



Dr Christine BAUDEQUIN



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PROFESSIONAL EXPERIENCES

- 2009- Associate Professor (MCF); Rouen Normandy University, France.
- 2008-2009 Postdoctoral Associate; Advisor: Prof. Poizot and Dr Dolhem, University of Amiens, France.
- 2007-2008 Postdoctoral Associate; Advisor: Prof. Rousseau, CEA (Commissariat à l'Énergie Atomique), Saclay, France.
- 2006-2007 Postdoctoral Associate; Advisor: Dr. Brunet and Dr. Rodríguez, LCC (Laboratoire de Chimie de Coordination), Toulouse, France.
- 2005-2006 Postdoctoral Associate; Advisor: Prof. Tsogoeva, University of Göttingen, Germany.

EDUCATION

- 2001-2005 Ph.D. Organic Chemistry, University of Rouen, France.
- 2000-2001 M.S. Organic Chemistry, University of Rouen, France.

ADMINISTRATIVE & INSTITUTIONAL RESPONSIBILITIES

- 2015- Member of the Chemistry Department Council (University of Rouen)
- 2013- Member of the Advisor Commission of faculty specialists (CCSE, section 32) – University of Rouen, France.
- 2012-2013 Member of the Hygiene and Safety Commission at UMR COBRA 6014.
- 2019- master' degree supervisor - 1st year

RESEARCH INTERESTS

Keywords: C-H Activation, Heterocycles, Distal functionalization, Fluorophores.

SCIENTIFIC ACHIEVEMENTS

24 publications, 5 reviews, 1 patent.

SUPERVISION ACTIVITIES

- ✚ **Flavia Adina POPA (2009-2012)**, *supervised* by Pr. Y. Ramondenc and Pr. Mircea Darabantu, University of Cluj-Napoca, Romania. « Système π -déficitaires dendritiques à unités périphériques sérinologiques ou diaziniques : synthèse, stéréochimie et propriétés supramoléculaires ».
- ✚ **Salomia Oana MOLDOVAN (2012)**, *supervised* by Pr. Y. Ramondenc and Pr. Mircea Darabantu, University of Cluj-Napoca, Romania. « Ingénierie de systèmes conjugués A- π -D diaziniques et évaluation de leurs propriétés opto-électroniques ».
- ✚ **Anne-Sophie CORNEC (2009-2012)**, *co-supervised* with Pr Y. Ramondenc, University of Rouen. « Synthesis and structure-photophysical properties relationships of new diazinic fluorophores obtained by cross-coupling reactions and click chemistry».
- ✚ **Charline DENNEVAL (2011-2014)**, *co-supervised* with Pr Y. Ramondenc, INSA of Rouen. « Design, synthesis and evaluation of bimodal contrastophores for two-photon microscopy and positron emission tomography».
- ✚ **Mickaël MUSELLI (2013-2016)**, *co-supervised* with Pr L. Bischoff and Pr C. Hoarau, INSA of Rouen. « Synthesis and direct catalytic functionalization of the C-H bond of imidazolones. Novel access towards GFP-like fluorophores ».
- ✚ **Sandra COLLADO (2015-2018)**, *co-supervised* with Pr L. Bischoff and Pr C. Hoarau, INSA of Rouen. « Palladation and functionalization of pyrimidinones and imidazolones ».
- ✚ **Steven FRIPPIAT (2017-2020)**, *co-supervised* with Pr L. Bischoff and Pr C. Hoarau, INSA of Rouen. « Synthesis and functionalization of imidazolone, Innovative uses isonitriles and oxazolines».
- ✚ **Florian PANZA (2020-)**, *co-supervised* with Pr C. Hoarau, INSA of Rouen. « Distal C-H functionalization of C(sp² or sp³)-H bond ».

GRANTS AND FELLOWSHIPS

LABEX thesis Fellowship (2020-2023)

TEACHING ACTIVITIES

✚ **2nd and 3rd year undergraduate (University of Rouen, Bachelor's degree in chemistry):**

Lectures in Organic chemistry, Chemical hazard

✚ **1st undergraduate (University of Rouen, Master's degree in chemistry):**

organometallic

🚩 3rd year undergraduate (Licence Professionnelle Chimie, Agro-ressources et Polymères, IUT de Rouen)

Lectures in Heteroelement chemistry, asymmetric synthesis and oxidation chemistry

EDITORIAL ACTIVITIES

1. Member of the local organizing committee for the ECHC 2021 (XXIX European Colloquium on Heterocyclic Chemistry), 26-29 April 2021.

CONFERENCES

1. « Have an A- π -D system to be luminescent », University of Cluj-Napoca, Romania, March 2012.

2. « Synthesis and fluorescence properties of new star-shaped molecules based on diazines chromophores » IS:CE CHEM Seminar, Ouistreham, December 2010.

