

# Celebrating the 50th Anniversary of Tetrahedron 1957–2007

*Guest editor:* Stephen F. Martin

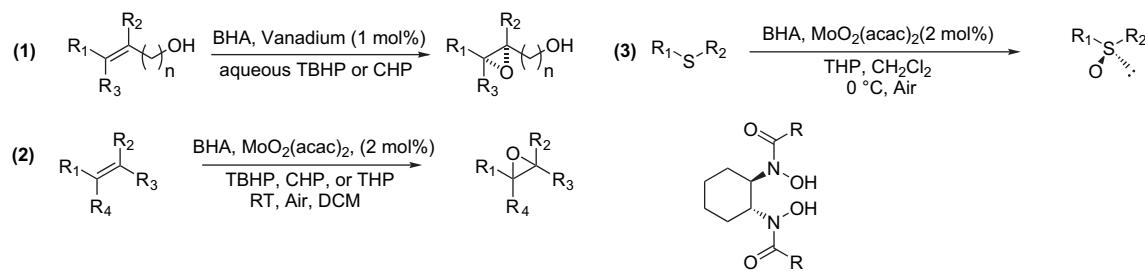
*Chemistry and Biochemistry Department, The University of Texas, 1 University Station A5300, Austin, TX 78712-0165, USA*

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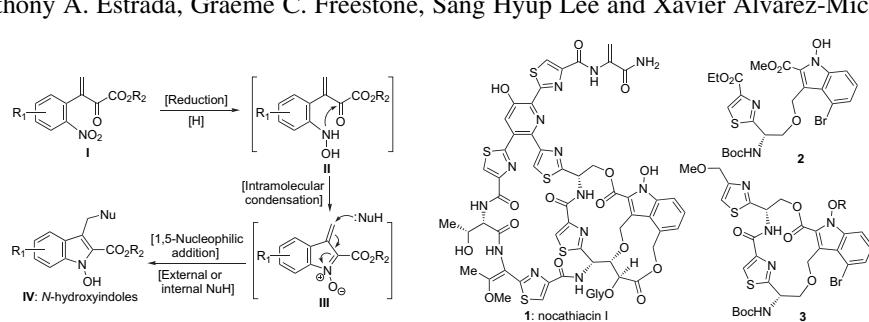
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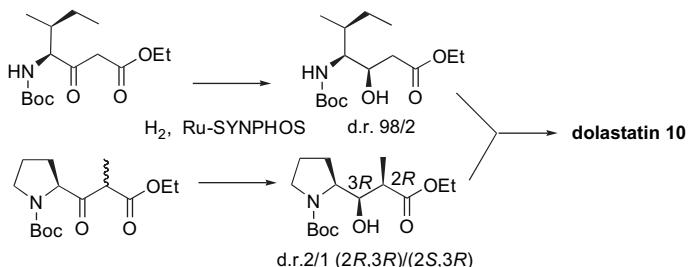
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**Total synthesis of dolastatin 10 through ruthenium-catalyzed asymmetric hydrogenations**

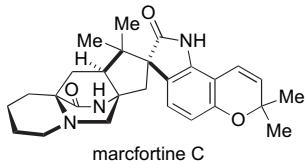
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Céline Mordant, Sébastien Reymond, Hitoshi Tone, Damien Lavergne, Ridha Touati, Bechir Ben Hassine, Virginie Ratovelomanana-Vidal\* and Jean-Pierre Genet\*

**Concise, biomimetic total synthesis of *d,l*-marcfortine C**

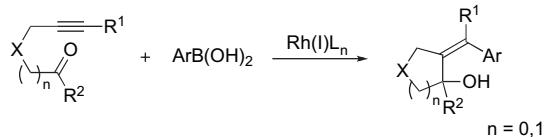
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Thomas J. Greshock, Alan W. Grubbs and Robert M. Williams\*

