

pp 419-423

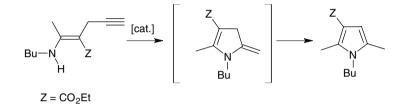
### Tetrahedron Letters Vol. 49, No. 3, 2008

### Contents

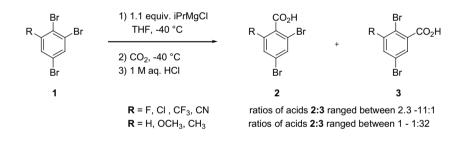
#### COMMUNICATIONS

An assessment of late transition metals as hydroamination catalysts in the cyclization of *C*-propargyl pp 411–414 vinylogous amides into pyrroles

Allan M. Prior, Ross S. Robinson \*



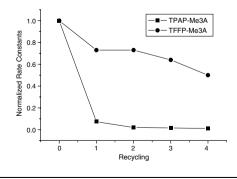
Substitution effect on the regioselective halogen/metal exchange of 3-substituted 1,2,5-tribromobenzenes pp 415–418 Karsten Menzel \*, Paul M. Mills, Doug E. Frantz, Todd D. Nelson, Michael H. Kress



#### Stabilization of catalytic sol-gel entrapped perruthenate

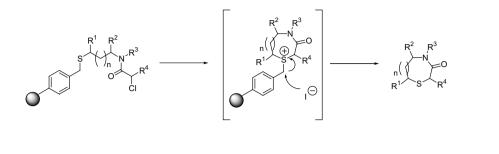
Sandro Campestrini \*, Massimo Carraro, Lorenzo Franco, Rosaria Ciriminna, Mario Pagliaro \*

A combination of more stable counter-cation, of local basic microenvironment, and of a non-solubilizing reaction medium (supercritical  $CO_2$ ) affords significant improvements in the life-cycle and reusability of catalytic ORMOSILs doped with perruthenate in the aerobic oxidation of alcohols.



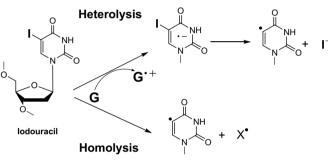
#### A traceless solid phase synthesis of thiomorpholin-3-ones

Kunio Saruta \*, Tsuyoshi Ogiku

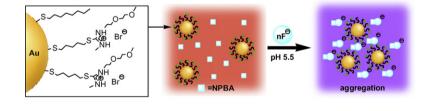


Photoreaction of iodouracil in DNA duplex; C–I bond is cleaved via two different pathways 'homolysis and pp 428–431 heterolysis'

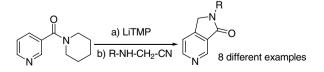
Ryu Tashiro, Kenta Nakamura, Hiroshi Sugiyama \*



Isothiouronium-based amphiphilic gold nanoparticles with a colorimetric response to hydrophobic anions in pp 432–436 water: a new strategy for fluoride ion detection in the presence of a phenylboronic acid Tsuyoshi Minami, Kenji Kaneko, Takeshi Nagasaki, Yuji Kubo \*



Aminomethylation of lithiated nicotinamide: access to new pyridolactams Emilie Prieur, Rabah Azzouz, Geoffrey Deguest, Corinne Fruit \*, Laurent Bischoff \*, Francis Marsais



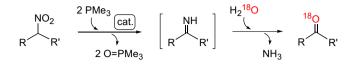
New 2,3-dihydropyrrolopyridinones were prepared by trapping lithiated pyridine carboxamides with highly reactive formimines. This method allowed a wide range of N-functionalised compounds including ethers, acetals or ester moieties.

pp 424-427



pp 437-440

Catalytic, PMe<sub>3</sub>-mediated conversion of secondary nitroalkanes to ketones: a very mild Nef-type process pp 441-444 Jordi Burés, Jaume Vilarrasa \*

