

## Tetrahedron Letters Vol. 50, No. 11, 2009

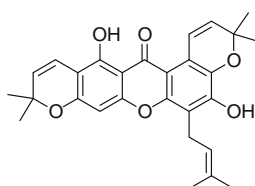
## Contents

## Communications

## Total synthesis of tovophyllin B

pp 1161–1163

Valer Jeso, K. C. Nicolaou\*

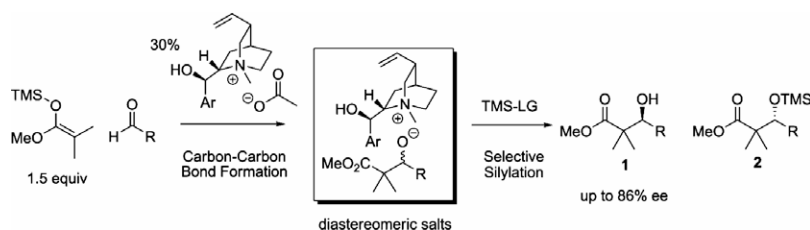


The first total synthesis of tovophyllin B (2), an antimicrobial xanthone derived from mangosteen, has been accomplished.

## Mechanistic investigations of the Mukaiyama aldol reaction as a two part enantioselective reaction

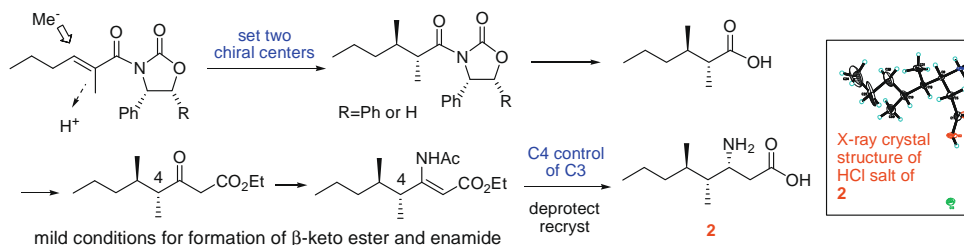
pp 1164–1166

Sachin G. Patel, Sheryl L. Wiskur\*


 The efficient synthesis of (3*R*,4*R*,5*R*)-3-amino-4,5-dimethyl-octanoic acid, a chiral  $\beta$ -amino acid with potent affinity for the  $\alpha_2\delta$  protein

pp 1167–1170

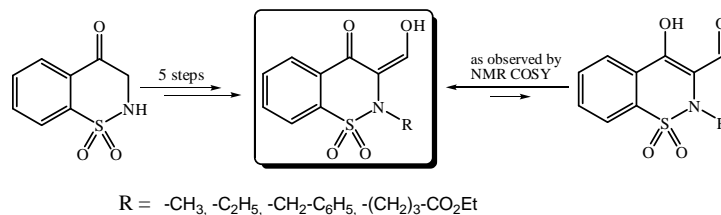
Ji Zhang\*, Peter G. Blazecka, Derek A. Pflum, Joseph Bozelak, Derek Vrieze, Norman L. Colbry, Garrett Hoge, David C. Boyles, Brian Samas, Timothy T. Curran, Augustine T. Osuma, Paul Johnson, Suzanne Kesten, Jacob B. Schwarz, Annise Goodman, Mark Plummer, Anne Akin, Yun Huang, Michael Lovdahl, Andrew J. Thorpe



**Novel benzo[e][1,2]thiazine derivatives, synthesis and reactions**

pp 1171–1172

Julian Volovenko, Tatyana Volovenko, Kirill Popov \*

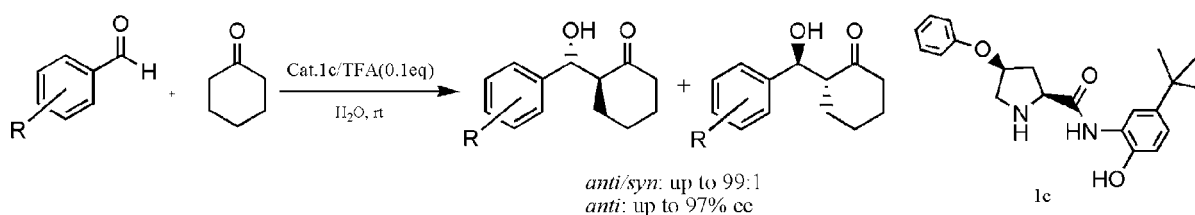


A synthetic route to *N*-alkyl benzothiazinones, involving protection-deprotection steps, is developed and their reactivity is investigated. Novel β-aminovinylketones, hydroxymethylene ketones and pyrazolobenzothiazines are obtained.

