SOCIÉTÉ CHIMIQUE DE GENÈVE

Enamides –Ynamides- *N*-allenamides versatile building blocks for the construction of aza-heterocycles and their biotransformation *in planta*

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Substructures of psychoactive molecules of the benzodiazepine family were accessible via *N*-imides featuring tertiary enamides. The particular structural design of enamides embedded in cross-conjugated dienones allowed the diastereoselective construction of cyclopentenoid-fused diazepines *via* a domino *N*-acyliminium ion trapping/Nazarov cyclization. Ynamides are an important category of heterosubstituted alkynes. These "electro-deficient ynamines" reacted with difluorinated diazoacetone under copper catalysis to form fluorinated amido-furans.

Using appropriately functionalized diazo compounds, the CuI/ diazo protocol was successfully applied to the first synthesis of fluorinated *N*-allenamides from ynamides. Fluorinated *N*-allenamides allowed us to synthesize mono and di-fluorinated dienes, fluoropyrroles as well as fluorinated γ-sultams. Beyond their synthetic utility, these highly functionalized building blocks also found practical applications within the field of plant chemistry.

Conference presented on

MONDAY 29 JANUARY 2023 at 17h30

University of Geneva – Science II Building
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The conference is public

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