

Curriculum Vitæ | prof. dr.-ing. Gianvito Vilé

Address:

Politecnico di Milano
Department of Chemistry, Materials and
Chemical Engineering "Giulio Natta"
Via Mancinelli, 7
20131 Milan, Italy

ResearcherID: [Q-9114-2016](#)

ORCID: [0000-0003-0641-8590](#)

Scopus: [55065086200](#)

GoogleScholar: [Gianvito Vilé](#)

Personal information:

Date of birth: 26/11/1987 (**36 years**)

Place of birth: Mesagne (Italy)

Citizenship: Italian

**RESEARCH INTERESTS**

- Published 50+ articles in peer-reviewed journals, which were featured in 15 front covers
- Google: ca. 4500 citations, h-index 29 (as of September 2023)
- Awarded >5 million EUR in grants in the last 4 years, including an ERC Starting Grant in 2022
- Manage a research group of 11 people (3 postdocs, 8 PhD students), besides temporary undergraduates
- Presented over 68 times at conferences, seminars and workshops, including 49 keynote/invited talks
- Editorial board member for 6 major journals in chemical engineering or chemistry (*Chem. Sci.*, *Appl. Catal. B*, *ChemCatChem*, *Mol. Catal.*, *ACS ES&T Eng.*, and *Chem. Eng. Process.*), and reviewer for 20+ journals
- Participate in several international scientific advisory panels and panel evaluation committees

RESEARCH INTERESTS

Process intensification | Single-atom catalysis | Continuous synthesis and purification | Synergy between homogeneous & heterogeneous catalysts | Process chemistry | Catalyst implementation and reaction engineering | Bio-based synthesis | Pharmaceutical production | New chemistry technologies (photochemistry, electrocatalysis)

EDUCATION

- 2020 **Habilitation** for a Full Professorship in Chemical Engineering, Italian Ministry of University.
- 2016 **Ph.D. (with medal, highest grade), ETH Zurich** (Switzerland), Thesis title: "Design of new nanostructured catalysts for selective hydrogenations in flow". Advisor: Prof. Dr. Javier Perez-Ramirez.
- 2011 **MSc** (110/110 cum laude) in Chemical Engineering, **Politecnico di Milano** (Italy)
- 2010 **Visiting Student**, Department of Chemical Engineering, **TU Delft** (The Netherlands) and Institute for Chemical and Bioengineering, **ETH Zurich** (Switzerland)
- 2009 **BSc** (110/110 cum laude) in Chemical Engineering, **Politecnico di Milano** (Italy)

CURRENT ACADEMIC APPOINTMENT

- 2023 - today **Associate Professor**, Department of Chemistry, Materials and Chemical Engineering, **Politecnico di Milano** (Italy)
- Elected member of the **PhD Board in Industrial Chemistry and Chemical Engineering**, Department of Chemistry, Materials and Chemical Engineering, **Politecnico di Milano** (Italy)
- Elected member of the **National PhD Board in Catalysis**, Department of Chemistry, Materials and Chemical Engineering, **Politecnico di Milano** (Italy)

PREVIOUS ACADEMIC AND RESEARCH APPOINTMENTS

- 2020 - 2023 **Group Leader and Tenure-Track Assistant Professor**, Department of Chemistry, Materials and Chemical Engineering, **Politecnico di Milano** (Italy)

- 2016 - 2019 **Lab Head**, Department of Chemistry Technologies, **Idorsia Pharmaceuticals** (Switzerland)
- 2016 - 2016 **Scientist in "Process Intensification", Sensirion AG** (Switzerland)
- 2011 - 2016 **Scientific Assistant in "Catalysis Engineering"**, Institute for Chemical and Bioengineering, **ETH Zurich** (Switzerland)
- 2010 - 2011 **Visiting Student**, Department of Chemical Engineering, **TU Delft** (The Netherlands)

