

## Tetrahedron Letters Vol. 45, No. 21, 2004

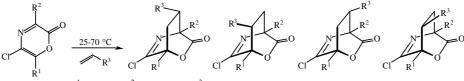
## Contents

## **COMMUNICATIONS**

## 2(H)-1,4-Oxazin-2-ones as ambident azadienes

Kamyar Afarinkia,\* Akmal Bahar, Judi Neuss and Andrea Ruggiero

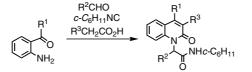
pp 3995-3998



 $R^1 = Me$ , Ph;  $R^2 = Me$ , Ph, Cl;  $R^3 =$  electron withdrawing or electron donating groups

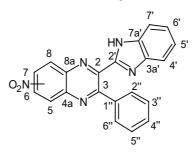
## **One-pot synthesis of quinolin-2-(1***H***)-ones via tandem Ugi–Knoevenagel condensations** Stefano Marcaccini, Roberto Pepino, M. Cruz Pozo, Sara Basurto, María García-Valverde and Tomás Torroba\*

pp 3999-4001



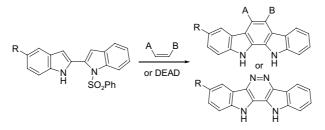
# Application of quantum chemical calculations of $^{13}\mathrm{C}$ NMR chemical shifts to quinoxaline structure determination

Alsu Balandina, Vakhid Mamedov, Xavier Franck, Bruno Figadère and Shamil Latypov\*



pp 4003–4007

## Formal [4+2] cycloaddition reactions of *N*-sulfonyl-2,2'-biindoles: synthesis of indolo[2,3-*a*]carbazoles and indigo azines Jeffrey T. Kuethe<sup>\*</sup> and Ian W. Davies



Radical cyclisation mediates the synthesis of a new base-ribose carbon bridged adenosinepp 401Pascal Lang, Alain Mayer, Pierre Jung, Denis Tritsch, Jean-François Biellmann and Alain Burger\*ph 401

SnBu<sub>3</sub>

OH

н

5' ( 3'

TBSO

NHa

Synthesis, DNA intercalation and europium(III)-triggered DNA photocleavage by a bis-proflavine pp 4017–4020 succinamide conjugate

6 (E/Z)

**ÓTBS** 

Juan-Félix Espinosa, María-José Fernández, Kathryn B. Grant,\* Lourdes Gude, María-Melia Rodrigo and Antonio Lorente\*

 $NH_2$ 

Convenient synthesis of  $\alpha$ , $\beta$ -unsaturated sulfones via a Mizoroki–Heck reaction of arylboronic acids with phenyl vinyl sulfones

George W. Kabalka\* and Sankar K. Guchhait

TBSO

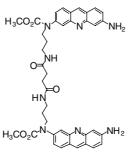
ÓН

5

**ÓTBS** 

$$RB(OH)_2 + CH_2 = CHSO_2Ph \xrightarrow{Pd(OAc)_2/Na_2CO_3} R \xrightarrow{SO_2Ph} B$$

Palladium acetate catalyzed Mizoroki–Heck reactions of arylboronic acids with phenyl vinyl sulfones afford  $\alpha$ , $\beta$ -unsaturated sulfones in good yields.



pp 4009-4012



 $\rm NH_2$ 

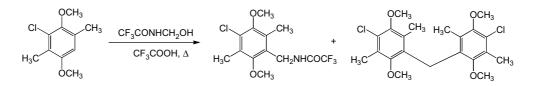
HC

ÓH ÓH

2

pp 4021-4022

## Unexpected dimeric products from the amidomethylation of pentasubstituted benzenes pp 4023–4026 David Wiedenfeld,\* Mark A. Minton, Vladimir N. Nesterov, David R. Glass and Crystal L. Montoya



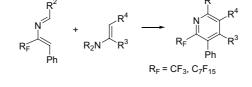
An isomeric series of unexpected diarylmethane products with flexible substituents, isolated from amidomethylation reactions of *p*-dimethoxybenzene derivatives, was analyzed by X-ray crystallography to reveal novel solid-state structures, two of which have identical elemental cell parameters.