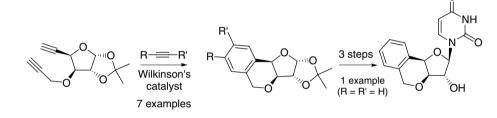


cat. = <sup>t</sup>BuC<sub>6</sub>H<sub>4</sub>SSC<sub>6</sub>H<sub>4</sub><sup>t</sup>Bu or/& PhthN-SePh

By addition of 50–100 mol % of 'BuC<sub>6</sub>H<sub>4</sub>SSC<sub>6</sub>H<sub>4</sub>'Bu or PhthN-SePh, or of only 20 mol % of both additives, to secondary nitro compounds into a 1.0 M THF solution of PMe<sub>3</sub>, nitro groups are readily reduced to imino groups, at room temperature.

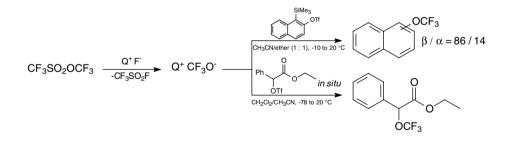
#### A [2+2+2]-cyclotrimerization approach for the synthesis of enantiopure isochromans using a carbohydrate 48 pp derived dialkyne template

C. V. Ramana \*, Sharad B. Suryawanshi

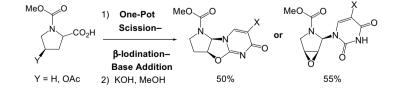


#### Versatile application of trifluoromethyl triflate

Alexander A. Kolomeitsev \*, Mikhail Vorobyev, Hartmut Gillandt



#### One-pot synthesis of azanucleosides from proline derivatives Alicia Boto \*, Dácil Hernández, Rosendo Hernández \*



Common cyclic amino acids, derived from proline and hydroxyproline, can be readily transformed into azanucleosides. The mildness of the reaction conditions, and the good yields obtained, make this procedure an interesting alternative to the conventional processes.

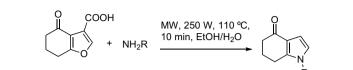
pp 449-454

pp 455-458

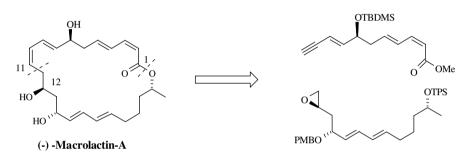
#### Microwave-assisted synthesis of tetrahydroindoles

Leonarda Piras, Chiara Ghiron, Giacomo Minetto, Maurizio Taddei \*

pp 459-462



## Stereoconvergent synthesis of the C1–C11 and C12–C24 fragments of (–)-macrolactin-A J. S. Yadav \*, M. Raj Kumar, G. Sabitha



### Synthesis of *N*-benzothiazol-2-yl-amides by a copper-catalyzed intramolecular cyclization process Junke Wang, Feng Peng, Ju-li Jiang, Zhi-jin Lu, Le-yong Wang, Junfeng Bai, Yi Pan \*



### Catalytic enantioselective synthesis of key intermediates for NET inhibitors using atropisomeric lactam chemistry

Osamu Kitagawa \*, Daisuke Kurihara, Hajime Tanabe, Taichi Shibuya, Takeo Taguchi \*

pp 463-466

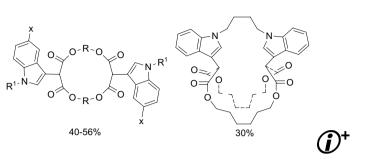


pp 471–474

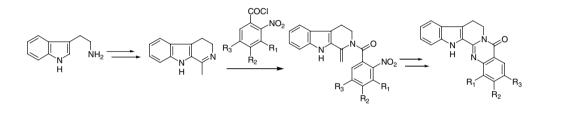
### Reactions of macrocyclic rhodium carbenoids: regioselective synthesis of indol-3-yl macrocyclic lactones and pp 475–480 cryptands

Sengodagounder Muthusamy \*, Boopathy Gnanaprakasam

A wide variety of new macrocyclic diazocarbonyl compounds was synthesized and their rhodium(II) acetate catalyzed carbenoid insertion reaction with substituted indoles afforded regioselectively indol-3-yl macrocyclic di- or tetralactones or indolyl cryptand molecules.