**Rationally designed 4-phenoxy substituted prolinamide phenols organocatalyst for the direct aldol reaction in water**

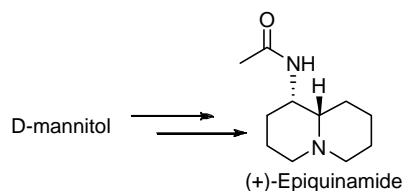
pp 1173–1176

Shu-peng Zhang, Xiang-kai Fu \*, Shao-dong Fu

**Total synthesis of (+)-epiquinamide from D-mannitol**

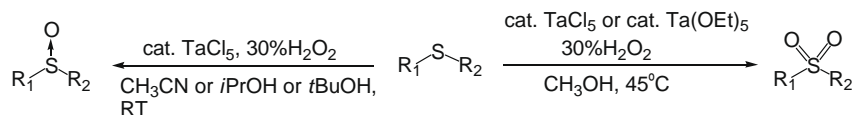
pp 1177–1179

Subhash Ghosh \*, J. Shashidhar

**Selective synthesis of sulfoxides and sulfones by tantalum(V) catalyzed oxidation of sulfides with 30% hydrogen peroxide**

pp 1180–1183

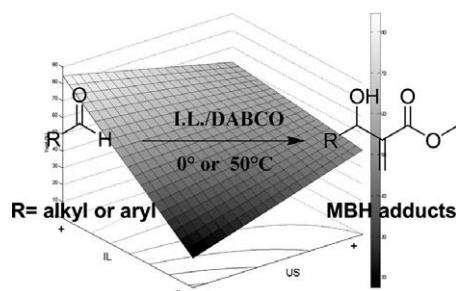
Masayuki Kiriara \*, Junya Yamamoto, Takuya Noguchi, Yoshiro Hirai



**Improved catalysis of Morita–Baylis–Hillman reaction. The strong synergic effect using both an imidazolic ionic liquid and a temperature**

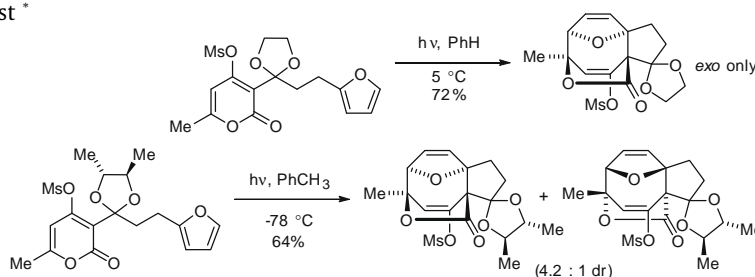
pp 1184–1187

Ricardo S. Porto, Giovanni W. Amarante, Mayra Cavallaro, Ronei J. Poppi, Fernando Coelho \*

**Diastereocontrol in [4+4]-photocycloadditions of pyran-2-ones: effect of ring substituents and chiral ketal**

pp 1188–1192

Lei Li, John A. Bender, F. G. West \*

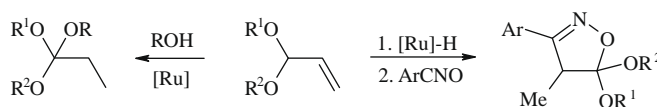


Photochemical [4+4]-cycloadditions of 4-mesyloxy-2-pyrone with pendant furans occurred with high *exo* selectivity and displayed moderate diastereocontrol when substituted with a  $C_2$ -symmetric ketal in the three-carbon tether ketal.

