



## Dr Julien BRIOCHE



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Team: Fluorinated Biomolecules Synthesis Team

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### PROFESSIONAL EXPERIENCES

- 2015- Lecturer in Organic Chemistry; University of Rouen-Normandie (Rouen, FR)
- 2014-2015 PDRA / Advisor: Prof. Clayden / University of Manchester (Manchester, GB)
- 2012-2013 PDRA / Advisor: Prof. Cossy & Dr. Meyer, ESPCI (Paris, FR)
- 2011 PDRA / Advisor: Prof. Zard, Ecole Polytechnique (Palaiseau, FR)
- 2009-2011 PDRA / Advisor: Prof. Zhu & Dr. Masson, ICSN (Gif-sur-Yvette, FR)

### EDUCATION

- 2005-2008 Ph.D. Organic Chemistry, University of Sheffield (Sheffield, GB).
- 2004-2005 Master in Molecular Chemistry, University of Rennes 1 (Rennes, FR)

### RESEARCH INTERESTS

#### 1. Radical Fluorination Reactions:

This project aims to develop new C–F bond forming transformations based on free-radical processes.

#### 2. Modified Nucleo(t)ides:

In collaboration with Pr. Serge Piettre, this project aims to develop new synthetic methodologies towards relevant modified nucleosides and dinucleotides.

### SCIENTIFIC ACHIEVEMENTS

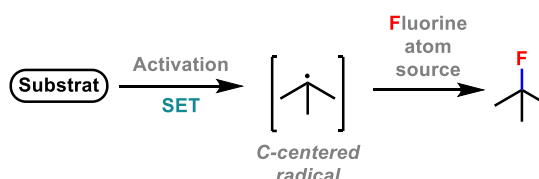
#### Academic record (h-index: 9)

11 publications, 1 review, 1 patent, 1 invited lectures (industry)

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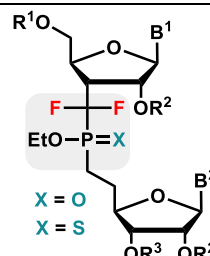
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## GRANTS AND FELLOWSHIPS

RIN-100 # RRaFluR (2020-2023 / PhD grant / Normandy region)

RIN-EMERGENCE # RadFluRox (2021-2022 / PDRA grant / Normandy region)

## TEACHING ACTIVITIES

IUT Chimie Rouen (départements : Chimie, Génie Chimie et Licence Pro Synthèse)

## PUBLICATIONS

### ■ University of Rouen-Normandie

[11] Zhang, J.; Lambert, E.; Xu, Z.-F.; **Brioche, J.**; Remy, P.; Piettre, S. R. *J. Org. Chem.* **2019**, *84*, 5245-5260: *From Oxygen to Sulfur and Back: Difluoro-H-phosphinothioates as a Turning Point in the Preparation of Difluorinated Phosphinates: Application to the Synthesis of Modified Dinucleotides*

[10] **Brioche, J.\*** *Tetrahedron Letters* **2018**, *59*, 4387-4391: *One-pot synthesis of tertiary alkyl fluorides from methyl oxalates by radical deoxyfluorination under photoredox catalysis*

### ■ Postdocs

[9] **Brioche, J.**; Pike, J. S.; Tshepelevitsh, S.; Leito, I.; Morris, G. A.; Webb, S. J.; Clayden, J. J. *Am. Chem. Soc.* **2015**, *137*, 6680-6691: *Conformational Switching of a Foldamer in a Multi-Component system by pH-Filtered Selection between Competing Non-Covalent Interactions*

[8] **Brioche, J.**; Meyer, C.; Cossy, J. *Org. Lett.*, **2015**, *17*, 2800-2803: *Synthesis of 2-Aminoindolizines by 1,3-Dipolar Cycloaddition of Pyridinium Ylides with Electron-Deficient Ynamides*

