

Publication**Collective Syntheses of Icetexane Natural Products Based on Biogenetic Hypotheses****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4220339**Author(s)** Thommen, Christophe; Neuburger, Markus; Gademann, Karl**Author(s) at UniBasel** [Gademann, Karl](#) ; [Thommen, Christophe](#) ; [Neuburger, Markus](#) ;**Year** 2017**Year: comment** 2017**Title** Collective Syntheses of Icetexane Natural Products Based on Biogenetic Hypotheses**Journal** Chemistry - A European Journal**Volume** 23**Number** 1**Pages / Article-Number** 120-127**Mesh terms** Biological Products, chemistry; Crystallography, X-Ray; Cycloaddition Reaction; Diterpenes, chemistry; Models, Chemical; Molecular Conformation; Photolysis, drug effects; Quinones, chemistry; Stereoisomerism

A divergent synthesis of 10 icetexane natural products based on a proposed biogenetic cationic ring expansion of a reduced carnosic acid derivative is described. Of these icetexanes, (+)-salvicanol, (–)-cyclocoulterone, (–)-coulterone, (–)-obtusinoneD, and (–)-obtusinoneE have been synthesized for the first time. In addition, the hypothesis for the non-enzymatic biogenesis of benzo[1,3]dioxole natural products has been experimentally investigated. Additional experimental evidence for the abiotic formation of the methylenedioxy unit is provided, as photolysis of the quinone (+)-komaroviquinone resulted in the formation of the [1,3]dioxole-containing natural product (–)-cyclocoulterone and (+)-komarovispirone.

Publisher Wiley**ISSN/ISBN** 0947-6539 ; 1521-3765**edoc-URL** <http://edoc.unibas.ch/59103/>**Full Text on edoc** Available;**Digital Object Identifier DOI** 10.1002/chem.201603932**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/27896867>**ISI-Number** WOS:000393599700022**Document type (ISI)** Journal Article