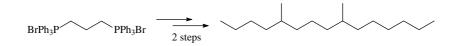


## Tetrahedron Letters Vol. 45, No. 2, 2004

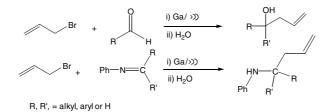
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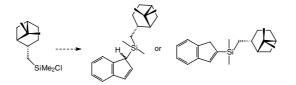
Unsymmetrical double Wittig olefination on the syntheses of insect pheromones. pp 239–241
Part 1: Synthesis of 5,9-dimethylpentadecane, the sexual pheromone of *Leucoptera coffeella*Paulo H. G. Zarbin,\* Jefferson L. Princival, Eraldo R. de Lima, Alcindo A. dos Santos, Bianca G. Ambrogio and
Alfredo R. M. de Oliveira



Gallium metal mediated allylation of carbonyl compounds and imines under solvent-free conditionspp 243–248Philip C. Andrews,\* Anna C. Peatt and Colin L. RastonPhilip C. Andrews, \* Anna C. Peatt and Colin L. Raston



**Preparation of chiral indenes containing β-pinenyl derived ligand substituents** Satu Silver, Elise Johansson, Rainer Sjöholm and Reko Leino<sup>\*</sup> pp 249-252



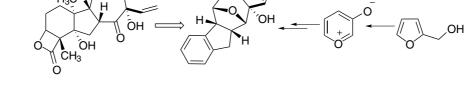
The preparation of new chirally substituted indenes is described based on the reaction of a  $\beta$ -pinenyl derived chlorosilane with lithiated indenes or 2-indenylmagnesium bromide.

## Synthesis of *N*-heterocyclic diols by diastereoselective pinacol coupling reactions Sandeep Handa,<sup>\*</sup> Manpreet S. Kachala and Sarah R. Lowe

# m, n = 0, 1, 2; R, R<sup>1</sup> = H, Me TsN $(n_{R_{1}}^{R} O H)$ $(n_{R$

Studies towards the synthesis of FCRR toxin: an expeditious entry into 7–5–6 ring systems via [5+2] oxidopyrylium-alkene cycloaddition

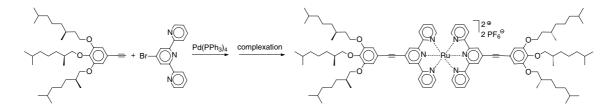
U. Murali Krishna and G. K. Trivedi\*



### Self-assembled chiral terpyridine ruthenium complexes

### pp 261-264

Abdelkrim El-ghayoury, Harald Hofmeier, Albertus P. H. J. Schenning and Ulrich S. Schubert\*

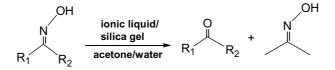


Chiral mesogenic terpyridine ligands have been prepared and complexed with ruthenium(II) ions, which resulted in the formation of extended helical columnar aggregates.

One-pot synthesis of silica gel confined functional ionic liquids: effective catalysts for deoximation under mild conditions

pp 265-268

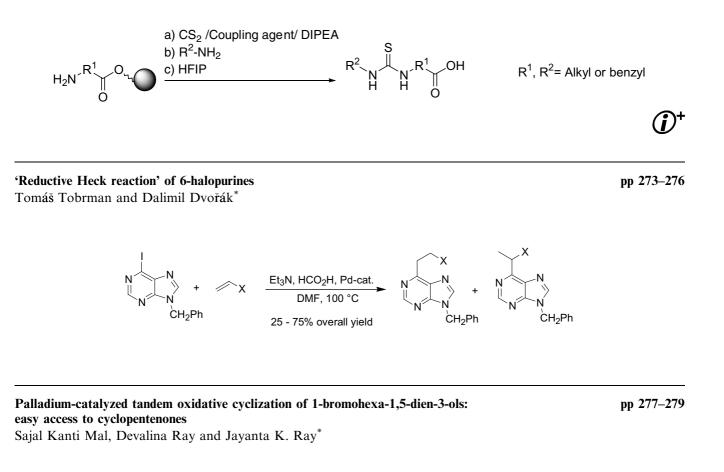
Dongmei Li, Feng Shi, Shu Guo and Youquan Deng\*

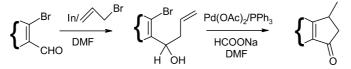


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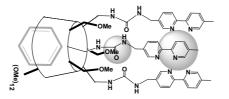
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Facile synthesis of aliphatic isothiocyanates and thioureas on solid phase using peptide coupling reagentspp 269–272Ulrik Boas,\* Heidi Gertz, Jørn B. Christensen and Peter M. H. Heegaard