**A new method for the synthesis of mixed orthoesters from *O*-allyl acetals**

pp 1193–1195

Stanisław Krompiec \*, Robert Penczek, Piotr Bujak, Ewelina Kubik, Joanna Malarz, Mateusz Penkala, Michał Krompiec, Nikodem Kuźnik, Hieronim Maciejewski

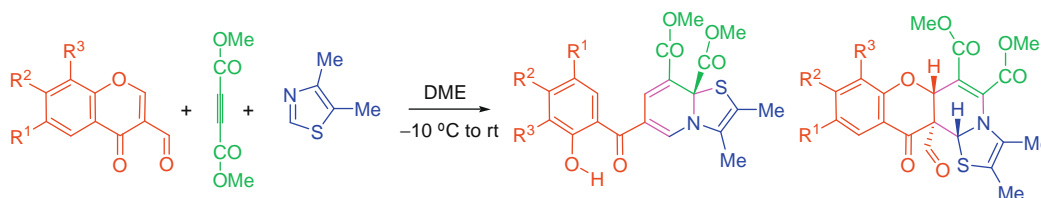


Mixed orthoesters of the type  $(R^1O)(R^2O)(RO)CCH_2CH_3$  were prepared via addition of ROH ( $R = \text{Bu}$  or *m*-methylphenyl) to acrolein acetals catalyzed by ruthenium complexes. Dihydroisoxazoles containing an orthoester moiety were obtained via tandem isomerization of *O*-allyl acetals to *O*-vinyl acetals catalyzed by Ru complexes followed by cycloaddition to nitrile oxides.

**Engaging a thiazole-DMAD zwitterion in novel one-pot multicomponent reactions involving chromones. Expedient synthesis of thiazolo- and chromenothiazolopyridines**

pp 1196–1198

Michael A. Terzidis, Julia Stephanidou-Stephanatou \*, Constantinos A. Tsoleridis \*

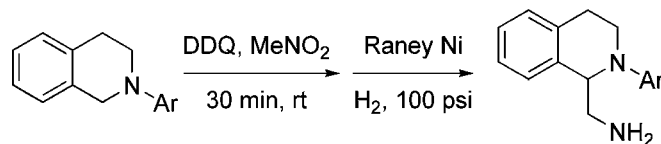


The 1,4-dipole derived from 4,5-dimethylthiazole and DMAD has been shown to react readily with chromone-3-carboxaldehydes resulting, after an unusual rearrangement, in the facile synthesis of thiazolo[3,2-*q*]pyridine derivatives. In some cases tetracyclic chromenothiazolopyridines have been obtained.

**Facile synthesis of vicinal diamines via oxidation of *N*-phenyltetrahydroisoquinolines with DDQ**

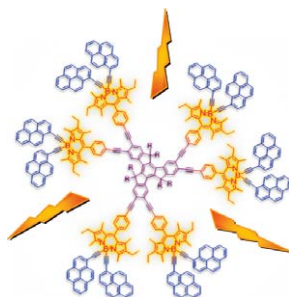
pp 1199–1202

Althea S.-K. Tsang, Matthew H. Todd \*

**Facile pathways to multichromophoric arrays based on a truxene platform**

pp 1203–1208

Stéphane Diring, Raymond Ziessel \*

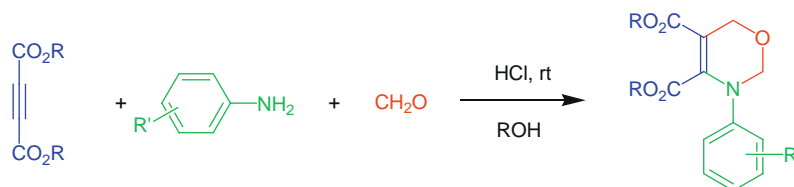


Multifunctional truxene dyes with fluorescent Bodipy and phosphorescent Pt complexes have been engineered.

**Brønsted acid-promoted domino reactions: a novel one-pot three-component synthesis of 3,4,5-trisubstituted-3,6-dihydro-2*H*-1,3-oxazines**

