



Dr Cédric SCHNEIDER



Assistant Professor IUT Rouen

Heterocycles team, COBRA-Laboratory

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PROFESSIONAL EXPERIENCES

- 2013- Assistant Professor (MCF) IUT Rouen, Normandie Rouen University, France.
- 2012 - 2013 ATER IUT Rouen, Normandie Rouen University, France.
- 2011 - 2012 Postdoctoral Associate; Advisor: Prof. Hoarau, UMR 6014 COBRA, France.
- 2009 - 2011 Postdoctoral Associate; Advisor: Prof. Snieckus, Queen's University at Kingston, Canada.

EDUCATION

- 2005 - 2008 Ph.D. Organic Chemistry, Claude Bernard Lyon 1 University, France.
- 2004 - 2005 M.S. Organic Chemistry, Claude Bernard Lyon 1 University, France.

ADMINISTRATIVE & INSTITUTIONAL RESPONSIBILITIES

- 2018-- Member of the Chemistry Department Council (IUT de Rouen)
- 2018- Member of the Advisor Commission of faculty specialists (CCSE, section 32) – University of Rouen, France.
- 2015- Member of the Hygiene and Safety Commission at UMR COBRA 6014 (Security Head for the Heterocycles Team)
- 2013- Member of the Hygiene and Safety Commission at IUT Rouen

RESEARCH INTERESTS

Keywords: C-H Activation; Heterocycles; Decarboxylative couplings; Domino Reaction; Homogeneous Catalysis; Radical chemistry.

SCIENTIFIC ACHIEVEMENTS

Academic record (h-index: 13)

23 publications, 1 review, 2 patents

Exemples d'autres rubriques possibles (sans restriction de place)

SUPERVISION ACTIVITIES

a) 4 co-supervised thesis from 2012

1. **Jean-Baptiste ROUCHET** - Oct 2012 to Oct. 2015 - (*INTERREG IV-AICHEM Channel Fellowship*) : « Etude de couplages croisés directs catalytiques décarboxylants d'acides picoliniques et cinnamiques. »
2. **Jonathan HEDOUIN** - Oct 2014 to Oct. 2017 - (*LABEX SynOrg Fellowship*): "Etude de cascades réactionnelles pallado-catalysées de fermeture d'allénamides et d'allylation directe de liaisons C-H et C-CO₂H d'azoles, d'énamides et d'acides propioliques pour la diversité structurelle »
3. **Mahmoud HACHEM** - Oct 2016 to Oct. 2019 - (*MESR Fellowship*) : "Hétéroarylation et arylation des éthers d'énol par couplages directs catalytiques impliquant des liaisons C-CO₂H et C-H »
4. **Baptiste GERARDIN** - Oct 2019 - (*MESR Fellowship*) *Thesis in progress*

b) 2 co-supervised post-doctoral researchers

1. **Dr. Jonathan HEDOUIN** - Sept 2017 to Sept 2018 - (*ATER*): "Nouvelles séquences domino intramoléculaires de carbohalogénéation / C-H pallado-catalysées d'alcyne ou d'alcènes pour la diversité moléculaire »
2. **Dr. Suman PAL** - April 2019 to April 2020 - (*RIN FSP-Chem Fellowship*): "Cu-Catalyzed Oxidative Allylic C-H Arylation of Inexpensive Alkenes with (Hetero)Aryl Boronic Acids"

5. 1 supervised M2

1. **Romain RENARD** - Feb. to June 2018 - : "Etudes de cascades réactionnelles de construction/alcynylation d'hétérocycles par métallation catalytique de liaisons C-CO₂H pour la diversité moléculaire "

GRANTS AND FELLOWSHIPS

- 1) **RIN Emergence Fellowship** (Post-doctoral funding for 18 months)