FUNDING

- 2023 - today "SAC_2.0: Single-atom catalysts for a new generation of chemical processes: from fundamental understanding to interface engineering" (**ERC StG 2022**), European Commission, **€ 1'499'681** (Role: Attracted funding. **International Competitive Call. Principal Investigator**).
- 2023 - today "UNDERSAC: Understanding the structure and reactivity of C₃N₄-based single-atom catalysts" (PRIN 2022), Italian Ministry of Education, **€ 220'400** (of this, **€ 72'400** go to my lab at POLIMI) (Role: Attracted funding. **National Competitive Call. Coordinator and Principal Investigator**).
- 2023 - today "GreenDigiPharma: Green and digital pharmaceutical manufacturing", European Commission, **€ 2'605'881.60** (of this, **€ 518'875** go to my lab at POLIMI) (Role: Attracted funding. **International Competitive Call. Coordinator and Principal Investigator**).
- 2023 - today "SACtoH₂: Rational design of single-atom catalysts for light-to-H₂ conversion" (PRIN PNRR 2022), Italian Ministry of Education, **€ 299'692** (of this, **€ 128'706** go to my lab at POLIMI) (Role: Attracted funding. **National Competitive Call. Unit Leader**).
- 2023 - today "Photocatalytic recovery of iodine from iodinated waste using single-atom catalysts", Fondazione Cariplo – Economia Circolare, **€ 299'775** (of this, **€ 100'000** go to my lab at POLIMI) (Role: Attracted funding. **International Competitive Call. Unit Leader**).
- 2023 - today "Conventional and alternative catalytic systems for the production of carboxylic acids from vegetable oils", ENI Versalis, **€ 198'000** (Role: **Principal Investigator**).
- 2022 - today "SACforCO₂: Heterogeneous Single-Atom Catalysts for Carbon Dioxide Reduction to Chemicals", European Commission, Marie Skłodowska-Curie Individual Fellowships for Dr. Vitthal Saptal, **€ 188'590** (Role: Attracted funding. **International Competitive Call. Coordinator and Principal Investigator**).
- 2022 - today "SusPharma: Merging Sustainable And Digital Chemical Technologies for The Development Of Greener-By-Design Pharmaceuticals", European Commission, **€ 6'897'657** (of this, **€ 1'018'125** go to my lab at POLIMI) (Role: Attracted funding. **International Competitive Call. Principal Investigator**).
- 2021 - today "SSEFR: Single-site electrocatalytic flow reactor for C-C coupling", European Commission, Marie Skłodowska-Curie Individual Fellowships for Dr. Mark Bajeda, **€ 171'473** (Role: Attracted funding. **International Competitive Call. Coordinator and Principal Investigator**).
- 2020 - 2022 "Catalytic conversion of vegetable oil into synthetic fuels", ENI Versalis, **€ 180'000** (Role: Task leader).
- 2022 - today "Flow synthesis of pharmaceutical intermediates", Procos Pharmaceuticals Spa, **€ 5'000** (Role: Attracted funding. **Principal Investigator**).
- 2019 - today "AFRICA: harnessing the power of Flow chemistry for the synthesis of Complex pharmaceuticals", Fondazione Bracco, **€ 900'000** (Role: Attracted funding. **International Competitive Call. Principal Investigator**).
- 2020 - 2021 "Heterogeneously-catalyzed continuous flow process for organic synthesis", Procos Pharmaceuticals Spa, **€ 15'000** (Role: Attracted funding. **Principal Investigator**).
- 2020 - 2021 "Photocatalytic processes to recover iodine from wastewater", Bracco Imaging Spa, **€ 55'000** (Role: Attracted funding. **Principal Investigator**).
- 2020 - 2021 "Flow chemistry for the synthesis of a new contrast agent", Bracco Imaging Spa, **€ 76'842** (Role:

Attracted funding. **Principal Investigator**).

2016 - 2019 "Engineering novel photocatalytic films for organic synthesis in flow reactors", Idorsia Pharmaceuticals, CHF 423'332 (ca. **€ 388'313**)

TEACHING

2023 - today **Lecturer** - "Continuous Manufacturing of Pharmaceuticals" (Graduate, 5 ECTS). (Student evaluation: Excellent)

2021 - today **Lecturer** - "Laboratory of Chemical Engineering Project" (Undergraduate, 8 ECTS).