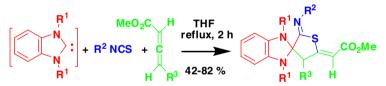


**One-pot reductive-cyclization as key step for the synthesis of rutaecarpine alkaloids** Chih-Shone Lee \*, Cheng-Kuo Liu, Yuen-Lin Chiang, Yen-Yao Cheng



### Highly site, regio-, and stereoselective multicomponent reaction of benzimidazole carbenes, isothiocyanates, pp 485–489 and allenoates

Bo Wang, Jia-Qi Li, Ying Cheng \*

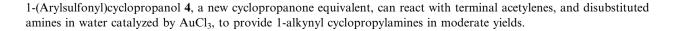


The novel three-component reaction of benzimidazole carbenes with isothiocyanates and allenoates proceeded efficiently in a highly site, regio-, and stereoselective manner to produce predominantly spiro[benzimidazoline-2,3'-tetrahydrothio-phene] derivatives. The reaction was proposed to occur via a tandem nucleophilic addition of carbenes to isothiocyanates followed by an unusual [3+2] cycloaddition to the less activated carbon–carbon double bond of allenoates.

### 1-(Arylsulfonyl)cyclopropanol, a new cyclopropanone equivalent and its application to prepare 1-alkynyl cyclopropylamine

Jie Liu, Yan An, Hai-Ying Jiang, Zili Chen \*

 $HO \xrightarrow{O} O \xrightarrow{R} + = R_1 + R_2 \xrightarrow{N} R_3 \xrightarrow{AuCl_3} R_2 \xrightarrow{R_3} R_1$  4a, R=H 4b, R=Me 7



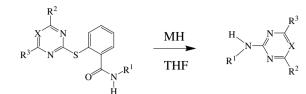
pp 481-484

pp 490-494

### A novel hydride-mediated reductive rearrangement of amide: a facile synthesis of pyrimidyl and triazinyl pp 4 amines

Xiang Chen, Jun Wu \*, Zhicai Shang \*, Meifeng Chen, Yanping Sun, Jing Lv, Meikang Lei, Peizhi Zhang

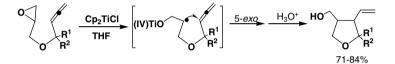
 $LiAlH_4$  and  $NaBH_4$  were found to mediate the conversion of 2-(pyrimidyl-2-ylsulfanyl)-*N*-arylbenzamides and 2-(triazinyl-2-ylsulfanyl)-*N*-arylbenzamides into pyrimidyl and triazinyl amines under notably mild conditions via a novel reductive rearrangement mechanism.



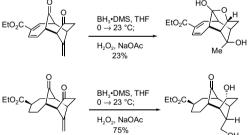
 $(X = CH, N; R^{1} = (CH_{2})nAryl (n=0, 1); R^{2}, R^{3} = Me, OMe; MH = LiAlH_{4}, NaBH_{4})$ 

# Titanium(III)-induced intramolecular radical cyclization of epoxyallene ethers: an efficient method for synthesis of multifunctional tetrahydrofurans

Lubin Xu, Xian Huang \*



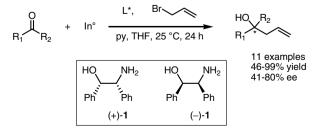
CP-225,917 synthetic studies: unusual hydroboration regioselectivity influenced by remote functional groups pp 504–507 James A. Ashenhurst, James L. Gleason \*



Remote functional groups influence hydroboration of an exocyclic olefin leading to higher than expected levels of 3° alcohol products.

