



Personal Information

French, born on 08/02/1985. Married, 2 kids (2 years old and 1 year old)
Laboratory of Inorganic Chemistry, Department of Chemistry and Applied Biosciences
ETH Zürich
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Google scholar <https://scholar.google.com/citations?user=BNqO1sAAAAJ&hl>

Education

- 09/2009-09/2012 **PhD of Inorganic chemistry** (PhD defended on 28/09/2012)
University of Grenoble/CEA Grenoble (Grenoble, France), Laboratory of Inorganic and Bioinorganic Chemistry Supervised by Prof. Marinella Mazzanti
- 09/2006-07/2009 **MSc (*Summa cum Laude*)** in chemistry, Ecole Normale Supérieure de Lyon (Lyon, France), research stays at Durham University (2008, Prof. David Parker) and University of Grenoble (2009, Prof. Marinella Mazzanti)

Employment History

- From 12/2018 **Assistant professor of Inorganic Chemistry** (tenure track)
Department of Chemistry and Applied Biosciences, Laboratory of Inorganic Chemistry, ETH Zürich (Zürich, Switzerland)
- 01/2016-12/2018 **CNRS Researcher** (PI, tenured) – Institute of Chemistry
Laboratory of Chemistry of Biological Processes (UMR 8229), Collège de France (Paris, France)
- 11/2012-12/2015 **Postdoctoral fellow (Marie Curie/ETH Fellowship)**
Department of Chemistry and Applied Biosciences, Laboratory of Inorganic Chemistry, ETH Zürich (Zürich, Switzerland) (Advisor Prof. Christophe Copéret)

Institutional Responsibilities

- From 12/2018 Member of the chemistry and interdisciplinary sciences teaching committee of ETH Zürich
- 2017 – Current Examiner of 20 PhD thesis (Ecole Polytechnique-Palaiseau; Sorbonne University-Paris; ENS Lyon; Université de Fribourg ; EPFL; ETH Zürich)
- 2019 – 2023 In charge of the Institute of Inorganic Chemistry seminars (LAC, ETH Zürich)
- 2017 – 2019 Board Member of the Young Chemist Network of the French Chemical Society
- 2017 – 2019 Board member of the European Young Chemists Network (EYCN) of the European Chemical Society (EuChemS)

Supervision of Junior Researchers at Graduate and Postgraduate Level

ETH Zürich (PI, 2018-current)

7 PhD students (ongoing), 5 Postdoctoral research associates (4 ongoing), 10 Master students (all graduated)

Collège de France (PI, 2016-2018)

3 PhD students, 2 Postdoctoral research associates, 2 Master students

Memberships in Panels, Boards, and Individual Scientific Reviewing Activities

Committee member (CE50 for the ANR (French Agency for Research) and for the Horizon Europe EIC Pathfinder program, Reviewer for H2020 and Horizon Europe programs FET-OPEN, Pathfinder Open, ERC CoG and Marie Curie Individual Fellowships, the Dutch Research Council Science, the Deutsche Forschungsgemeinschaft (Panel member), the US DOE, Israel Science Foundation, Cyprus Research and Innovation Foundation...

Reviewer for sci. journals, including *Coord. Chem. Rev.*, *Nature*, *Nat. Mater.*, *Nat. Chem.*, *Nat. Catal.*, *Nat. Energy*, *Nat. Synthesis*, *Nat. Commun.*, *PNAS*, *J. Am. Chem. Soc.*, *Angew. Chem.*, *ACS Cent. Sci.*, *ACS Catal.*, *ACS Nano*, *ACS Energy Letters*, *Small*, *Joule*, *Adv. Mater.*, *Adv. Energ. Mat.*, *Chem. Sci.*, *Inorg. Chem.*, *Dalton Trans.*, *Chem. Comm.*, *ACS Appl. Mater. Interfaces*, *Helvetica*...

