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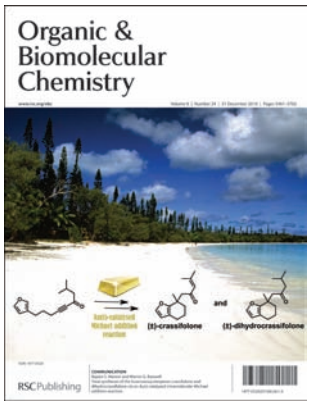
ISSN 1477-0520 CODEN OBCRAK 8(24) 5461–5702 (2010)



Cover
See Rajeev S. Menon and Martin G. Banwell, pp. 5483–5485.

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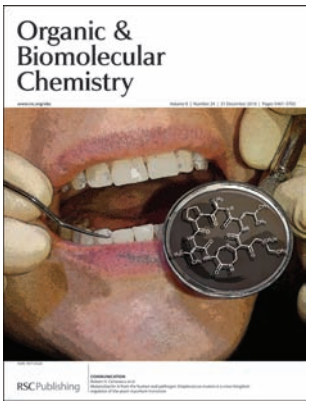

Inside cover
See Robert H. Cichewicz *et al.*, pp. 5486–5489.

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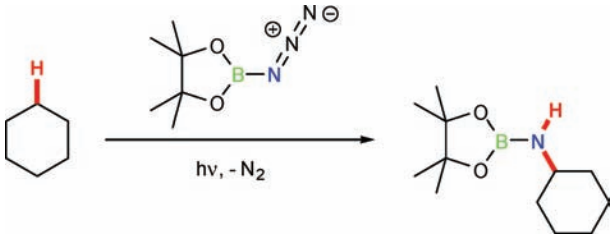
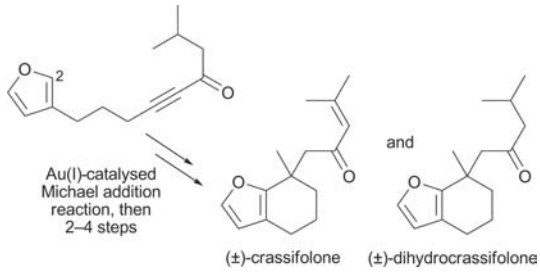
EMERGING AREA



COMMUNICATIONS



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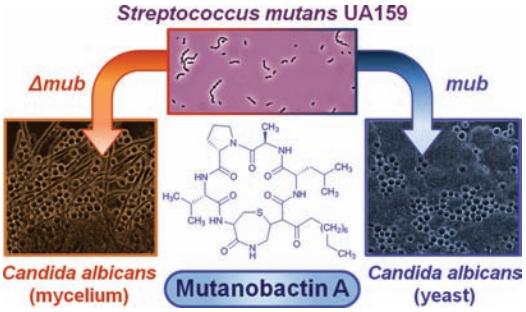
COMMUNICATIONS

5486

Mutanobactin A from the human oral pathogen *Streptococcus mutans* is a cross-kingdom regulator of the yeast-mycelium transition

P. Matthew Joyner, Jinman Liu, Zhijun Zhang, Justin Merritt, Fengxia Qi and Robert H. Cichewicz*

Mutanobactin A from *Streptococcus mutans* enables intracellular stress response pathways, as well as directs inter-kingdom interactions with eukaryotic microbes.

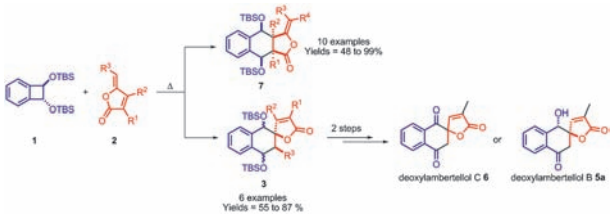


5490

Diels–Alder cycloaddition of *o*-quinonedimethides and alkylidene-5*H*-furan-2-ones: new and rapid access to lambertellol cores and arthrinone derivatives

Romain Blanc, Virginie Héran, Raphaël Rahmani, Laurent Commeiras* and Jean-Luc Parrain*

An efficient synthesis of deoxy-lambertellols was reported through a highly chemo- and diastereoselective DA cycloaddition. Such transformation with δ-substituted γ-alkylidenebutenolides, to prepare new analogues of these tricyclic spirolactones, was also studied.