**Rhodium-catalyzed arylative cyclization of alkynes induced by addition of arylboronic acids**

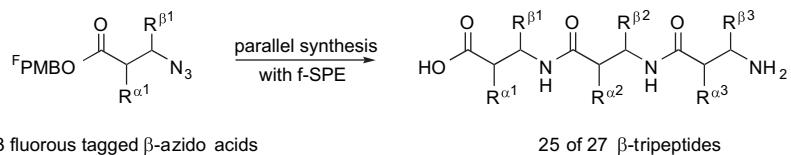
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Tomoya Miura, Masahiko Shimada and Masahiro Murakami\*

**The azido acid approach to  $\beta$ -peptides: parallel synthesis of a tri- $\beta$ -peptide library by fluorous tagging**

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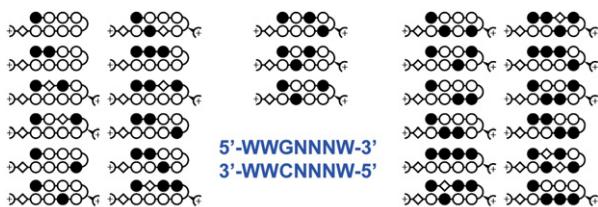
Xiao Wang, Scott G. Nelson and Dennis P. Curran\*



**Completion of a programmable DNA-binding small molecule library**

pp 6146–6151

Carey F. Hsu, John W. Phillips, John W. Trauger, Michelle E. Farkas, Jason M. Belitsky, Alexander Heckel, Bogdan Z. Olenyuk, James W. Puckett, Clay C. C. Wang and Peter B. Dervan\*

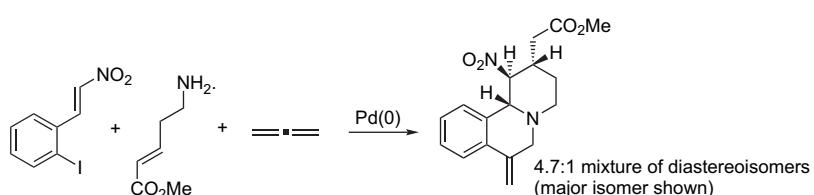


A LIBRARY OF SOLUTIONS FOR ALL 27 SEQUENCES

**Synthesis of carbo- and heterocycles via palladium catalysed cascade allene insertion–nucleophile incorporation–Michael addition processes**

pp 6152–6169

Ronald Grigg,\* Martyn Inman, Colin Kilner, Ines Köppen, John Marchbank, Peter Selby and Visuvanathar Sridharan

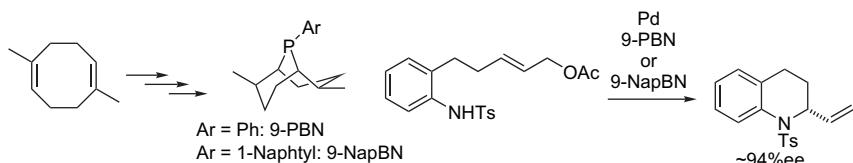


Eight potential synthetic strategies are described for Pd(0) catalysed thermal (conventional heating and microwave) cascades involving an aryl iodide, an allene, a nucleophile and a Michael acceptor and examples of several of these are provided.

**Synthesis of 2,6-dimethyl-9-aryl-9-phosphabicyclo[3.3.1]nonanes: their application to asymmetric synthesis of chiral tetrahydroquinolines and relatives**

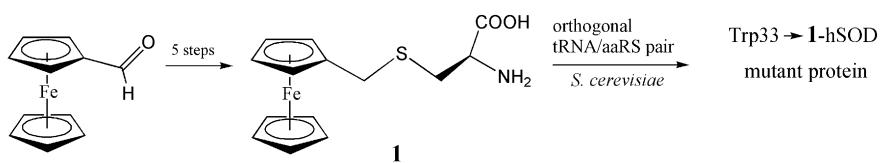
pp 6170–6181

Osamu Hara, Tomoaki Koshizawa, Kazuishi Makino, Iyo Kunimune, Atsushi Namiki and Yasumasa Hamada\*