Active Memberships in Scientific Societies

- 2009 – Current Member of the French Chemical Society (Société Chimique de France)

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| 2013 – Current | Member of the Swiss Chemical Society (SCS) |
| 2017 – Current | Member of the American Chemical Society (ACS) |
| 2021 – Current | Member of the Royal Society of Chemistry (RSC) |
| 2021 – Current | Member of the Society of Biological Inorganic Chemistry (SBIC) |

Organization of Conferences

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| 01/2023 | MATSUS Fall 23: recent advances on Nitrogen Activation and conversion – Symposium chair. |
| 01/2022 | EYChem , online conference, member of the organization committee and Chair of a session. |
| 04/2021 | nanoGe: N2X symposium – Symposium chair |
| 03/2021 | nanoGe Spring Meeting – Organizer of the symposium <i>Solar Fuels</i> |
| 03/2020 | ACSD 2020 , Marrakech, Morocco – Member of the International Advisory Board |
| 02/2020 | ChemCYS 2020 , Blankenberge, Belgium – Member of the Scientific Committee |
| 02/2020 | Young Faculty Meeting of the Swiss Academy of Sciences , Bern, Switzerland – Member of the Organising Committee |
| 07/2019 | IUPAC19 , Paris, France – Member of the Organising Committee, Young Scientists Program |
| 05/2019 | French Conference on Catalysis FCCat-2 , France – Member of the Steering Committee |
| 06/2018 | Gordon Research Seminar “Green Chemistry and its relevance to society”, Castelldefels, Spain – Discussion Leader on the session on Green Processes and Materials and panel member. |
| 06/2018 | SCF 18 , Montpellier, France – Member of the Organising and Scientific Committees |
| 09/2018 | ECC7 , Liverpool, United Kingdom – Chair of the workshop “the Landscape of European Funding”, part of the EYCN programme. |
| 01/2018 | ABCChem , Cancun, Mexico – Young Chemists Symposium, “ A Crash Course in Professional development for Younger Chemists ”, co-organizer for EYCN with the ACS-YCC. |

Prizes, Awards, Fellowships

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| 10/2023 | Ruzicka Prize 2023 |
| 12/2022 | Werner Prize of the Swiss Chemical Society |
| 05/2022 | Bürgenstock JSP fellow 2022 |
| 09/2021 | EuChemS Lecture Award |
| 07/2021 | Horizon Prize 2021, <i>Royal Society of Chemistry</i> |
| 09/2019 | ERC starting grant fellow |
| 01/2013-01/2015 | Marie Curie/ETH Fellowship, (FEL-08 12-2) |
| 07/2015 | Best Speaker Award, ISOM XXI, Gratz, Austria |
| 10/2014 | Visiting scholar, University of Osaka, Japan |
| 09/2014 | SCS Fall Meeting 2014 best talk award: runner’s up |
| 07/2013 | ACS Organometallics award, ISOM XX, Nara, Japan |
| 01/2013 | Best PhD thesis prize from the University of Grenoble: “Prix de thèse de l’Université de Grenoble” |

Academic Record

80 publications in peer reviewed international journals (including 1 *Nature*, 15 *Angew. Chem.*, 1 *Nat. Chem.*, 1 *Nat. Mat.*, 1 *Chem. Rev.*, 2 *PNAS*, 2 *ACS Cent. Sci.*, 3 *J. Am. Chem. Soc.*, 5 *Chem. Sci.*, 3 *ACS Catal.*) –full publication list [here](#)
 51 Oral communications (30 invited), 19 poster presentations
 12 patents (7 under exclusive industrial license)
 H index: 37, average of 63 citations per article (Google Scholar, December 2023)

Outreach/Media Coverage

Media coverage of recent independent research work

- In general public newspapers and magazines:
[The Times](#), [Le Figaro](#), [Science et Avenir](#)
- In scientific magazines and newspapers:
[C&EN News](#), [Chemistry World \(1\)](#) and [\(2\)](#), [ChemistryViews](#).
- Audio channels
BBC Radio 4 broadcast Talkradio, interview by Paul Ross (17/04/2019)
EYCN Podcast: [CO₂ reduction, a possible solution for the Climate Crisis?](#)

Research interests

Getting inspiration from Nature to develop sustainable chemical processes enabling a circular economy.

Research in the Mougél group revolves around the design of new catalysts for the photo- and electrochemical transformation of small molecules (CO₂, H₂O, N₂, NO_x). These molecules are at the heart of some of the most important issues humankind will have

to deal with, such as global warming, food shortage, etc. However, a current scientific bottleneck is the development of cheap, effective and earth abundant catalysts to promote the transformation of these small, essential molecules.

