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Chargé de Recherche CNRS

Equipe « Organométalliques : Catalyse et Matériaux »

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CURRENT POSITION

Since Oct. 2011 CNRS Researcher – UMR CNRS 6226 - Organometallic: Catalysis and Material (OMC)

EDUCATION

- **Habilitation** (2017) – University of Rennes
- **Post-doctoral Fellow** (2011) UMR 5069 – Toulouse University (Advisor: Dr. G. Bouhadir and Dr. Didier Bourissou)
- **Post-doctoral Fellow** (2010) UMR 7313 – Marseille University (Advisor: Pr. J. Rodriguez and Pr. T. Constantieux)
- **Ph.D. in Organic Chemistry** (2006-2009) – McGill University (Advisor: Pr. Chao-Jun Li)
- **M.S. in Organic Chemistry** (2004-2005) – Rennes University (Advisor: Pr. Pierre H. Dixneuf)

RESEARCH

Organometallic and Catalysis

- Organic Synthesis Methodologies and Green Chemistry
- Development of new organometallic complexes with NHC ligands (Cu, Ru, Pd, Ag, Rh, Ir)
- Selective Olefin metathesis and Asymmetric C-C bond formation

PUBLICATIONS

>1300 citations; h index = 17 (Web of Sci. 07/2017)

33. "Bleaching Earths as Powerful Additives for Ru-Catalyzed Self-Metathesis of Non-Refined Methyl Oleate at Pilot Scale." J. Allard, I. Curbet, G. Chollet, F. Tripoteau, S. Sambou, F. Caijo, Y. Raoul, C. Crévisy, O. Baslé, M. Mauduit. *Chem. Eur. J.* **2017**, early view.
32. "Readily Accessible Unsymmetrical Unsaturated 2,6-Diisopropylphenyl-N-Heterocyclic Carbene Ligands. Applications in Enantioselective Catalysis." Robert Tarrieu, Adrien Dumas, Jompol Thongpaen, Thomas Vives, Thierry Roisnel, Vincent Dorcet, Christophe Crévisy, Olivier Baslé, Marc Mauduit, *J. Org. Chem.* **2017**, 82, 1880-1887.
31. "From environmentally friendly reusable ionic-tagged Ru-based complexes to industrially relevant homogeneous catalysts: toward a sustainable olefin metathesis." T. E. Schmid, A. Dumas, S. Rouen, C. Crévisy, O. Baslé, M. Mauduit, *Synlett*, **2017**, 28, 773-778.
30. "Selective Metathesis of α -Olefins from Bio-Sourced Fischer-Tropsch Feeds." M. Mathieu, P. Queval, E. Borre, L. Falivene, A. Proater, M. Berthod, F. Hugues, L. Cavallo, O. Baslé, H. Olivier-Bourbigou, M. Mauduit, *ACS Catal.* **2016**, 6, 7970-7976.
29. "Copper-Catalyzed Asymmetric Conjugate Addition of Dimethylzinc to Acyl-N-methylimidazole Michael Acceptors: Scope, Limitations and Iterative Reactions." S. Drissi-Amraoui, T. E. Schmid, J. Lauberteaux, C. Crévisy, O. Baslé, R. Marcia de Figueiredo, S. Halbert, H. Gérard, M. Mauduit, J.-M. Campagne, *Adv. Synth. Catal.* **2016**, 358, 2519-2540.
28. "Electronic and chiroptical properties of chiral cycloiridiated complexes bearing helicenic NHC ligands." N. Hellou, C. Jahier-Diallo, O. Baslé, M. Srebro-Hooper, L. Toupet, T. Roisnel, E. Caytan, C. Roussel, N. Vanthuyne, J. Autschbach, M. Mauduit, J. Crassous. *Chem. Commun.* **2016**, 52, 9243-9246.
27. "Copper-catalyzed asymmetric conjugate addition of organometallic reagents to extended Michael acceptors." T. E. Schmid, S. Drissi-Amraoui, C. Crévisy, O. Baslé, M. Mauduit, *Beilstein J.O.C.* **2015**, 11, 2418-2434.
26. "Copper-Catalyzed Asymmetric Conjugate Addition of Dimethylzinc to Acyl-N-methylimidazole Michael Acceptors: a Powerful Synthetic Platform." S. Drissi-Amraoui, M. S. T. Morin, C. Crévisy, O. Baslé, R. Marcia de Figueiredo, M. Mauduit, J.-M. Campagne, *Angew. Chem. Int. Ed.* **2015**, 54, 11830-11834.
25. "Latent Ruthenium-Indenylidene Catalyst bearing a N-Heterocyclic Carbene and a Bidentate Picolinate." T. E. Schmid, F. Modicom, A. Dumas, E. Borré, L. Toupet, O. Baslé, M. Mauduit, *Beilstein J.O.C.* **2015**, 11, 1541-1546.
24. "Efficiency of Industrially Relevant Atropisomeric Diphosphines in Copper-Catalyzed 1,4-Asymmetric Conjugate Addition of Dialkylzincs to Cyclic or Acyclic Enones or Dienones" M. S. T. Morin, T. Vives, O. Baslé, C. Crévisy, V. Ratovelomanana-Vidal, M. Mauduit, *Synthesis*, **2015**, 47, 2570-2577.