2019 - 2022 **Lecturer** - "Flow Chemistry" (Graduate, 5 ECTS), Politecnico di Milano (Italy). (Student evaluation: Excellent)

2013 - 2016 **Teaching assistant** - "Catalysis Engineering" (Graduate, 8 ECTS), Institute for Chemical and Bioengineering, ETH Zurich (Switzerland)

2011 - 2015 **Lab instructor** - "Laboratory of Catalytic Materials" and "Laboratory of Flow Reactions", Chemical Engineering Laboratory II (Graduate, 8 ECTS), Institute for Chemical and Bioengineering, ETH Zurich (Switzerland)

STUDENTS' SUPERVISION

Postdoctoral fellows:

Dr. Mark Bajada

Dr. Vitthal Saptal

Dr. Grazia Righetti

PhD students:

Alessandra Sivo

Areti Mousiou

Niccolò Allasia

Mert Can Ince

Vincenzo Ruta

Jiachengjun Luo

Milla Vigliengo

Miguel De Vries

MSc thesis students:

Mario Scialdone

Giuseppe Marino

Gabriele Musati

Moritz Haus

Ilaria Montanari

Edoardo V. Pasini

Eleonora Ruffini

Michael Ehrenstein

Federica Romanelli

Vittoria Granata

Francesco Iannacci

David Grivel

Alberto F. Ceravolo

Martina Villa

Matteo Vergani

Patrick Dähler

Giacomo Cassanego

Giuseppe Minerva

Leonardo Mineo

Sarah Correa

Chiara Bassano

Maria Suanno

Massimiliano de Maron

Jonas Wichert

Daniela Dardano

Alessandro Manfredi

Carola Romani

Leonard Floryan

Paola Piscioneri

Enrico Annoscia

Lara Amini

Jakub Jagielski

AWARDS

2023 Named as "**Emerging Leaders 2023**", Journal of *Physics Condensed Matter*, Institute of Physics (IOP)

2023 Elected "**Fellow of the Young Academy of Europe**", Young Academy of Europe and Academia Europaea

2022 "**ERC Starting Grant**", European Research Council

2022 "**Alfredo di Braccio Award**" for pioneering contributions in the field of single-atom catalysis, Accademia dei Lincei

2021 Named as "**Chemical Engineering Rising Stars**", Frontiers in Chemical Engineering, Frontiers

2021 Named as "**Emerging Investigators in Chemical Engineering**", Reaction Chemistry & Engineering, **Royal Society of Chemistry**

2021 **Humboldt Junior Fellowship**, Humboldt Foundation and University of Bayreuth

2020 Nominated "**Expert for the Chemical and Materials Industry**", World Economic Forum

2020 Top Reviewers for ChemCatChem, Wiley-VCH and PubChemSoc Europe

- 2019 Named as **"Influential Researcher in Chemical Engineering"**, I&EC Research, **American Chemical Society**
- 2019 Felder Award, Fondazione Bracco & Fondazione Politecnico di Milano, Italy
- 2016 **Dimistris N. Chorafas Award in Chemistry**, Weizmann Institute of Science, Israel
- 2016 Materials & Industrial Processes Award, MaP Competence Center of ETH Zurich
- 2016 **ETH Medal for Outstanding PhD Thesis**, ETH Zurich
- 2015 Outstanding Reviewer, Wiley-VCH, and PubChemSoc Europe
- 2014 "DSM award" for Best Poster Presentation in Catalysis, SCS Fall Meeting and DSM
- 2014 SCNAT/SCS Chemistry Travel award, Swiss Academy of Sciences & Swiss Chemical Society
- 2012 "Prix SGVC" award for young talents, Swiss Process and Chemical Engineers Society
- 2010 Erasmus/LLP Scholarship, European Union | ATHENS Scholarship, TU Delft
- 2010 "Make Science Make Sense" award, Bayer

