



Dr Catherine FRESSIGNE



Maître de Conférences

MESOO team

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PROFESSIONAL EXPERIENCES

1993- **Associate Professor** at the University of Rouen Normandy University, France.
Department of Chemistry.

EDUCATION

1989-1992 Ph.D. Physics Chemistry, University Paris XI (ORSAY), France.

1988-1989 M.S. Physics Chemistry, University Paris VI (Pierre et Marie Curie), France.

ADMINISTRATIVE & INSTITUTIONAL RESPONSIBILITIES

2008- Elected member of the management board (C.G) , of UFR Sciences et Techniques, University of Rouen, France

2008- Member of the Advisor Commission of faculty specialists (CCSE, section 31) – University of Rouen, France.

RESEARCH INTERESTS

My research interests focus on topics related to the synthesis and reactivity of chiral species as nucleophiles.

Theoretical studies (DFT calculations and molecular mechanics) carried out have focused on the modeling of molecular systems containing one or more metal centers in order to model their reactivity, solution structure and spectroscopic properties. These issues are applied to reactions involving complex reaction media.

SCIENTIFIC ACHIEVEMENTS

Academic record (h-index: 16)

35 publications,

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

SUPERVISION ACTIVITIES

GRANTS AND FELLOWSHIPS

TEACHING ACTIVITIES

University of Rouen (department of chemistry)

Préparation au concours "agrégation externe de physique option physique"

Master 1 MEEF (Préparation au concours CAPES de physique-chimie)

L1, L2 : General Chemistry (thermodynamics, chemistry in solution)

L3 : introduction to quantum mechanics

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

EDITORIAL ACTIVITIES

CONFERENCES

PUBLICATIONS

- 1- "Theoretical Investigations of the Influence of Pressure on the Selectivity of the Michael Addition of Diphenylmethaneamine to Stereogenic Crotonates". F. Dumas, C. Fressigne, J. Langlet, C. Giessner-Prettre. *J. Org. Chem.* **1999**, 64, 13, 4725–4732.
- 2- « Why are Monomeric Lithium Amides Planar? » C. Fressigne, J. Maddaluno, C. Giessner-Prettre, B. Silvi. *J. Org. Chem.* **2001**, 66, 19, 6476–6479.
- 3- "Influence of the Correlations, Aggregation, and Solvation on ab initio Computed Li-C, Li-N and Li-Li NMR Coupling Constants". O. Parisel, C. Fressigné, J. Maddaluno, C. Giessner-Prettre. *J. Org. Chem.* **2003**, 68, 4, 1290–1294.
- 4- "Intramolecular carbolithiation of alkynes: *anti* selectivity". C. Fressigné, AL. Girard, M. Durandetti, J. Maddaluno. *Angew. Chem. Int. Ed.*, **2008**, 47, 891-893.

- 5- "Intramolecular Carbolithiation of Heterosubstituted Alkynes: Experimental and Theoretical Study". R. Lhermet, M. Ahmad, C. Hauduc, C. Fressigné, M. Durandetti, J. Maddaluno. *Chem. Eur. J.*, **2015**, *21*, 8105-8111. **Hot paper. Inside back Cover picture**