Novel Methodologies towards Emergent Fluorinated Substituents

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The incorporation of fluorine or fluorinated moieties into organic compounds plays a key role in Life-Science oriented research as often-profound changes of the physico-chemical and biological properties can be observed. Therefore, organofluorine chemistry has become an integral part of pharmaceutical and agrochemical research. Since many years, our research is focused on the synthesis of new heterocycles bearing emergent fluorinated substituents. One of our approaches is based on the use of *F*luoroalkyl *A*mino *R*eagents (*FAR*s) as efficient and versatile tools for the regioselective introduction of fluorinated substituents.[1]

On the other hand, the stereoselective introduction of fluorinated groups onto C(sp^3)-centers is also a great challenge. Our groupe developed recently a straightforward stereoselective introduction of a $-CHF_2$ group in an array of compounds by means of an enantiopure aryl difluoromethyl sulfoxide used as a chiral and traceless auxiliary.[2]

We will present here our recent results in these fields.

Reference

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