In the group, we take inspiration from nature systems, enzymes, that are very efficient to promote these reactions, to develop new heterogeneous and homogeneous bio-inspired catalysts.

Our approach lies at the interface between molecular and surface chemistry, investigating the preparation of molecular catalysts as well as their grafting onto conducting or semi-conducting interfaces. We investigate the synthesis and characterization of new molecular bio-inspired catalysts based on iron-sulfur clusters and the development of metal oxide/sulfide electrodes for CO₂/N₂/NO_x reduction and H₂O oxidation. A specific focus is given to the operando Raman and FTIR characterization of the catalytic species aiming at understanding the active site at a molecular level.

In parallel, a newly developed axis of research focuses on the recycling or rare-earth elements from complex electronic waste mixtures using chelating agents inspired by biological enzymatic active sites. We are now further exploiting that approach within the startup REEcover, focusing on the recycling of rare earth elements from e-waste resources.

10 Selected Publications

1. L. Grunwald, M. Inoue, P. Cendoya Carril, M. Wörle, V. Mougel*
Gated electron transfers at synthetic iron-sulfur cubanes
[Chem, 2023, DOI:10.1016/j.chempr.2023.09.023](#)
2. D. Abbott, Y. Xu, D. Kuznetsov, P. Kumar, C. Müller*, A. Fedorov*, V. Mougel*
Understanding the Synergy between Fe and Mo Sites in the Nitrate Reduction Reaction on a Bio-Inspired Bimetallic MXene Electrocatalyst
[Angew. Chem. Int. Ed., 2023, 62, e202313746](#)
3. F. Masero, V. Mougel*
Heteroleptic Tetravalent β -Diketonate Molybdenum Complexes as Highly Active Catalysts for Allylic Substitution Reactions
[Chem. Commun., 2023, 59, 4636-4639 \(emerging investigator issue\)](#)
4. L. Grunwald, M. Clémancey, D. Klose, L. Dubois, S. Gambarelli, G. Jeschke, M. Wörle, G. Blondin, V. Mougel*
A complete biomimetic iron-sulfur cubane redox series
[PNAS, 2022, 119 \(31\), e2122677119](#)
5. S. Dey, F. Masero, E. Brack, M. Fontecave, V. Mougel*
Electrocatalytic metal hydride generation using CPET mediators
[Nature, 2022, 607 \(7919\), 499-506](#)
6. F. Masero, M. Perrin, S. Dey, V. Mougel*
Dinitrogen Fixation: Rationalizing Strategies Utilizing Molecular Complexes
[Chem. Eur. J., 2021, 27 \(12\), 3892-3928](#)
7. S. Dey, T. Todorova, M. Fontecave*, V. Mougel*
Electroreduction of CO₂ to Formate with low overpotential using Cobalt Pyridine Thiolate Complexes
[Angew. Chem. Int. Ed., 2020, 59\(36\), 15726-15733](#)
8. A. Mouchfiq, T. Todorova, S. Dey, M. Fontecave*, V. Mougel*
A Bioinspired Molybdenum-Copper Molecular Catalyst for CO₂ Electroreduction
[Chem. Sci., 2020, 11, 5503-5510](#)
9. D. Wakerley, S. Lamaison, F. Ozanam, N. Menguy, D. Mercier, P. Marcus, M. Fontecave*, V. Mougel*
Bio-inspired hydrophobicity promotes CO₂ reduction on a Cu surface
[Nature Materials, 2019, 18, 1222-1227](#)
10. T. N. Huan, D. Alves Dalla Corte, S. Lamaison, D. Karapinar, L. Lutz, N. Menguy, M. Foldyna, S-H Turren-Cruz, A. Hagfeldt, F. Bella, M. Fontecave*, V. Mougel*
Low-cost high efficiency system for solar-driven conversion of CO₂ to hydrocarbons
[PNAS, 2019, 116 \(20\), 9735-9740.](#)