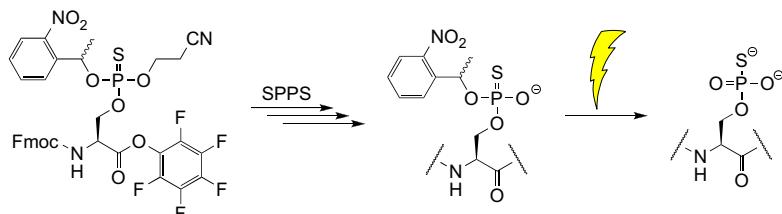
**A genetically encoded metallocene containing amino acid**

pp 6182–6184

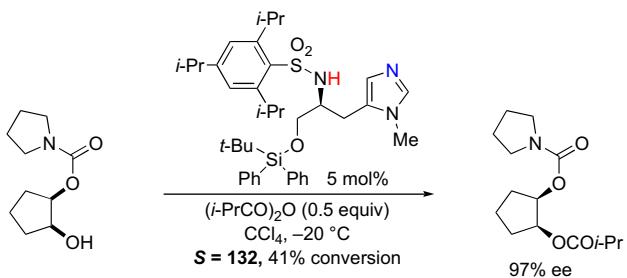
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**Caged O-phosphorothioyl amino acids as building blocks for Fmoc-based solid phase peptide synthesis** pp 6185–6190  
 Andreas Aemissegger, Christina N. Carrigan and Barbara Imperiali\*

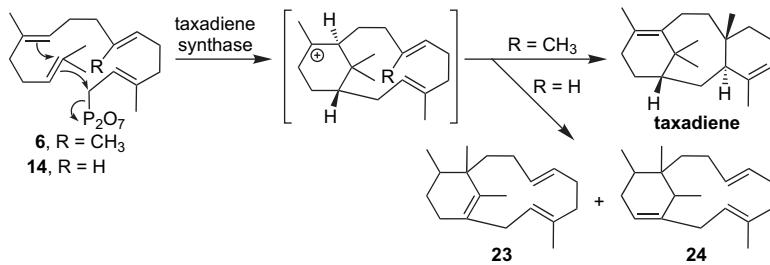
**i<sup>+</sup>**

**Kinetic resolution of racemic alcohols catalyzed by minimal artificial acylases derived from L-histidine** pp 6191–6203  
 Yuji Kosugi, Matsujiro Akakura and Kazuaki Ishihara\*

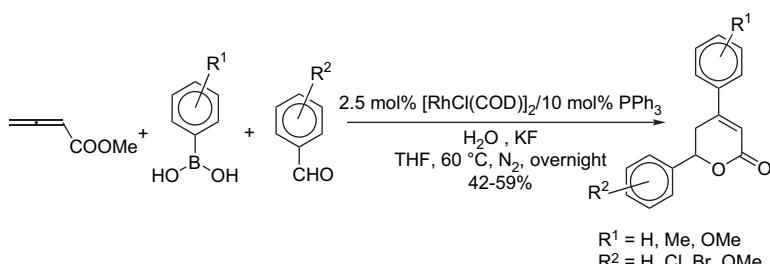


**Studies on taxadiene synthase: interception of the cyclization cascade at the verticillene stage and rearrangement to phomactatriene** pp 6204–6209

Siew Yin Chow, Howard J. Williams, James D. Pennington, Samik Nanda, Joseph H. Reibenspies and A. Ian Scott\*

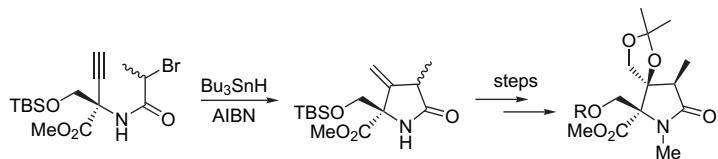
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**Rh(I)-catalyzed three-component reaction of 2,3-allenoates, organoboronic acids, and aldehydes. An efficient synthesis of  $\alpha,\beta$ -unsaturated  $\delta$ -lactones**, pp 6210–6215  
 Tao Bai, Shengming Ma\* and Guochen Jia\*