TEACHING ACTIVITIES

- 1) **1st and 2nd year undergraduate (IUT de Rouen, Chemistry department):**
Lectures and practical works in Organic chemistry
- 2) **1st and 2nd year undergraduate (IUT de Rouen, Process Engineering department):**
Lectures and practical works in Organic chemistry
- 3) **3rd year undergraduate (Licence Professionnelle Chimie, Agro-ressources et Polymères, IUT de Rouen)**
Lectures in glycochemistry and in organometallic

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- 1) 2019, Member of the Société Chimique de France, SCF (*Organic Chemistry Division*)

EDITORIAL ACTIVITIES

- 1) Synfact Associate Member for the category "Synthesis of Heterocycles" -2009 to 2011- 58 articles published.
- 2) Member of the local organizing committee for the ECHC 2021 (XXIX European Colloquium on Heterocyclic Chemistry), 26-29 April 2021.
- 3) Member of the local organizing committee for the ANORCQ XIII (13th Anglo-Norman Organic Chemistry Colloquium), 150 participants, 24-27 Avril 2016.

CONFERENCES

1. "Functionnalization of α -carboline at the C-6 position": SYCOCAL PC 5^{ème} Edition Symposium de Chimie Organique Centre-Auvergne-Limousin Poitou-Charente, La Rochelle, May 2007, France.
2. "Chemoselective functionalization of α -carboline at 2-, 3-, 4- and 6-positions by Suzuki-Miyaura reaction" CSC2009, 92nd Canadian Chemistry Conference and Exhibition, Hamilton, Ontario, June 2009, Canada.
3. "Synthesis of aryl/heteroaryl sulfonamides boropinacolates and their applications" 239th ACS National Meeting, San Francisco, Californie, March 2010, USA.
4. "Chemoselective Catalytic C-O Activation. Construction of Polyarylated Fluorenones via Ru- and Pd- Catalyzed Suzuki Cross-Coupling Reaction" CSC2011, 94th Canadian Chemistry Conference and Exhibition, Montréal, Québec, June 2011, Canada.
5. "Chemoselective Catalytic C-O Activation. Construction of Polyarylated Fluorenones via Ru- and Pd- Catalyzed Suzuki Cross-Coupling Reaction" GECCO 52, Groupe d'Etude de Chimie Organique, Brest, September 2011, France.
6. "Pd- and Cu-Catalyzed Stereo- and Regiocontrolled Decarboxylative / C-H Alkenylation of Heteroarenes" 27th European Colloquium on Heterocyclic Chemistry (ECHC), Amsterdam, July 2016, Netherlands
7. "Acrylic Acids as New Coupling Partners for the Functional Diversity of Heteroarene C-H bonds" GECCO 59, Groupe d'Etude en Chimie Organique, Cabourg, August 2018, France.

PUBLICATIONS

Publications:

- 1) Synthesis of 6-Substituted Pyrido[2,3-*b*]indoles by Electrophilic Substitution: C. Schneider, D. Gueyrard, F. Popowycz, B. Joseph, P. G. Goekjian *Synlett* **2007**, *14*, 2237.
- 2) Pyrazolo[1,5-*a*]-1,3,5-triazines as a Purine Bioisostere: Access to Potent CDK Inhibitor (R)-Roscovitine Analogue: F. Popowycz, G. Fournet, C. Schneider, K. Bettayed, Y. Ferandin, C. Lamigeon, O. M. Tirado, S. Mateo-Lozano, V. Notario, P. Colas, P. Bernard, L. Meijer, B. Joseph *J. Med. Chem.* **2009**, *52*, 655.
- 3) Synthesis and Antiproliferative Activity of Pyrazolo[1,5-*a*]-1,3,5-triazine Myoseverin Derivatives: F. Popowycz, C. Schneider, S. DeBonis, D. A. Skoufias, F. Kozielski, C. M. Galmarini, B. Joseph *Bioorg. Med. Chem.* **2009**, *17*, 3471.

