions: Transitioning from Lab Scale to Industrial Production.  
Zondag, S. D. A.; Mazzarella, D. and Noël, T. *Annu. Rev. Chem. Biomol. Eng.*, **2023**, *14*, 283-300.
- 199** Efficient C(sp<sup>3</sup>)-H carbonylation of light and heavy hydrocarbons with carbon monoxide via HAT photocatalysis in flow.  
Raymenants, F.; Masson, T.; San Jose Orduna, J. and Noël, T. *Angew. Chem. Int. Ed.*, **2023**, *62*, e202308563 DOI: 10.1002/anie.202308563 (For the preprint version, see 10.26434/chemrxiv-2023-jbjh2) (VIP article)
- 198** Lights, flow, transfer.  
West, T. *Nature Synthesis* **2023**, *2*, 198-199. (An interview with Timothy Noël about how flow technologies and photocatalytic methods enable C(sp<sup>3</sup>)-H functionalization reactions.)
- 197** Flow photochemical Giese reaction via silane-mediated activation of alkyl bromides.  
Fanini, F.; Luridiana, A.; Mazzarella, D.; Alfano, A. I.; van der Heide, P.; Rincón, J. A.; García-Losada, P.; Mateos, C.; Frederick, M. O.; Nuño, M. and Noël, T. *Tetrahedron Letters* **2023**, *117*, 154380.
- 196** Photocatalytic Alkylation of C(sp<sup>3</sup>)-H Bonds Using Sulfonylhydrazones.  
Pulcinella, A.; Bonciolini, S.; Lukas, F.; Sorato, A.; and Noël, T. *Angew. Chem. Int. Ed.* **2023**, *62*, e202215374 (Preprint available DOI: 10.26434/chemrxiv-2022-h91bz)
- 195** Photoinduced Halogen-Atom Transfer (XAT) by N-heterocyclic carbene boryl radicals for C(sp<sup>3</sup>)-C(sp<sup>3</sup>) bond formation.  
Wan, T.; Capaldo, L.; Ravelli, D.; Vitullo, W.; de Zwart, F.; de Bruin, B. and Noël, T. *J. Am. Chem. Soc.* **2023**, *145*, 991-999. (preprint available DOI: 10.26434/chemrxiv-2022-8j1df)
- 194** Dual role of benzophenone enables a fast and scalable C-4 selective alkylation of pyridines in flow.  
Sanjosé-Orduna, J.; Silva, R. C.; Raymenants, F.; Reus, B.; Thaens, J.; de Oliveira, K. T.; and Noël, T. *Chem. Sci.* **2022**, *13*, 12527-12532.
- 193** The Merger of Benzophenone HAT Photocatalysis and Silyl Radical-Induced XAT Enables Both Nickel-Catalyzed Cross-Electrophile Coupling and 1,2-Dicarbonylfunctionalization of Olefins.

- Luridiana, A.; Mazzarella, D.; Capaldo, L.; Rincón, J. A.; García-Losada, P.; Mateos, C.; Frederick, M. O.; Nuño, M.; Buma, W. J. and Noël, T. *ACS Catal.* **2022**, *12*, 1216–11225.
- 192** Rapid and Replaceable Luminescent Coating for Silicon-Based Microreactors Enabling Energy-Efficient Solar Photochemistry.  
Masson, T. M.; Zondag, S. D. A.; Debije, M. G. and Noël, T. *ACS Sus. Chem. Eng.* **2022**, *10*, 10712–10717.
- 191** Membrane-based TBADT recovery: increasing the sustainability of continuous-flow photocatalytic HAT transformations.  
Wen, Z.; Pintossi, D.; Nuno, M. and Noël, T. *Nature Commun.* **2022**, *13*, 6147.
- 190** Synthetic Applications of Photocatalyzed Halogen-radical mediated Hydrogen Atom Transfer for C–H Bond Functionalization.  
Bonciolini, S.; Noël, T. and Capaldo, L. *Eur. J. Org. Chem.* **2022**, *2022*, e202200417.
- 189** Interfacing single-atom catalysis with continuous-flow organic electrosynthesis.  
Bajada, M. A.; Sanjosé-Orduna, J.; Di Liberto, G.; Tosoni, S.; Pacchioni, G.; Noël, T. and Vilé, G. *Chem. Soc. Rev.* **2022**, *51*, 3898-3925.
- 188** Accelerating the Photocatalytic Atom Transfer Radical Addition Reaction Induced by Bi<sub>2</sub>O<sub>3</sub> with Amines: Experiment and Computation.  
Riente, P.; Fianchini, M.; Pericàs, M. A.; Noel, T. *ChemCatChem.* **2022**, *14*, e202200319.
- 187** Direct Synthesis of  $\alpha$ -Sulfonylated Ketones under Electrochemical Conditions.  
de Souza, A. A. N.; Bartolomeu, A. de A.; Brocksom, T. J.; Noel, T.; Oliveira, K.T. *J. Org. Chem.* **2022**, *87*, 5856-5865.
- 186** Photocatalytic generation of ligated boryl radicals from tertiary amine-borane complexes: An emerging tool in organic synthesis.  
Capaldo, L.; Noel, T.; Ravelli, D. *Chem Catalysis* **2022**, *2*, 957-966.
- 185** Electrochemical Hydroxylation of Electron-Rich Arenes in Continuous-Flow.  
Kooli, A.; Wesenberg, L.; Beslać, M.; Krech, A.; Lopp, M.; Noel, T.; Oseka, M. *Eur. J. Org. Chem.* **2022**, *20*, e202200011.
- 184** Scale-Up of a Heterogeneous Photocatalytic Degradation Using a Photochemical Rotor–Stator Spinning Disk Reactor.  
Chaudhuri, A.; Zondag, S. D. A.; Schuurmans, J. H. A.; van der Schaaf, J.; Noel, T. *Org. Process Res. Dev.* **2022**, *26*, 1279-1288.
- 183** Boosting the valorization of biomass and green electrons to chemical building blocks: A study on the kinetics and mass transfer during the electrochemical conversion of HMF to FDCA in a microreactor.  
Delparish, A.; Uslu, A.; Cao, Y.; de Groot, T.; van der Schaaf, J.; Noel, T.; Neira d’Angelo, M. F. *Chem. Eng. J.* **2022**, *438*, 135393.
- 182** The promise and pitfalls of photocatalysis for organic synthesis.  
Noel, T.; Zysman-Colman, E. *Chem Catalysis* **2022**, *2*, 468-476.
- 181** Accelerated and Scalable C(sp<sup>3</sup>)–H Amination via Decatungstate Photocatalysis Using a Flow Photoreactor Equipped with High-Intensity LEDs.  
Wan, T.; Wen, Z.; Laudadio, G.; Capaldo, L.; Lammers, R.; Rincón, J. A.; García-Losada, P.; Mateos, C.; Frederick, M. O.; Broersma, R.; Noel, T. *ACS Central Sci.* **2022**, *8*, 51-56.
- 180** On the performance of liquid-liquid Taylor flow electrochemistry in a microreactor – A CFD study.

