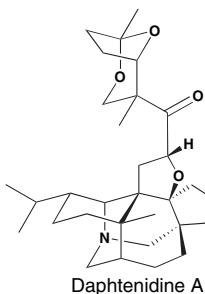


## Contents

## ARTICLES

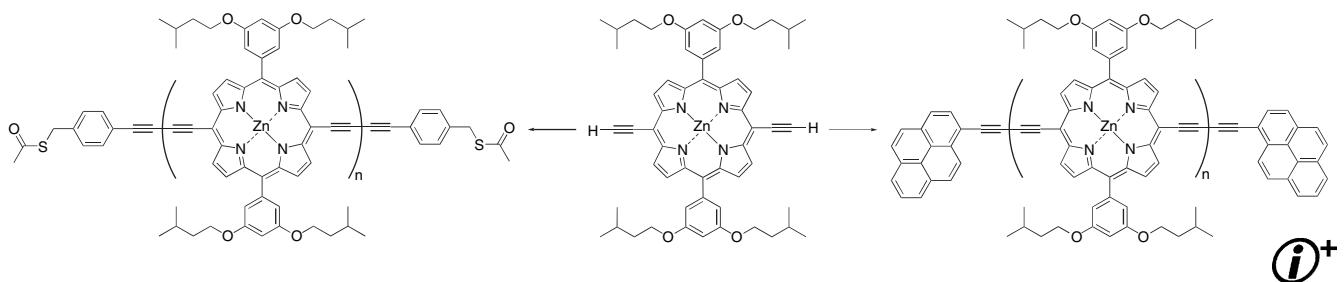
- Daphtenidines A–D, new *Daphniphyllum* alkaloids from *Daphniphyllum teijsmannii***  
 Takaaki Kubota, Yosuke Matsuno, Hiroshi Morita, Takakazu Shinzato, Mitsuhiro Sekiguchi  
 and Jun'ichi Kobayashi\*

pp 4743–4748



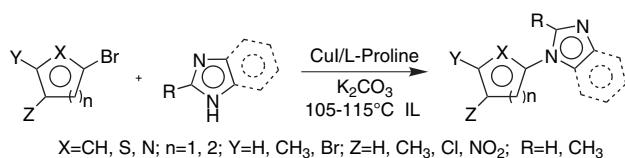
- Synthesis of end-functionalized π-conjugated porphyrin oligomers**  
 Hiroaki Ozawa, Masahiro Kawao, Hirofumi Tanaka and Takaji Ogawa\*

pp 4749–4755



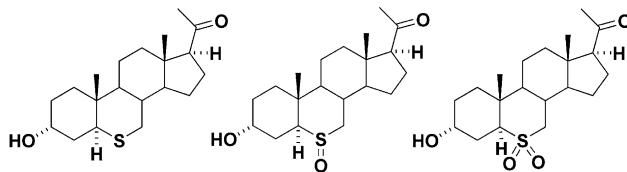
- CuI catalyzed C–N bond forming reactions between aryl/heteroaryl bromides and imidazoles in [Bmim]BF<sub>4</sub>**  
 Xin Lv, Zhiming Wang and Weiliang Bao\*

pp 4756–4761



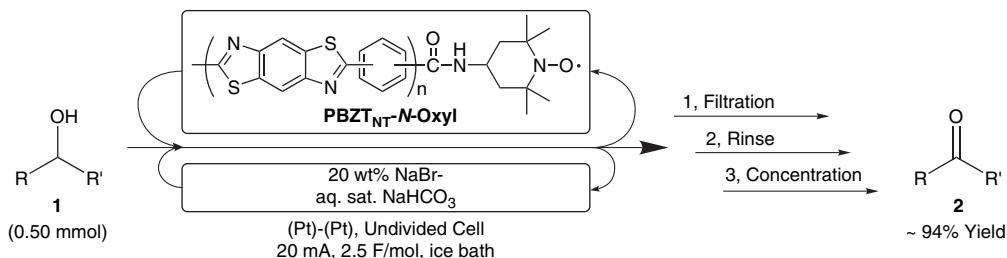
**Synthesis of 6-thia analogs of the natural neurosteroid allopregnanolone**  
Fernando J. Durán, Alberto A. Ghini, Hector Coirini and Gerardo Burton\*

