

## Publication

### Antiprotozoal steroidal saponins from the marine sponge *Pandaros acanthifolium*

#### **JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**

**ID** 524406

**Author(s)** Regalado, Erik L; Tasdemir, Deniz; Kaiser, Marcel; Cachet, Nadja; Amade, Philippe; Thomas, Olivier P

**Author(s) at UniBasel** [Kaiser, Marcel](#) ;

**Year** 2010

**Title** Antiprotozoal steroidal saponins from the marine sponge *Pandaros acanthifolium*

**Journal** Journal of natural products

**Volume** 73

**Number** 8

**Pages / Article-Number** 1404-10

The chemical composition of the Caribbean sponge *Pandaros acanthifolium* was reinvestigated and led to the isolation of 12 new steroidal glycosides, namely, pandarosides E-J (1-6) and their methyl esters (7-12). Their structures were determined on the basis of extensive spectroscopic analyses, including two-dimensional NMR and HRESIMS data. Like the previously isolated pandarosides A-D (13-16), the new compounds 1-12 share an unusual oxidized D-ring and a cis C/D ring junction. The absolute configurations of the aglycones were assigned by interpretation of CD spectra, whereas the absolute configurations of the monosaccharide units were determined by chiral GC analyses of the acid methanolysates. The majority of the metabolites showed in vitro activity against three or four parasitic protozoa. Particularly active were the compounds 3 (pandaroside G) and its methyl ester (9), which potently inhibited the growth of *Trypanosoma brucei rhodesiense* (IC(50) values 0.78 and 0.038  $\mu\text{M}$ , respectively) and *Leishmania donovani* (IC(50)'s 1.3 and 0.051  $\mu\text{M}$ , respectively)

**Publisher** American Society of Pharmacognosy

**ISSN/ISBN** 0163-3864

**edoc-URL** <http://edoc.unibas.ch/dok/A5842818>

**Full Text on edoc** No;

**Digital Object Identifier DOI** 10.1021/np100348x

**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/20614907>

**ISI-Number** WOS:000281181200017

**Document type (ISI)** Journal Article