- Cao, Y.; Padoin, N.; Soares, C.; Noel, T. *Chem. Eng. J.* **2022**, *427*, 131443.
- 179** A Meso-Scale Ultrasonic Milli-Reactor Enables Gas-Liquid-Solid Photocatalytic Reactions in Flow.  
Dong, Z.; Zondag, S. D. A.; Schmid, M.; Wen, Z.; Noel, T. *Chem. Eng. J.* **2022**, *428*, 130968.
- 178** Technological Innovations in Photochemistry for Organic Synthesis: Flow Chemistry, High-Throughput Experimentation, Scale-up, and Photoelectrochemistry.  
Buglioni, L.; Raymenants, F.; Slattery, A.; Zondag, S. D. A.; Noel, T. *Chem. Rev.* **2022**, *122*, 2752-2906.
- 177** Modular allylation of C(sp<sup>3</sup>)-H bonds by combining decatungstate photocatalysis and HWE olefination in flow.  
Capaldo, L.; Bonciolini, S.; Pulcinella, A.; Nuno, M.; Noel, T. *Chem. Sci.* **2022**, *3*, 7325-7331.
- 176** The development of luminescent solar concentrator-based photomicroreactors: a cheap reactor enabling efficient solar-powered photochemistry.  
Zondag, S.D.A.; Masson, T.M.; Debije, M.G.; Noel, T. *Photochem. Photobiol. Sci.* **2022**, *21*, 705-717.
- 175** On the performance of liquid-liquid Taylor flow electrochemistry in a microreactor – A CFD study.  
Cao, Y.; Padoin, N.; Soares, C.; Noel, T. *Chem. Eng. J.* **2022**, *427*, 131443.
- 174** Development of an off-grid solar-powered autonomous chemical mini-plant for producing fine chemicals.  
Masson, T. M.; Zondag, S. D. A.; Kuijpers, K.P.L.; Cambié, D.; Debije, M. G.; Noel, T. *ChemSusChem.* **2021**, *4*, 5417-5423.
- 173** Photochemical transformations in continuous-flow reactors.  
Laudadio, G.; Noel, T. In *Volume 2 Flow Chemistry – Applications*; Darvas, F.; Dormán, G.; Hessel, V.; Ley, S.V. (Eds.), De Gruyter, **2021**, 1-30. DOI: [10.1515/9783110693690-001](https://doi.org/10.1515/9783110693690-001).
- 172** Photocatalytic C-H Azolation of Arenes using Heterogeneous Carbon Nitride in Batch and Flow.  
Wen, Z.; Wang, T.; Vijeta, A.; Casadevall, C.; Buglioni, L.; Reisner, E.; Noel, T. *ChemSusChem.* **2021**, *14*, 5265-5270.
- 171** Homogeneous Catalytic C(sp<sup>3</sup>)-H Functionalization of Gaseous Alkanes.  
Pulcinella, A.; Mazzarella, D.; Noel, T. *Chem. Commun.* **2021**, *57*, 9956-9967.
- 170** Dehydrogenative Azolation of Arenes in a Microflow Electrochemical Reactor.  
Buglioni, L.; Beslac, M.; Noel, T. *J. Org. Chem.* **2021**, *86*, 16195-16203.
- 169** Rapid and Direct Photocatalytic C(sp<sup>3</sup>)-H Acylation and Arylation in Flow.  
Mazzarella, D.; Pulcinella, A.; Bovy, L.; Noel, T. *Angew. Chem. Int. Ed.* **2021**, *60*, 21277-21282.
- 168** Decatungstate-Mediated C(sp<sup>3</sup>)-H Heteroarylation via Radical-Polar Crossover in Batch and Flow.  
Wan, T.; Capaldo, L.; Laudadio, G.; Nyuchev, A.; Rincon, J.; Garcia-Losada, P. Mateos Gutierrez, C.; O. Frederick, M.; Nuno, M.; Noel, T. *Angew. Chem. Int. ed.* **2021**, *60*, 1793-17897.
- 167** Scale-up of Micro- and Milli-Reactors: An Overview of Strategies, Design Principles and Applications..  
Dong, Z.; Wen, Z.; Zhao, F.; Kuhn, S.; Noel, T. *Chem. Eng. Sci. X.* **2021**, 100097.
- 166** Continuous-Flow Synthesis of Pirylium Tetrafluoroborates: Application to Synthesis of Katritzky Salts and Photoinduced Cationic RAFT Polymerization.



