

de l'institut de Chimie et Biochimie Moléculaire et Supramoléculaire

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Keywords : Trifluoromethoxylation, Trifluoromethylthiolation, Trifluoromethylselenolation, Trifluoromethylation, Radiochemistry, Fluorine-18, PET imaging, ¹⁹F NMR, PFAS analysis, PFAS substitute

Principal Investigators



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Research Topics

Fluorine Chemistry (Synthetic methodologies)

- Substitution → Development of new Emerging Fluorinated Groups by merging fluorine and heteroatoms
- ↔ Physico-chemical properties

Chalcogen Chemistry (Synthetic methodologies)

↔ Oxygen, Sulfur, Selenium, Tellurium

Radiochemistry (Synthetic methodologies)

└→ ¹⁸F

🗳 Medical Imaging

- ↔ Medicinal chemistry
- \hookrightarrow Pharmacology
- \hookrightarrow PET imaging

¹⁹F NMR

- ↔ Analysis of PFAS
- ↔ Database

Research Topics



T. Billard, C. R. Chim. 2024, 27, 217-226.

Trifluoromethoxylation



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Trifluoromethylthiolation



- 1) F. Toulgoat, F. Liger, T. Billard in *Organofluorine Chemistry: Synthesis, Modeling, and Applications* (Eds.: K. Szabó, N. Selander), Wiley-VCH, Weinheim, Germany, **2021**, pp. 49-97.
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Trifluoromethylselenolation



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Difluorochalcogenophosgene



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