

Synthesis of Thioether Precursors and Monitoring of the Oxidative Release of Aroma Compounds

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An in-depth study addressing the structure-activity relationship of a novel class of fragrance precursors recently reported by Givaudan¹ was conducted.

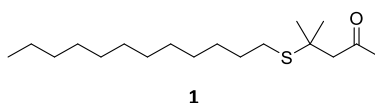


Figure 1 Structure of Scentaurus Juicy[®]

Two main analytical methods were developed and optimised during this project, one providing quantitative data on the relative rate of degradation of different precursors, the other providing qualitative data on the composition of volatiles generated from each precursor.

In parallel, a library of further precursors was synthesised using mainly the catalysed 1,4-addition of thiols to electron-poor olefins. The release of aroma chemicals from these precursors was studied and conclusions were drawn on the preferential release of different types of cleavage products based on the chemical structure of the precursor.

¹ International patent application WO 2019/166315 A1