A new symmetrically modified  $\alpha$ -cyclodextrin tripode: selective metal complexation and fluorescence properties Romain Heck and Alain Marsura<sup>\*</sup>



A novel symmetrically  $\alpha$ -Cd tripode synthesis and its complexation selectivity towards 'hard' and 'soft' cations is described.

pp 281-284

### Synthesis of huperzine B through ring closing metathesis

Ihl Young Choi Lee,\* Joong Yeoun Hong, Myung Hee Jung and Hyo Won Lee

 $Me \xrightarrow{Me} Me \xrightarrow{Me} Me$   $Me \xrightarrow{NH} OMe \xrightarrow{RCM} R \xrightarrow{NH} OMe$   $R \xrightarrow{NH} n$ 

Enantioselective synthesis of the C-14 to C-5 cyclopentane segment of jatrophane diterpenes Hannes Helmboldt, Julia Rehbein and Martin Hiersemann<sup>\*</sup> pp 289–292

pp 293-294

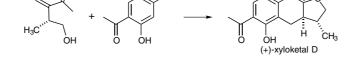
pp 295-297

 $4-Br-BzO \xrightarrow{HO}_{H} O/Pr \xrightarrow{AcO}_{14} \xrightarrow{AcO}_{14} \xrightarrow{H_{5}} O/Pr \xrightarrow{AcO}_{CH_{3}(CH_{2})_{2}COO} OAc$ 

An Evans aldol addition and a thermal intramolecular carbonyl ene reaction of an  $\alpha$ -keto esters are key steps in the asymmetric synthesis of the C-14 to C-5 segment of jatrophane diterpenes.

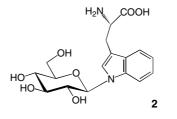
## Total synthesis of (+)-xyloketal D, a secondary metabolite from the mangrove fungus *Xylaria* sp.

Karsten Krohn\* and Muhammad Riaz



## Synthesis of tryptophan N-glucoside

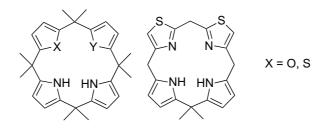
Melanie Schnabel, Birgit Römpp, Daniel Ruckdeschel and Carlo Unverzagt\*



The natural product tryptophan N-glucoside **2** was obtained by glycosylation of a protected tryptophan derivative using a 2-O-pivaloyl glucosyl donor.

## Hetero-calix[4]pyrroles: incorporation of furans, thiophenes, thiazoles or fluorenes as a part of the macrocycle

Mi-Young Song, Hee-Kyung Na, En-Young Kim, Si-Joon Lee, Kyung Il Kim, Eun-Mi Baek, Hong-Seok Kim, Duk Keun An and Chang-Hee Lee\*



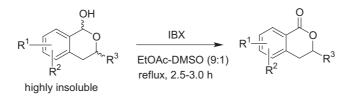
### Perruthenate ion. Another metal oxo species able to promote the oxidative cyclisation of 1,5-dienes to 2,5-disubstituted cis-tetrahydrofurans

Vincenzo Piccialli\* and Teresa Caserta



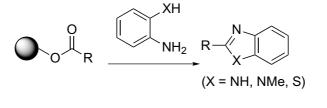
### Facile conversion of lactols to lactones using IBX

Jarugu Narasimha Moorthy,\* Nidhi Singhal and Prasenjit Mal



## Smart cleavage reactions: the synthesis of benzimidazoles and benzothiazoles from polymer-bound esters

Hana Matsushita, Sang-Hyeup Lee, Meyoungju Joung, Bruce Clapham\* and Kim D. Janda\*



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pp 303-308

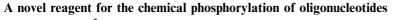
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A novel solid support for the synthesis of 3'-aminoalkylated oligonucleotides Michael Leuck,<sup>\*</sup> Rubina Giare, Matthias Paul, Nicole Zien and Andreas Wolter pp 317-320

pp 321-324



A novel improved controlled pore glass (CPG) support was developed, that enables complete cleavage and deprotection of 3'-aminoalkylated oligonucleotides within 2 h at 55 °C in concentrated ammonia.