## A new total synthesis of (±)-oestrone

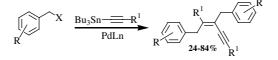
Gerald Pattenden,\* L. Krishnakanth Reddy and Affo Walter

Regioselective synthesis of fluoroalkyl pyridine derivatives from 3-fluoroalkyl substituted 2-aza-1,3-butadienes

Francisco Palacios,\* Concepción Alonso, Gloria Rubiales and Maite Villegas



Highly substituted enynes via a palladium-catalyzed tandem three carbon–carbon bonds forming reaction procedure from benzyl halides and alkynyl tributyltin reagents Laurent Romain Pottier, Jean-François Peyrat, Mouâd Alami<sup>\*</sup> and Jean-Daniel Brion



pp 4031-4034

pp 4027-4030

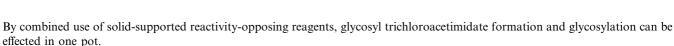
CCI<sub>3</sub>CN, PTBD Nafion<sup>®</sup>-SAC

BnC

HO BnO<sup>2</sup> BnC

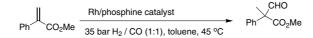
One-pot preparation and activation of glycosyl trichloroacetimidates: operationally simple glycosylation induced by combined use of solid-supported, reactivity-opposing reagents Masato Oikawa,\* Tatsushi Tanaka, Naohiro Fukuda and Shoichi Kusumoto

> Glc or GlcN derivatives



## Rhodium catalysed hydroformylation of unsaturated esters

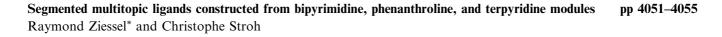
Matthew L. Clarke

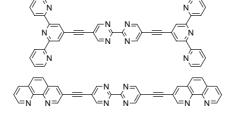


A quaternary selective rhodium catalysed hydroformylation of methyl atropate to give 1,3-aldehydic esters has been developed.

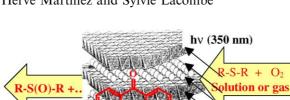
## 4-Benzoylbenzoate intercalated in layered double hydroxides: a new catalyst for photo-oxidation of sulfides in solution and in the gas phase

Thierry Pigot, Thomas Arbitre, Hervé Martinez and Sylvie Lacombe\*





New ligands carrying various chelating platforms have been stepwise prepared using palladium cross-coupling reactions; in some cases a metallo-synthon is used to produce the final molecules.



On

pp 4043-4045



OH

\_\_\_**b**\_\_\_►

<sup>a</sup>tetramethyl-DBFOX/Ph + Zn(OTf) 2(2 mol% each), MS 4A in CH<sub>2</sub>Cl<sub>2</sub>, rt1 h. <sup>b</sup>NaBH<sub>4</sub>

R ÓН

4-acetamido-TEMPO,

Br

CH<sub>2</sub>OH 73% (endo:exo= 98:2), 97% ee (endo)

Si(OEt)3

pTsOH

## Synthesis of vinyl 1,2-diketones

ОН

Moto Shirahase, Shuji Kanemasa\* and Masayuki Hasegawa

Stereoselective synthesis of amides possessing a vinylsilicon functionality via a

Bogdan Marciniec,\* Dariusz Chadyniak and Stanisław Krompiec

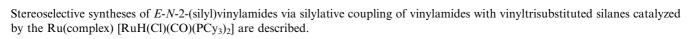
**DBFOX/Ph-transition metal complexes** 

Lothar W. Habel, Sigrid De Keersmaecker, Joos Wahlen, Pierre A. Jacobs and Dirk E. De Vos\*

1. 10<sub>2</sub>

2.  $PPh_3$ 

Improved catalysis of nitrone 1,3-dipolar cycloadditions by solving the aggregation issue of the



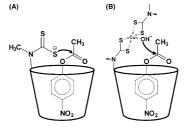
O N N Si(OEt)<sub>3</sub> <u>[RuH(CI)(CO)(PCy<sub>3</sub>)<sub>2</sub>]</u>

## Esterase activity of cyclodextrin dithiocarbamates

ruthenium catalyzed silylative coupling reaction

Alex Fragoso,\* Roberto Cao and Maysa Baños

Dithiocarbamates attached to cyclodextrins and their Cu(II) complexes possess hydrolase activity towards activated esters.