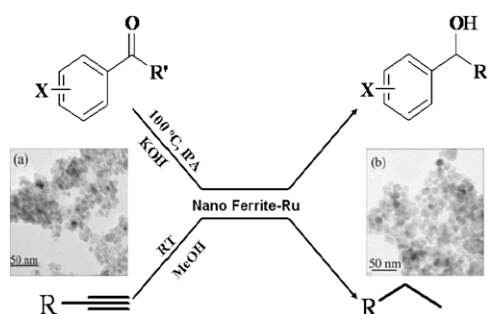
pp 1209–1214

Hua Cao, Huan-Feng Jiang \*, Chao-Rong Qi, Wen-Juan Yao, Huo-Ji Chen

An efficient and novel one-pot synthesis of 3,4,5-trisubstituted-3,6-dihydro-2*H*-1,3-oxazine from alkynoates, anilines, and formaldehyde is described. The six-membered *N,O*-heterocyclic skeleton was constructed via Brønsted acid-promoted domino hydroamination/Prins reaction/cyclization/dehydration reactions.**Magnetically recoverable supported ruthenium catalyst for hydrogenation of alkynes and transfer hydrogenation of carbonyl compounds**

pp 1215–1218

Babita Baruwati, Vivek Polshettiwar, Rajender S. Varma \*



**A general method for the synthesis of benzimidazole-4-sulfonamides**

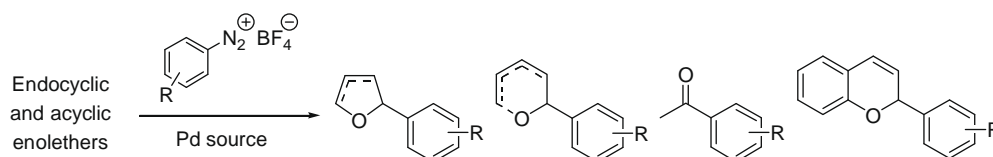
pp 1219–1221

Mark D. Rosen<sup>\*</sup>, Zahna M. Simon, Kyle T. Tarantino, Lucy X. Zhao, Michael H. Rabinowitz

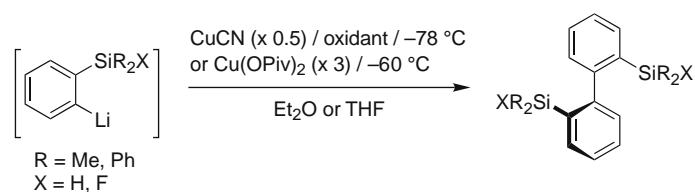
A general method for the synthesis of diverse benzimidazole-4-sulfonamides is described

**The scope of the Heck arylation of enol ethers with arenediazonium salts: a new approach to the synthesis of flavonoids**

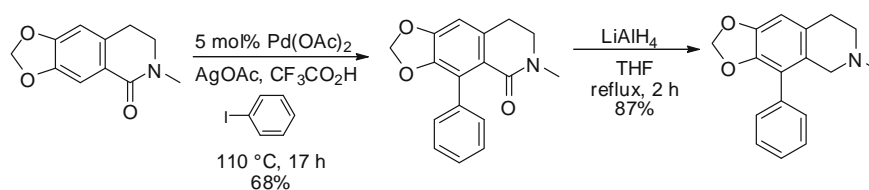
pp 1222–1225

Angelo H. L. Machado, Marcio A. de Sousa, Daniela C. S. Patto, Luiz F. S. Azevedo, Fernanda I. Bombonato, Carlos Roque D. Correia<sup>\*</sup>**Preparation and oxidative coupling of bis[*o*-(hydrosilyl)phenyl]cuprates and bis[*o*-(fluorosilyl)phenyl]cuprates**

pp 1226–1228

Atsushi Kawachi<sup>\*</sup>, Takuya Teranishi, Yohsuke Yamamoto**Pd-catalyzed *ortho*-arylation of 3,4-dihydroisoquinolones via C–H bond activation: synthesis of 8-aryl-1,2,3,4-tetrahydroisoquinolines**

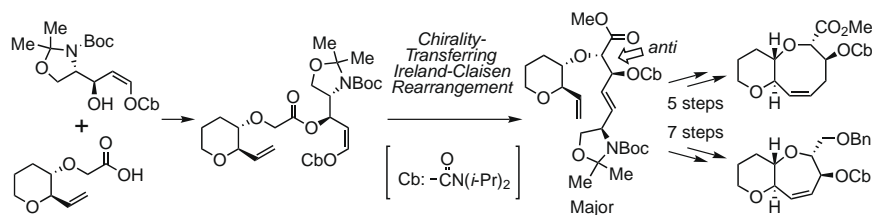
pp 1229–1235

Junwon Kim<sup>\*</sup>, Mina Jo, Wonyoung So, Zaesung No

An efficient route to synthesize biologically interesting 8-aryl-1,2,3,4-tetrahydroisoquinoline has been developed. It involves the Pd-catalyzed direct arylation of 3,4-dihydroisoquinolones via C–H bond activation with aryl iodides to afford a variety of 8-arylated cross-coupling products, which are subsequently reduced to 8-aryl-1,2,3,4-tetrahydroisoquinolines in good to excellent yields.