23. "Multicomponent Synthesis of Chiral Bidentate Unsymmetrical Unsaturated N- Heterocyclic Carbenes: Copper-Catalyzed Asymmetric C-C Bond Formation." C. Jahier-Diallo, M. S. T. Morin, P. Queval, M. Rouen, I. Artur, P. Querard, L. Toupet, C. Crévisy, O. Baslé, M. Mauduit, *Chem. Eur. J.* **2015**, 21, 993-997.
22. "Cationic Bis N-Heterocyclic Carbene Ruthenium Complex: Structure and Application as Latent Catalyst in Olefin Metathesis." M. Rouen, P. Queval, L. Falivene, J. Allard, L. Toupet, C. Crévisy, F. Caijo, O. Baslé, L. Cavallo, M. Mauduit, *Chem. Eur. J.* **2014**, 20, 13716-13721.
21. "Multicomponent Synthesis of (a)chiral Unsymmetrical Unsaturated N-Heterocyclic Carbene (U₂-NHC) Precursors; and Their Related Transition-Metal Complexes" P. Queval, C. Jahier, M. Rouen, I. Artur, J.-C. Legeay, L. Falivene, L. Toupet, C. Crévisy, L. Cavallo, O. Baslé, M. Mauduit, *Angew. Chem. Int. Ed.* **2013**, 52, 14103-14107.
20. "Enantioselective Organocatalytic Multicomponent Synthesis of 2,6-Diazabicyclo[2.2.2]octanes (2,6-DABCOs)." M. D. S. Duque, O. Baslé, Y. Genisson, J.-C. Plaquevent, X. Bugaut, T. Constantieux, J. Rodriguez, *Angew. Chem. Int. Ed.* **2013**, 52, 14143-14146. (*Synfacts* **2014**, 10, 0137).
19. "Enantioselective 1,6-Conjugate Addition of Dialkylzinc Reagents to Acyclic Dienones Catalyzed by Cu-DiPPAM Complex. Extension to asymmetric sequential 1,6/1,4 Conjugate Addition." M. Magrez-Chiquet, M. S. T. Morin, J. Wencel-Delord, S. Drissi Amraoui, O. Baslé, A. Alexakis, C. Crévisy, M. Mauduit, *Chem. Eur. J.*, **2013**, 19, 13663. (*Synfacts* **2014**, 10, 0042).
18. "Cationic Ruthenium Complexes in Olefin Metathesis." P. Queval, C. Jahier, O. Baslé, M. Mauduit, *Current Organic Chemistry*, **2013**, 17, 2560-2574.
17. "Synergic Effects Between N-Heterocyclic Carbene and Chelating-Benzylidene-Ether Ligands Towards the Initiation Step of Hoveyda-Grubbs Type Ru-Complexes." D. J. Nelson, P. Queval, M. Rouen, M. Magrez, F. Caijo, E. Borré, I. Laurent, C. Crévisy, O. Baslé, M. Mauduit, J. M. Percy, *ACS Catalysis*, **2013**, 3, 259-264.
16. "Screening of a Selection of Commercially Available Homogeneous Ru-Catalysts in Valuable Olefin Metathesis Transformations." F. Caijo, F. Tripoteau, A. Bellec, C. Crévisy, O. Baslé, M. Mauduit, O. Briel, *Catal. Sci. Technol.*, **2013**, 3, 429-435.
15. "Bidentate Hydroxyalkyl-NHC Ligands for Copper-Catalyzed Asymmetric Allylic Substitution of Allyl Phosphates with Grignard Reagents." M. Magrez, Y. Le Guen, O. Baslé, C. Crévisy, M. Mauduit, *Chem. Eur. J.*, **2013**, 19, 1199-1203. (*Synfacts* **2013**, 4, 0427).
14. "Cooperative Heterogeneous Organocatalysis and Homogeneous Metal Catalysis for the One-Pot Regioselective Synthesis of 2-Pyridones." C. Allais, O. Baslé, J.M. Grassot, M. Fontaine, S. Anguille, J. Rodriguez, T. Constantieux. *Adv. Synth. Catal.* **2012**, 354, 11-12.
13. "Activation of 1,2-Keto Esters with Takemoto's Catalyst toward Michael Addition to Nitroalkenes." W. Raimondi, O. Baslé, T. Constantieux, D. Bonne, J. Rodriguez, *Adv. Synth. Catal.* **2012**, 354, 563-568.
12. "Phosphine-boronates: efficient bifunctional organocatalysts for Michael addition." O. Baslé, S. Porcel, S. Ladeira, G. Bouhadir, D. Bourissou, *Chem. Commun.*, **2012**, 48, 4495-4497.
11. "A Cooperative Participation of the Amido Group in the Organocatalytic Construction of All-Carbon Quaternary Stereocenters by Michael Addition with beta-Ketoamides." M. D. S. Duque, O. Baslé, N. Isambert, A. Gaudel-Siri, Y. Genisson, J.C. Plaquevent, J. Rodriguez, T. Constantieux, *Org. Lett.* **2011**, 13, 3296-3299.
10. "Palladium-Catalyzed Oxidative sp² C-H Bond Acylation with Alcohols. F. H. Xiao, Q. Shuai, F. Zhao, O. Baslé, G. J. Deng, C.-J. Li, *Org. Lett.*" **2011**, 13, 1614-1617.
9. "Multicomponent reactions in ionic liquids: convenient and ecocompatible access to the 2,6-DABCO core." Z. El Asri, Y. Genisson, F. Guille. M. D. S. Duque, S. Ladeira, J. Rodriguez, T. Constantieux, J. C. Plaquevent, *Green Chemistry*, **2011**, 13, 2549-2552.
8. "Highly Diastereo- and Enantioselective Organocatalytic Michael Addition of alpha-Ketoamides to Nitroalkenes." O. Baslé, W. Raimondi, M. D. S. Duque, D. Bonne, T. Constantieux, J. Rodriguez, *Org. Lett.* **2010**, 12, 5246-5249.
7. "Rhodium-Catalyzed Oxidative C-H Arylation of 2-Arylpyridine Derivatives via Decarbonylation of Aromatic Aldehydes." Q. Shuai, L. Yang, X. Guo, Baslé, O, C.-J. Li, *J. Am. Chem. Soc.* **2010**, 132, 12212-12213.
6. "Palladium-Catalyzed Oxidative sp² C-H Bond Acylation with Aldehydes." O. Baslé, J. Bidange, Q. Shuai, C.-J. Li, *Adv. Synth. Catal.* **2010**, 352, 1145-1149.
5. "Aerobic and Electrochemical Oxidative Cross-Dehydrogenative-Coupling (CDC) Reaction in an Imidazolium-Based Ionic Liquid." O. Baslé, N. Borduas, P. Dubois, J.M. Chapuzet, T.H. Chan, J. Lessard, C.-J. Li, *Chem. Eur. J.*, **2010**, 27, 8162-8166.
4. "Site-specific C-functionalization of free-(NH) peptides and glycine derivatives via direct C-H bond functionalization." L. Zhao, O. Baslé, C.-J. Li, *Proc. Natl. Acad. Sci. U.S.A.* **2009**, 106, 4106-4111.
3. "Copper-catalyzed aerobic phosphonation of sp³ C-H bonds." O. Baslé, C.-J. Li, *Chem. Commun.* **2009**, 4124-4126.
2. "Copper-catalyzed oxidative sp³ C-H bond arylation with aryl boronic acids." O. Baslé, C.-J. Li, *Org. Lett.* **2008**, 10, 3661-3663.
1. "Copper-catalyzed oxidative alkylation of sp³ C-H bond adjacent to an nitrogen atom using molecular oxygen in water." O. Baslé, C.-J. Li, *Green Chem.* **2007**, 9, 1047-1050.