- Sambiagio, C.; Ferrari, M.; van Beurden, K.; Ca', N. della; van Schijndel, J.; Noel, T. *Org. Lett.* **2021**, *23*, 2042–2047.
- 165** Shedding Light on the Nature of the Catalytically Active Species in Photocatalytic Reactions Using Bi<sub>2</sub>O<sub>3</sub> Semiconductor.  
Riente, P.; Fianchini, M.; Llanes, P.; Pericàs, M. A.; Noel, T. *Nature Commun.* **2021**, *12*, 625.
- 164** Electrochemical Aziridination of Internal Alkenes with Primary Amines.  
Oseka, M.; Laudadio, G.; van Leest, N. P.; Dyga, M.; de Andrade Bartolomeu, A.; Goossen, L.; de Bruin, B.; Thiago de Oliveira, K.; Noel, T. *Chem (Cell)* **2021**, *7*, 255–266. (For the preprint version, see: 10.26434/chemrxiv.12824135.v1)
- 163** A Divergent Paired Electrochemical Process for the Conversion of Furfural Using a Divided-Cell Flow Microreactor.  
Cao, Y.; Knijff, J.; Delparish, A.; Neira d'Angelo, M. F.; Noel, T. *ChemSusChem* **2021**, *14*, 590–594.
- 162** Flow Chemistry Experiments in the Undergraduate Teaching Laboratory: Synthesis of Diazo Dyes and Disulfides.  
Kuijpers, K. P. L.; Weggemans, W. M. A.; Verwijlen, C. J. A.; Noël, T. *J. Flow Chem.* **2021** *11*, 7-12.
- 161** Photo Isomerization of Cis-Cyclooctene to Trans-Cyclooctene: Integration of a Micro-Flow Reactor and Separation by Specific Adsorption.  
Shahbazali, E.; Billaud, E. M. F.; Fard, A. S.; Meuldijk, J.; Bormans, G.; Noel, T.; Hessel, V. *AIChE J.* **2021**, *67*, e17067.
- 160** Gas Bubbles Have Controversial Effects on Taylor Flow Electrochemistry.  
Cao, Y.; Soares, C.; Padoin, N.; Noel, T. *Chem. Eng. J.* **2021**, *406*, 12681
- 159** Five Years of the #RSCPoster Twitter Conference.  
Baker, M. J.; Gempf, K. L.; McDonald, H.; Kerr, H. E.; Hodges, C.; Anastasaki, A.; Noel, T.; Randviir, E. P. *Chem. Commun.* **2020**, *56*, 13681–13688.
- 158** Optimization of a Decatungstate-Catalyzed C(sp<sup>3</sup>)–H Alkylation Using a Continuous Oscillatory Milli-Structured Photoreactor.  
Wen, Z.; Maheshwari, A.; Sambigiagio, C.; Deng, Y.; Laudadio, G.; van Aken, K.; Sun, Y.; Gemoets, H. P. L.; Noël, T. *Org. Process Res. Dev.* **2020**, *24*, 2356–2361.
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### *Opinion Articles*

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- 1 A CHANGE OF ART - There's more to chemistry than the round-bottomed flask  
Noël, T. *Chemistry World* **2019**, Link: <https://www.chemistryworld.com/opinion/flow-into-the-chemistry-curriculum/4010382.article>.

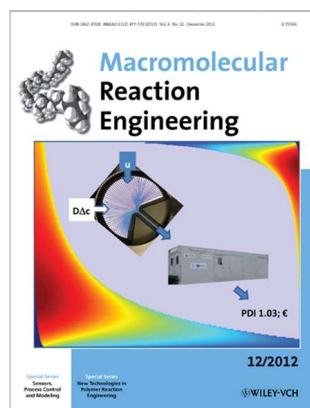
Cover articles

Lab on a Chip



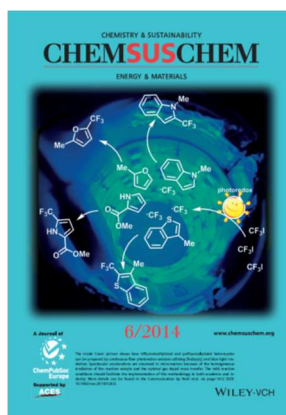
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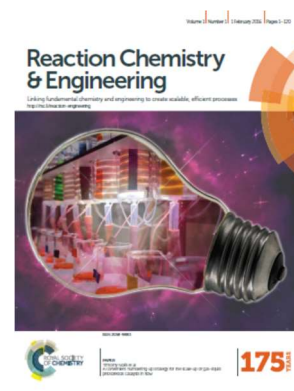
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### ***Guest Editorials***

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- 2012** Guest editor of a special issue of Challenges: “Challenges in Chemical Processes”. (Together with Volker Hessel)
- 2015** Guest editor of a special issue in Journal of Flow Chemistry, volume 5, issue 3, pp. 123-194 “Flow Chemistry in North America”. (Together with Aaron Beeler)
- 2015** Guest editor of a special issue in Chemical Engineering Technology: “Chemical intensification in flow” **2015**, issue 10 (Together with Volker Hessel)
- 2016** Guest editor of a special issue of Challenges: “Challenges in Chemical Processes”. (Together with Volker Hessel)
- 2018** Guest editor of a special issue in ChemPhotoChem: “Flow photochemistry”, volume 2, issue 10, pp. 825-944. (Together with Kevin-Booker Milburn)
- 2020** Guest editor of a special issue in Beilstein J. Org. Chem.: “Advances in Photoredox Catalysis”. (<https://www.beilstein-journals.org/bjoc/series/101>)

### ***Books***

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- 2022** Flow Chemistry, Noël, T. & Mazzarella, D., ACS in Focus, *in preparation*.
- 2020** Accounts on Sustainable Flow Chemistry, Noël, T. & Luque, R. eds., Springer, Heidelberg (Germany) **2020**, ISBN: 978-3030365714.
- 2017** Photochemical processes in continuous-flow reactors: From engineering principles to chemical applications, Noël, T. ed., World Scientific Publishing, London (UK), **2017**, ISBN 9781786342188.
- 2016** Organometallic Flow Chemistry, Noël, T. ed., Springer, Heidelberg (Germany), **2016**, ISBN 978-3-319-33243-7.

### ***Conferences participation – Oral Presentations*** (not updated since COVID pandemic)

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- 2020** Dream Lecture (Warsaw, Poland) (Invited Lecture).
- 2020** Flow Chemistry Europe Meeting – Cambridge (UK) (Invited Lecture, Conference chair).
- 2020** Seminar at University of Twente (Enschede, NL) (Invited Lecture).
- 2019** Australian Flow Chemistry Symposium (Melbourne, Australia) (Keynote Lecture).
- 2019** SelectBio Flow Chemistry Asia (Tokyo, Japan) (Keynote Lecture, Conference Chair).
- 2019** Seminar on Photoredox Catalysis at the West German Catalysis Teaching Association (Halterm am See, Germany).
- 2019** 11<sup>th</sup> Continuous-Flow Reactor Technology for Industrial Applications (Glasgow, Scotland) (Keynote Lecture).
- 2019** FROST 7 (7<sup>th</sup> Conference on Frontiers in Organic Synthesis Technology) (Budapest, Hungary) (Keynote Lecture).
- 2019** Chemistry meets Industry and Society – A creative showcase conference (Salerno, Italy) (Keynote talk).
- 2019** Seminar at Universiteit van Amsterdam (Amsterdam, NL) (Invited talk).
- 2019** Seminar at Signify (Eindhoven, NL) (Invited talk).
- 2019** Lab on a Chip Conference (Rotterdam, The Netherlands) (Invited Talk).
- 2019** Seminar at AstraZeneca (Macclesfield, UK) (Invited talk).