pp 4762–4768



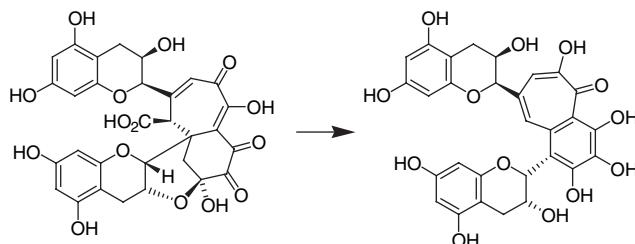
**Electrooxidation of alcohols in an *N*-oxyl-immobilized rigid network polymer particles/water disperse system** pp 4769–4773

Jun Kubota, Toru Ido, Manabu Kuroboshi, Hideo Tanaka,\* Tetsuya Uchida and Kaoru Shimamura



**A new mechanism for oxidation of epigallocatechin and production of benzotropolone pigments**  
Yosuke Matsuo, Takashi Tanaka\* and Isao Kouno

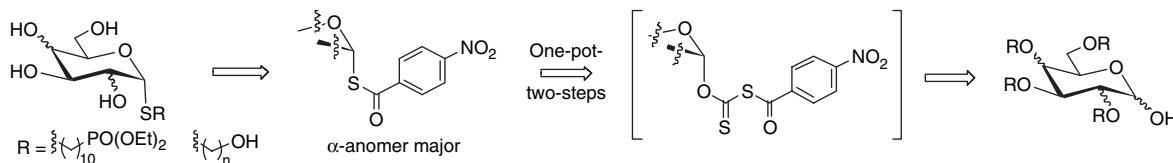
pp 4774–4783



**Unusual anomeric rearrangement of *para*-nitrobenzoylxanthate D-glycosides: a new direct stereoselective access to  $\alpha$ -thioglycosides from pyranose sugars**

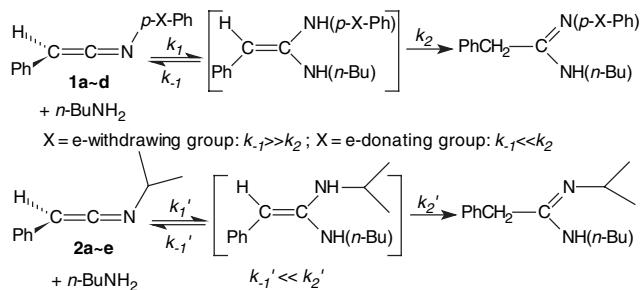
pp 4784–4794

Adjou Ané, Solen Josse, Sébastien Naud, Vivien Lacône, Sandrine Vidot, Anaïs Fournial, Anirban Kar, Muriel Pipelier and Didier Dubreuil\*



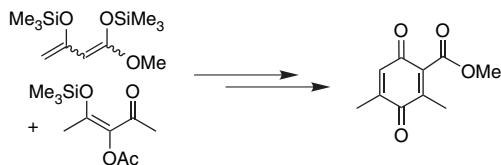
**Kinetic studies for amination of ketenimines: change of rate-determining step by electron-withdrawing N-substituents through electronic effects** pp 4795–4799

Kuangsen Sung,\* Pin-Mei Huang and Shu-Min Chiang



**Synthesis of functionalized *p*-dihydrobenzoquinones and *p*-benzoquinones based on [3+3] cyclizations** pp 4800–4806

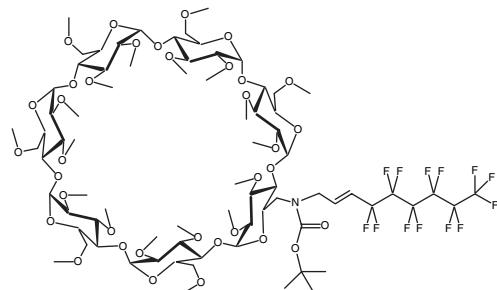
Zafar Ahmed, Christine Fischer, Anke Spannenberg and Peter Langer\*