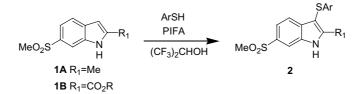
pp 4057-4059



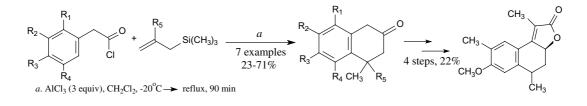


pp 4069-4071

A new synthesis of 3-arylthioindoles as selective COX-2 inhibitors using PIFA Jeffrey A. Campbell,\* Chris A. Broka, Leyi Gong, Keith A. M. Walker and Jin-Hai Wang pp 4073-4075



A new approach to (±)-heritonin. The preparation of β-tetralones from allylsilanes and acid chlorides pp 4077–4080 Claudio C. Silveira,\* Alessandra Machado, Antonio L. Braga and Eder João Lenardão

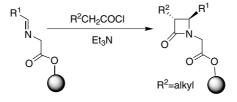


Synthesis of *O*-unprotected glycosyl selenoureas. A new access to bicyclic sugar isoureas José G. Fernández-Bolaños,\* Óscar López, Víctor Ulgar, Inés Maya and José Fuentes

pp 4081-4084

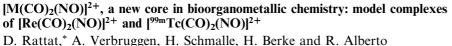
HO HO  $NH_2$  PhNCSe HO O H H  $H_2O_2$  HO O N NPh HO N NPh

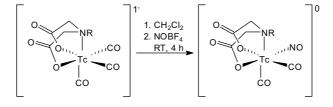
Efficient and selective solid-phase synthesis of *trans* 3-alkyl β-lactams from nonactivated acid chlorides pp 4085–4088 Carina M. L. Delpiccolo and Ernesto G. Mata\*



A procedure for a rapid access to diverse 3-alkyl  $\beta$ -lactams by solid-phase methodology is described.

### pp 4089-4092



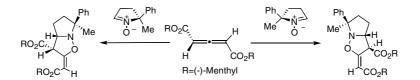


## Boron tribromide mediated debenzylation of benzylamino and benzyloxy groups Ekaterina Paliakov and Lucjan Strekowski\*

NHa BBr<sub>3</sub>

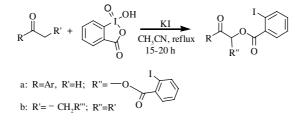
### 1,3-Dipolar addition of nitrones to symmetrically substituted allenes: for the determination of absolute configuration of chiral allenes by NMR spectroscopy

Takahiro Kawai, Ko-hei Kodama, Takashi Ooi and Takenori Kusumi\*



5-Methyl-5-phenylpyrroline N-oxide was proved to be a useful 1,3-dipole for determining the absolute configuration of chiral allenes by means of NMR spectroscopy.

A new useful entry of IBX: the synthesis and structure of  $\alpha$ -(2-iodobenzoyloxy)ketones Zhen-liang Pan, Xue-yuan Liu and Yong-min Liang\*

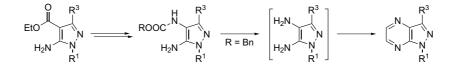


Bi- or mono-substituted  $\alpha$ -(2-iodobenzoyloxy)ketones can be conveniently prepared from the reaction of ketones with IBX, which is the first  $\alpha$ -oxygenation of ketones by IBX.

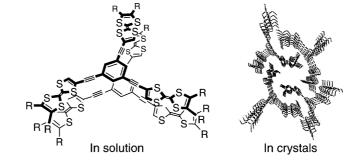
pp 4093-4095

Facile synthesis of 1-substituted 4,5-diaminopyrazoles and its application toward the synthesis of pyrazolo[3,4-*b*]pyrazines

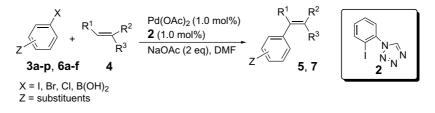
Tun-Cheng Chien, Ronald A. Smaldone and Leroy B. Townsend\*



Aggregation of star-shaped tris(tetrathiafulvalenylethynyl) benzene in solution and in the solid state pp 4109–4112 Masashi Hasegawa, Jun-ichi Takano, Hideo Enozawa, Yoshiyuki Kuwatani and Masahiko Iyoda\*