Publications

80. D. Abbott, Y. Xu, D. Kuznetsov, P. Kumar, C. Müller*, A. Fedorov*, [V. Mougel*](#)
Understanding the Synergy between Fe and Mo Sites in the Nitrate Reduction Reaction on a Bio-Inspired Bimetallic MXene Electrocatalyst
[Angew. Chem. Int. Ed., 2023, 62, e202313746](#)
79. L. Grunwald, M. Inoue, P. Cendoya Carril, M. Wörle, [V. Mougel*](#)
Gated electron transfers at synthetic iron-sulfur cubanes
[Chem, 2023, DOI:10.1016/j.chempr.2023.09.023](#)
78. A. Begley, G. Bartolomeo, D. Abbott, [V. Mougel](#), R. Zenobi*
Nitrogen-doping Graphene at Ambient Conditions with N₂-DBD-Plasma and the Role of Neutral Species
[Plasma. Process. Polym., 2023, DOI:10.1002/ppap.202300168](#)
77. [V. Mougel*](#)
Molecular Bio-inspired Strategies for the Design of Electrocatalytic Systems
[Chimia, 2023, 77, 478](#)
76. H. Chen, J. Li, L. Meng, S. Bae, R. Erni, D. Abbott, S. Li, C. Triana, [V. Mougel](#), and G. R. Patzke
Modulating Carrier Kinetics in BiVO₄ Photoanodes through Co₄O₄ Molecular Cubane Layers
[Adv. Funct. Mater, 2023, DOI:10.1002/adfm.202307862](#)
75. K. S. Song, P. Fritz, D. Abbott, L. Nga Poon, C. Caridade, F. Gándara, [V. Mougel*](#), Ali Coskun*
Mixed-metal Ionothermal Synthesis of Metallophthalocyanine Covalent Organic Frameworks for CO₂ Capture and Conversion
[Angew. Chem. Int. Ed., 2023, 62, e202309775 – selected as Hot Article](#)
74. H. Wu, A. Singh-Morgan, K. Qi, Z. Zeng, [V. Mougel*](#), D. Voiry*
Electrocatalyst Microenvironment Engineering for Enhanced Product Selectivity in Carbon Dioxide and Nitrogen Reduction Reactions
[ACS Catal., 2023, 13, 5375-5396](#)
73. A. M. Souza Plath*, S. Huber, S. Alfarano, D. Abbott, M. Hu, [V. Mougel](#), L. Isa, S. J. Ferguson
Co-Electrospun Poly(ϵ -Caprolactone)/Zein Articular Cartilage Scaffolds
[Bioengineering 2023, 10\(7\), 771](#)
72. Y. Pandey, D. Abbott, [V. Mougel](#), N Kumar*, R. Zenobi*
Probing the Role of Environmental and Sample Characteristics in Gap Mode Tip-Enhanced Raman Spectroscopy
[Anal. Chem., 2023, 95, 8869-8878.](#)
71. D. Prasad, A. Saseendran, J. W. A. Fischer, L. Müller, D. Abbott, [V. Mougel](#), G. Jeschke, C. Triana, G. Patzke*
Copper(II) defect-cubane water oxidation electrocatalysts: from molecular tetramers to oxidic nanostructures
[Chem. Commun., 2023, 59, 5866-5869.](#)
70. F. Masero, [V. Mougel*](#)
Heteroleptic Tetravalent β -Diketonate Molybdenum Complexes as Highly Active Catalysts for Allylic Substitution Reactions
[Chem. Commun., 2023, 59, 4636-4639 \(emerging investigator issue\)](#)
69. L. P Coburger, F. Masero, J. Böskén, [V. Mougel*](#), H Grützmacher*
A Germapyramidane Switches Between 3D Cluster and 2D Cyclic Structures in Single-Electron Steps
[Angew. Chem. Int. Ed., 2022, 61 \(47\), e202211749](#)
68. L. Grunwald, M. Clémancey, D. Klose, L. Dubois, S. Gambarelli, G. Jeschke, M. Wörle, G. Blondin, [V. Mougel*](#)
A complete biomimetic iron-sulfur cubane redox series
[PNAS, 2022, 119 \(31\), e2122677119](#)
67. S. Dey, F. Masero, E. Brack, M. Fontecave, [V. Mougel*](#)
Electrocatalytic metal hydride generation using CPET mediators
[Nature, 2022, 607 \(7919\), 499-506](#)
66. L. Escomel, D. F. Abbott, [V. Mougel](#), L. Veyre, C. Thieuleux, C. Camp
Highly dispersed silica-supported iridium and iridium–aluminium catalysts for methane activation prepared via surface organometallic chemistry
[Chem. Commun., 2022, 58 \(59\), 8214-8217](#)

