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**Tetrahedron Letters** 



### Tetrahedron Letters Vol. 50, No. 3, 2009

### Contents

*N*-Chlorosuccinimide is a convenient oxidant for the synthesis of 2,4-disubstituted 1,2,4-thiadiazolidine-3,5-diones pp 257–259 Shama Nasim, Peter A. Crooks \*



N-Chlorosuccinimide has been identified as a convenient and safe alternative oxidant for the oxidative condensation of isothiocyanates and isocyanates to afford 1,2,4-thiadiazolidine-3,5-diones.

N-terminus FITC labeling of peptides on solid support: the truth behind the spacer

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Magali Jullian, Anaïs Hernandez, Amélie Maurras, Karine Puget, Muriel Amblard, Jean Martinez, Gilles Subra \*



Diastereocontrolled addition of organometallic reagents to S-chiral *N*-(*tert*-butanesulfinyl)-α-fluoroenimines

Camille Pierry, Ludivine Zoute, Philippe Jubault, Emmanuel Pfund, Thierry Lequeux, Dominique Cahard, Samuel Couve-Bonnaire, Xavier Pannecoucke \*

 $R^{1} = 4$ -MeOC<sub>6</sub>H<sub>4</sub>, TBDPSO  $R^{2} = Me, i$ -Pr, *i*-Bu, Bn, Ph, allyl, vinyl

Grignard and organolithium reagents efficiently react with  $(S)-N-(tert-butanesulfinyl)-\alpha$ -fluoroenimines to provide chiral allylamines in excellent yields and high diastereomeric ratios.

Two [2]pseudorotaxane-like complexes and their corresponding [2]rotaxanes stabilized via interactions on opposite ends of the same macrocycle

Wei-Chung Hung, Liang-Yun Wang, Chien-Chen Lai, Yi-Hung Liu, Shie-Ming Peng, Sheng-Hsien Chiu

A formal synthesis of (+)-didemniserinolipid B employing a Pd-mediated 6-endo selective alkynediol cycloisomerization pp 271-273 C. V. Ramana \*, Boddeti Induvadana

CH<sub>3</sub>CN, rt, 2 h

NH2

NaO<sub>3</sub>SO

A concise assembly of a central 6,8-dioxabicyclo[3,2,1] octane core of didemniserinolipid featuring a Pd-mediated alkynediol cycloisomerization has facilitated a formal synthesis of didemniserinolipid B

MeOH MW / 8 min 90 °C

The use of TMSCI in methanol under microwave irradiation allows the intramolecular condensation of a panel of triketones, giving rise to 4-keto-4,5,6,7-tetrahydrobenzofurans.

Didemniserinolipid B

CO<sub>2</sub>Et

Microwave-assisted synthesis of 4-keto-4,5,6,7-tetrahydrobenzofurans

Sylvie Goncalves, Alain Wagner \*, Charles Mioskowski, Rachid Baati \*



Reaction of a triazolinedione with simple alkenes. Isolation and characterization of hydration products Zois Syrgiannis, Fotios Koutsianopoulos, Kenneth W. Muir, Yiannis Elemes \*

R<sub>1.2.3</sub> = H, alkyl, aryl



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pp 277-280

## Enantioselective addition of diethylzinc to aromatic aldehydes catalyzed by Ti(IV) complexes of C<sub>2</sub>-symmetrical chiral pp 281–283 BINOL derivatives

Shaohua Gou, Zaher M. A. Judeh \*



#### **Acremoxanthones A and B, novel antibiotic polyketides from the fungus** *Acremonium* **sp. BCC 31806** Masahiko Isaka \*, Somporn Palasarn, Patchanee Auncharoen, Somjit Komwijit, E. B. Gareth Jones

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## A new strategy for asymmetric synthesis of aminophosphonic acid derivatives: the first enantioselective catalytic reduction of C-phosphorylated imines

pp 288-290

pp 291-294

Yuliya V. Rassukana, Petro P. Onys'ko<sup>\*</sup>, Mykola V. Kolotylo, Anatolii D. Sinitsa, Piotr Łyżwa, Marian Mikołajczyk<sup>\*</sup>



