

### Tetrahedron Letters Vol. 46, No. 13, 2005

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Design and synthesis of a *trans*-fused polycyclic ether skeleton as an α-helix mimetic scaffold Hiroki Oguri,\* Akifumi Oomura, Shintaro Tanabe and Masahiro Hirama\*

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#### Cerium(III) chloride-promoted chemoselective esterification of phenolic alcohols

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#### A mild and efficient one-pot synthesis of 2-dihydroimidazoles from aldehydes

pp 2197-2199

Hiromichi Fujioka,\* Kenichi Murai, Yusuke Ohba, Atsushi Hiramatsu and Yasuyuki Kita\*

$$\begin{array}{c} \text{R-CHO} & \xrightarrow{\text{H}_2\text{N} \quad \text{NH}_2(1.05\text{eq.})} \\ \text{R= Ar, alkyl)} & \xrightarrow{\text{CH}_2\text{Cl}_2, \ 0^{\circ}\text{C-rt.}} \\ \end{array}$$

# HIV-1 replication inhibitors of the styrylquinoline class: introduction of an additional carboxyl group pp 2201–2205 at the C-5 position of the quinoline

Fatima Zouhiri, Michèle Danet, Christophe Bénard, Marie Normand-Bayle, Jean-François Mouscadet, Hervé Leh, Claire Marie Thomas, Gladys Mbemba, Jean d'Angelo and Didier Desmaële\*

$$HO_2C$$
 $OH$ 
 $X = CO_2H, CH=CHCO_2H$ 
 $R = H, OMe$ 

New HIV-1 replication inhibitors of the styrylquinoline class bearing an additional acid group at C-5 exhibit reinforced antiintegrase potency.

### Heteroatom transfer to alkenes by N-protected-oxaziridines: new reaction pathways and products

pp 2207-2210

Alan Armstrong,\* Ian D. Edmonds and Martin E. Swarbrick

### Benzannulation of heterocyclic ring systems through coupling of Fischer carbene complexes and heterocycle-bridged enynes

pp 2211-2214

Yanshi Zhang, Daniel Candelaria and James W. Herndon\*

Rapid and efficient solid-supported reagent synthesis of fluorine derivatives of phosphorus(V) compounds pp 2215-2217 Timothy Sierakowski and James J. Kiddle\*

### Direct access to CF<sub>3</sub>-propargyl amines and conversion to difluoromethyl imines Guillaume Magueur, Benoit Crousse\* and Danièle Bonnet-Delpon

pp 2219-2221

An efficient catalytic asymmetric addition of trimethylsilyl cyanide to aldehydes at room temperature Zi-Bo Li, Amaresh R. Rajaram, Nattawan Decharin, Ying-Chuan Qin and Lin Pu\*

pp 2223-2226

R-CHO + TMSCN 
$$\frac{(S)-5c+Ti(O^iPr)_4}{CH_2Cl_2}$$
 R CN  $\frac{1}{2}$  Ac<sub>2</sub>O  $\frac{1}{2}$  Ac<sub>2</sub>O  $\frac{1}{2}$  Pyridine  $\frac{1}{2}$  R CN  $\frac{1$ 

### An efficient synthetic-route to prepare [2,3,6-tri-O-(2-bromo-2-methylpropionyl]-β-cyclodextrin)

pp 2227-2229

Jianshu Li and Huining Xiao\*

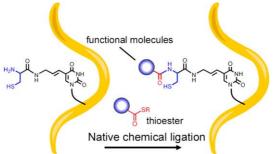
[2,3,6-Tri-O-(2-bromo-2-methylpropionyl]- $\beta$ -cyclodextrin) (21Br- $\beta$ -CD) was synthesized via reacting 2-bromoisobutyric bromide with  $\beta$ -cyclodextrin directly in 1-methyl-2-pyrrolidione solvent. This efficient synthetic-route led to much less complicated procedures and higher yield (up to 89.5%) compared with those reported previously (17% yield).

### Preparation of a novel polystyrene-based urea resin

pp 2231-2233

Manuela Meusel and Michael Gütschow\*

A cysteine-appended deoxyuridine for the postsynthetic DNA modification using native chemical ligation pp 2235–2238 Shuji Takeda, Shinya Tsukiji and Teruyuki Nagamune\*



A postsynthetic DNA modification method based on native chemical ligation was reported.