- 2019 Seminar at University of Manchester (Manchester, UK) (Invited talk).
- 2019 Colloquium at Freie Universitaet Berlin (Berlin, Germany) (Invited talk).
- 2019 Beilstein Meeting on Electrochemistry (Mainz, Germany) (Invited talk).
- 2019 5 lectures at the ACS National Meeting (Orlando, USA).
- 2019 1st International Young Professionals Conference on Process Engineering (YCOPE) (Magdeburg, Germany) (Keynote Lecture)
- 2019 Colloquium at University of Saint Andrews – Saint Andrews (Saint Andrews, UK) (Invited talk).
- 2019 Short course on Flow Chemistry – KU Leuven (Leuven, Belgium).
- 2019 Flow Chemistry Europe Meeting – Cambridge (UK) (Keynote Lecture).
- 2019 Colloquium at Wageningen University (Wageningen, The Netherlands) (Invited talk)
- 2019 LABEX CheMISyst (Montpellier, France) (Invited talk)
- 2019 Colloquium at TU Dortmund (Dortmund, Germany) (Invited talk)
- 2018 2 Plenary Lectures at ICIQ-INTECAT school (Tarragonna, Spain) (Plenary lecture)
- 2018 Seminar at AbbVie Inc. (Chicago, USA) (Invited lecture)
- 2018 Seminar at Genentech (San Francisco, USA) (Invited lecture)
- 2018 Seminar at Princeton University (Princeton, USA) (Invited lecture)
- 2018 Seminar at Boston University (Boston, USA) (Invited lecture)
- 2018 SK Biotek “The future of pharmaceutical development” (Boston, USA) (Invited lecture)
- 2018 Seminar at WWU Muenster (Muenster, Germany) (Invited lecture)
- 2018 IMRET 15, the International Conference on Micro Reaction Technology (Karlsruhe, Germany) (Plenary Lecture)
- 2018 8th biennial ‘Celebration of Organic Chemistry’ Symposium, UCB (Braine l’Alleud, Belgium) (Invited Lecture)
- 2018 Invited Seminar at Bayer (Leverkusen, Germany) (Invited Lecture)
- 2018ACHEMA World Forum, Dechema Award lecture (Frankfurt, Germany) (Plenary Lecture)
- 2018 Lab on a Chip Conference (Rotterdam, The Netherlands) (Invited Talk).
- 2018 Seminar at RWTH Aachen (Aachen, Germany) (Invited Seminar)
- 2018 Lecture at Heriot-Watt University (Edinburgh, Scotland) (Invited Lecture)
- 2018 Modern Photocatalysis Beilstein Meeting (Potsdam, Germany) (Invited Lecture)
- 2018 EPSRC Center for Doctoral Training in Critical Resource Catalysis (CRITICAT) (Edinburgh, Scotland) (Keynote Lecture)
- 2018 Journées de la Catalyse (Gif-sur-Yvette, France) (Keynote lecture)
- 2018 Lecture at the Annual Internal Meeting for the Cluster of Excellence RESOLV (Velen, Germany) (Invited Lecture).
- 2018 Synthesis in flow seminar (Bleriot-Plage, France) (Invited Lecture)
- 2018 Lecture at Cardiff University (UK) (Invited Lecture)
- 2018 Lecture at PhotoTrain meeting – Bologna (Italy) (Invited Lecture)
- 2018 Flow Chemistry Europe Meeting – Cambridge (UK) (Invited Lecture).
- 2018 5<sup>th</sup> Innovation for Health (Rotterdam, The Netherlands) (Invited Lecture).
- 2018 University Seminar at University of Graz (Graz, Austria) (Invited Lecture).
- 2017 Syngenta Chemistry Lecture 2017 (Stein, Switzerland) (Invited Lecture).
- 2017 Joint Meeting of 11th International Symposium on Integrated Synthesis (ISONIS-11) and 3rd International Symposium on Middle Molecular Strategy (3rd ISMMS) (Awaji Island, Japan) (Invited Lecture).