BOOK CHAPTERS

5. "Catalytic Systems Featuring Ionically Tagged N-Heterocyclic Carbene Ligands." M. Mauduit, O. Baslé, C. Crévisy, T. Schmid in «N-Heterocyclic Carbenes in Catalytic Organic Synthesis Vol. 2» (Eds S. P. Nolan, C. S. J. Cazin), **2016**, pp 351-365.

4. "CDC reaction with molecular oxygen as terminal oxidant." O. Baslé in « From C-H bond to C-C Bonds: Cross-Dehydrogenative-Coupling » (Eds C.-J. Li) **2014**, pp 197-218.
3. "Metathesis in unusual solvents and under new conditions." M. Rouen, P. Queval, A.-C. Gaumont, I. Dez, O. Baslé, M. Mauduit in « Olefin Metathesis–Theory and Practice », (Eds K. Grela), **2014**, pp 547-558.
2. "Metal catalyzed asymmetric nucleophilic addition to electron deficient alkenes." A. Denicourt, O. Baslé, H. Clavier, C. Crévisy, M. Mauduit in « Comprehensive Organic Synthesis 2nd Edition – P. Knochel & G. A. Molander » Volume 4, Eds S.-M. Ma, J. Zhang (**2014**), pp 189-341.
1. "Asymmetric Allylic Alkylation." A. Denicourt, O. Baslé, C. Crévisy, M. Mauduit in « Copper-catalyzed Asymmetric Synthesis » Chapter 4, Eds A. Alexakis, N. Krause, S. Woodward, **2014**, pp 85-126.

PROFESSIONAL SERVICE(S)

Elected member of the scientific committee at Ecole Nationale Supérieure de Chimie de Rennes (2014-2020).
President and organizer of the "Groupe d'Etudes en Chimie Organique" GECCO58 (2017, Dinard).

HONOR(S) & DISTINCTION(S)

CNRS Award for Scientific Excellence (2014)
T. Sterry Hunt Awards (McGill University 2007)