**Use of the olefin metathesis reaction for highly efficient  $\beta$ -cyclodextrin modification**

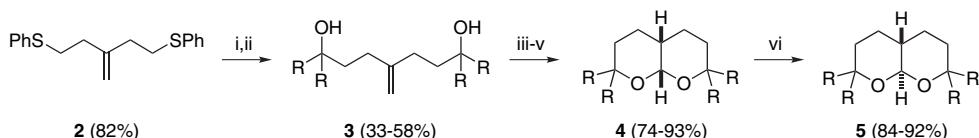
pp 4807–4813

Bernard Bertino Ghera, Fabienne Fache and Hélène Parrot-Lopez\*



**Highly stereoselective synthesis of perhydropyrano[2,3-*b*]pyrans from the new 3-methylenepentane-1,5-dianion synthon** pp 4814–4822

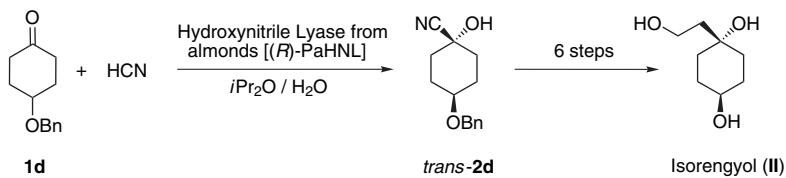
Francisco Alonso, Jaisiel Meléndez and Miguel Yus\*



*i*, Li, DTBB (cat.),  $R_2CO$ , THF; *ii*,  $H_2O$ ; *iii*,  $BH_3\cdot THF$ ; *iv*,  $H_2O_2$ , 3M NaOH; *v*, PCC,  $CH_2Cl_2$ ; *vi*, *p*-TsOH (cat.), THF.

**Chemo enzymatic synthesis of Rengyol and Isorengyol**  
Christoph Kobler and Franz Effenberger\*

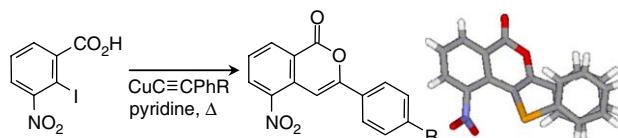
pp 4823–4828



**5-Nitroisocoumarins from tandem Castro–Stephens coupling—6-*endo*-dig cyclisation of 2-iodo-3-nitrobenzoic acid and arylethyne and ring-closure of methyl 2-alkynyl-3-nitrobenzoates with electrophiles**

pp 4829–4837

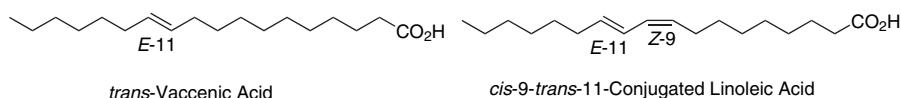
Esther C. Y. Woon, Archana Dhami, Mary F. Mahon and Michael D. Threadgill\*



**Synthesis of *trans*-vaccenic acid and *cis*-9-*trans*-11-conjugated linoleic acid**

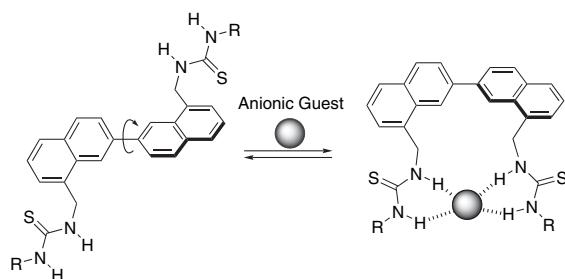
pp 4838–4843

Patricia E. Duffy, Sonia M. Quinn, Helen M. Roche and Paul Evans\*



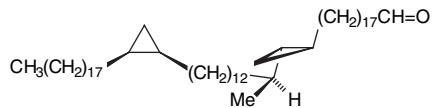
**UV-vis and fluorescence spectroscopic detection of anions by the conformational restriction of 2,2'-binaphthalene derivatives bearing thiourea groups through a methylene spacer**  
Shin-ichi Kondo\* and Masakazu Sato

pp 4844–4850



**The synthesis of one enantiomer of the  $\alpha$ -methyl-*trans*-cyclopropane unit of mycolic acids**  
Juma'a R. Al-Dulayymi, Mark S. Baird,\* Hayder Mohammed, Evan Roberts and William Clegg

pp 4851–4862



We report the synthesis of a single enantiomer of a meromycolate that contains one *cis*-1,2-dialkylcyclopropane and one alpha-methyl-*trans*-1,2-dialkylcyclopropane.