- 2017 University Seminar at University of Osaka (Osaka, Japan) (Invited Lecture).
- 2017 1692th Zasshikai Seminar – University of Tokyo (Tokyo, Japan) (Invited Lecture).
- 2017 17<sup>th</sup> Tateshina Conference (Tateshina, Japan) (Invited Lecture).
- 2017 iCAT-TUE Symposium (International Symposium on Catalysis for Sustainable Society) (Eindhoven, The Netherlands) (Invited Lecture)
- 2017 University Seminar Aarhus University (Aarhus, Denmark) (Invited Lecture).
- 2017 FROST 6 (6<sup>th</sup> Conference on Frontiers in Organic Synthesis Technology) (Budapest, Hungary) (Keynote Lecture, Conference Chair).
- 2017 Organic Chemistry day (La Giornata della Chimica Organica) (Pavia, Italy) (Invited Lecture).
- 2017 Advancing chemical synthesis through automation, processes and thinking, Beilstein Organic Chemistry Symposium 2017 (Potsdam, Germany) (Invited Lecture).
- 2017 COST Summer School CHAOS (Tallinn, Estonia) (Training Seminar).
- 2017 AMN/ISMM/APBCM/ANZNMf meeting (Tasmania, Australia) (Keynote Lecture).
- 2017 Invited seminar at University of Leipzig (Leipzig, Germany) (Invited Talk).
- 2017 Lab on a Chip Conference (Munich, Germany) (Invited Talk).
- 2017 Workshop “Electron Transfer, Radical Ions and Radical Chemistry” (Lyon, France) (Invited Talk).
- 2017 Invited seminar at Indian Institute of Science-Bangalore (Bangalore, India) (Invited Talk).
- 2017 Invited seminar at Indian Institute of Technology-Bombay (Mumbai, India) (Invited Talk).
- 2017 Advances in Organic Synthesis (AOS-2017) (Pune, India) (Invited Talk).
- 2017 Prof. K.V.Thomas Endowment International Symposium on New Trends in Applied Chemistry (Kochi, India) (Plenary Lecture).
- 2017 Flow Chemistry Conference Europe 2017 (Cambridge, UK) (Keynote Lecture).
- 2016 Dutch Design & Synthesis Guest Lectures seminar at Syncom (Groningen, The Netherlands) (Invited Talk).
- 2016 Flow Chemistry Society – Miami (USA) (Invited Talk).
- 2016 Invited seminar at Merck (New Jersey, USA) (Invited Talk).
- 2016 Invited seminar at Abbvie (Chicago, USA) (Invited Talk).
- 2016 Invited seminar at Virginia Commonwealth University (Richmond, USA) (Invited Talk).
- 2016 The international conference on microreaction technology, IMRET 14 (Beijing, China) (Keynote Talk).
- 2016 22<sup>nd</sup> International Congress of Chemical and Process Engineering, CHISA 2016 (Prague, Czech Republic) (Keynote Talk).
- 2016 27<sup>th</sup> European Colloquium on Heterocyclic Chemistry (Amsterdam, The Netherlands) (Keynote Talk).
- 2016 39<sup>th</sup> Annual Meeting of the Brazilian Chemical Society (Goiania, Brazil) (Keynote Talk).
- 2016 Research Seminar at the Federal University of Rio de Janeiro (Rio de Janeiro, Brazil) (Invited Talk).
- 2016 NextGenChem@NL symposium (Nijmegen, Netherlands)
- 2016 Zing Flow Conference (Albufeira, Portugal) (Invited Talk, Session chair).
- 2016 Organic colloquium at Johannes Gutenberg University Mainz (Mainz, Germany) (Invited Talk).
- 2016 Research Seminar at Radboud University of Nijmegen (Nijmegen, The Netherlands) (Invited Talk).
- 2016 Research Seminar at University of Antwerp (Antwerp, Belgium) (Invited Talk).

- 2016** Research Seminar at University of Twente (Twente, The Netherlands) (Invited Talk).
- 2016** Flow Chemistry Conference Europe 2016 (Cambridge, UK) (Conference Chair – Invited Talk).
- 2016** Flow Workshop Hasselt 2016 (Hasselt, Belgium) (Invited Talk).
- 2015** Webinar on 9th December 2015 for Technology Networks (Invited Talk).
- 2015** Pacifichem 2015 (Honolulu, Hawaii, USA) (Invited Talk).
- 2015** EPIC5 (European Process Intensification Conference) (Nice, France) (Keynote Talk).
- 2015** Photochemistry Gordon Research Conference (Stonehill College, Easton, MA, USA) (Invited Talk).
- 2015** 17th International Symposium on Relations between Homogeneous and Heterogeneous Catalysis (ISHHC17) (Utrecht, Netherlands).
- 2015** NextGenChem@NL symposium (Leiden, Netherlands)
- 2015** ACS Meeting Denver, New Trends in Cross-Coupling Catalysis in Industry and Academia, Session dedicated to the 2015 ACS Award in Industrial Chemistry in honor of Dr. Thomas J. Colacot (Johnson Matthey) (Denver, CO, USA) (Invited Talk).
- 2015** Lecture at DSM – Geleen (Netherlands) (Invited talk).
- 2015** Flow Chemistry Society – Berlin (Germany) (Conference & Session Chair – Keynote Lecture).
- 2014** Netherlands Process Technology Symposium (NPS 14) (Netherlands) (Keynote Lecture).
- 2014** NextGenChem@NL symposium (Eindhoven, Netherlands).
- 2014** Automation in chemistry: Carbohydrate synthesis and continuous-flow (Germany) (Invited Talk).
- 2014** Queen’s University Belfast (UK) (Invited Talk).
- 2014** Flow Chemistry Society – Boston (USA) (Invited Talk).
- 2014** Engineering for a Sustainable Future – Eindhoven (NL) (Invited Talk).
- 2014** Flow Chemistry Society – Barcelona (Spain) (Invited Talk).
- 2014** University of Amsterdam – Amsterdam (NL) (Invited Talk).
- 2013** FROST 4 – Flow Chemistry Society – Budapest (Hungary) (Invited Talk).
- 2013** Prof. Guangwen Chen’s Group – Dalian Institute of Chemical Physics – Dalian **2013** (China) (Invited talk).
- 2013** Global Congress of Catalysis – Dalian **2013** (China) (Invited talk). Special attention: Chair of Photocatalysis session.
- 2013** FLOHET – 2013, Annual Florida Heterocyclic and Synthetic IUPAC – Sponsored Conference, Florida **2013** (USA) (Invited talk).
- 2013** Lecture at Janssen Pharmaceuticals – Beerse (Belgium) (Invited talk).
- 2012** MinacNed Conference, Amsterdam **2012** (The Netherlands), (Invited talk).
- 2012** European Young Chemist Award at Euchems Chemistry Conference, Prague **2012** (Czech Republic), (Invited talk).
- 2012** Euchems Chemistry Conference, Prague **2012** (Czech Republic).
- 2012** Incentive Award for Young Researchers Lecture at Vlaams Jongeren Congres, Oostende **2012** (Belgium), (Invited talk).
- 2012** Microwave & Flow Chemistry Conference, Lanzarote **2012** (Spain).
- 2011** 15<sup>th</sup> Sigma-Aldrich Organic Synthesis Meeting, Spa **2011** (Belgium), Opening and Plenary Lecture, (Invited talk).
- 2011** Lecture at Ghent University, Department of Chemistry, Ghent 2011 (Belgium), (Invited talk).
- 2011** Lecture at EcoSynth, Oostende **2011** (Belgium), (Invited talk).