PROFESSIONAL SERVICES

(a) Editorial services

- 2023 - today **Advisory Board Member** of *Chemical Science* (IF 9.969, Royal Society of Chemistry).
- 2022 - today **Early-Career Editorial Board Member** of *Applied Catalysis B* (IF 22.1, Elsevier). (Member of the journal Social Media and Cover Selection Committees)
- 2022 - today **Early-Career Editorial Board Member** of *ACS ES&T Engineering* (IF 7.1, American Chemical Society).
- 2022 - today **Editorial Board Member** of *Molecular Catalysis* (IF 5.089, Elsevier).
- 2021 - today **Early-Career Editorial Board Member** of *ChemCatChem* (IF 4.85, Wiley).
- 2021 - today **Early-Career Editorial Board Member** of *Chemical Engineering and Processing - Process Intensification* (IF 4.3).
- 2020 - today **Board member** for other minor journals published by Frontiers (*Front. Chem. Eng.*, *Front. Catal.*) and MPDI (*Processes*).
- 2022 - today Invited Guest Editor for the *Molecular Catalysis* special issue "Nano and single-atom catalysts for renewable chemicals", together with **Prof. Ning Yan** (National University of Singapore).
- 2021 - today Invited Guest Editor for the *ChemCatChem* special issue "Developments at the interface between surface organometallic and heterogeneous single-atom catalysts", together with **Prof. Angelika Bruckner** (Leibniz Institute for Catalysis) and **Prof. Botao Qiao** (Dalian Institute of Chemical Physics).
- 2021 - today Invited Guest Editor for the *Chem. Eng. Process.* special issue "Process intensification approaches for waste to value", together with **Prof. Dmitry Murzin** (Åbo Akademi University).
- 2020 - today Invited Guest Editor of a *Processes* special issue on "Catalytic Processes in Continuous Nanostructured Reactor", together with **Prof. Jiaxu Liu** (Dalian University of Technology).
- 2017 - 2018 Invited Guest Editor for the *Catalysis Today* special issue "Catalysis in continuous flow microreactors".

(b) Evaluation of competitive grants

- 2023 - today **Panel Member (Chemical Engineering & Catalysis)** for the Research Foundation Flanders FWO (call: **PhD fellowships**).
- 2023 - today **Panel Member (Chemistry & Chemical Engineering)** for China's New Cornerstone Investigator Program (equivalent to the ERC in Europe, awarding exceptional scientists with stable and long-term support for fundamental discovery research, with up to 5 million yuan per year).
- 2021 - today **Remote Evaluator** for the European Commission (**ERC CoG, Horizon FET, WIDERA, MSCA-**

Doctoral Network, and **COST actions**), Singapore National Research Foundation, Science Foundation Ireland, US National Science Foundation, Slovak Academy of Sciences, Czech Academy of Sciences, National Science Center Poland, Research Foundation Flanders FWO, ational Research, Development and Innovation Office of Hungary, Dutch Research Council.

2020 - today **Expert Evaluator** for the progress of the European Commission H2020 project FLIX ("Flow chemistry for Isotopic eXchange"), integrating catalysis and flow reactor design. Partners: Commissariat à l'Énergie Atomique et aux Énergies Alternatives, Leibniz Institute of Catalysis, National Institute of Applied Sciences of Toulouse, Aarhus University, ComInnex, Absiskey, University of Amsterdam.

(c) Organization of scientific meetings and other roundtables

2022 **Organizer** of the Italian Flow Chemistry Conference (Milan, 27-28th November 2023).

2022 **Organizer** of the Workshop on Atomically-Dispersed Catalysts (Milan, 6th October 2022).

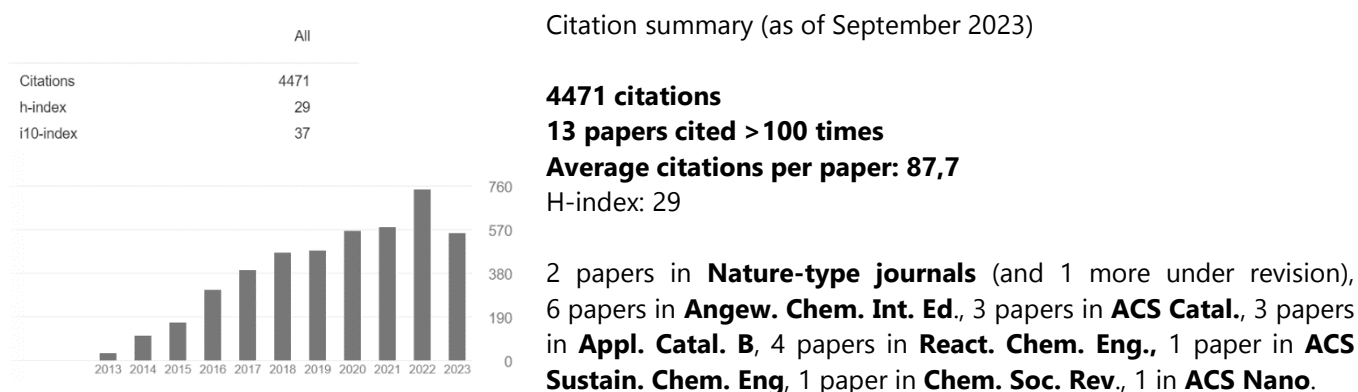
2018 **Organizer** of the Swiss industrial roundtable "Catalysis & Process Intensification in Switzerland", Allschwil (Switzerland) with experts from Novartis, Roche, Syngenta, Idorsia Pharmaceuticals, Firmenich, and Givaudan.