65. D. Mrđenović, D. Abbott, V. Mougel, W. Su, N. Kumar, R. Zenobi
Visualizing Surface Phase Separation in PS-PMMA Polymer Blends at the Nanoscale
[ACS Appl. Mater. Interfaces 2022, 14 \(21\), 24938–24945](#)
64. A. Pichugov, N. Bushkov, A. Romyantsev, A. Zhizhin, D. Aleshin, T. Strelkova, V. Talanova, D. Mance, F. Allouche, V. Mougel, F. Dolgushin, N. Ustynyuk, P. Zhizhko, D. Zarubin
Design of 4-Coordinate Ti Imido Aryloxide on the Surface of Silica for Catalytic Oxo/Imido Heterometathesis
[Helv. Chim. Acta., 2022, 105, e202200030](#)
63. K. Liosi, A. J. Stasyuk, F. Masero, A. A. Voityuk, T. Nauser, V. Mougel*, M. Solà*, and Y. Yamakoshi*
Unexpected Disparity in Photoinduced Reactions of C60 and C70 in Water with the Generation of O₂^{•-} or ¹O₂
[JACS Au, 2021, 1, 10, 1601–1611](#)
62. S. M. Richardson, F. Bella, V. Mougel*, J. V. Milic*
Scientific writing and publishing for early-career researchers from the perspective of young chemists
[J. Mater. Chem. A., 2021, 9, 18674-18680](#)
61. T. John, M. Cieślak, D. Vargová, S. M. Richardson, V. Mougel*, J. V. Milić*
The Role of Early-Career Chemists in European Policy-Making
[Chem. Eur. J., 2021, 27 \(21\), 6359-6366](#)
60. F. Masero, M. Perrin, S. Dey, V. Mougel*
Dinitrogen Fixation: Rationalizing Strategies Utilizing Molecular Complexes
[Chem. Eur. J., 2021, 27 \(12\), 3892-3928](#)
59. S. Dey, T. Todorova, M. Fontecave*, V. Mougel*
Electroreduction of CO₂ to Formate with low overpotential using Cobalt Pyridine Thiolate Complexes
[Angew. Chem. Int. Ed., 2020, 59\(36\), 15726-15733](#)
58. J. Bloch, S. Kradolfer, T. L. Gianetti, D. Ostendorf, S. Dey, V. Mougel, H. Grützmacher
Synthesis and characterization of ion pairs between alkaline metal ions and anionic anti-aromatic and aromatic hydrocarbons with π -conjugated central seven- and eight-membered ring
[Molecules, 2020, 25\(20\), 4742](#)
57. V. Mougel*
Bio-inspired Molecules and Materials: CO₂ Reduction as a Case Study
[CHIMIA International Journal for Chemistry, 2020, 74 \(9\), 710-715](#)
56. A. Mouchfiq, T. Todorova, S. Dey, M. Fontecave*, V. Mougel*
A Bioinspired Molybdenum-Copper Molecular Catalyst for CO₂ Electroreduction
[Chem. Sci., 2020, 11, 5503-5510](#)
55. L. Merz*, V. Mougel*, M. Rickhaus*
The Young Faculty Meeting 2020—Beyond Research: Components to Success
[CHIMIA International Journal for Chemistry, 2020, 74 \(7\), 631-632](#)
54. F. D'Accriscio, E. Schrader, C. Sassoie, M. Selmane, R. André, S. Lamaison, D. Wakerley, M. Fontecave, V. Mougel, G. Le Corre, H. Grützmacher, C. Sanchez, S. Carencó
A Single Molecular Stoichiometric P-Source for Phase-Selective Synthesis of Crystalline and Amorphous Iron Phosphide Nanocatalysts
[ChemNanoMat. 2020, 6 \(8\), 1208-1219](#)
53. S. Carencó, C. Oger, V. Mougel, S. Halbert, L. Sosa-Vargas, B. Poggi, L. Ferrins, B. Mourant, C. Rawlins.
From Young Attendees to Young Actors: The “Young Chemists Symposium” at IUPAC2019
[Chem. Int. 2020, 42 \(1\), 20–21.](#)
52. S. Lamaison, D. Wakerley, J. Blanchard, D. Montero, G. Rouse, D. Mercier, P. Marcus, D. Taverna, D. Giaume, V. Mougel*, M. Fontecave*
High-Current-Density CO₂-to-CO Electroreduction on Ag-Alloyed Zn Dendrites at Elevated Pressure
[Joule, 2020, 4 \(2\), 395-406](#)
51. D. Wakerley, S. Lamaison, F. Ozanam, N. Menguy, D. Mercier, P. Marcus, M. Fontecave*, V. Mougel*
Bio-inspired hydrophobicity promotes CO₂ reduction on a Cu surface
[Nature Materials, 2019, 18, 1222–1227](#)
50. D. Karapinar, A. Zitolo, T. N. Huan, S. Zanna, D. Taverna, L. H. Galvão Tizei, D. Giaume, P. Marcus, V. Mougel*, M. Fontecave*
Carbon Nanotube supported Copper Polyphthalocyanine for Efficient and Selective Electrocatalytic CO₂ Reduction to CO
[ChemSusChem, 2019, 13 \(1\), 173-179](#)