- 2010 Metals In Synthesis Seminars, Massachusetts Institute of Technology 2010 (USA).  
 2010 Flemish Youth Conference of Chemistry, Blankenberge 2010 (Belgium).  
 2009 13<sup>th</sup> Sigma-Aldrich Organic Synthesis Meeting, Spa 2009 (Belgium).  
 2009 42<sup>nd</sup> IUPAC Conference, Glasgow 2009 (Scotland, UK).  
 2009 COST Chemistry D.40, Turku 2009 (Finland).  
 2007 Flemish Youth Conference of Chemistry, Antwerp 2007 (Belgium).

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***Supervision and guidance of Ph.D. students as first promotor*** (co- or second promotor are not listed)

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- 2023 *Merging methodology & technology for light-mediated synthesis.*  
 Ting Wan (UvA).  
 2022 *Green, scalable and automated photochemistry in flow.*  
 Zhenghui Wen (UvA).  
 2021 *Engineering Electrochemical Transformations in Continuous-Flow Reactors.*  
 Yiran Cao (TU/e).  
 2020 *New synthetic methods enabled by photochemistry and electrochemistry in flow.*  
 Gabriele Laudadio (TU/e).  
 2020 *Scaling and automation of photochemistry in continuous flow.*  
 Koen Kuijpers (TU/e).  
 2019 *Photocatalytic Difluoromethylation and Light-Induced Iron Cross-Coupling in Flow.*  
 Xiao-Jing Wei (TU/e).  
 2019 *The development of Luminescent Solar Concentrator Photomicroreactors to enable solar photochemistry.*  
 Dario Cambié (TU/e). Special attention: Cum Laude.  
 2019 *Photocatalytic modification of bioactive molecules in continuous-flow microreactors.*  
 Cecilia Bottecchia (TU/e). Special attention: Cum Laude.  
 2018 *Enabling and accelerating C–H functionalization through continuous-flow chemistry.*  
 Hannes P. L. Gemoets (TU/e).  
 2017 *Accelerated (photo)redox chemistry in continuous-flow microreactors.*  
 Natan J. W. Straathof (TU/e).

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***Supervision and guidance of postdoctoral researchers*** (past members)

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- 2022 Dr. Luca Capaldo. Current position: Assistant Professor (U Parma, Italy)  
 2022 Dr. Lars Wesenberg. Current position: SpiroChem (Basel, Switzerland)  
 2022 Dr. Grace Lowe. Current position: Start up (UK)  
 2022 Dr. Alberto Luridiana. Current position: Assistant Professor (U Cagliari, Italy)  
 2022 Dr. Daniele Mazzarella. Current position: Assistant Professor (U Padova, Italy)  
 2021 Dr. Gabriele Laudadio. Current position: Postdoc in Baran Group (Scripps, La Jolla, USA)  
 2021 Dr. Diego Pintossi. Current position: Data analyst (Amsterdam)  
 2021 Dr. Gabriele Laudadio. Current position: Postdoc in Baran Group (Scripps, La Jolla, USA)  
 2021 Dr. Laura Buglioni. Current position: High school teacher (Italy).

- 2020** Dr. Alexander Nyuchev. Current position: Assistant Professor at Lobachevsky State University of Nizhny Novgorod (Russia).
- 2020** Dr. Maksim Oseka. Current position: Assistant Professor at Tallinn University of Technology (Estonia).
- 2020** Dr. Zhengya Dong. Current position : Associate Professor at Guangdong University (China)
- 2020** Dr. Carlo Sambigioglio. Current position: Researcher at Sygnature Discovery.
- 2020** Dr. Paola Riente Paiva. Current position: Postdoc at University of Amsterdam
- 2020** Dr. Matthias Schmid. Current position: Researcher at Boehringer Ingelheim (Germany)
- 2017** Dr. Fang Zhao. Current position: Lecturer at East China University of Science and Technology (ECUST).
- 2016** Dr. Yuanhai Su. Current position: Professor at Shanghai Jiao Tong University. Special attention: recipient of 1000-talents scholarship.
- 2015** Dr. Nico Erdmann. Current position: consultant at Accenture.

### **Research Funding**

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#### *Granted Research Project Applications*

<b>2024</b>	Industrial grant from Novo Nordisk, 1 PD. <i>RoboChem.</i>	600 k€
<b>2024</b>	Industrial grant from Covestro, 1 PhD. <i>PEPMOD-BOT: PEPTide MODification roBOT.</i>	326,146 €
<b>2023</b>	EIC Pathfinder Open 2021, 1 PhD <i>Fibre-based plasmonic micro reactor for flow chemistry (reaCtor)</i>	3,112 k€
<b>2023</b>	NWO-OTP, 1 PhD Developing an innovative reactor for industrially relevant photocatalytic conversions (PhotoScale)	1,000 k€
<b>2023</b>	Marie Curie ITN, 1 PhD position. <i>Microprocess Engineering for Electrosynthesis - new synthesis concepts for pharmaceutical/ fine chemical industry (MIEL)</i>	
<b>2022-3</b>	Industrial grant from Novartis, 1 PD. <i>New metallophotocatalytic approaches to establish C(sp<sup>2</sup>)-C(sp<sup>3</sup>) bonds using non-precious metal photocatalysts</i>	300 k€
<b>2022</b>	NWO ENW M2 Grant, 1 PhD. <i>Bioorthogonal photocatalytic reactions for the site-specific modification of antibodies (PCLabel)</i>	700 k€
<b>2022</b>	ERC Consolidator Grant, 4 PhD + 1 Postdoc position. <i>Site-selective C(sp<sup>3</sup>)-H functionalization with gaseous reagents using Hydrogen Atom Transfer photocatalysis in flow (FlowHAT)</i>	2,000 k€
<b>2022</b>	Marie Curie ITN, 1 PhD position. <i>Green and digital continuous-flow pharmaceutical manufacturing (GreenDigiPharma)</i>	2,681 k€
<b>2022</b>	Horizon-RIA grant, 1 PhD + 1 Postdoc position.	6,898 k€