2019 - 2020 **Board member** of the Swiss industrial roundtable "Process Intensification, FlowChemistry & Green Industrial Processes in Switzerland".

(d) Peer reviewer for scientific journals

2012 - today **Reviewer** for *Nat. Nanotechnol.*, *Nat. Commun.*, *Nat. Synthesis*, *ACS Catal.*, *JACS*, *Chem*, *Appl. Catal. B*, *Angew. Chem. Int. Ed.*, *Chem. Catal.*, *Adv. Funct. Materi.*, *ACS Appl. Mater. Interfaces*, *Nanoscale*, *ChemSusChem*, *J. Catal.*, *Chem. Eur. J.*, *Chem. Commun.*, *Catal. Sci. Technol.*, *ChemCatChem*, *React. Chem. Eng.*, *Catal. Commun.*, *Ind. Eng. Chem. Res.*, *ChemistrySelect*, *ChemMedChem*, *J. Mol. Catal.*, *Eur. J. Org.Chem.* (> **20 papers per year**)

PEER-REVIEWED PUBLICATIONS (the symbol * denotes publications with me as corresponding author)



1. A. Sivo , N. Allasia , O. Nevskyi , M. Marelli , V. Vanoli , N.C. Fusi , J. Albertazzi , V. Busini , F. Castiglione , F. Rossi, **G. VILÉ***, "A novel polymer-based microreactor confining carbon nitride for continuous photocatalytic applications" *Nature Chem. Eng.* (under revision).
2. M.A. Bajada, G. Di Liberto, S. Tosoni, V. Ruta, L. Mino, N. Allasia, A. Sivo, G. Pacchioni, **G. VILÉ***, "Light-driven C-O coupling of carboxylic acids and alkyl halides over a Ni single-atom catalyst" *Nature Synth.* **2023**, doi: 10.1038/s44160-023-00341-3. [Link](#)
3. **G. VILÉ***, "Paired aluminum sites in zeolite catalysts enhance aromatics production" *Chem* **2023**, 3, 100616. [Link](#)
4. L.J. Wesenberg, A. Sivo, **G. VILÉ**, T. Noël, "Ni-catalyzed electro-reductive cross-electrophile couplings of alkyl amine-derived radical precursors with aryl iodides" *J. Org. Lett.* **2023**, e202219306. [Link](#)