49. P. Zhizhko, F. Toth, C. P. Gordon, K.-W. Chan, W.-C. Liao, V. Mougel, C. Coperet
Molecular and Silica-Supported Mo and W d (0) Imido-Methoxybenzylidene Complexes: Structure and Metathesis Activity
[Helv. Chim. Acta., 2019, 102, e1900190](#)
48. R. Aracon, M. Saab, A. Morvan, A. Bonduelle-Skrypczak, a.-L. Taleb, A.-S. Gay, C. Legens, O. Ersen, K. Searles, V. Mougel, A. Fedorov, C. Copéret, P. Raybaud
A Combined Experimental and Theoretical Molecular Approach of the Catalytically Active Hydrotreating MoS₂ Phases Promoted by 3d Transition Metals.
[J. Phys. Chem. C, 2019, 123\(40\), 24659-24669](#)
47. D. Karapinar, T. N. Huan, N. Ranjbar, J. Li, D. Wakerley, N. Touati, S. Zanna, D. Taverna, L. H. Galvão Tizei, A. Zitolo, F. Jaouen, V. Mougel*, M. Fontecave*
Electroreduction of CO₂ on Single-Site Copper-Nitrogen-Doped-Carbon Material: Selective Formation of Ethanol and Reversible Restructuration of the Metal Sites
[Angew. Chem. Int. Ed., 2019, 58 \(42\), 15098-15103](#)
46. Y. Deng, M. Odziomek, O. Back, C. Sanchez, V. Mougel, M. Fontecave
A heterogeneous recyclable Rhodium-based catalyst for the reduction of pyridine dinucleotides and flavins
[ChemCatChem, 2019, 12 \(4\), 1236-1243](#)
45. D. Karapinar, T. N. Huan, D. Giaume, N. Ranjbar, F. Jaouen, V. Mougel*, M. Fontecave*
FeNC catalysts for CO₂ electroreduction to CO: effect of nanostructured carbon supports
[Sustainable Energy Fuels, 2019, 3, 1833-1840](#)
44. A. Guiet, T. N. Huan, C. Payen, F. Procher, V. Mougel, M. Fontecave, G. Corbel
Copper substituted NiTiO₃ Ilmenite type Materials for Oxygen Evolution Reaction
[ACS applied materials & interfaces, 2019, 11, 31038-31048](#)
43. M. Pucino, F. Allouche, C. P. Gordon, M. Wörle, V. Mougel*, C. Copéret*
A reactive coordinatively saturated Mo(III) complex: exploiting the hemi-lability of tris(tert-butoxy)silanolate ligands
[Chemical Science, 2019, 10, 6362-6367](#)
42. T. N. Huan, D. Alves Dalla Corte, S. Lamaison, D. Karapinar, L. Lutz, N. Menguy, M. Foldyna, S-H Turren-Cruz, A. Hagfeldt, F. Bella, M. Fontecave*, V. Mougel*
Low-cost high efficiency system for solar-driven conversion of CO₂ to hydrocarbons
[PNAS, 2019, 116 \(20\), 9735-9740](#)
41. S. Lamaison, D. Wakerley, D. Montero, G. Rouse, D. Taverna, D. Giaume, D. Mercier, J. Blanchard, T. N. Huan, M. Fontecave*, V. Mougel*
Zn–Cu Alloy Nanofoams as Efficient Catalysts for the Reduction of CO₂ to Syngas Mixtures with a Potential-Independent H₂/CO Ratio
[ChemSusChem 2019, 12, 511-517.](#)
40. F. Allouche, D. Klose, C. P. Gordon, A. Ashuiev, M. Wörle, V. Kalendra, V. Mougel, C. Copéret, G. Jeschke
Low coordinated titanium(III) alkyl – molecular and surface – complexes: detailed structure from advanced EPR spectroscopy
[Angew. Chem. Int. Ed., 2018, 57, 14533-14537](#)
39. K. Yamamoto, K.-W. Chan, V. Mougel, H. Nagae, H. Tsurugi, O. V. Safonova, K. Mashima, C. Copéret
Silica-Supported Isolated Molybdenum Di-oxo Species: Formation and Activation with Organosilicon Agent for Olefin Metathesis
[Chem. Commun., 2018, 54, 3989-3992](#)
38. P. Zhizhko, J. De Jesus Silva, V. Mougel, C. Copéret
Benchmarked Intrinsic Olefin Metathesis Activity: Mo vs. W
[Helv. Chim. Acta., 2018, 101, e1700302](#)
37. C. Copéret, F. Allouche, K.-W. Chang, M. Conley, M. F. Delley, A. Fedorov, I. Moroz, V. Mougel, M. Pucino, K. Searles, K. Yamamoto, P. Zhizhko
Bridging the Gap between Industrial and Well-Defined Supported Catalysts
[Angew. Chem. Int. Ed., 2018, 57, 6398-6440](#)
36. X. Wang, I. Thiel, A. Fedorov, C. Copéret, V. Mougel*, M. Fontecave*
Site-isolated Manganese Carbonyl on Bipyridine-Functionalities of Periodic Mesoporous Organosilicas: Efficient CO₂ Photoreduction and Detection of Key Reaction Intermediates
[Chem. Sci., 2017, 8, 8204-8213.](#)
35. T. N. Huan, G. Rouse, S. Zanna, I. T. Lucas, X. Xu, N. Menguy, V. Mougel*, M. Fontecave*
Dendritic Nanostructured Copper Oxide Electrocatalyst For Oxygen Evolution Reaction
[Angew. Chem. Int. Ed., 2017, 56, 4792–4796](#)

