

Publication

(2R,1'S,2'R)- and (2S,1'S,2'R)-3-[2-Mono(di,tri)fluoromethylcyclopropyl]alanines and their incorporation into hormaomycin analogues

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 2820068**Author(s)** de Meijere, Armin; Kozhushkov, Sergei I.; Yufit, Dmitrii S.; Grosse, Christian; Kaiser, Marcel; Raev, Vitaly A.**Author(s) at UniBasel** [Kaiser, Marcel](#) ;**Year** 2014**Title** (2R,1'S,2'R)- and (2S,1'S,2'R)-3-[2-Mono(di,tri)fluoromethylcyclopropyl]alanines and their incorporation into hormaomycin analogues**Journal** Beilstein journal of organic chemistry**Volume** 10**Pages / Article-Number** 2844-2857**Keywords** amino acids, biosynthesis, building blocks, cyclopropanes, natural products, synthetic methods

Efficient and scalable syntheses of enantiomerically pure (2R,1'S,2'R)- and (2S,1'S,2'R)-3-[2-mono(di,tri)fluoromethylcyclopropyl]alanines (1a-c), as well as allo-D-threonine (4) and (2S,3R)- β -methylphenylalanine (3), using the Belokon' approach with (S)- and (R)-2-[(N-benzylpropyl)amino]benzophenone [(S)- and (R)-10] as reusable chiral auxiliaries have been developed. Three new fluoromethyl analogues of the naturally occurring octadepsipeptide hormaomycin (1) with (fluoromethylcyclopropyl)alanine moieties have been synthesized and subjected to preliminary tests of their antibiotic activity.

Publisher Beilstein-Institut zur Förderung der Chemischen Wissenschaften]**ISSN/ISBN** 1860-5397**edoc-URL** <http://edoc.unibas.ch/dok/A6337677>**Full Text on edoc** No;**Digital Object Identifier DOI** 10.3762/bjoc.10.302**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/25550751>**ISI-Number** WOS:000346467000001**Document type (ISI)** Article