**Kinetics and mechanisms of the reactions of *S*-methyl chlorothioformate with pyridines and secondary alicyclic amines**

Enrique A. Castro,\* Margarita Aliaga, Marcela Gazitúa and José G. Santos\*

pp 4863–4869

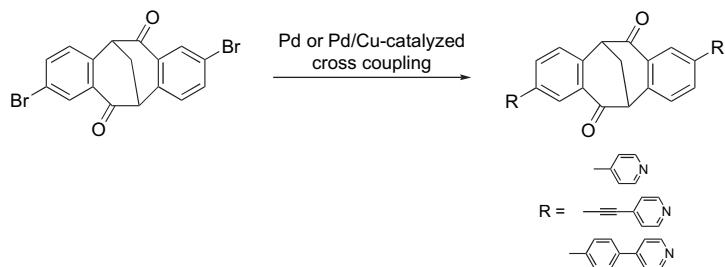


N represents a pyridine or a secondary alicyclic amine. Both reactions are stepwise, through a zwitterionic tetrahedral intermediate.

**Synthesis and X-ray crystallographic analysis of chiral pyridyl substituted carbocyclic molecular clefts**

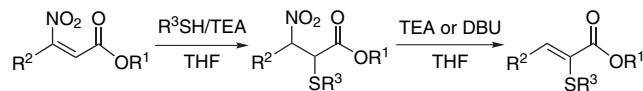
pp 4870–4878

Connie K. Y. Lee, Jennifer L. Groneman, Peter Turner, Louis M. Rendina\* and Margaret M. Harding\*



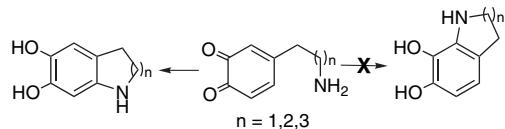
**Nucleophilic  $\alpha$ -addition to  $\beta$ -nitroacrylates: application to the synthesis of  $\alpha$ -thioacrylates**  
Elzbieta Lewandowska

pp 4879–4883



**An MO study of regioselective amine addition to *ortho*-quinones relevant to melanogenesis**  
Edward J. Land, Christopher A. Ramsden\* and Patrick A. Riley

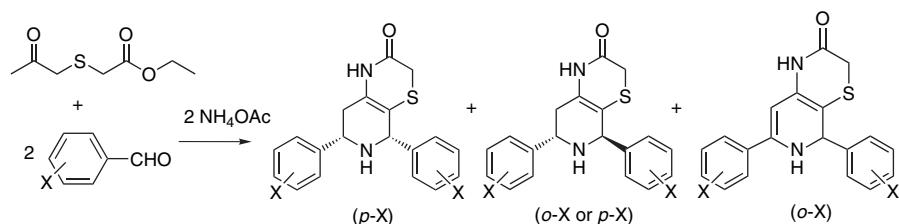
pp 4884–4891



**A tandem multi-component synthesis of 5,7-diaryl-5,6,7,8-tetrahydro-1*H*-pyrido[3,4-*b*][1,4]thiazin-2(3*H*)-ones**

pp 4892–4899

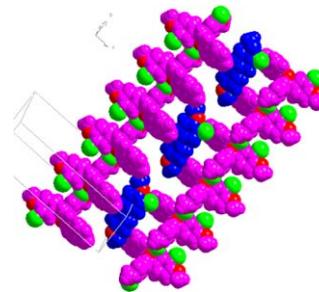
Velanganni Paul Alex Raja and Subbu Perumal\*