34. S. Aroua, T. K. Todorova, V. Mougel, P. Hommes, H.-U. Reissig, M. Fontecave
New Cobalt-Bisterpyridyl Catalysts for Hydrogen Evolution Reaction
[ChemCatChem, 2017, 9\(12\), 2099–2105](#)
33. S. Aroua, T. K. Todorova, P. Hommes, L.-M. Chamoreau, H.-U. Reissig, V. Mougel, M. Fontecave
Synthesis, Characterisation and DFT Analysis of Bisterpyridyl-Based Molecular Cobalt Complexes
[Inorg. Chem., 2017, 56 \(10\), 5930-5940](#)
32. F. Allouche, G. Lapadula, G. Siddiqi, W. W. Lukens, O. Maury, B. Le Guennic, F. Pointillart, J. Dreiser, V. Mougel*, O. Cadour*, and C. Copéret*
Magnetic Memory from Site Isolated Dy(III) on Silica Materials
[ACS Cent. Sci., 2017, 3 \(3\), 244–249](#)
31. T. N. Huan, N. Ranjbar, G. Rouse, M. Sougrati, A. Zitolo, V. Mougel, F. Jaouen, M. Fontecave
Electrochemical reduction of CO₂ catalyzed by Fe-N-C materials: a structure-selectivity study
[ACS Catal., 2017, 7, 1520–1525](#)
30. V. Mougel, K-W Chan, G. Siddiqui, K. Kawakita, H. Nagae, H. Tsurugi, K. Mashima, O. Safonova, C. Copéret
Low Temperature Activation of Supported Metathesis Catalysts by Organosilicon Reducing Agents
[ACS Cent. Sci., 2016, 2 \(8\), 569–576](#).
First reaction by Richard R. Schrock (Nobel prize 2006) on the paper: [ACS Cent. Sci., 2016, 2 \(8\), 495](#).
29. G. Siddiqui, V. Mougel, C. Copéret
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