

**Professor Serge R. Piettre**  
**Curriculum Vitae**

**Address**

University of Rouen  
Department of Chemistry (IRCOF)  
COBRA - UMR 6014 CNRS  
rue Tesnière  
F - 76821 - Mont Saint Aignan (France)  
Phone: (33) 235.52.29.70      Email: Serge.Piettre@univ-rouen.fr

**Degrees**

- 1980-1984: Ph. D. Degree.  
Research advisor: Professor Heinz G. Viehe.  
Catholic University of Louvain, Louvain-la-Neuve (Belgium).  
Title: "Selanylated and Fluorinated Captodative Reagents: New Synthons in Organic Chemistry".
- 1976-1980: M. S. Degree.  
Catholic University of Louvain, Louvain-la-Neuve (Belgium).  
Title of the graduate thesis: "Synthesis and Reactivity of Radicophilic Olefins".

**Scientific Career**

- 1997-2015: Professor of Organic Chemistry and Head of a research group at IRCOF (Institut de Recherche en Chimie Organique Fine), University of Rouen, France.
- 1996-1997: Group leader at Synthélabo Biomoléculaire Research Center (Strasbourg, France); research focused on parallel synthesis on solid phase and application to the production of libraries.
- 1995-1996: *Scientist* at the Hoechst Marion Roussel Research Center (Strasbourg, France); research on inhibitors of enzymes involved in the central nervous system.
- 1992-1995: *Senior Associate Scientist* at the Marion Merrell Dow Research Center (Strasbourg, France); research on inhibitors of enzymes involved in the central nervous system.
- 1990-1992: *Associate Scientist* at the Marion Merrell Dow Research Center (Strasbourg, France); research on inhibitors of enzymes involved in the central nervous system.
- 1988-1990: Merck, Sharp & Dohme fellowship to study the biosynthesis of the triterpene *Daphniphyllum* alkaloids, in collaboration with Professor Clayton H. Heathcock, at the University of California, Berkeley.
- 1987-1988: Research assistant at the University of California, San Diego. Research in collaboration with Professor Ernest Wenkert, with the aim of

developing new synthetic methodologies, as well as applying them to the total synthesis of *Strychnos* et *Aspidosperma* alkaloids.

1984-1987: World Health Organization postdoctoral fellowship. Research at the University of California, San Diego with Professor Ernest Wenkert. Prenylation of indoles and application to the total synthesis of Yuehchukene and analogues.

### Representative Publications

Lee, S.; Diab, S.; Queval, P.; Sebban, M.; Chataigner, I.; Piettre, S. R. "Aromatic Carbon-Carbon Double Bonds as Dipolarophiles: Facile Reaction of Uncomplexed Electro-Deficient Benzene Derivatives and Other Aromatic Rings with a Non-Stabilized Azomethine Ylide" *Chem. Eur. J.* **2013**, 7181-7192.

Lee, S.; Chataigner, I.; Piettre, S. "Facile Dearomatization of Nitrobenzene Derivatives and Other Nitroarenes with *N*-Benzyl Azomethine Ylide." *Angew. Chem. Int. Ed.* **2011**, 49, 472-476.

Chataigner, I.; Piettre, S. R. "Tandem [4+2]/[3+2] Cycloadditions of Nitroheteroaromatics: An Efficient Synthesis of Fused Nitrogenated Polycycles" *Org. Lett.* **2007**, 9, 4159-4162.

Hourdin, M.; Gouhier, G.; Gautier, A.; Condamine, E.; Piettre, S. R. "Development of Cross-linked Polystyrene Supported Chiral Amines Featuring a Fluorinated Linker for Gel Phase <sup>19</sup>F NMR Spectrometry Monitoring of Reactions" *J. Comb. Chem.* **2005**, 7, 285-297.

Gautier, A.; Garipova, G.; Salcedo, C.; Balieu, S.; Piettre, S. " $\alpha,\alpha$ -Difluoro-*H*-phosphonates. Useful Intermediates to a Variety of Phosphate Isosteres" *Angew. Chem. Int. Ed.* **2004**, 43, 5963-5967.

Gautier, A.; Garipova, G.; Lopin, C.; Kalinina, I.; Salcedo, C.; Balieu, S.; Piettre, S. R. "Analogues of Nucleotides and Oligonucleotides Featuring Difluorophosphonate, Difluorophosphonothioate or Difluorophosphinate Functional Groups. Implications in the Antisense Strategy." *J. Fluor. Chem.* **2004**, 125, 1745-1756.

Lopin, C.; Gautier, A.; Gouhier, G.; Piettre, S. "First and Efficient Synthesis of Phosphonodifluoromethylene Analogues of Nucleoside-3'-phosphates. The Crucial Role Played by Sulfur in the Construction of the Target Molecules" *J. Am. Chem. Soc.* **2002**, 124, 14668-14675.

Piettre, S. R.; Hoflack, J.; Ganzhorn, A.; Islam, K.; Hornsperger, J.-M. "Hydroxytropolones: A New Class of Potent Inhibitors of Inositol Monophosphatase and Other Bimetallic enzymes" *J. Am. Chem. Soc.* **1997**, 119, 3201-3204.

Piettre, S.; Heathcock, C. H. "Biomimetic Total Synthesis of *Proto*-Daphniphylline" *Science*, **1990**, 248, 1532-1534.

Wenkert, E.; Moeller, P. D. R.; Piettre, S. R. "Five-Membered Aromatic Heterocycles as Dienophiles in Diels-Alder Reactions. Furan, Pyrrole and Indole" *J. Am. Chem. Soc.* **1988**, 110, 7188-7194.