**i<sup>+</sup>**

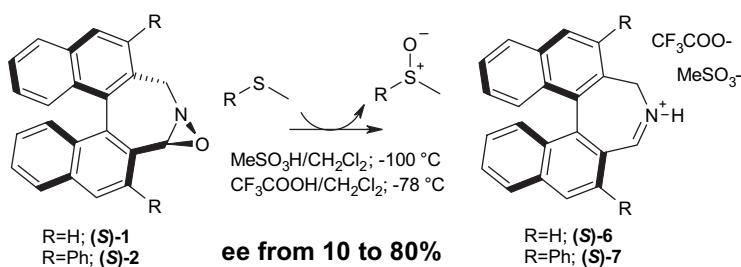
**A synthesis of a common intermediate to the lactone–pyrrolidinone ring systems in oxazolomycin A and neooxazolomycin** pp 6216–6231

Nicholas J. Bennett, Jeremy C. Prodger and Gerald Pattenden\*



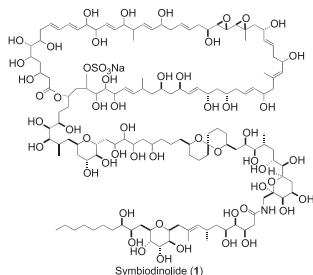
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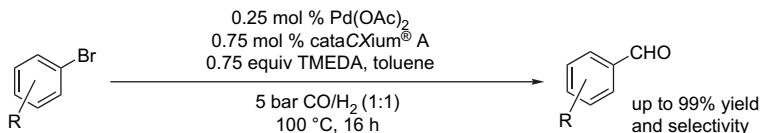
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Masaki Kita, Nao Ohishi, Kaori Konishi, Mikiko Kondo, Tomoyuki Koyama, Makoto Kitamura, Kaoru Yamada and Daisuke Uemura\*



**Palladium/di-1-adamantyl-*n*-butylphosphine-catalyzed reductive carbonylation of aryl and vinyl halides** pp 6252–6258

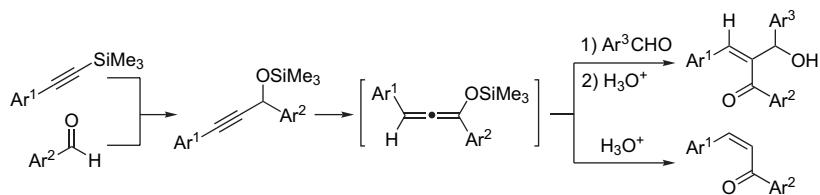
Anne Brennführer, Helfried Neumann, Stefan Klaus, Thomas Riermeier, Juan Almena and Matthias Beller\*



Aromatic, heteroaromatic, and vinyl halides are efficiently formylated with synthesis gas in the presence of palladium catalysts.

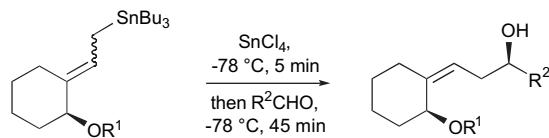
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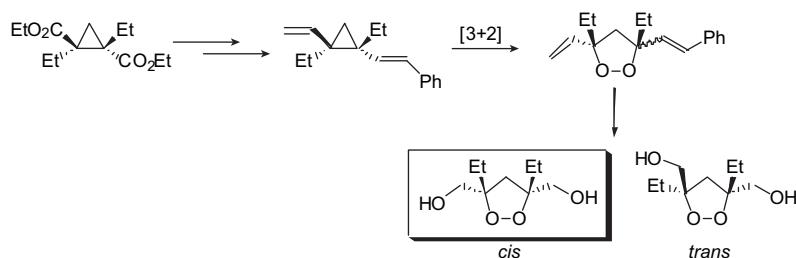
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Qiong Zhao and Henry N. C. Wong\*