[7] **Brioche, J.**; Meyer, C.; Cossy, J. *Org. Lett.*, **2013**, *15*, 1626-1629: *Synthesis of Functionalized Allenamides from Ynamides by Enolate Claisen Rearrangement*

[6] **Brioche, J.**; Michalak, M.; Quiclet-Sire, Zard, S. *Org. Lett.*, **2011**, *13*, 6296-6299: *Elimination Versus Ring Opening: A Convergent Route to Alkylidene Cyclobutenes*

[5] **Brioche, J.**; Courant, T.; Alcaez, L.; Stocks, M.; Furber, M.; Zhu, J.; Masson, G. *Adv. Synth. Cat.* **2014**, *356*, 1719-1724: *Chiral Phosphoric Acid-Catalyzed Enantioselective Three-Component Aza-Diels–Alder Reactions of Aminopyrroles and Aminopyrazoles*

[4] **Brioche, J.**; Masson G.; Zhu, J. *Org. Lett.* **2010**, *12*, 1432-1435: *Passerini Three-Component Reaction of Alcohols under Catalytic Aerobic Oxidative Conditions*

## ■ PhD

[3] Brioche, J. C. R.; Barker, T. A.; Whatrup, D. J.; Barker, M. D.; Harrity, J. P. A. *Org. Lett.* **2010**, *12*, 4832- 4835: *Palladium-Catalyzed [1,3]-O-to-C Rearrangement of Pyrans towards Functionalized Cyclohexanones*

[2] Brioche, J. C. R.; Goodenough, K. M.; Whatrup, D. J.; Harrity, J. P. A. *J. Org. Chem.* **2008**, *73*, 1946- 1953: *Investigation of an Organomagnesium Based [3+3] Annulation to Pyrans and its Application in the Synthesis of Rhopalolic Acid A*

[1] Brioche, J. C. R.; Goodenough, K. M.; Whatrup, D. J.; Harrity, J. P. A. *Org. Lett.* **2007**, *9*, 3941-3943: *A [3+3] Annulation Approach to (+)-Rhopalolic Acid B*

## ■ Reviews

[1] Lalli, L.; Brioche, J.; Bernadat, G.; Masson, G. *Curr.Org.Chem.* **2011**, *24*, 4108-4127: *Catalytic Enantioselective Cycloaddition with Chiral Lewis Bases*

## ■ Patents

[1] Servier Industry; Grée, R.; Liutuks, M.; Caijo, F.; Brioche, J.; Jannequin, T.; Dacquet, C.; Ktorza, A.; Caignard, D.-H WO2007FR0195 20071129; 10-07-2008: *Novel Heterocyclic Derivatives, Methods for Preparing them and Pharmaceutic Compositions Containing them*

## CONFERENCES

[11] Journée de Chimie Organique (*Poster*, **2019**, Palaiseau, FR)

[10] Journée scientifique JANSSEN-COBRA (*Lecture*, **2017**, Val-de-Reuil, FR)

[9] Sixième Symposium Francophone de Synthèse Totale (*Poster*, **2016**, Rennes, FR)

[8] Journée de Chimie Organique (*Poster*, **2013**, Palaiseau, FR)

[7] 9<sup>èmes</sup> Rencontres de Chimie Organique (*Poster*, **2011**, Versailles, FR)

[6] Groupe d'Étude de Chimie Organique (*Lecture*, **2010**, La Grande Motte, FR)

[5] XII Symposium-ICSN (*Poster*, **2009**, Gif sur Yvette, FR)

[4] GlaxoSmithKline Case Award (*Lecture*, **2008**, GSK-Tonbridge, UK)

[3] 11<sup>th</sup> Belgian Organic Synthesis Symposium (*Poster*, **2008**, Gent, BE)

[2] International Conference J-NOST (*Lecture*, **2007**, Amritsar, IN)

[1] AstraZeneca Medicinal Chemistry Course (*Lecture*, **2007**, AZ-Charnwood, UK)