## A novel synthesis of 1,3,5-trisubstituted pyrazoles through a spiro-pyrazoline intermediate via a tandem 1,3-dipolar cycloaddition/elimination

Sureshbabu Dadiboyena, Edward J. Valente, Ashton T. Hamme II \*



### New synthetic route to access (±) salinosporamide A via an oxazolone-mediated ene-type reaction

Robert A. Mosey, Jetze J. Tepe \*



### Examination of the olefin-olefin ring closing metathesis to prepare Latrunculin B

Jin She, John W. Lampe, Alexandra B. Polianski, Paul S. Watson  $^{\ast}$ 

### Dual-mode recognition of transition metal ions by bis-triazoles chained pyrenes

Hao-Chih Hung, Chi-Wen Cheng, I-Ting Ho, Wen-Sheng Chung \*



OF

Addition of selenium dibromide to divinyl sulfide: spontaneous rearrangement of 2,6-dibromo-1,4-thiaselenane to 5-bromo-2-bromomethyl-1,3-thiaselenolane

Svetlana V. Amosova \*, Maxim V. Penzik, Alexander I. Albanov, Vladimir A. Potapov \*

$$Se \xrightarrow{Br_2} SeBr_2 \xrightarrow{S} CCl_4, 20-25°C \xrightarrow{Br} SeBr \xrightarrow{CHCl_3} Br \xrightarrow{S} Br \xrightarrow{CHCl_3, 20-25°C} SeBr \xrightarrow{CHCl$$



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pp 295-297







Synthesis of [1-<sup>13</sup>C] and stereo-specifically [1-<sup>2</sup>H] labeled fluorinated substrate analogues of lspH enzyme in the deoxyxylulose phosphate pathway

Youli Xiao, Pinghua Liu \*



A study on the reactions of NADH models with electron-deficient alkenes. A probe for the extreme of concerted electron-hydrogen atom transfer mechanism

Xin-Qiang Fang, Hua-Jian Xu, Hong Jiang, You-Cheng Liu<sup>\*</sup>, Yao Fu, Yun-Dong Wu<sup>\*</sup>



**Intramolecular N–H**…**O and N–H**…**N hydrogen bonding patterns in** *N***-benzyl and** *N***-(pyridin-2-ylmethyl) benzamides pp 316–319 Ping Du, X-Kui Jiang, Zhan-Ting Li<sup>\*</sup>** 



**Five- and six-membered N–H**···**S hydrogen bonding in aromatic amides** Ping Du, X-Kui Jiang, Zhan-Ting Li <sup>\*</sup> pp 320-324



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pp 312-315

## Tetsuya Sengoku, Takuma Takemura, Emi Fukasawa, Ichiro Hayakawa, Hideo Kigoshi \*



Li-*sec*-Bu<sub>3</sub>BH THF

THF

The unusual facial stereoselection in the hydride reduction of the Danishefsky pyranones (2,3,5,6-tetrahydro-4-pyranones) with L-Selectride (Li-sec-Bu<sub>3</sub>BH) has been explained based on the exterior frontier orbital extension model (the EFOE model).

> Base, -78 °C Boc-N=N-Boc

> > Boc

НŅ Вос

KHMDS: β-H/α-H = 93:07 (91%) LHMDS: β-H/α-H = 05:95 (94%)

Ρh

#### Diastereoselective electrophilic $\alpha$ -amination of camphor N<sup>1</sup>-acyl N<sup>2</sup>-phenylpyrazolidinones: the metal enolate-dependent synthesis of two possible hydrazide diastereomers

ö

Chin-Sheng Chao, Chung-Kai Cheng, Ssu-Hsien Li, Kwunmin Chen \*



Me



(Model of Pc-Pc branched triad)



#### NaHMDS ŌН up to 99% yield anti syn anti:syn = 2.9:1 ~ 0.5:1

The Danishefsky pyranone puzzle: an explanation based on the exterior frontier orbital extension model Daisuke Kaneno, Shuji Tomoda \* Li-*sec*-Bu<sub>3</sub>BH







### Highly efficient electrophilic cyclization of *N*-(2-alkynylbenzylidene)hydrazides

Qiuping Ding, Zhiyuan Chen, Xingxin Yu, Yiyuan Peng<sup>\*</sup>, Jie Wu<sup>\*</sup>



Cul (10 mol%) L1 (10 mol%) K<sub>3</sub>PO<sub>4</sub>, CH<sub>3</sub>CN 60-80 °C

NH

#### Glyoxal bis(phenylhydrazone) as promoter for Cul-catalyzed O-arylation of phenols with bromoarenes Yu-Hua Liu, Gang Li, Lian-Ming Yang

mild conditions. A diverse array of phenols and bromoarenes was employed as substrates to afford diaryl ethers in good to excellent yields.