**Nanoarchitecture self-assembly and photochromic studies of 2,2-diarylnaphthopyrans**

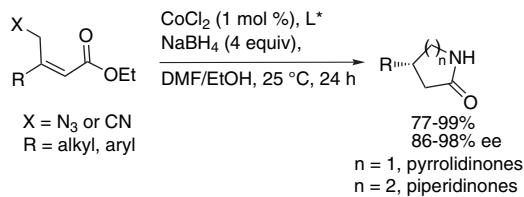
pp 4900–4906

Ting-Feng Tan, Jie Han, Mei-Li Pang, Yi-Fang Fu, Hong Ma, Yu-Xin Ma and Ji-Ben Meng\*



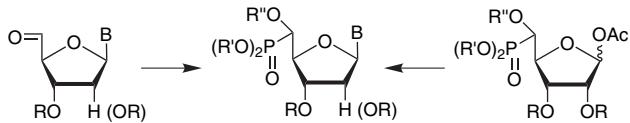
**Co-catalyzed reductive cyclization of azido and cyano substituted  $\alpha,\beta$ -unsaturated esters with NaBH4: enantioselective synthesis of (*R*)-baclofen and (*R*)-rolipram**

Abhimanyu S. Paraskar and Arumugam Sudalai\*



**Nucleoside 5'-C-phosphonates: reactivity of the  $\alpha$ -hydroxyphosphonate moiety**  
 Šárka Králíková, Miloš Buděšínký, Milena Masojídková and Ivan Rosenberg\*

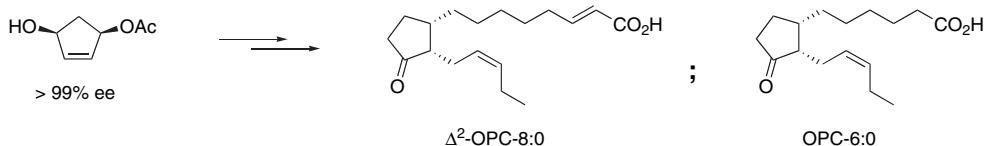
pp 4917–4932



**Synthesis of  $\Delta^2$ -OPC-8:0 and OPC-6:0**

Kaori Yagi, Hisato Nonaka, Hukum P. Acharya, Kazushi Furukawa, Takayuki Ainai and Yuichi Kobayashi\*

pp 4933–4940

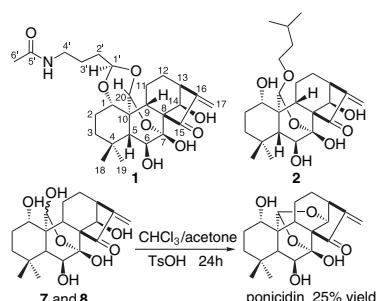


**Cytotoxic *ent*-kauranoid derivatives from *Isodon rubescens***

Sheng-Xiong Huang, Yan Zhou, Jian-Xin Pu, Rong-Tao Li, Xian Li, Wei-Lie Xiao, Li-Guang Lou, Quan-Bin Han, Li-Sheng Ding, Shu-Lin Peng and Han-Dong Sun\*

pp 4941–4947

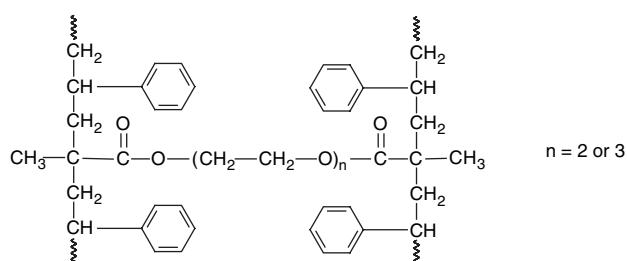
An extensive study of the diterpenoids produced by the species of *Isodon rubescens*, has led to the isolation of 12 new *ent*-kaurane diterpenoids, hebeirubescensins A–L (**1–12**), and 19 known analogues. Their structures were determined on the basis of spectroscopic analysis. Selected compounds were assayed for their inhibitory ability against human A549, HT-29, and K562 cells. Among them, hebeirubescensins B and C exhibited significant cytotoxicity with IC<sub>50</sub> values of <2.0  $\mu$ M. The structure–activity relationships were discussed.