3. « Palladium-catalyzed direct C-H functionalization: a powerful methodology to access tailor-made GFP analogs and biologically-active molecules » IC3TC: International Christmas Caparica Congress in Translational Chemistry, Lisbonne (Portugal, December 2017).

PUBLICATIONS

Publications :

1. « Ortho-Directed Palladium-Catalyzed Direct C-H Functionalization of 3-Picolinyl- and 3-(2-Cyanoethyl)pyrimidin-4(3H)-ones with Aryl Halides » S. Collado Ruiz, M. Muselli, S. Fripiat, T. Mamoudou Diallo, A. Mohamed-Cherif, V. Levacher, L. Bischoff*, C. Baudequin,* C. Hoarau* *Synlett* 2020, 31.

2. « Formation of Imidazolones by Ring Closure of α -Isocyanoamides: Exploring New Reactivities » S. Fripiat, C. Leterrier, C. Baudequin, C. Hoarau, L. Bischoff *Synlett* 2020, 31, 1211-1215.

3. « Pd(0)-Catalyzed Direct Inter- and Intramolecular C-H functionalization of 4-carboxyimidazoles » S. Fripiat, A. Peresson, T. Perse, Y. Ramondenc, C. Schneider, O. Querolle, P. Angibaud, V. Poncelet, L. Meerpoel, V. Levacher, L. Bischoff, C. Baudequin,* C. Hoarau* *Synlett* 2020, 31, 1015-1021.

4. « Orthopalladation of GFP-Like fluorophores through C-H bond activation: Scope and Photophysical Properties » S. Collado, A. Pueyo, C. Baudequin, L. Bischoff, A. I. Jimenez, C. Cativielea, C. Hoarau, E. P. Urriolabeitia, *Eur. J. Org. Chem.* 2018, 6158-6166.

5. «Miyaura borylation/Suzuki-Miyaura coupling (MBSC) sequence of 4-bromo-2,4'-bithiazoles with halides: straightforward access to a heterocyclic cluster of D-series of

- thiopeptide GE2270**» P. Lassalas, C. Berini, J.-B. E. Y. Rouchet, J. Hedouin, F. Marsais, C. Schneider, C. Baudequin, C. Hoarau, *Org. Biomol. Chem.* **2018**, *16*, 526-530.
6. « **Synthesis of the heterocyclic core of the D-series GE2270**» C. Berini, T. Martin, P. Lassalas, F. Marsais, C. Baudequin, C. Hoarau, *Beilstein J. Org. Chem.* **2017**, *13*, 1407-1412.
 7. « **Chemoselective palladium-catalyzed direct C-H arylation of 5-carboxyimidazoles: unparalleled access to fused imidazole-based tricycles containing six-, seven- or eight-membered rings** » J. Thireau, C. Schneider, C. Baudequin, S. Gaurrand, P. Angibaud, L. Meerpoel, V. Levacher, O. Querolle, C. Hoarau, *Eur. J. Org. Chem.* **2017**, 2491-2494.
 8. « **Pd(0)-Catalyzed Direct C-H Functionalization of 2-H-4-Benzylidene Imidazolones: Friendly and Large-Scale Access to GFP and Kaede Protein Fluorophores** » M. Muselli, C. Baudequin, C. Perrio, C. Hoarau, L. Bischoff, *Chem. Eur. J.* **2016**, *22*, 5520-5524.
 9. « **Pd-Catalyzed direct C-H functionalization of imidazolones with aryl- and alkenyl halides** » M. Muselli, C. Baudequin, C. Hoarau, L. Bischoff, *Chem. Commun.* **2015**, *51*, 745-748.
 10. « **Modulation of intermolecular interactions in new pyrimidine-porphyrin system as two-photon absorbing photosensitizers** » A. Jiblaoui, J. Brevier, G. Ducourthial, H. Gonzalez-Nunez, C. Baudequin, V. Sol, S. Leroy-Lhez, *Tetrahedron* **2015**, *71*, 2428-2434.
 11. « **Prediction of photophysical properties of pyrimidine chromophores using Taguchi method** » C. Denneval, S. Achelle, C. Baudequin, F. Robin-Le Guen, *Dyes and Pigments*, **2014**, *110*, 49-55.
 12. « **Synthesis and optical properties of multibranching and C3 symmetrical oligomers with benzene or triphenylamine core and diazines as peripheral groups** » F.-A. Martin, C. Baudequin,* C. Fiol-Petit, M. Darabantu, Y. Ramondenc, N. Plé,* *Tetrahedron* **2014**, *70*, 2546-2555.
 13. « **Synthesis and Photophysical Properties of Push-Pull Structures Incorporating Diazines as Attracting Part with a Fluorene Core** » C. Denneval, O. Moldovan, C. Baudequin,* S. Achelle,* P. Baldeck, N. Plé, M. Darabantu, Y. Ramondenc, *Eur. J. Org. Chem.* **2013**, 5591-5602.
 14. « **One "Click" to Access Push-Triazole-Pull Fluorophores Incorporating a Pyrimidine Moiety: Structure-Photophysical Properties Relationships** » A.-S. Cornec, C. Baudequin,* C. Fiol-Petit, N. Plé, G. Dupas, Y. Ramondenc, *Eur. J. Org. Chem.* **2013**, 1908-1915.
 15. « **An easy one-pot desilylation/copper-free Sonogashira cross-coupling reaction assisted by tetra-butylammonium fluoride (TBAF): synthesis of highly π -conjugated porphyrins** », A. Jiblaoui, C. Baudequin, V. Chaleix, G. Ducourthial, F. Louradour, Y. Ramondenc, V. Sol, S. Leroy-Lhez, *Tetrahedron* **2013**, *69*, 5098-5103.
 16. « **Synthesis and Photophysical Investigation of a Series of Push-Pull Arylvinyldiazine Chromophores**», S. Achelle, A. Barsella, C. Baudequin, B. Caro, F. Robin-Le Guen, *J. Org. Chem.*, **2012**, *77*, 4087-4096.
 17. « **Intermolecular Rhodium-Catalysed Hydroamination of Non-Activated Olefins: Effect of Olefin, Amine, Phosphine and Phosphonium Salt** », M. Rodriguez-Zubiri, C. Baudequin, A. Béthegnies, J.-J. Brunet, *ChemPlusChem*, **2012**, *77*, 445-454.

