

**Christophe COPERET**  
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**ETH Zürich – Department of Chemistry and Applied Biosciences**  
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### Education

2002: *Habilitation, Université de Lyon 1, France.*  
1996: *Ph.D., Department of Chemistry, Purdue University, West-Lafayette, USA.*  
1992: *Master of Science (Chemistry and Chemical Engineering), Ecole Supérieure de Chimie Industrielle de Lyon, France*

### Professional Experience

#### Research and related activities:

**Present (since Nov. 2010): Professor, Department of Chemistry and Applied Biosciences, ETH Zürich (Switzerland).**

Jan. 2011 – March. 2016: Editor of the Journal of Catalysis.

Oct. 2008- Oct. 2010: CNRS Research Director, C2P2, ESCPE Lyon, Villeurbanne (France).

Sept. 2002 - Sept. 2008: Research Associate, Laboratoire de Chimie Organométallique de Surface (Director: J.-M. Basset), ESCPE Lyon, Villeurbanne (France).

Jan. 1998 – Sept. 2002: Research Assistant, Laboratoire de Chimie Organométallique de Surface (Director: J.-M. Basset), ESCPE Lyon, Villeurbanne (France).

Oct. 1996-Dec.1997: Post-doctoral research fellow, Prof. K. B. Sharpless, Scripps Research Institute », La Jolla (USA).

Oct. 1991-Aug.1996: PhD, Prof. E. Negishi, Purdue University, West Lafayette (USA).

#### Teaching (current):

**Surface and Solid State Chemistry, Department of Chemistry and Applied Biosciences, ETH Zürich, Switzerland.**

**Advanced Organometallic Chemistry, Department of Chemistry and Applied Biosciences, ETH Zürich, Switzerland.**

**Advanced Inorganic Chemistry (MO theory), CPE Lyon, France.**

### Honors – Awards – Duties

*President of the Platform Chemistry – Swiss Academy of Natural Science (SCNAT – from Jan. 2015).*

*Editor of Helvetica Chim. Acta since Jan. 2016.*

*Workpackage Leader on CO<sub>2</sub> conversion – Swiss Competence Center on Energy Research “Heat and Energy Storage”.*

*Member of the Innovative Council of InnoSuisse (from Jan. 2018).*

*Member of the Research Commission of ETH Zürich (since June 2015) – President of the subcommission III since 2016.*

*Member of the board of ScopeM ETH Zürich (since June. 2014).*

*Member of the Platform Chemistry – Swiss Academy of Natural Science (SCNAT – 2013-present).*

*Member of the Board of the Swiss Chemical Society (2012-present).*

*Expert for the Scientific Board of the Institut Français du Pétrole and XiMo Inc*

*Chairman of the Laboratory of Inorganic Chemistry, Department of Chemistry, ETH Zürich (Nov. 2011 – Dec. 2015)*

*Member of the International Advisory Boards of ChemCatChem (since 2012), Catalysis Science & Engineering – Royal Society of Chemistry (since 2010), Catalysis Letters (Since 2013), Topics in catalysis (since 2013) and of Advanced Synthesis & Catalysis (since 2010), Dalton Transaction – Royal Society of Chemistry (2008-2011).*

*Member of the International Board of the International Symposium in Olefin Metathesis (2011-present).*

**Awards.** *Hutchison Lectureship, Univ. Rochester (2020); Falk Plaut Lectureship, Univ. Columbia (2019), Humboldt Research Award (2018), JSPS Fellow, Japan (2018); George Willard Wheland Memorial Lecture, University of Chicago (2017); Rössler Prize, ETH Zürich (2016); G&J Somorjai Miller Professor Fellow – UC Berkeley (2015); P.H. Emmett Award in Fundamental Catalysis (2015); Quebec University Lecture Tour (Centre en chimie verte et catalyse) (2015); Meloche Lectureship – University of Wisconsin-Madison (2015); International Organic Chemistry Foundation – Yoshida – Lectureship Award – University of Kyoto (2014); Visiting Professor – University of Osaka (2013-2018); Lemieux Lectureship – University of Ottawa (2013); Glenn T. Seaborg Memorial Lecturer – UC Berkeley (2012); UOP-Honeywell Invitational Lecturer (2011); Thieme Journal Award (2008); “Best Paper Award for a Young Investigator” attributed by the Editorial Board of J. Organometal. Chem. (2001) ; Médaille de bronze CNRS (CNRS Young investigator award) (2001); Post-doctoral fellowship « Société de Secours des Amis des Sciences » (1996-1997) ; “HC Brown award for excellence in organic chemistry research” (1994-1995); “Purdue Research Foundation Fellowship” (1993-1994); “Negishi’s group research accomplishments award” (1993).*

### Summary of Contributions

302 publications, 11 proceedings, 21 book chapters and 24 patents (3 licensed to companies), 29 PhD students, who graduated. Invited editor of Dalton Transaction **2013** (Issue: "molecular precursors"), Journal of Catalysis **2011** (Issue: "Molecular approach to Catalysts"), Dalton Transaction **2010** (Issue: "Bridging the gap in catalysis") and Topics in Organometallic Chemistry (**2005**, Vol. 16, *Surface and Interfacial Chemistry*).