### Asymmetric indium-mediated Barbier-type allylation reactions with ketones to form homoallylic alcohol products

Terra D. Haddad, Lacie C. Hirayama, Philip Taynton, Bakthan Singaram \*

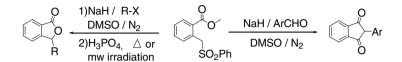


pp 495-499

pp 500-503

pp 508-511

B. T. S. Thirumamagal \*, Sureshbabu Narayanasamy



Synthesis of the schweinfurthin hexahydroxanthene core through Shi epoxidation Jeffrey D. Neighbors, Nolan R. Mente, Kelly D. Boss, Donald W. Zehnder, II, David F. Wiemer \*

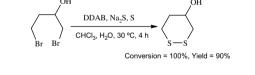
момо

ÓTRS

F and the synthetic analogue 3-deoxyschweinfurthin B. Synthesis of cyclic disulfides using didecyldimethylammonium bromide as phase transfer catalyst

Use of a Shi epoxidation for introduction of chirality in a key epoxide intermediate, together with revised protecting group tactics, has allowed an efficient synthesis of the hexahydroxanthene subunit common to the natural schweinfurthin

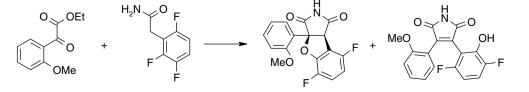
Sachin U. Sonavane, Mandan Chidambaram, Sanaa Khalil, Joseph Almog and Yoel Sasson\*



A convenient, practical and general method for the syntheses of symmetrical and unsymmetrical cyclic disulfides based on the reaction of sulfur with sodium sulfide and dibromoalkanes in the presence of didecyldimethylammonium bromide (DDAB) as a phase transfer catalyst is described.

#### Novel products arising from bisarylmaleimide synthesis Neil S. Garton,\* Robert W. Ward and Royston C. B. Copley

The reaction of a 2-methoxyarylglyoxalate with a 2,3,6-trifluorophenylacetamide yielded a novel 2-hydroxyaryl substituted bisarylmaleimide.





407



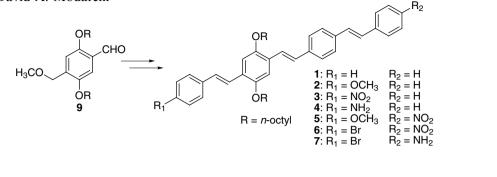
pp 520-522

pp 516-519

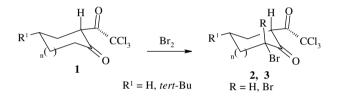
DCH-

### The efficient synthesis of unsymmetrical oligo(phenylenevinylenes)

Timothy Smith and David A. Modarelli\*



The regiospecific ω-bromination of 2-trichloroacetylcycloalkanonespp 529–533Alex F. C. Flores,\* Sergio Brondani, Marcos A. P. Martins, Helio G. Bonacorso and Nilo Zanattapr 529–533



**Phase-transfer catalyzed glycolate conjugate addition** Merritt B. Andrus<sup>\*</sup> and Zhifeng Ye

> Br N, H

> > 1

Ar=2,5-(MeO)<sub>2</sub>Ph

DPM

ddition

MeO<sub>2</sub>

75%, 86%ee

DPMŌ

S-2

-40 °C

pp 538–542

**3-Iodoselenophene derivatives: a versatile substrate for Negishi cross-coupling reaction** Ricardo F. Schumacher, Diego Alves, Ricardo Brandão, Cristina W. Nogueira and Gilson Zeni\*

 $R \xrightarrow{I} R^{2} R^{2} = R^{1} + R^{2} \cdot ZnCl \xrightarrow{Pd(PPh_{3})_{4} (1 \text{ mol } \%)}_{THF} R \xrightarrow{R^{2}}_{Se} R^{1}$  **1a-c 2a-l 3a-q**  $R = R^{1} = alkyl, aryl; R^{2} = aryl, heteroaryl, alkynyl$ 