18. « **Hydroamination of ethylene by aniline: catalysis in water** » P. A. Dub, M. Rodriguez-Zubiri, C. Baudequin, R. Poli, *Green Chemistry*, **2010**, *12*, 1392-1396.
19. « **Highly enantioselective organocatalytic formation of quaternary carbon center via chiral Brønsted acid catalyzed self-coupling of enamides** » C. Baudequin, A. Zamfir, S. B. Tsogoeva, *Chem. Commun.*, **2008**, 4637-4639.
20. « **Thiazolinium salt: an efficient catalyst for the Mukaiyama reaction** » G. Mercey, D. Bregeon, C. Baudequin, F. Guillen, J. Levillain, M. Gulea, J.-C. Plaquevent, A.-C. Gaumont, *Tet. Lett.*, **2009**, *50*, 7239-7241.
21. « **Rhodium-Catalyzed Hydroamination of Ethylene. Highly Promoting Effect of Iodide Ions** » C. Baudequin, J.-J. Brunet, M. Rodriguez-Zubiri, *Organometallics*, **2007**, *26*, 5264-5266.
22. « **Organocatalysis with Chiral Formamides: Asymmetric Allylation and Reduction of Imines** » C. Baudequin, D. Chaturvedi, S. B. Tsogoeva, *Eur. J. Org. Chem.*, **2007**, *16*, 2623-2629.
23. « **Enantioselective electrophilic fluorination: a study of the fluorine-transfer from achiral N-F reagents to cinchona alkaloids** » C. Baudequin, J.-F. Loubassou, J.-C. Plaquevent, D. Cahard, *Journal of Fluorine Chemistry*, **2003**, *122*, 189-193.
24. « **Enantioselective electrophilic fluorination in ionic liquids** » C. Baudequin, J.-C. Plaquevent, C. Audouard, D. Cahard, *Green Chemistry*, **2002**, *4*, 584-586.

Reviews :

1. « **Organometallic Fluorophores of d8 Metals (Pd, Pt, Au)** », L. Bischoff, C. Baudequin, C. Hoarau, E. P. Urriolabeitia, *Adv. Organomet. Chemistry*, **2018**, *69*, 73-134.
2. « **Recent advances in pyrimidine derivatives as luminescent, photovoltaic and non-linear optical materials** » S. Achelle, C. Baudequin, *Targets in Heterocyclic Systems*, **2013**, *17*, 1-34.
3. « **Luminescent materials incorporating pyrazine or quinoxaline moieties** » S. Achelle, C. Baudequin, N. Plé, *Dyes and Pigments*, **2013**, *98*, 575-600.
4. « **Chiral ionic liquids, a renewal for the chemistry of chiral solvents? Design, synthesis and applications for chiral recognition and asymmetric synthesis** » C. Baudequin, D. Brégeon, J. Levillain, F. Guillen, J.-C. Plaquevent, A.-C. Gaumont, *Tetrahedron: Asymmetry*, **2005**, *16*, 3921-3945.
5. « **Ionic liquids and chirality: opportunities and challenges** » C. Baudequin, J. Baudoux, J. Levillain, D. Cahard, A.-C. Gaumont, J.-C. Plaquevent, *Tetrahedron: Asymmetry*, **2003**, *14*, 3081-3093.

Patent :

1. « **Process for enantioselective electrophilic addition of a halogen, in particular fluorine, to a carbon-carbon double bond in ionic liquids for preparation of**

fluorinated compounds » D. Cahard, J.-C. Plaquevent, J. Baudoux, C. Baudequin,
Rhodia (2004), FR 2843113 A1 20040206.