# Kinetic resolution of sec-alcohols by a new class of pyridine catalysts having a conformation switch system

pp 2239-2242

Shinji Yamada,\* Tomoko Misono and Yuko Iwai

$$(Pr^{i}CO)_{2}O Pr^{i}COO^{-1}$$

$$NR_{2}O S NR_{2}N N$$

### Asymmetric synthesis of 3-methylthio alcohols by intramolecular Michael addition reactions

pp 2243-2246

Aurelio Ortiz,\* Hector Hernández, Guadalupe Mendoza, Leticia Quintero and Sylvain Bernès\*

Unprecedented carbocyclization of 1,6-allenynes on addition of organoboronic acids under Pd-catalysis pp 2247–2250 Arun Kumar Gupta, Chul Yun Rhim and Chang Ho Oh\*

Where X = CHOH,  $C(CH_3)$   $R_1$  = H or  $CH_3$ ,  $R_2$ = H or  $CH_3$ 

In contrast to the ene behavior of allenes in Pauson–Khand reactions and other cyclization reactions, 1,6-allenynes undergo carbocyclization followed by regioslective addition of organoboronic acids in the presence of Pd(OAc)<sub>2</sub> and tri-t-butylphosphine under mild reaction conditions.



### $Synthesis\ of\ 2-aminoethyl-5-carbethoxy thiazoles\ utilizing\ a\ Michael-like\ addition\ strategy$

pp 2251-2252

Kenneth M. Boy\* and Jason M. Guernon

$$\begin{array}{c} \text{N} \\ \text{CF}_3 \\ \text{CO}_2 \\ \text{Et OH, rt} \end{array} \begin{array}{c} \text{HNR}_1 \\ \text{R}_2 \\ \text{R}_1 \\ \text{N} \end{array} \begin{array}{c} \text{CF}_3 \\ \text{S} \\ \text{CO}_2 \\ \text{Et} \end{array}$$

Ethyl 4-(trifluoromethyl)-2-vinylthiazole-5-carboxylate was utilized as a precursor to ethyl 4-(trifluoromethyl)-2-(aminoethyl)thiazole-5-carboxylate analogs via Michael-like addition of various secondary amines. Reactions employed 1.2 equiv of amine, and the products were isolated by solvent removal and acid/base extraction. Use of primary amines was also investigated.



### N-Cyanomethyl-β-chloroamines: a convenient source of aziridinium ions

pp 2253-2257

François Couty,\* Gwilherm Evano and Damien Prim



### A chemoselective deprotection of trimethylsilyl acetylenes catalyzed by silver salts

pp 2259-2262

Alban Orsini, Aurélien Vitérisi, Anne Bodlenner, Jean-Marc Weibel and Patrick Pale\*

$$R \xrightarrow{\hspace{1cm}} SiMe_3 \xrightarrow{\hspace{1cm}} AgX cat. \\ CH_2Cl_2 \\ MeOH-H_2O \\ rt. 2-22h \\ X=OTf, NO_3$$

1-Trimethylsilyl-1-alkynes are selectively deprotected in the presence of catalytic amount of silver nitrate or triflate. Other protecting groups, especially silyl ethers, are unaffected.

## Highly reactive and enantioselective kinetic resolution of terminal epoxides with H<sub>2</sub>O and HCl catalyzed by new chiral (salen)Co complex linked with Al

pp 2263-2266

Santosh Singh Thakur, Wenji Li, Seong-Jin Kim and Geon-Joong Kim\*

New easily synthesized chiral cobalt salen coordinated to Al provides a practical and straightforward method for the synthesis of enantiomerically enriched terminal epoxides.

### **(i)**+

# High-intensity ultrasound and microwave, alone or combined, promote Pd/C-catalyzed aryl-aryl couplings

pp 2267-2271

Giancarlo Cravotto,\* Marina Beggiato, Andrea Penoni, Giovanni Palmisano,\* Stefano Tollari, Jean-Marc Lévêque and Werner Bonrath

### Selective palladium-catalyzed arylation(s) of benzaldehyde derivatives by *N*-heterocarbene ligands Nevin Gürbüz, Ismail Özdemir and Bekir Çetinkaya\*

pp 2273-2277

# Reaction of N-fluoropyridinium fluoride with isonitriles: a convenient route to picolinamides Alexander S. Kiselyov

pp 2279-2282

$$\begin{array}{c|c}
R \\
\hline
 & F_2, CHCl_3 \\
\hline
 & O
\end{array}$$

$$\begin{array}{c|c}
R'-NC \\
\hline
 & O
\end{array}$$

$$\begin{array}{c|c}
R'-NC \\
\hline
 & O
\end{array}$$

$$\begin{array}{c|c}
R'-NC \\
\hline
 & O
\end{array}$$

$$\begin{array}{c|c}
16 \text{ examples} \\
\hline
 & O
\end{array}$$

$$\begin{array}{c|c}
(31-71\%)$$

### A convenient one-pot synthesis of 4-, 6-, and 7-azaindoles from aminopyridines

Sheryl D. Debenham,\* Audrey Chan, Kun Liu, Karen Price and Harold B. Wood

pp 2283-2285

# A simple procedure for the synthesis of $\gamma$ -hydroxy- $\alpha$ , $\beta$ -(E)-alkenoic esters: formal synthesis of (+)-macrosphelides A and B

pp 2287-2290

K. Srinivasa Rao, K. Mukkanti, D. Srinivasa Reddy, Manojit Pal and Javed Iqbal\*

The synthesis of  $\gamma$ -hydroxy- $\alpha$ , $\beta$ -alkenoic esters using LiAlH<sub>4</sub> is reported and then applied to the formal synthesis of (+)-macrosphelides A and B.