- 4) **Chemoselective Functionalization of α -Carbolines at 2-, 3-, 4- and 6-positions by Suzuki-Miyaura Reaction:** C. Schneider, D. Gueyrard, B. Joseph, P. G. Goekjian *Tetrahedron*, **2009**, *65*, 5427.
- 5) **Synthesis of C-2, C-3 and C-4 Substituted Pyrido[2,3-*b*]indoles by C-N, C-O and C-C(sp) bond formation:** C. Schneider, D. Goyard, D. Gueyrard, B. Joseph, P. G. Goekjian *Eur. J. Org. Chem.* **2010**, 6665.
- 6) **Directed *ortho*-Metalation-Cross-Coupling Strategies. One-Pot Suzuki Reaction to Biaryl and Heterobiaryl Sulfonamide:** C. Schneider, E. Broda, V. Snieckus *Org. Lett.* **2011**, *13*, 3588-.
- 7) ***In situ* Anionic Shielding for Regioselective Metalation. Directed *peri* and Iterative Metalation Routes to Polyfunctionalized 7-Azaindoles:** C. Schneider, E. David, A. A. Toutov, V. Snieckus *Angew. Chem. Int. Ed.* **2012**, *51*, 2722.
- 8) **Tamed (Hetero)Arene Trifluoromethylation:** T. Besset, C. Schneider, D. Cahard *Angew. Chem. Int. Ed.* **2012**, *51*, 5048.
- 9) **Palladium* and Copper*Catalyzed Direct C*H Stereocontrolled Fluoroalkenylation of Heteroarenes using *gem*-Bromofluoroalkenes:** C. Schneider, D. Masi, S. Couve-Bonnaire, X. Pannecoucke, C. Hoarau *Angew. Chem. Int. Ed.* **2013**, *52*, 3246.
- 10) **Pd-Catalyzed Decarboxylative Cross-Coupling of 2-Carboxyazine N-Oxides with Various (Hetero)Aryl halides:** J.-B. Rouchet, C. Schneider, C. Spitz, J. Lefèvre, G. Dupas, C. Fruit, C. Hoarau *Chem. Eur. J.* **2014**, *20*, 3610.
- 11) **Pd- and Cu-Catalyzed Stereo- and Regiocontrolled Decarboxylative / C*H Fluoroalkenylation of Heteroarenes** K. Rousée, C. Schneider, S. Couve-Bonnaire, X. Pannecoucke, V. Levacher, C. Hoarau *Chem. Eur. J.* **2014**, *20*, 15000.
- 12) **Regioselective Decarboxylative Cross-Coupling of Carboxy Isoquinolines N-Oxides** J.-B. Rouchet, C. Schneider, C. Fruit, C. Hoarau *J. Org. Chem.* **2015**, *80*, 5919.
- 13) **Synthesis and Orthogonal Functionalization of Oxazolo[5',4':4,5]pyrano[2,3-*b*]pyridine by Intra and Intermolecular Pd-Catalyzed Direct C*H Bond Heteroarylation** L. Théveau, C. Schneider, O. Querolle, L. Meerpoel, V. Levacher, C. Hoarau *Org. Biomol. Chem.* **2016**, *14*, 3459.
- 14) **Copper-Catalyzed Direct C*H Fluoroalkenylation of Heteroarenes** K. Rousée, C. Schneider, J.-P. Bouillon, V. Levacher, C. Hoarau, S. Couve-Bonnaire, X. Pannecoucke *Org. Biomol. Chem.* **2016**, *14*, 353.
- 15) **Chemoselective Pd-Catalyzed Direct C-H Arylation of 5-Carboxyimidazoles: Unparalleled access to fused Imidazole-Based Tricycles containing 6-, 7- or 8-Membered Rings** J. Thireau, C. Schneider, P. Angibaud, O. Querolle, L. Meerpoel, V. Levacher, C. Hoarau *Eur. J. Org. Chem.* **2017**, 2491.
- 16) **Metal-catalyzed direct C-H fluoroalkenylation of pyridine N-oxides and related derivatives:** A. Lehecq, K. Rousée, C. Schneider, J.-P. Bouillon, V. Levacher, C. Hoarau, X. Pannecoucke, S. Couve-Bonnaire *Eur. J. Org. Chem.* **2017**, *21*, 3049.
- 17) **Pd-Catalyzed and Cu-Assisted Regioselective Direct C*H Heteroarylation of Vinyl Ether using α -carboxyvinylethers** J.-B. Rouchet, M. Hachem, C. Schneider, C. Hoarau *ACS Catal.* **2017**, *7*, 5363.