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pp 347-349

L1 A very simple bishydrazone-type ligand, glyoxal bis(phenylhydrazone) (L1), was found to effectively promote the Cul-catalyzed O-arylation of phenols with aryl bromides under

#### Mn(OAc)<sub>3</sub>-promoted regioselective free radical thiocyanation of indoles and anilines

Xiang-Qiang Pan, Mao-Yi Lei, Jian-Ping Zou<sup>\*</sup>, Wei Zhang<sup>\*</sup>



Mn(OAc)<sub>3</sub>-promoted free radical thiocyanations of indoles and anilines are introduced. Reactions performed under mild conditions give regioselective products in good to excellent yields.

Induced-fit recognition by p-carboxylatocalix[4]arene hosts Teresa Pierro, Carmine Gaeta \*, Francesco Troisi, Placido Neri \*

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Reactivity of the -C(Cl)C-CN- moiety towards AlCl<sub>3</sub>-induced C-C bond forming reactions: a new synthesis of 7-(hetero)aryl-substituted pyrazolo[1,5-*a*]pyrimidines

Arumugam Kodimuthali, Nishad T. C., Padala Lakshmi Prasunamba, Manojit Pal



#### Synthetic receptors for neutral nitro derivatives

Umporn Athikomrattanakul, Chamras Promptmas, Martin Katterle \*



#### **PPh<sub>3</sub>/halogenating agent-mediated highly efficient ring opening of activated and non-activated aziridines** Manoj Kumar, Sanjay K. Pandey, Shikha Gandhi, Vinod K. Singh \*

Reagent

Reagent = PPh<sub>3</sub>Cl<sub>2</sub>, PPh<sub>3</sub>Br<sub>2</sub>, PPh<sub>3</sub>/l<sub>2</sub>

We report here the use of PPh<sub>3</sub>/halogenating agents as highly efficient reagents for the ring opening of aziridines with halides. The method works effectively for both activated and non-activated aziridines, and furnishes the products in excellent yields within a short period of time.

CH<sub>3</sub>CN, rt,

vields up to 99%

5 min-2 h

# Methyl 1-imidazolecarbodithioate as a thiocarbonyl transfer reagent: a facile one-pot, three-component synthesispp 366–369of novel 2-substituted-5-aryl-1-oxo-3-thioxo-1,2,3,5,11,11a-hexahydro-6*H*-imidazo-[1,5-*b*]-β-carbolinespp 366–369

Balendu Singh, G. S. M. Sundaram, Nimesh C. Misra, Hiriyakkanavar Ila \*

An efficient one-pot, three-component synthesis of novel 2-substituted-5-aryl-1-oxo-3-thioxo-1,2,3,5,11,11a-hexahydro-6*H*-imidazo-[1,5-*b*]- $\beta$ -carbolines employing 1-aryl-1,2,3,4-tetrahydro- $\beta$ -carboline-3-carboxylates, primary amines (or amino acid esters) and methyl 1-imidazolecarbodithioate as thiocarbonyl transfer reagent is reported.

$$H = alkyl, aryl, RCHCO2Me$$

$$El_{3}N$$

$$(2.3 eqv.)$$

$$(2$$

pp 359-362



500

450

λ /nm

NHR

X = Cl, Br, I

550

pp 363-365



pp 354-358

## Design and development of arrayable syntheses to accelerate SAR studies of pyridopyrimidinone and pyrimidopyrimidinone

Zehong Wan<sup>\*</sup>, Hongxing Yan, Ralph F. Hall, Xichen Lin, Stefano Livia, Tomasz Respondek, Katherine L. Widdowson, Chongjie Zhu, James F. Callahan



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()+ Supplementary data available via ScienceDirect

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