#### A short and versatile route to chiral spiroketal skeletons

pp 2291-2294

Ahmatjan Tursun, Isabelle Canet,\* Bettina Aboab and Marie-Eve Sinibaldi\*

Spiroketals 1 were efficiently prepared from iodides 2 and acetone N,N-dimethylhydrazone using an acidic one-pot deprotection/spirocyclization sequence.

### A ring-closing metathesis route to 7-membered aza-heteroannulated sugars

pp 2295-2298

Dominic M. Laventine, Paul R. Jenkins\* and Paul M. Cullis

Azepane rings have been constructed diastereoselectively upon a carbohydrate derivative utilising reductive amination and RCM. The stereochemistry of the ring junctions was confirmed by X-ray crystallography and NMR. Diastereoselective dihydroxylation gave a tetrahydroxylated azepane carbohydrate derivative.

# **2-(Prenyloxymethyl)benzoyl (POMB) as a new temporary protecting group for alcohols** Jean-Michel Vatèle

pp 2299-2301

Synthesis and liquid crystalline properties of a disc-shaped molecule with azobenzene at the periphery pp 2303–2306 Md Lutfor Rahman,\* Carsten Tschierske, Mashitah Yusoff, and Sidik Silong

RO OR 
$$RO$$
 OR  $R: (CH_2)_6O$   $N=N-N-NO_2$ 

### Cycloadditions of 8,8-dicyanoheptafulvene to styrenes: manifestation of dual reactivity modes

pp 2307-2309

Vijay Nair,\* K. G. Abhilash and Burkhard Zeimer

NC CN 
$$R^4$$
  $R^3$   $R^4$   $R^4$   $R^5$   $R^4$   $R^4$   $R^5$   $R^4$   $R^4$   $R^5$   $R^6$   $R^6$ 

A facile cycloaddition reaction of 8,8-dicyanoheptafulvene with styrenes leading to the corresponding [8+2] and [4+2] adducts in excellent yields is described.

## ZrCl<sub>4</sub> mediated cross-cyclization between epoxides and homoallylic alcohols: synthesis of 4-chlorotetrahydropyran derivatives

pp 2311-2314

J. S. Yadav, K. Rajasekhar and M. S. R. Murty\*

## Indium-mediated Barbier-type allylation of aldehydes as a convenient method for the highly enantioselective synthesis of homoallylic alcohols

pp 2315-2318

Lacie C. Hirayama, Soya Gamsey, Daniel Knueppel, Derek Steiner, Kelly DeLaTorre and Bakthan Singaram\*

## (i)+

### $Samarium / N \hbox{-bromosuccinimide-induced reductive dimerization of carbonyl compounds}$

pp 2319-2322

Bimal K. Banik,\* Indrani Banik, Susanta Samajdar and Rogelio Cuellar

#### A short synthesis of morachalcone A

pp 2323-2326

Joseph J. Romano and Eduard Casillas\*

Advanced C-prenylated intermediates for three aromatase inhibitors, including morachalcone A, can be synthesized through a Claisen–Schmidt condensation followed by Florisil®-catalyzed [1,3]-sigmatropic rearrangement of a prenyl phenyl ether.



### Total synthesis of (-)-incarvilline

pp 2327-2329

Masaya Ichikawa, Sakae Aoyagi and Chihiro Kibayashi\*

### One-pot synthesis of triazole-linked glycoconjugates

Srinivas Chittaboina, Fang Xie and Qian Wang\*

pp 2331-2336



### Novel biotransformation of pentacyclic triterpenoid acids by *Nocardia* sp. NRRL 5646 Jian Zhang, Zhi-Hong Cheng, Bo-Yang Yu,\* Geoffrey A. Cordell and Samuel X. Qiu\*

pp 2337-2340



### A remarkable iodine-catalyzed protection of carbonyl compounds

Bimal K. Banik,\* Marin Chapa, Jocabed Marquez and Magda Cardona

pp 2341-2343

### Chromium(III) catalyzed synthesis of allenes from propargyl derivatives via a carbometalation—elimination sequence

pp 2345-2349

Gary A. Molander\* and Erin M. Sommers

$$PO = \underbrace{[Cr]^{+} R'}_{PO} PO = \underbrace{[Cr]^{+} R'}_{R}$$

$$\underbrace{anti \text{elim}}_{R}$$

$$R'$$

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\*Corresponding author

\*Supplementary data available via ScienceDirect

### **COVER**

New easily synthesized chiral cobalt salen coordinated to Al provides a practical and straightforward method for the synthesis of enantiomerically enriched terminal epoxides. *Tetrahedron Letters* **2005**, *46*, 2263–2266. © 2005 G.-J. Kim. Published by Elsevier Ltd.



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