- 18) Chemoselective Ru-Catalyzed C*O Bond Activation: Orthogonality to Ni- and Pd-Catalyzed Reactions for the Synthesis of Polyarylated Fluorenones:** L. C. R. M. Frota, C. Schneider, M. B. Amorim, A. J. M. da Silva, V. Snieckus *Synlett*, **2017**, 2587.
- 19) Borylation Suzuki-Miyaura Coupling (BSC) of 4-bromo-2,4'-bithiazoles with Halides: Straightforward Access to Heterocyclic Cluster of D-series of Thiopeptide GE2270:** P. Lassalas, C. Berini, J.-B. E.-Y. Rouchet, J. Hédouin, F. Marsais, C. Schneider, C. Baudequin, C. Hoarau *Org. Biomol. Chem.* **2018**, *16*, 526.
- 20) Pd-Catalyzed Domino Allenamide Carbopalladation / Direct C-H Allylation of Heteroarenes: Synthesis of Primprinine and Papaverine Analogs** J. Hedouin, C. Schneider, I. Gillaizeau, C. Hoarau *Org. Lett.* **2018**, *20*, 6027.
- 21) Regioselective Pd-Catalyzed Carbopalladation / Decarboxylative Allylic Alkynylation of *ortho*-Iodoallenamides with alkynyl carboxylic acids** J. Hedouin, C. Schneider,* I. Gillaizeau, C. Hoarau *J. Org. Chem.* **2019**, *84*, 10535.
- 22) Pd(0)-catalyzed direct inter- and intramolecular C-H functionalization of 4-carboxylimidazoles: a powerful methodology to access C2-(hetero)aryl or alkenylimidazoles and C5-fused imidazoles with a 5- to 7 membered-ring** S. Fripiat, A. Peresson, Y. Ramondenc, C. Schneider, O. Querolle, P. Angibaud, V. Levacher, L. Bischoff, C. Baudequin, C. Hoarau *Synlett*. **2020**, *31*, 1015.
- 23) Direct Stereoselective β -Arylation of Enol Ethers via Decarboxylative Heck Reaction** M. Hachem, C. Schneider,* C. Hoarau *Eur. J. Org. Chem.* **2020**, *14*, 2052.

Review:

- 1) Orthogonal palladium-catalyzed direct C-H bond arylation of heteroarenes with aryl halides:** L. Théveau, C. Schneider, C. Fruit, C. Hoarau *ChemCatChem* **2016**, *8*, 3183.

Patents:

- 1) Preparation of heterocycle thiazolylbenzene derivatives and analogs for use as antiproliferative agents:** C. Gambacorti-Passerini, R. Gunby, A. Zambon, L. Scapozza, S. Ahmed, P. Goekjian, D. Gueyrard, F. Popowycz, C. Schneider PCT Int. Appl. WO 2009121535, **2009**; *Chem. Abstr.* **2009**, *151*, 448423.
- 2) Preparation of 9H-pyrido[2,3-*b*]indoles as inhibitors of oncogenic protein kinases useful in the treatment of cancer:** C. Gambacorti-Passerini, M. Luca, L. Scapozza, S. Ahmed, P. Goekjian, D. Gueyrard, F. Popowycz, B. Joseph, P. Garcia, C. Schneider PCT Int. Appl. WO 2010025872, **2010**; *Chem. Abstr.* **2010**, *152*, 335176.

