

**Sulfonyl Radical Mediated Addition/Translocation/Cyclization Cascade**C. Gloor<sup>1</sup>, F. Dénès<sup>2</sup>, P. Renaud<sup>1\*</sup><sup>1</sup>University of Bern, <sup>2</sup>Université de Nantes

Our group developed a radical addition/translocation/cyclization cascade for the synthesis of substituted cyclopentanes.<sup>[1]</sup> In order to have a facile access to natural product cores, we were interested in performing a similar reaction cascade reaction with sulfonyl radicals.

The reaction was tested on the model system which we used to optimize all our addition/translocation/cyclization cascades. Interestingly, the reaction did not furnish the expected cyclic chlorosulfone but rather the cyclic dechlorinated sulfone. After optimization, this reaction proved to be very efficient and high yielding. The scope and the mechanism will be discussed in detail.



[1] (a) Fabrice Dénès, Florent Beaufigli, Philippe Renaud, *Org. Lett.*, **2007**, 9, 4375

(b) Christophe Lamarque, Florent Beaufigli, Fabrice Dénès, Kurt Schenk, Philippe Renaud, *Adv. Synth. Catal.*, **2011**, 353, 1353-1358