5. V. Saptal, M.A. Bajada, V. Ruta, **G. VILÉ***, "Single-atom catalysis in organic synthesis" *Angew. Chem. Int. Ed.* **2023**, e202219306 [Link](#) (Frontispiece)
6. M. Colella, Y. Gelato, M. Andresini, E. Graziano, **G. VILÉ**, L. Degennaro, R. Luisi, "Forging C-S bonds on the azetidine ring by continuous flow photochemical addition of thiols and disulfides to azetines" *Eur. J. Org. Chem.* **2023**, e202300413. [Link](#) (Highlighted for its importance by a group of industrial experts from Lilly, Pfizer, Merck, UCB, GSK, in *Org. Process Res. Dev.* **2023**, *27*, 1535-1545)
7. A. Sivo, V. Ruta, V. Granata, A. Savateev, M.A. Bajada, **G. VILÉ***, "Nanostructured carbon nitride for continuous-flow trifluoromethylation of (hetero)arenes" *ACS Sustain. Chem. Eng.* **2023**, *11*, 5284-5292. [Link](#) (Front Cover)
8. M.A. Bajada, J. Sanjosé-Orduna, G. Di Liberto, S. Tosoni, G. Pacchioni, T. Noël, **G. VILÉ***, "Interfacing single-atom catalysis with continuous-flow organic electrocatalysis" *Chem. Soc. Rev.* **2022**, *51*, 3898. [Link](#) (Front Cover)
9. **G. VILÉ***, D. Ng, Z. Xie, I. Martinez Botella, J. Tsanaktsidis, C.H. Hornung, "3D-printed structured reactor with integrated single-atom catalyst film for hydrogenation" *ChemCatChem* **2022**, *14*, e202101941. [Link](#) (Front Cover)
10. **G. VILÉ***, G. Di Liberto, S. Tosoni, A. Sivo, V. Ruta, M. Nachtegaal, A.H. Clark, S. Agnoli, Y. Zou, A. Savateev, M. Antonietti, G. Pacchioni, "Azide-alkyne click chemistry over a heterogeneous copper-based single-atom catalyst" *ACS Catal.* **2022**, *12*, 2947-2958. [Link](#)
11. V. Ruta, A. Sivo, L. Bonetti, M.A. Bajada, **G. VILÉ***, "Structural effects of metal single-atom catalysts for enhanced photocatalytic degradation of Gemfibrozil" *ACS Appl. Nano Mater.* **2022**, *5*, 14520. [Link](#)
12. A. Sivo, T. Keun Kim, V. Ruta, R. Luisi, J. Osorio-Tejada, M. Escriba-Gelonch, V. Hessel, M. Sponchioni, **G. VILÉ***, "Enhanced flow synthesis of small molecules by in-line integration of sequential catalysis and benchtop twin-column continuous chromatography" *React. Chem. Eng.* **2022**, *7*, 2650. [Link](#) (selected for the Collection 'Emerging Investigators in Chemical Engineering')
13. J. Liu, Z. Zhang, X. Jiang, N. He, W. Zhou, Y. Zhao, P. Guo, Y. Jiang, G. Xiong, J. Su, **G. VILÉ***, "Influence of the zeolite surface properties and potassium modification on the Zn-catalyzed CO₂-assisted oxidative dehydrogenation of ethane" *Appl. Catal. B* **2022**, *304*, 120947. [Link](#)
14. J. Liu, Z. Zhang, C. Liu, **G. VILÉ**, G. Xiong, N. He, "Structured binder-free BEA zeolite in hierarchical form for enhanced acid-catalyzed dehydration" *ACS Appl. Nanomater.* **2021**, *4*, 11997. [Link](#)
15. A. Sivo, V. Ruta, **G. VILÉ***, "Gram-scale domino synthesis in batch and flow modes of azetidinium salts" *J. Org. Chem.* **2021**, *86*, 14113. [Link](#)
16. **G. VILÉ***, J. Liu, Z. Zhang, "Surface engineering of a Cu-based heterogeneous catalyst for efficient azide-alkyne click cycloaddition" *React. Chem. Eng.* **2021**, doi: 10.1039/d1re00199j [Link](#) (Special Collection 'Royal Society of Chemistry Emerging Investigators in Chemical Engineering')
17. **G. VILÉ***, P. Sharma, M. Nachtegaal, F. Tollini, D. Moscatelli, A. Sroka-Bartnicka, O. Tomanec, M. Petr, J. Filip, I.S. Pieta, R. Zboril, M.B. Gawande, "An Earth-abundant Ni-based single-atom catalyst for selective photodegradation of pollutants" *Solar RRL* **2021**, *5*, 2100176 [Link](#) (Invited Front Cover; dedicated to the memory of Prof. Maria Flytzani-Stephanopoulos)
18. J. Liu, Y. Zou, D. Cruz, A. Savateev, M. Antonietti, **G. VILÉ***, "Ligand-metal charge transfer induced via adjustment of textural properties controls the performance of single-atom catalysts during photocatalytic degradation" *ACS Appl. Mater. Interfaces* **2021**, *13*, 25858. [Link](#)
19. J. Liu, N. He, Z. Zhang, J. Yang, X. Jiang, J. Su, M. Shu, R. Si, G. Xiong, H.-B. Xie, **G. VILÉ***, "Highly-dispersed zinc species on zeolites for the continuous and selective dehydrogenation of ethane with CO₂ as soft oxidant" *ACS Catal.* **2021**, *11*, 2819. [Link](#)
20. A. Sivo, R. Galaverna, G. Gomes, J. Pastre, **G. VILÉ***, "From circular synthesis to materials manufacturing: advances, challenges, and future steps for using flow chemistry in novel application areas" *React. Chem. Eng.* **2021**, *6*, 756. [Link](#) (Front Cover)