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0

OMe

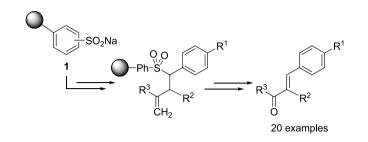
50% KOH THF/tol

pp 534-537

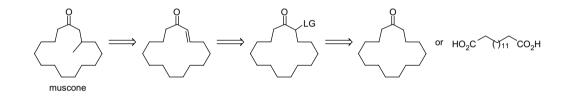
pp 526-528

Traceless sulfone linker cleavage triggered by ozonolysis: solid-phase synthesis of diverse  $\alpha$ - $\beta$ -unsaturated pp 543–547 carbonyl compounds

Yi-Fan Chang, Yi-Rui Jiang and Wei-Chieh Cheng\*



A practical synthesis of (E)-2-cyclopentadecen-1-one: an important precursor of macrocyclic musconepp 548–551Yusuke Hisanaga, Yuya Asumi, Masaki Takahashi, Yasuhiro Shimizu, Nobuyuki Mase,Hidemi Yoda and Kunihiko Takabe\*

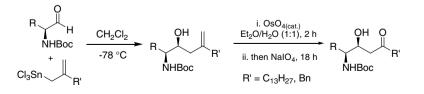


Synthesis and structure of polyunsaturated [10]paracyclophane annulated by two azulene rings Shigeyasu Kuroda,\* Yuji Obata, Nguyen Chung Thanh, Ryuta Miyatake, Yoshikazu Horino and Mitsunori Oda\* pp 552-556

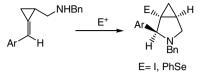
 $\begin{array}{c} \text{TMSO} \\ \downarrow \\ \downarrow \\ \text{TMSO} \end{array} \qquad \begin{array}{c} CO_2CH_3 \\ \downarrow \\ O \\ MeO \\ MeO \\ H_0 \\ \hline \\ CH_3 \end{array} \qquad \begin{array}{c} H_3C \\ \downarrow \\ CO_2CH_3 \\ CO_2CH_3 \\ H_3CO_2C \end{array} \qquad \begin{array}{c} H_3C \\ \downarrow \\ CH_3 \\ \hline \\ CO_2CH_3 \\ H_3CO_2C \end{array} \qquad \begin{array}{c} H_3C \\ \downarrow \\ CH_3 \\ \hline \\ CO_2CH_3 \\ H_3CO_2C \end{array} \qquad \begin{array}{c} H_3C \\ \downarrow \\ CH_3 \\ \hline \\ CO_2CH_3 \\ H_3CO_2C \end{array}$ 

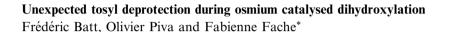
Addition of allyltrichlorostannanes to aldehydes: application in the synthesis of 4-*N*-Boc-amino-3-hydroxy pp 557–561 ketones

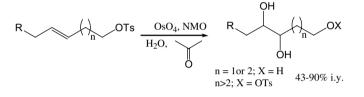
Luiz C. Dias,\* Juliana Fattori and Carla Cristina Perez



An efficient stereoselective synthesis of 1-iodo- or 1-phenyl selenenyl-2-aryl-3-azabicyclo[3.1.0]hexane via pp 562–565 electrophilic cyclization of benzyl-2-arylmethylidenecyclopropylmethyl-amines Weijun Fu and Xian Huang\*







### Synthesis and regioselective substitution of C-6 alkoxy derivatives of (S)-nicotine Pauline W. Ondachi and Daniel L. Comins\*



#### COVER

Synthetic intermediates for norepinephrine transporter (NET) inhibitors were efficiently prepared by using our atropisomeric lactam chemistry (catalytic enantioselective intramolecular N-arylation followed by diastereoselective  $\alpha$ -alkylation of the resulting atropisomeric lactam) as key reactions. *Tetrahedron Letters* **2008**, *49*, 471–474. © 2007 O. Kitagawa Published by Elsevier Ltd.

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Chemical Engineering and Biotechnology Abstracts, Current Biotechnology 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. Also covered in the abstract and citation database SCOPUS<sup>®</sup>. Full text available on ScienceDirect<sup>®</sup>



pp 566-568