100 (plenary, keynote and invited) lectures in national and international congresses. >130 Invited lectures in universities and industrial research centres.

Co-founding member of the IDECAT conference on catalysis (2005-2011) – chairman in 2006, co-chairman in 2007 and 2011. Chairman and Organizer of the International Symposium on Olefin Metathesis in 2018 (ISOM-22).

### Selected Recent Publications (10)

[315] Carbon-13 NMR Chemical Shift: A Descriptor for Electronic Structure and Reactivity of Organometallic Compounds" C.P. Gordon, C. Raynaud, R.A. Andersen, C. Copéret, O. Eisenstein, *Acc. Chem. Res.* **2019**, *in press*. DOI: 10.1021/acs.accounts.9b00225.

[311] Single-Sites and Nanoparticles at Tailored Interfaces Prepared via Surface Organometallic Chemistry from Thermolytic Molecular Precursors. C. Copéret *Acc. Chem. Res.* **2019**, *52*, 1697-1708. DOI: 10.1021/acs.accounts.9b00138.

[286] C-H Activation and Proton Transfer Initiate Alkene Metathesis Activity of Tungsten (IV)-Oxo Complex. K.-W. Chan, E. Lam, V. D'Anna, F. Allouche, C. Michel, O. Safonova, P. Sautet, C. Copéret, *J. Am. Chem. Soc.* **2018**, *140*, 11395–11401. DOI: 10.1021/jacs.8b06603.

[277] NMR Chemical Shift Analysis Decodes Olefin Oligo- and Polymerization Activity of d<sup>0</sup> Group 4 Metal Complexes. C. P. Gordon, S. Shirase, K. Yamamoto, R. A. Andersen, O. Eisenstein, C. Copéret *Proc. Nat. Acad. Sci.*, **2018**, *115*, E5867-E5876. DOI: 10.1073/pnas.1803382115.

[261] Bridging the Gap between Industrial and Well-Defined Supported Catalysts. C. Copéret, F. Allouche, K. W. Chan, M. P. Conley, M. F. Delley, A. Fedorov, I. B. Moroz, V. Mougél, M. Pucino, K. Searles, K. Yamamoto, P. A. Zhizhko, *Angew. Chem. Int. Ed.* **2018**, *57*, 6398-644 – DOI: 10.1002/anie.201702387.

[234] Cooperativity and Dynamics Increase the Performance of NiFe Dry Reforming Catalysts. S. M. Kim, P. Abdala, T. Margossian, D. Hosseini, L. Foppa, A. Armutlulu, W. van Beek, A. Comas-Vives, C. Copéret, C. Mueller, *J. Am. Chem. Soc.* **2017**, *139*, 1937-1949.

[221] Silica-Supported Cu Nanoparticle Catalysts for Alkyne Semihydrogenation: Effect of Ligands on Rates and Selectivity A. Fedorov, H.-J. Liu, H.-K. Lo, C. Copéret *J. Am. Chem. Soc.* **2016**, *138*, 16502–16507.

[198] Unprecedented Activity and Stability of Supported Metathesis Catalysts by Combining N-Heterocyclic Carbene and Surface Siloxy Ligands with Cationic W Oxo Alkylidene Sites. M. Pucino, V. Mougél, R. Schowner, A. Fedorov, M. R. Buchmeiser, C. Copéret *Angew. Chem. Int. Ed.* **2016**, *55*, 4300-4302.

[192] Surface Organometallic and Coordination Chemistry towards Single-Site Heterogeneous Catalysts: Strategies, Methods, Structures, and Activities. C. Copéret, A. Comas-Vives, M. P. Conley, D. Estes, A. Fedorov, V. Mougél, H. Nagae, F. Núñez-Zarur, P. A. Zhizhko *Chem. Rev.* **2016**, *16*, 323-421.

[187] The Structure of Colloidal Quantum Dots from Dynamic Nuclear Polarization Surface Enhanced NMR Spectroscopy. L. Piveteau, T.-C. Ong, A. J. Rossini, L. Emsley, C. Copéret, and M. V. Kovalenko *J. Am. Chem. Soc.* **2015**, *137*, 13964–13971.

[146] Polymerization of Ethylene by Silica-Supported Dinuclear Cr<sup>III</sup> sites through an initiation Step Involving C-H Bond Activation. M. P. Conley, M. F. Delley, G. Siddiqui, G. Lapadula, S. Norsic, V. Monteil, O. V. Safonova, C. Copéret *Angew. Chem. Int. Ed.*, **2014**, *53*, 1872-1876.

### Current group members (starting year)

**PhD students.** Moritz Bernhardt (2019), Andreas Müller (2019), Jan Alfke (2019), Seraphine Zhang (2019), Jordan Jesus da Silva (2018), Scott Docherty (2018), Derryl Nader (2018), Lukas Rochlitz (2018), Christopher P. Gordon (2017), Jordan Meyet (2016), David Trummer (2016), Erwin Lam (2015), Ilia Moroz (2015), Ka-Win Chan (2015), Margherito Pucino (2015).

**Post-doctoral fellows.** Drs. Zach Berkson (2019), Maciej Korzinsky (2019), Alexander Yakimov (2018), PengXing Liu (2018), Deni Mance (2017), Nicolas Kaeffer (2015), Deni Mance (2017), Gina Noh (2018).