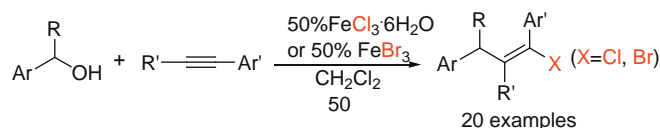
### Stereoselective construction of an *anti*- $\beta$ -alkoxy ether by Ireland–Claisen rearrangement for medium-ring ether synthesis

pp 1236–1239

Kenshu Fujiwara <sup>\*</sup>, Natsumi Kawamura, Hidetoshi Kawai, Takanori Suzuki

### An efficient and mild iron-mediated synthesis of alkenyl halides via direct C–C bond formation of benzyl alcohols and aryl alkynes

pp 1240–1242

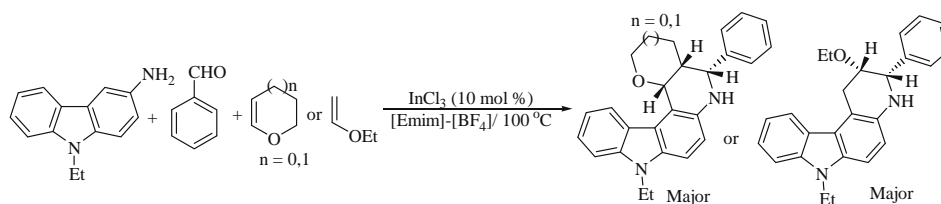
Zhong-Quan Liu <sup>\*</sup>, Jianguo Wang, Jie Han, Yankai Zhao, Bo Zhou

This work demonstrated an efficient and mild method for preparing various substituted alkenyl halides via direct C–C bond formation of benzyl alcohols and aryl alkynes in  $\text{CH}_2\text{Cl}_2$  at 50 °C by using 50 mol % of  $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$  or  $\text{FeBr}_3$ . Compared with the systems using excessive boron trihalides and stoichiometric *n*-BuLi to prepare substituted alkenyl halides, the present procedure would provide an excellent alternative due to the environmentally benign system and atom efficiency.



### A one-pot synthetic approach to the functionalized isomeric ellipticine derivatives through an imino Diels–Alder reaction

pp 1243–1248

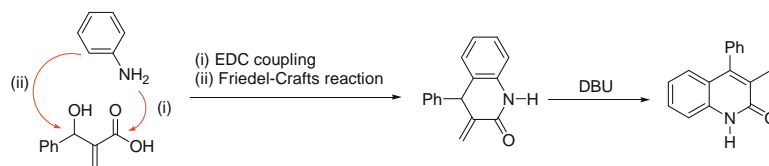
Vikram Gaddam, Rajagopal Nagarajan <sup>\*</sup>

An efficient, three component, one-pot synthesis of new isomeric ellipticine derivatives prepared through an intermolecular imino Diels–Alder reaction of 3-aminocarbazoles and substituted benzaldehydes with electron-rich alkenes such as 3,4-dihydro-2H-pyran, 2,3-dihydrofuran and ethyl vinyl ether catalyzed by  $\text{InCl}_3$  (10 mol %) in ionic liquid is reported. In the case of substituted benzaldehydes, reductive amination is observed.




### Synthesis of 3,4-disubstituted 2(1H)-quinolinones via intramolecular Friedel–Crafts reaction of *N*-arylamides of Baylis–Hillman adducts

pp 1249–1251

Ko Hoon Kim, Hyun Seung Lee, Jae Nyoung Kim <sup>\*</sup>

\*Corresponding author

 Supplementary data available via ScienceDirect

## COVER

Tovophyllin B cascade featuring aldol reaction, dehydration and  $6\pi$  electrocyclization to cast the final ring of the molecule in the first total synthesis of this natural product.

*Tetrahedron Letters* **2009**, 50, 1161–1163.

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