**1-(2-Iodophenyl)-1H-tetrazole as a ligand for Pd(II) catalyzed Heck reaction** Arun Kumar Gupta, Chung Hyun Song and Chang Ho Oh<sup>\*</sup>



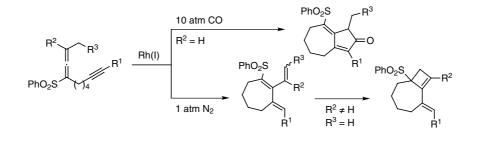
An active catalyst for Heck reaction by combination of  $Pd(OAc)_2$  with the new ligand, 1-(2-iodophenyl)-1H-Tetrazole (2), was developed.

Rh(I)-catalyzed ring-closing reaction of allenynes: selective construction of cycloheptene, bicyclo[5.3.0]decadienone, and bicyclo[5.2.0]nonene frameworks

pp 4117-4121

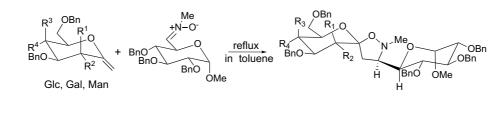
pp 4113-4116

Chisato Mukai,\* Fuyuhiko Inagaki, Tatsunori Yoshida and Shinji Kitagaki



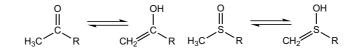
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## 1,3-Dipolar cycloaddition of *exo*-methylenesugars with nitrone: approach to new amino-C-ketosyl disaccharides Xiaoliu Li, Hideyo Takahashi, Hiro Ohtake and Shiro Ikegami\*



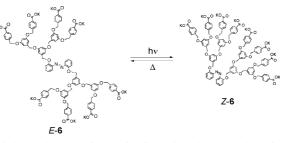
#### Classical versus redox tautomerism: substituent effects on the keto/enol and sulfoxide/sulfenic acid pp 4127-4129 equilibria

Ibon Alkorta\* and José Elguero



## Water-soluble azobenzene dendrimers

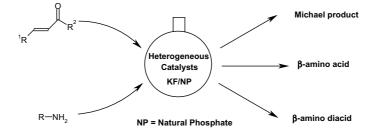
Atsuya Momotake and Tatsuo Arai\*



The absorption spectra and the rate of thermal Z-to-E isomerization of azobenzene dendrimers 4-6 in aqueous solution greatly depended on the generation of the dendrimer.

## Natural phosphate and potassium fluoride doped natural phosphate: efficient catalysts for the construction of a carbon-nitrogen bond

Mohamed Zahouily,\* Bouchaib Bahlaouan, Ahmed Rayadh and Saïd Sebti



## pp 4123-4126

pp 4135-4138

Synthesis of bicyclic dipeptide mimetics for the cholecystokinin and opioid receptors John M. Ndungu, Xuyuan Gu, Dustin E. Gross, James P. Cain, Michael D. Carducci and Victor J. Hruby\*

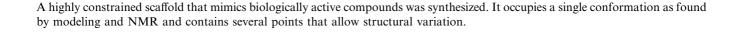
Siham Mallouk, Khalid Bougrin,\* Hayat Doua, Rachid Benhida and Mohamed Soufiaoui\*

Ultrasound-accelerated aromatisation of trans- and cis-pyrazolines under heterogeneous

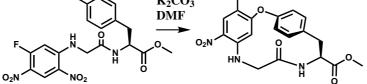
Microwave-assisted cleavage of Weinreb amide for carboxylate protection in the synthesis

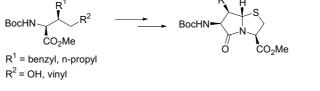
Firoz A. Jaipuri, M. Francisca Jofre, Kimberly A. Schwarz and Nicola L. Pohl\*

Synthesis of a novel 14-membered highly constrained cyclic peptidic scaffold Christopher J. Arnusch and Roland J. Pieters\*



of a (R)-3-hydroxyalkanoic acid





conditions using claycop



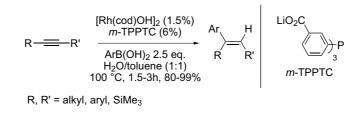
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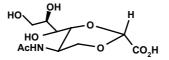
pp 4153-4156