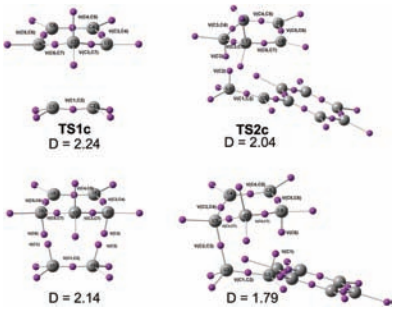
PAPERS

5495

Understanding the mechanism of non-polar Diels–Alder reactions. A comparative ELF analysis of concerted and stepwise diradical mechanisms

Luis R. Domingo,* Eduardo Chamorro and Patricia Pérez

ELF analysis for the one-step pathways of the non-polar Diels–Alder reaction between Cp and ethylene or styrene suggests that these reactions take place through *pseudo-diradical* species.

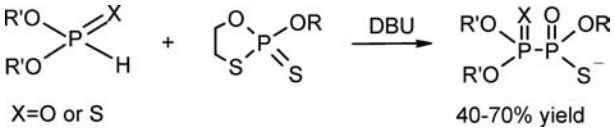


5505

Stereoselective formation of a P–P bond in the reaction of 2-alkoxy-2-thio-1,3,2-oxathiaphospholanes with *O*,*O*-dialkyl *H*-phosphonates and *H*-thiophosphonates

Damian Błaziak, Piotr Guga, Agata Jagiełło, Dariusz Korczyński, Anna Maciaszek, Anna Nowicka, Aleksandra Pietkiewicz and Wojciech J. Stec*

Organohypophosphates containing a P–P bond are obtained under mild conditions in a highly stereoselective reaction of 2-alkoxy-2-thio-1,3,2-oxathiaphospholanes with *O*,*O*-dialkyl *H*-phosphonates or *H*-thiophosphonates (R' = Me or Et).



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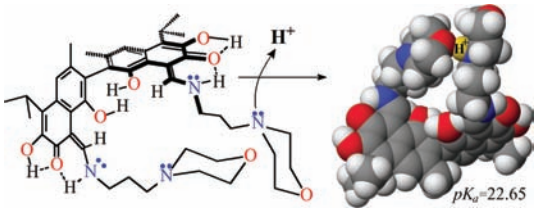