	<i>Merging sustainable and digital chemical technologies for the development of greener-by-design pharmaceuticals (SusPharma)</i>	
<b>2022</b>	Horizon-RIA grant, 2 Postdoc positions.	3,171 k€
	<i>Artificial PHOTOSynthesis to produce FUELS and chemicals: hybrid systems with microorganisms for improved light harvesting and CO<sub>2</sub> reduction (Photo2Fuel)</i>	
<b>2022</b>	EIC Pathfinder Open 2021, 1 PhD	3,255 k€
	<i>Reaction robot with intimate photocatalytic and separation functions in a 3-D network driven by artificial intelligence (CATART)</i>	
<b>2022</b>	Marie Curie Intra-European Fellowship, Dr. Jesus Orduna.	188 k€
	<i>Selective Alkylation of Complex Molecules in Flow (SELECTFLOW)</i>	
<b>2021</b>	Marie Curie Intra-European Fellowship, Dr. Daniele Mazzarella.	176 k€
	<i>Constructing chiral molecules merging ELECTROchemistry and ORGANOCatalysis (ELECTROORGANO)</i>	
<b>2021</b>	Marie Curie Intra-European Fellowship, Dr. Luca Capaldo.	176 k€
	<i>Flow Photoelectrocatalysis via Hydrogen-Atom Transfer: net-oxidative C-H to C-C bond conversion (HAT-TRICK)</i>	
<b>2020</b>	Lilly Research Award Program, 1 PD	265 k\$
	Application of flow reactors for the development of new photocatalytic and electrochemical transformations for Late-Stage Functionalization (LSF).	
<b>2020</b>	NWO-OTP, 1 PhD + 1 PD, coordinator	900 k€
	Development of a high-throughput experimentation platform for photocatalytic functionalization of organic molecules (MultiModalPhotochem)	
<b>2020</b>	Marie Curie ITN, 2 PhD, coordinator	3,990 k€
	Photocatalysis as a tool for synthetic organic chemistry (PhotoReAct)	
<b>2020</b>	Marie Curie ITN, 1 PhD, co-applicant	3,945 k€
	C-H Activation for Industrial Renewal (CHAIR)	
<b>2019</b>	RIA grant, 2 PhD, co-applicant	6,993 k€
	Heterogenous Photo(electro)catalysis in Flow using Concentrated Light: modular integrated designs for the production of useful chemicals (FlowPhotoChem)	
<b>2019</b>	Host of a CSC scholarship, Ms. Ting Wan	200 k€
<b>2019</b>	Research Grant Aspen – 1-year postdoc	90 k€
<b>2019</b>	FETopen, 1 PhD + 1 postdoc, co-applicant.	3,470 k€
	<i>Flow chemistry for Isotopic eXchange (FLIX)</i>	
<b>2019</b>	Marie Curie Intra-European Fellowship, Dr. Laura Buglioni	176 k€
	<i>Electrochemical Sulfonylation of Lysine Residues in Continuous Flow Microreactors (Electrosulf)</i>	
<b>2019</b>	Research Grant AbbVie – 1-year postdoc	80 k€
<b>2018</b>	Host of a CSC scholarship, Ir. Zhenghui Wen	200 k€

<b>2018</b>	Marie Curie Intra-European Fellowship, Dr. Paola Riente. <i>Application of Metal Oxide Semiconductors in Photocatalysis (MOSPhotocat)</i>	178 k€
<b>2018</b>	Marie Curie Intra-European Fellowship, Dr. Carlo Sambigiato. <i>Flow Chemistry for CH activation (FlowAct)</i>	166 k€
<b>2017</b>	Host of a CSC scholarship, Ir. Yiran Cao. <i>Electrochemistry in flow.</i>	200 k€
<b>2017</b>	Collaboration with AbbVie. <i>CH oxidation.</i>	25 k€
<b>2015</b>	VIDI award from Dutch Science Foundation, NWO, personal grant. <i>Sensitized photoredox catalysis in continuous-flow microreactors (SensPhotoFlow).</i>	800 k€
<b>2015</b>	Marie Curie Innovative Training Network, coordinator of the project, incl. 3 Ph.D. positions and a part-time project manager. <i>Accelerating photoredox catalysis in continuous-flow systems. (Photo4Future)</i>	2,289 k€
<b>2014</b>	Marie Curie Intra-European Fellowship, Dr. Yuanhai Su. <i>Synthesis of trifluoromethylstyrene compounds via gas-liquid photoredox catalysis in continuous-flow microreactors. (PhotoFlow)</i>	200 k€
<b>2013</b>	CatchBio grant from Dutch Science Foundation, NWO. <i>Boosting organometallic-catalyzed C–H oxidation reactions in continuous-flow microreactors.</i>	225 k€
<b>2013</b>	ECHO grant from Dutch Science Foundation, NWO. <i>Breaking the unbreakable: C-H carbonylation in micro flow and vision to process.</i>	260 k€
<b>2013</b>	Marie Curie Career Integration Grant, personal grant. <i>C–H Activation and Carbonylation in Continuous Microflow (FLACH)</i>	100 k€
<b>2012</b>	VENI award from Dutch Science Foundation, NWO, personal grant. <i>The Fluor Revolution: Boosting Fluorination in Continuous-Flow.</i>	250 k€
<b>2010</b>	Fulbright-Hays award, Bureau of Educational and Cultural Affairs, US Department of State, personal grant. <i>Multistep Microchemical Synthesis of Imatinib – Towards a Continuous Manufacturing of Pharmaceuticals.</i>	--- <sup>[a]</sup>
<b>2005-2009</b>	Extraordinary Research Fund fellow (BOF grant), personal grant. <i>Novel efficient chiral ligands for asymmetric catalysis.</i>	200 k€

<sup>[a]</sup> Involves sponsorship of VISA, flight tickets, health insurance, etc.