## Efficient synthesis of trisubstituted alkenes in an aqueous-organic system using a versatile and recyclable Rh/m-TPPTC catalyst Emilie Genin, Véronique Michelet<sup>\*</sup> and Jean-Pierre Genêt<sup>\*</sup>



## Synthesis of a novel dioxan sialic acid analog

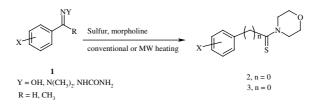
Françoise M. Perron-Sierra,\* Mike Burbridge, Christophe Péan, Gordon C. Tucker and Patrick Casara



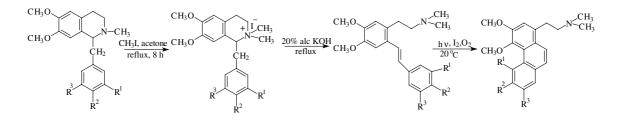
A preparative scale synthesis of a dioxan sialic acid analog was achieved from D-mannose. The conformation and the acidic character of this dioxan derivative, closely related to sialic acid, provides a scaffold for drug design.

# Extension of the Willgerodt–Kindler reaction: protected carbonyl compounds as efficient substrates pp 4167–4169 for this reaction

Hossein Reza Darabi,\* Kioumars Aghapoor and Mahmoud Tajbakhsh



A new convenient synthesis of phenanthrene alkaloids from 1-arylmethyl-1,2,3,4-tetrahydroisoquinolines pp 4171–4173 S. V. Kini and M. M. V. Ramana<sup>\*</sup>



### pp 4157-4161

pp 4163-4166

 $(\mathbf{i})^{+}$ 

## Application of polydentate chiral amines within magnesium-mediated asymmetric deprotonation reactions

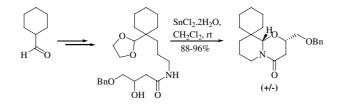
Martin J. Bassindale, James J. Crawford, Kenneth W. Henderson\* and William J. Kerr\*



A set of potentially chelating chiral amines were prepared and tested in magnesium-mediated asymmetric deprotonation reactions. The effects of base structure, stereochemistry, and reaction additives were compared and enantiomeric ratios of up to 94:6 were achieved with prochiral cyclic ketones.

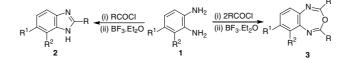
## A stannous chloride-induced deacetalisation-cyclisation process to prepare the ABC ring system of 'upenamide

Mark Reid and Richard J. K. Taylor\*



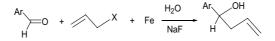
## BF<sub>3</sub>:Et<sub>2</sub>O promoted one-pot expeditious and convenient synthesis of 2-substituted benzimidazoles and 3,1,5-benzoxadiazepines

Vishnu K. Tandon\* and Manoj Kumar



A versatile one-pot method has been developed for the synthesis of 2-substituted benzimidazoles and 3,1,5-benzoxadiazepines in excellent yields using BF<sub>3</sub>·Et<sub>2</sub>O as a catalyst.

Iron-mediated allylation of aryl aldehydes in aqueous media Tak Chung Chan, Chak Po Lau and Tak Hang Chan\*



pp 4189-4191

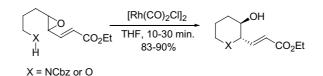
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3992

## pp 4175-4179

## Studies of rhodium-catalyzed ring opening of vinyl epoxides

Jae Du Ha,\* Eun Young Shin, Seung Kyu Kang, Jin Hee Ahn and Joong-Kwon Choi



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\*Corresponding author (*P*<sup>+</sup> Supplementary data available via ScienceDirect

## COVER

Topo-selective synthesis of a dinuclear phenanthroline complex bearing a central vacant site. Specific conditions: [PdCl<sub>2</sub>(PPh<sub>3</sub>)<sub>2</sub>] 6 mol%, CuI 10 mol%, *i*Pr<sub>2</sub>NH, THF, rt. See *Tetrahedron Letters* **2004**, *45*, 4051–4055. © 2004 R. Ziessel. Published by Elsevier Ltd.

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