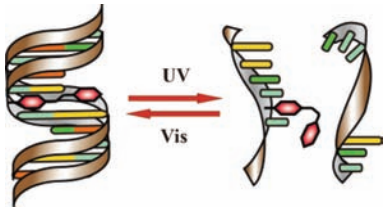

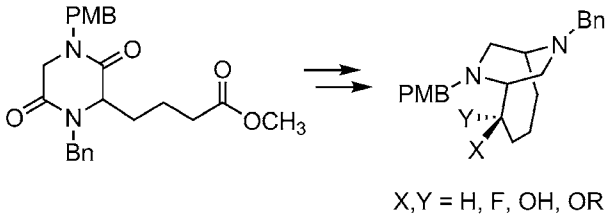

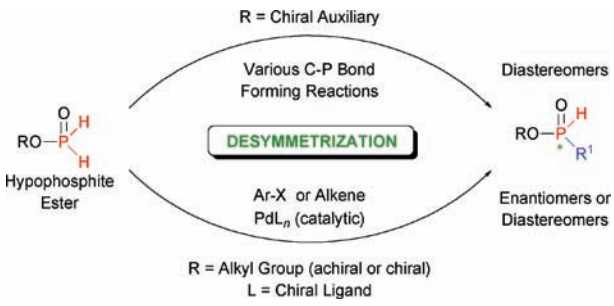

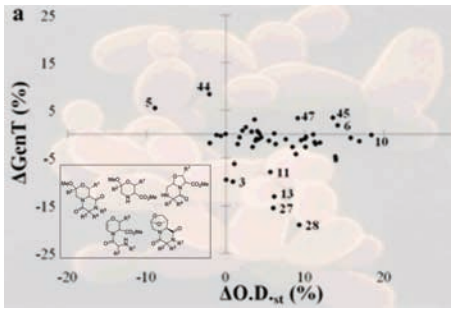

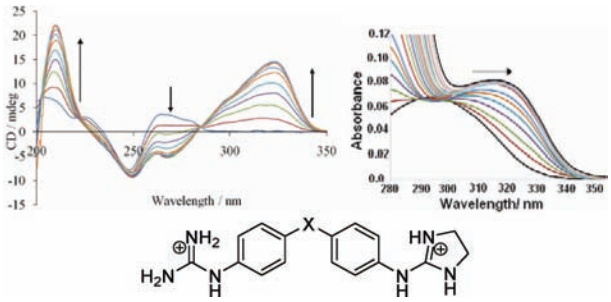

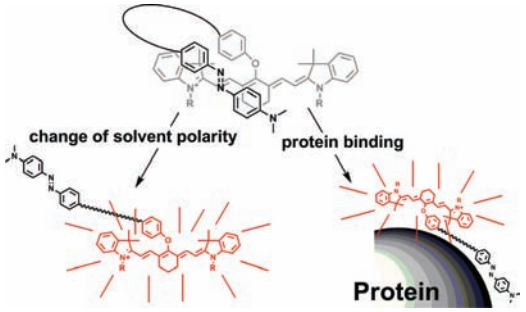

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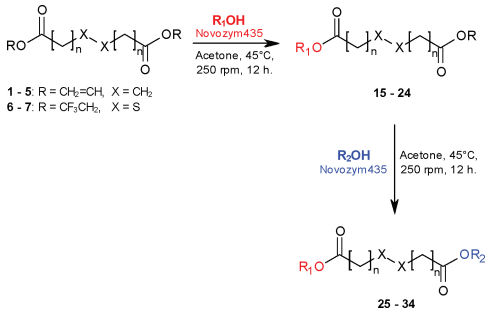
5583

Exploiting enzymatic regioselectivity: a facile methodology for the synthesis of polyhydroxylated hybrid compounds

Pietro Magrone, Francesco Cavallo, Walter Panzeri, Daniele Passarella and Sergio Riva*

A general two-step access to polyhydroxylated conjugated compounds based on enzymatic regioselective acylations is described.

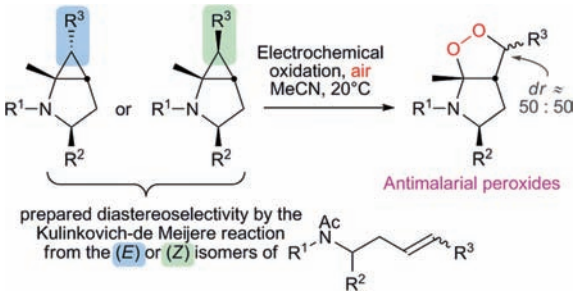


5591

Aminocyclopropanes as precursors of endoperoxides with antimalarial activity

Claire Madelaine, Olivier Buriez,* Benoît Crousse, Isabelle Florent, Philippe Grellier, Pascal Retailleau and Yvan Six*

Several bicyclic aminocyclopropanes were synthesised diastereoselectively using the Kulinkovich–de Meijere reaction, and then converted into novel moderately active antimalarial α-amino endoperoxides.

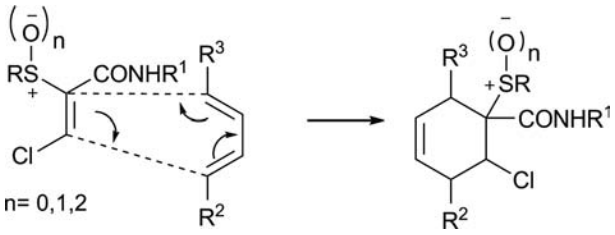


5602

The influence of reaction conditions on the Diels–Alder cycloadditions of 2-thio-3-chloroacrylamides; investigation of thermal, catalytic and microwave conditions

Marie Kissane, Denis Lynch, Jay Chopra, Simon E. Lawrence and Anita R. Maguire*

The Diels–Alder cycloadditions of cyclopentadiene and 2,3-dimethyl-1,3-butadiene to a range of 2-thio-3-chloroacrylamides under thermal, catalytic and microwave conditions is described.