**Polystyrene resins cross-linked with di- or tri(ethylene glycol) dimethacrylates as supports for solid-phase peptide synthesis**

Yu Wang, Genghui Zhang, Husheng Yan,\* Yunge Fan, Zuoqing Shi, Yanling Lu, Qiang Sun, Wenhua Jiang, Yanhui Zheng, Suwei Li and Zhanjiang Liu

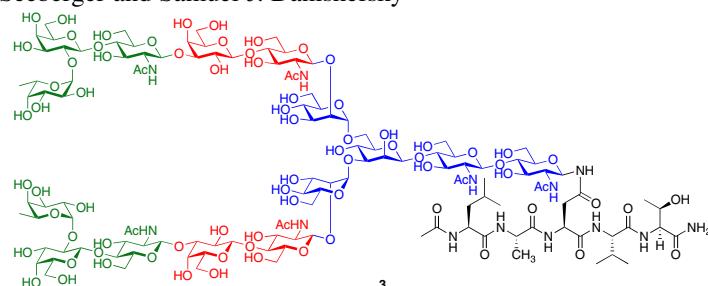
pp 4948–4953



## A highly convergent synthesis of an N-linked glycopeptide presenting the H-type 2 human blood group determinant

pp 4954–4978

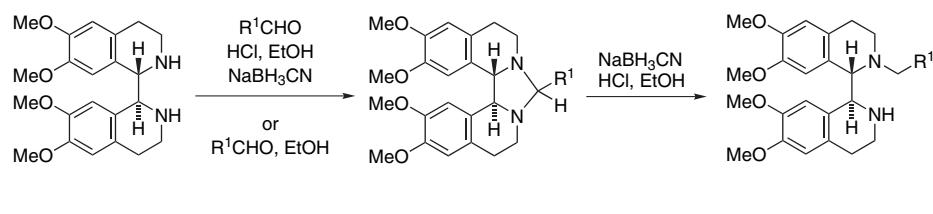
Zhi-Guang Wang, J. David Warren, Vadim Y. Dudkin, Xufang Zhang, Ulrich Iserloh, Michael Visser, Matthias Eckhardt, Peter H. Seeberger and Samuel J. Danishefsky\*



## An effective method for the preparation of mono *N*-alkyl derivatives of 1,1'-bis(6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline)

pp 4979–4987

Benjamin K. H. Chan, Bing Deng, Michael W. Jones and Roger W. Read\*

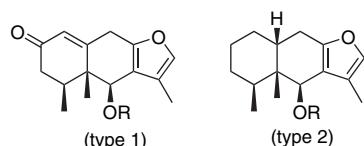


i<sup>+</sup>

## Chemical constituents of *Ligularia virgaurea* and its diversity in southwestern Sichuan of China

pp 4988–4995

Chemical constituents of *Eugenia acuminata* and its diversity in southeastern Shikoku of Japan  
 Moto Torii,\* Kaori Honda, Hiromi Nakamizo, Yasuko Okamoto, Misato Sakaoku, Shigeru Takaoka,  
 Xun Gong,\* Yuemao Shen, Chiaki Kuroda\*, and Ryo Hanai\*



*Ligularia virgaurea* var. *virgaurea* of the title area was found to be divided into two types based on the furanoeremophilane composition and the ITS sequences.

\*Corresponding author

† Supplementary data available via ScienceDirect

## COVER

The total synthesis of an H-type blood group determinant in a model biological setting is described. The construct is comprised of a high mannose core structure with projecting lactose spacers, culminating in a two-copy presentation of the H-type blood group determinant itself. The pentadecasaccharide was assembled via a '5+2+3' coupling strategy and then further elaborated to generate the shown glycopeptide. *Tetrahedron* **2006**, *62*, 4954–4978.

© 2006 S. J. Danishefsky. Published by Elsevier Ltd.



Full text of this journal is available, on-line from **ScienceDirect**. Visit [www.sciencedirect.com](http://www.sciencedirect.com) for more information.

Indexed/Abstracted in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei Compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch



ISSN 0040-4020