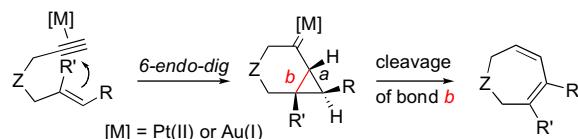
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**Missing cyclization pathways and new rearrangements unveiled in the gold(I) and platinum(II)-catalyzed cyclization of 1,6-enynes**

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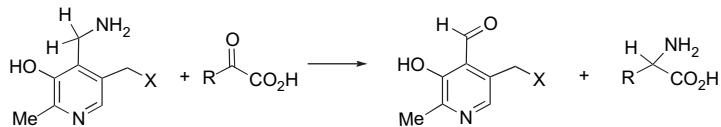
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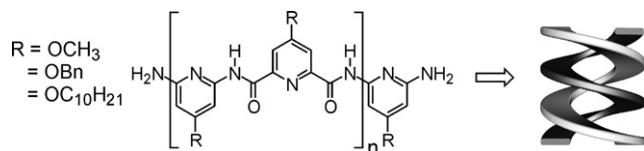
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Ronald Breslow,\* Sujun Wei and Craig Kenesky

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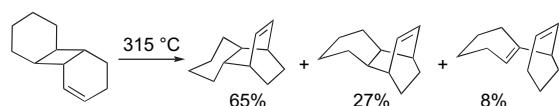
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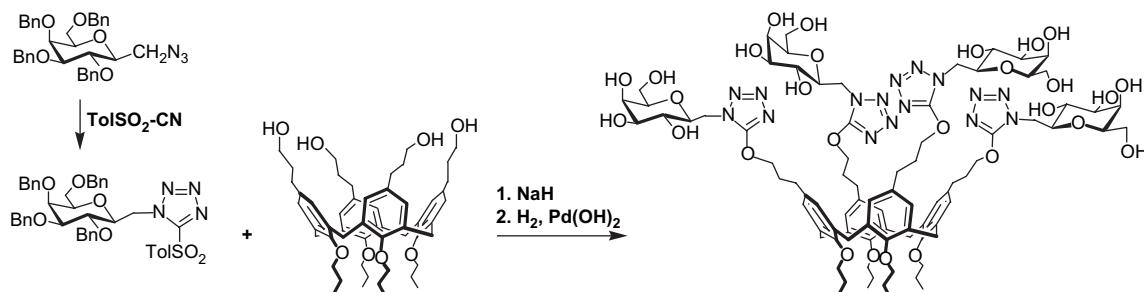
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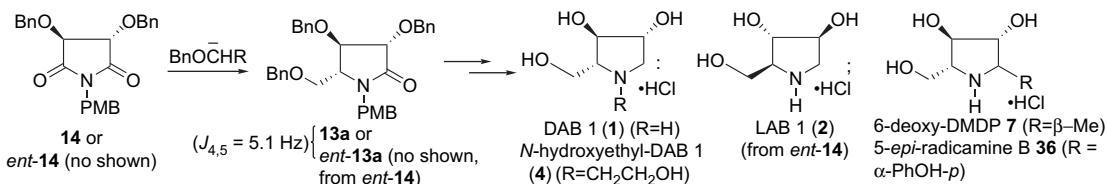
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Alessandro Dondoni\* and Alberto Marra\*



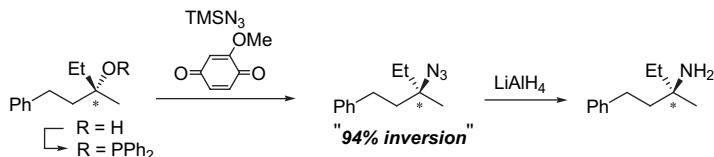
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Kiichi Kuroda, Yujiro Hayashi\* and Teruaki Mukaiyama\*



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\*Corresponding author

ⓘ<sup>†</sup> Supplementary data available via ScienceDirect

## COVER

The cover graphic of this issue depicts the five different cover designs of *Tetrahedron*, since its launch in 1957.

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