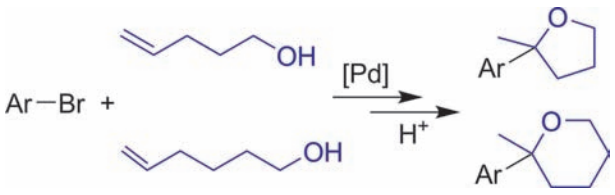


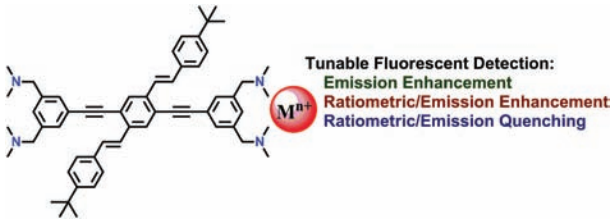
5614

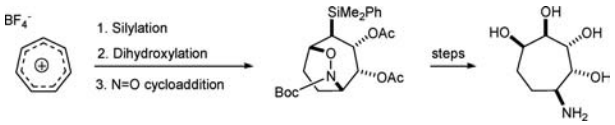
Synthesis of oxygen heterocycles by regioselective Heck reaction

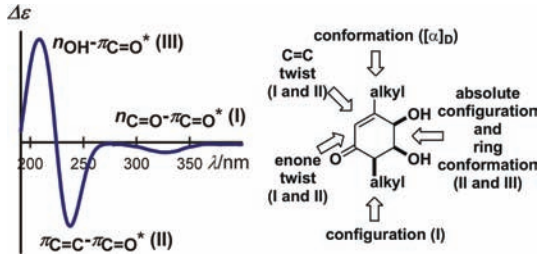
Matthew McConville, Jiwu Ruan, John Blacker and Jianliang Xiao*

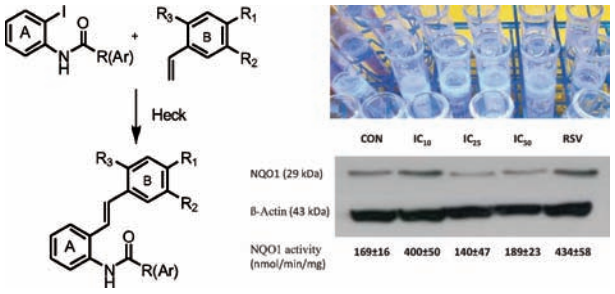
Regioselective Heck arylation of unsaturated alcohols followed by acid-mediated cyclisation affords 2,2-disubstituted tetrahydrofurans and tetrahydropyrans in a convenient one-pot fashion.

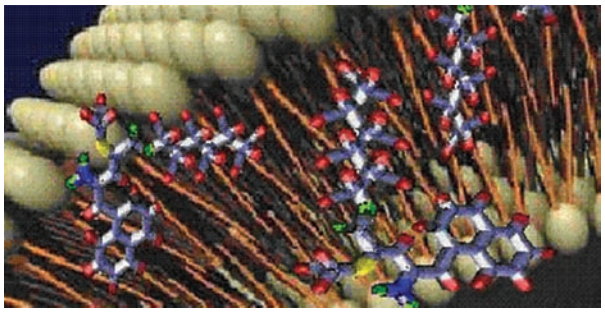


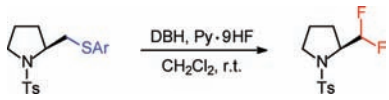


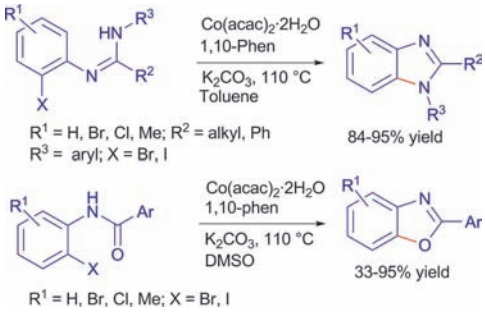












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