21. **G. VILÉ***, "Photocatalytic materials and light-driven continuous processes to remove emerging pharmaceutical pollutants from water and selectively close the carbon cycle" *Catal. Sci. Technol.* **2021**, *11*, 43. [Link](#)
22. S. Tortoioli, A. Friedli, A. Prud'homme, S. Richard-Bildstein, P. Kohler, S. Abele, **G. VILÉ***, "Development of an efficient and sustainable synthesis of 2-(3-methyl-1 H-1, 2, 4-triazol-1-yl) acetic acid under continuous-flow conditions" *Green Chem.* **2020**, *22*, 3748. [Link \(Front Cover\)](#)
23. L. Amini-Rentsch, E. Vanoli, S. Richard-Bildstein, R. Marti, **G. VILÉ***, "A novel and efficient continuous-flow reactor to prepare trifluoromethylated *N*-fused heterocycles for drug discovery and pharmaceutical manufacturing" *Ind. Eng. Chem. Res.* **2019**, *58*, 10164. [Link \(Front Cover, '2019 Class of Influential Researchers in Chemical Engineering'\)](#)
24. E. Vorobyeva, E. Fako, Z. Chen, S. M. Collins, D. Johnstone, P. A. Midgley, R. Hauert, O. V. Safonova, **G. VILÉ**, N. López, S. Mitchell, J. Pérez-Ramírez, "Atom-by-atom resolution of structure-function relations over low-nuclearity metal catalysts" *Angew. Chem. Int. Ed.* **2019**, *58*, 8724. [Link \(Hot paper, highlighted in ChemViews\)](#)
25. **G. VILÉ***, G. Schmidt, S. Richard, S. Abele, "Enantiospecific cyclization to 2-methylproline derivative via 'memory of chirality' in flow" *J. Flow Chem.* **2019**, *9*, 19. [Link \(Special Issue 'Continuous Process Engineering in Manufacturing'\)](#)
26. **G. VILÉ***, S. Richard, A. Lhuillery, G. Rueedi, "Electrophile, substrate functionality, and catalyst effects in the synthesis of mono and disubstituted benzylamines via visible-light photoredox catalysis in flow" *ChemCatChem* **2018**, *10*, 3786. [Link](#)
27. Z. Chen, E. Vorobyeva, S. Mitchell, E. Fako, M.A. Ortuño, N. López, S.M Collins, P.A Midgley, S. Richard, **G. VILÉ**, J. Pérez-Ramírez, "A heterogeneous single-atom palladium catalyst surpassing homogeneous systems for Suzuki coupling" *Nature Nanotechnol.* **2018**, *13*, 702. [Link \(Highlighted in Nature Catal., Science, and C&EM\)](#)
28. **G. VILÉ***, "Flow Chemistry & Catalysis-Where do we stand and where do we need to go?" *Catal. Today* **2018**, *308*, 1. [Link](#)
29. D. Albani, M. Capdevila, **G. VILÉ**, S. Mitchell, N. López, J. Pérez-Ramírez, "Semi-hydrogenation of acetylene on indium oxide: proposed single-ensemble catalysis" *Angew. Chem. Int. Ed.* **2017**, *56*, 10755. [Link](#)
30. N. Almora-Barrios, **G. VILÉ**, M. Garcia-Ratés, J. Pérez-Ramírez, N. López, "Electrochemical effects at surfactant-platinum nanoparticle interfaces boost catalytic performance" *Appl. Catal. B* **2017**, *9*, 604. [Link](#)
31. D. Albani, Q. Li, **G. VILÉ**, S. Mitchell, N. Almora-Barrios, P.T. Witte, N. López, J. Pérez-Ramírez, "Interfacial acidity in ligand-modified ruthenium nanoparticles boosts the hydrogenation of levulinic acid to gamma-valerolactone" *Green Chem.* **2017**, *19*, 2361. [Link \(Front Cover\)](#)
32. D. Albani, **G. VILÉ**, M.A. Beltran Toro, R. Kaufmann, S. Mitchell, J. Pérez-Ramírez, "Structuring hybrid palladium nanoparticles in metallic monolithic reactors for continuous-flow three-phase alkyne hydrogenation" *React. Chem. Eng.* **2016**, *1*, 454. [Link](#)
33. M. Capdevila-Cortada, **G. VILÉ**, D. Teschner, J. Pérez-Ramírez, N. López, "Reactivity descriptors for ceria in catalysis" *Appl. Catal. B* **2016**, *197*, 299. [Link](#)
34. Z. Chen, S. Pronkin, T. Fellingner, K. Kailasam, **G. VILÉ**, D. Albani, F. Krumeich, R. Leary, J. Barnard, J.M. Thomas, J. Pérez-Ramírez, M. Antonietti, D. Dontsova, "Merging single-atom- dispersed silver and carbon nitride to a joint electronic system via copolymerization with silvertricyanomethanide" *ACS Nano* **2016**, *10*, 3166. [Link](#)
35. **G. VILÉ**, D. Albani, N. Almora-Barrios, N. López, J. Pérez-Ramírez, "Advances in the design of nanostructured catalysts for selective hydrogenation" *ChemCatChem* **2016**, *8*, 21. [Link \(Frontispiece\)](#)
36. D. Albani, **G. VILÉ**, S. Mitchell, P.T. Witte, N. Almora-Barrios, R. Verel, N. López, J. Pérez-Ramírez, "Ligand ordering determines the catalytic response of hybrid palladium nanoparticles in hydrogenation" *Catal. Sci. Technol.* **2016**, *6*, 1621. [Link \(Front Cover\)](#)
37. M. Moser, **G. VILÉ**, S. Colussi, F. Krumeich, D. Teschner, L. Szentmiklósi, A. Trovarelli, J. Pérez-Ramírez, "Structure and reactivity of ceria-zirconia catalysts for bromine and chlorine production via the oxidation of hydrogen halides" *J. Catal.* **2015**, *331*, 128. [Link \(Johannes A. Lercher Editor-in-Chief's Featured Article\)](#)
38. **G. VILÉ**, D. Albani, M. Nachttegaal, Z. Chen, D. Dontsova, M. Antonietti, N. López, J. Pérez-Ramírez, "A stable

