A Journal of the Gesellschaft Deutscher Chemiker

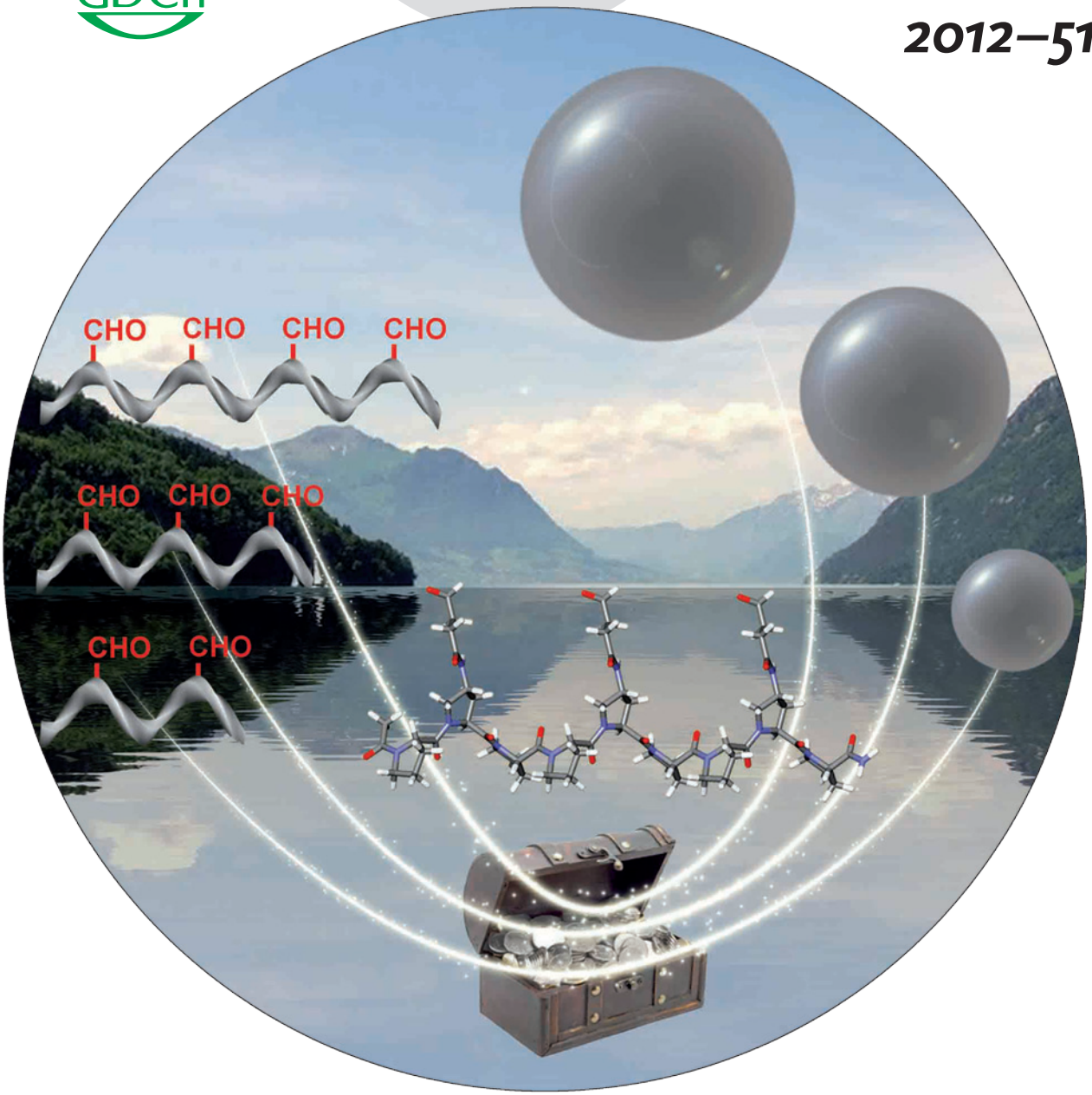
D 3461

Angewandte Chemie

International Edition

www.angewandte.org

2012–51/17



Antivirulence Agents
Review by B. Castagner et al.

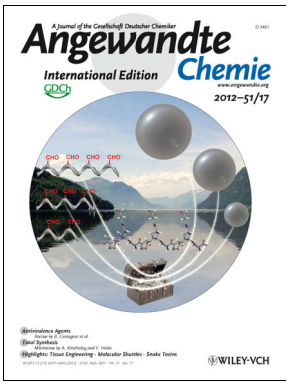
Total Synthesis
Minireview by A. Kirschning and F. Hahn

Highlights: Tissue Engineering · Molecular Shuttles · Snake Toxins

ACIEFS 51 (17) 3977–4240 (2012) · ISSN 1433–7851 · Vol. 51 · No. 17

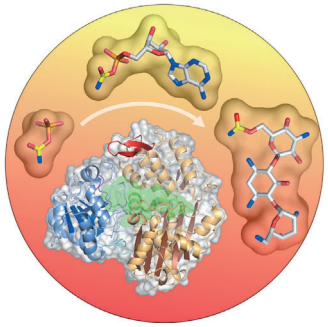
WILEY-VCH

Cover Picture

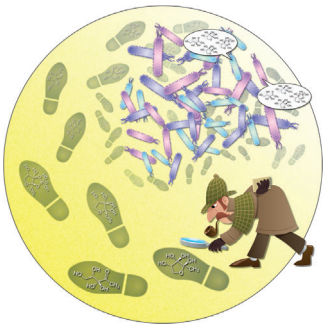


Grégory Upert, Francelin Bouillère, and Helma Wennemers*

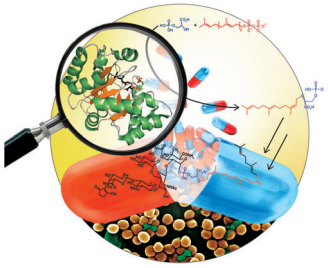
Functionalized oligoproline scaffolds that have defined lengths have been shown to control the size of silver nanoparticles that are formed in the Tollens reaction. In their Communication on page 4231 ff., H. Wennemers et al. demonstrate the correlation between the molecular dimensions of the peptide scaffold and the size of the nanoparticles that are produced in an approach that opens the door to precise control of the size of metal nanoparticles.



Antibiotic Biosynthesis
In their Communication on page 4046 ff., M. T. Stubbs et al. show that TobZ, responsible for the biotransformation of the antibiotic tobramycin to nebramycin 5′, catalyzes a two-step reaction via an essential carbamoyladenylate intermediate.



Structure Elucidation
In their Communication on page 4204 ff., K. D. Janda et al. describe a series of 4,5-dihydroxy-2,3-pentanedione structural isomers and discuss the implications of these isomers for bacterial communication.



Enzyme Mechanisms
The first step of the biosynthesis of the antibiotic moenomycin is catalyzed by the prenyltransferase MoeO5, which has a triose-phosphate-isomerase barrel structure, as E. Oldfield, R.-T. Guo et al. show in their Communication on page 4157 ff.