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### **Outreach activities**

- Co-organizer of the RSC Twitter Poster Conference, since 2020. (See also, Five Years of the #RSCPoster Twitter Conference. *Chemical Communications* 2020, 56 (89), 13681–13688 DOI: 10.1039/D0CC90441D)
- Podcast Episode of *The Sound of Science* with host Lieven Scheire: <https://soundcloud.com/user-563469139/sound-of-science-7-timothy>
- Ted Talk at TEDxAUCollege “The sunny side of chemistry” (Amsterdam, March 7<sup>th</sup>, 2017): <https://www.youtube.com/watch?v=bZ89r2tK3xc>
- Participation in the BZT show for the demonstration of chemical experiments with children (Dutch television, Ned 3, February 2, 2013).
- Teacher days: Presentation for high school science teachers during docentendag ST (2013-2014).
- Presentation about photoredox catalysis in microreactors for highly gifted children.
- Demonstration of chemical experiments (Basisschool EigenWijs, Veldhoven, groep 7-8).
- Uitleggen van wetenschappelijke fenomenen op de Nederlandse Radio (NPO Radio 2, Programma: Bureau Kijk in de Vegte)
  - 1) 26-07-2015 ‘Waarom klinkt heet water schenken anders dan koud water?’  
[http://www.npo.nl/bureau-kijk-in-de-vegte/26-07-2015/RBX\\_KRO\\_729397/RBX\\_KRO\\_1520543](http://www.npo.nl/bureau-kijk-in-de-vegte/26-07-2015/RBX_KRO_729397/RBX_KRO_1520543)  
(radio interview)
  - 2) 05-07-2015 'Waarom blijft plastic nat in de vaatwasser?'  
[http://www.npo.nl/bureau-kijk-in-de-vegte/05-07-2015/RBX\\_KRO\\_729394/RBX\\_KRO\\_1283784](http://www.npo.nl/bureau-kijk-in-de-vegte/05-07-2015/RBX_KRO_729394/RBX_KRO_1283784)  
(radio interview)
  - 3) 11-10-2015 ‘Waarom loopt het geluid op als je met een lepel op de bodem van een kop koffie tikt?’  
<http://www.kro-ncrv.nl/bureaukijkindevegte/seizoenen/2015/30-141062-11-10-2015/290-105413-waarom-loopt-het-geluid-op-als-je-met-een-lepel-op-de-bodem-van-een-kop-koffie-tikt> (radio interview)
- Twitter: @NoelGroupTUE (~ 2000 followers), @tnoel82 (> 700 followers)
- We blog about our most important discoveries: <http://www.noelresearchgroup.com/category/blog/>
- For notable scientific papers, short movie scripts are prepared in collaboration with TU/e Media Relations: <https://www.youtube.com/watch?v=PE6N6gQ9x4I> (Artificial leaf as mini-factory for medicine)
- Media attention: Our work has also been covered on LabTube (online interview), in popular Dutch Media such as Cursor, Elements and Talent (see: <http://www.noelresearchgroup.com/news/>), and we received author profiles in *Angewandte Chemie*, *Reaction Chemistry and Engineering* and *Synform* (<http://www.noelresearchgroup.com/timothy-noel/>). Our most covered paper details on the development of an ‘artificial leaf’ for solar photochemistry (*Angew. Chem. Int. Ed.* 2017, 56, 1050; VIP article). This paper was covered by several news agencies around the world, including Reuters, Le Monde, De Volkskrant, Science & Vie, Radio BNR, Dutch Radio 1, TechCrunch, Engadget, Daily Mail, Sputnik News, Yahoo, etc. Furthermore, the discovery has been highlighted in scientific media, amongst others in *Nature Photonics*, *The Chemical Engineer*, *Electro Optics* and *Photonics* news, etc.
- Museum expositions: Our LSC-PM reactor was also exposed at the London Science Museum (<https://blog.sciencemuseum.org.uk/creating-medicine-from-sunlight/>) and in the “Shine on Me-Wir und die Sonne” exposition in the Stiftung Deutsches Hygiene Museum in Dresden.

### ***Other professional activities***

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- Permanent scientific Consultant for InnoStudio, ThalesNano and Comminex (Hungary).
  - Flow Chemistry consultant at Novo Nordisk.

- Member of the Board of Directors of the Flow Chemistry Society.
- I am Editor in Chief for Journal of Flow Chemistry (Since 2019); Associate Editor of Journal of Flow Chemistry (2014-2018).
- Member of the Advisory Board of Reaction Chemistry & Engineering, Synlett, ACS Organic & Inorganic Au, Advanced Synthesis and Catalysis.
- Conference Chair and organizer of Flow Chemistry Europe – Berlin 2015, Flow Chemistry Europe – Cambridge 2016, FROST 6 – Hungary 2017, Photo4Future symposium – Eindhoven 2018, Flow Chemistry Asia – Narita 2019, Japan.
- Member of the Faculty Council and the Scientific Committee, department Chemical Engineering & Chemistry at TU Eindhoven.
- Member of the TU/e Young Academy of Engineering (since 2018)
- Member of the COST action ‘CHAOS’ (C–H activation in organic synthesis)
- Member of the Flow Chemistry Society, Dutch Chemist Association (KNCV), American Chemical Society (ACS).
- Scientific Board member of Creaflow (development of innovative and scalable continuous-flow reactors).
- In 2012-2013, 2015-2016, 2019-2020, I was a docent coach at TU/e for novel bachelor students in the department Chemical Engineering and Chemistry.

### **Teaching**

- I teach at University of Amsterdam the course on Flow Chemistry and have implemented Flow Chemistry in the practical course.
- I have obtained my Basis Kwalificatie Onderwijs (BKO, i.e. a Teaching Certificate for Teaching in Higher Education – obligatory in The Netherlands) in 2015.
- I have taught the following courses at Eindhoven University of Technology:

Title	ECTS	Level	# Students	Teaching method	Role	Remark
Practical Introduction Course to Chemistry and Chemical Engineering	5	B. Sc. 1	120	Practical course	Responsible Docent	Ongoing
Micro Flow Chemistry & Process Technology	5	M.Sc. 1/2	60-70	Lectures	Responsible Docent	Ongoing
Inorganic chemistry and materials	5	M.Sc. 1/2	50	Lectures	Co-docent	Ongoing
Introduction to chemical reactor technology	5	B.Sc. 2	70	Lectures	Co-docent	Three years
Advanced Organic Chemistry	5	M.Sc. 1	70	Lectures	Co-docent	Four years

- I have been “docent-coach” for four academic years for first-year bachelor students.
- I have mentored in total >40 M.Sc. thesis students and >30 B.Sc. thesis students at TU/e.
- For my vision on flow chemistry in the curriculum, see: <https://www.chemistryworld.com/opinion/flow-into-the-chemistry-curriculum/4010382.article>