**Fluorohalomethylsulfonium salts as a novel fluorohalocarbene source**

**Fluorhalometilsulfonija sāļi kā jauni fluorhalokarbēna avoti**

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Synthesis of fluorine containing molecules is of great interest due to its unique properties and vast application in pharmaceuticals, agrochemicals and materials [1].

Previously in our group we have developed fluoromethylene transfer from fluromethylsulfonium salts [2, 3]. Herein we wish to report preliminary results on synthesis of reagents **1** and its initial application in carbene transfer reaction (Scheme 1).



**Scheme 1.** Alkene cyclopropanation with fluorohalomethylsulfonium salts.

We have found that functionalized sulfonium salts – fluorohalomethylsulfonium reagents **1** are efficient source of fluorhalocarbene under basic conditions and they undergo unactivated alkene **2** cyclopropanation to deliver fluorohalocyclopropanes **3**.

***References:***

[1] Zhou, Y., *et al. Chem. Rev.* **2016**, *116*, 422–518.

[2] Melngaile, R., Veliks, J. *Synthesis* **2021**, *53*, 4549-4558.

[3] Sperga, A., Zacs, D., Veliks J. *Org. Lett.* **2022**, *24*, 4474–4478.