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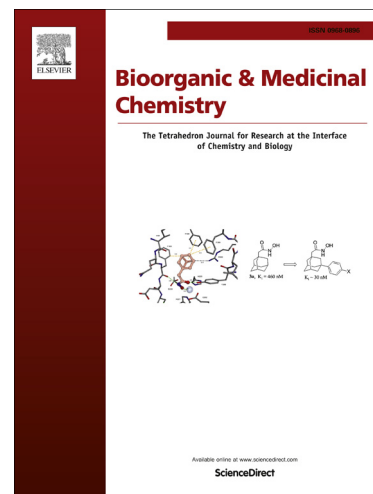
Polymer Supported Synthesis of a Natural Product-Inspired Oxepane Library

Sudipta Basu, Herbert Waldmann

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Polymer Supported Synthesis of a Natural Product-Inspired Oxepane Library

Sudipta Basu and Herbert Waldmann*

* Prof. Dr. H. Waldmann, Dr. Sudipta Basu

Max-Planck-Institut für molekulare Physiologie,

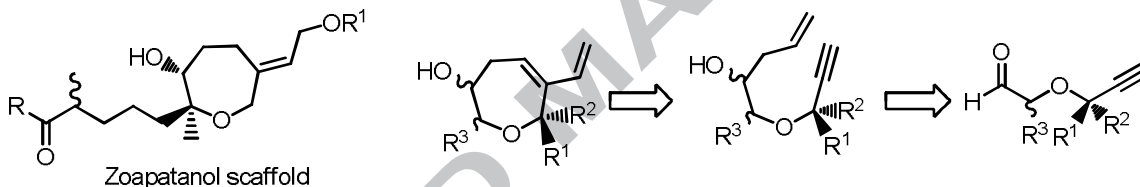
Otto-Hahn Strasse 11, 44227 Dortmund (Germany) and

Technische Universität Dortmund, Fachbereich Chemische Biologie,

Otto-Hahn-Str. 6, 44227 Dortmund, Germany

Fax: (+49) 321-133-2499

E-mail: herbert.waldmann@mpi-dortmund.mpg.de



Abstract

Natural product inspired compound collections are prevalidated due to the evolutionary selection of the natural product scaffolds. Their synthesis requires the development of novel strategies amenable to formats suitable for library build-up. We describe a method for the synthesis of an oxepane library inspired by the core structure of oxepane natural products endowed with multiple bioactivities. Core aspects of the strategy are the establishment of a one-pot method employing different immobilized scavengers, the employment of an enyne ring closing reaction and diversification by means of different transformations, e. g. cycloadditions and cross-metathesis reactions. In total, a collection of 115 oxepanes was obtained in 5-6-step reaction sequences.

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