- single-site palladium catalyst for hydrogenations" *Angew. Chem. Int. Ed.* **2015**, *54*, 11265. [Link](#) (Front Cover; Thomson Reuters highly-cited article 2015-2017; highlighted in *Nature* and *C&EM*)
39. **G. VILÉ**, N. Almora-Barrios, N. López, J. Pérez-Ramírez, "Structure and reactivity of supported hybrid platinum nanoparticles for the flow hydrogenation of functionalized nitroaromatics" *ACS Catal.* **2015**, *5*, 3767. [Link](#)
 40. **G. VILÉ**, P. Dähler, J. Vecchietti, M. Baltanás, S. Collins, M. Calatayud, A. Bonivardi, J. Pérez-Ramírez, "Promoted ceria catalysts for alkyne semi-hydrogenation" *J. Catal.* **2015**, *324*, 69. [Link](#) (Johannes A. Lercher Editor-in-Chief's Featured Article)
 41. **G. VILÉ**, J. Pérez-Ramírez, "Beyond the use of modifiers in selective alkyne hydrogenation: silver and gold nanocatalysts in flow mode for sustainable alkene production" *Nanoscale* **2014**, *6*, 13476. [Link](#) (Front Cover)
 42. E. Oakton, **G. VILÉ**, D. Levine, E. Zocher, D. Baudouin, C. Copéret, "Silver nanoparticles supported on passivated silica: preparation and catalytic performance in alkyne semi- hydrogenation" *Dalton Trans.* **2014**, *43*, 15138. [Link](#)
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