Michael Leuck,\* Kurt E. Vagle, J. Shawn Roach and Andreas Wolter

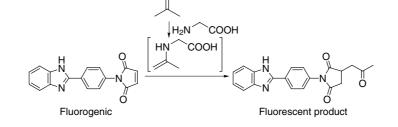
 $NC \xrightarrow{H} N \xrightarrow{N} O$ 

A novel phosphoramidite reagent was developed to convert terminal hydroxyl groups of oligonucleotides into phosphate monoesters. The reagent's appearance as a solid foam is advantageous for its manipulation and handling in solid-phase synthesis and improves its thermal stability.

## Rapid analysis of solvent effects on enamine formation by fluorescence: how might enzymes facilitate enamine chemistry with primary amines?

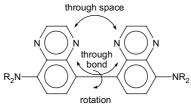
pp 325-328

Fujie Tanaka,\* Rajeswari Thayumanavan, Nobuyuki Mase and Carlos F. Barbas, III\*



Preparation, properties, and X-ray structures of 5,5'-bi(8-aminoquinoxalyl)s: novel Wurster-type electron pp 329–333 donors with a heterobiaryl skeleton

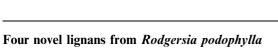
Takanori Suzuki,\* Mayu Saito, Hidetoshi Kawai, Kenshu Fujiwara and Takashi Tsuji



The title molecules are designed as a new class of redox systems that exhibit through-space and/or through-bond interaction across the central biaryl axis. Since both interactions are modified as a function of the torsion angle, which can be reversibly altered upon redox reactions, these donors would be the interesting prototypes for studying the switching phenomenon of organic redox systems.

## Detection of potential membrane receptor proteins concerning circadian rhythmic leaf movement of legumes using novel photoaffinity probe compounds

Takanori Sugimoto, Tomohiko Fujii, Yuusuke Idutu, Shosuke Yamamura and Minoru Ueda\*



Young-Won Chin and Jinwoong Kim\*



A facile synthesis of aryl iodides via potassium aryltrifluoroborates George W. Kabalka<sup>\*</sup> and Arjun R. Mereddy

ArBF<sub>3</sub>K 
$$\xrightarrow{\text{Na I}}$$
 Ar $-I$ 

A novel synthetic method for alkylidenecyclopropanes based on the reaction of magnesiumpp 347–350cyclopropylidenes with lithium α-sulfonyl carbanionsTsuyoshi Satoh\* and Shinya Saito

$$= \xrightarrow{R} \xrightarrow{CI} \xrightarrow{S(O)Ar} \xrightarrow{i-PrMgCI} \begin{bmatrix} CI MgCI \\ \vdots \\ R \end{bmatrix} \xrightarrow{R^1R^2CSO_2Ph} \xrightarrow{I} \xrightarrow{I} \xrightarrow{R^1} \xrightarrow{R^2} \xrightarrow{$$

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pp 339-341

## Synthesis of the BCD ring system of azaspiracid: construction of the trispiro ring structure by the thioether approach

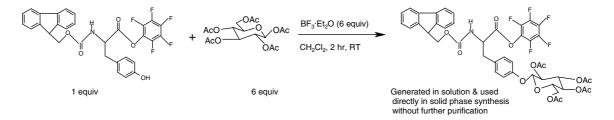
Yuichi Ishikawa and Shigeru Nishiyama\*



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pp 359-362

N-α-Fmoc-Tyr/Ser[β-D-Glc(OAc)<sub>4</sub>]OPfp generated in solution Beechanahalli P. Gangadhar, Seetharama D. S. Jois and Ambikaipakan Balasubramaniam\*



All-Z-hexabenzo[24]annulene with a triangular benzene cluster substructure Yoshiyuki Kuwatani,\* Jun-ichi Igarashi and Masahiko Iyoda\*

Convenient high yield and stereoselective synthesis of O-glycopeptides using

All-Z-hexabenzo[24]annulene was synthesized via a poly-cis-stilbene intermediate. The single crystal of the annulene has a chiral  $C_3$ -symmetry with a central benzene trimer substructure. Although the compound is highly flexible in solution, the  $C_3$ -symmetric structure is stabilized by three concurrent CH/ $\pi$  interactions.

A new strategy for the synthesis of oligodeoxynucleotides directed towards perfect O-selective internucleotidic bond formation without base protection

Akihiro Ohkubo, Kohji Seio and Mitsuo Sekine\*

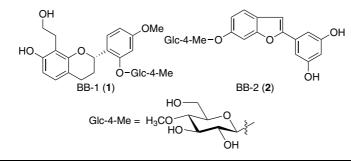
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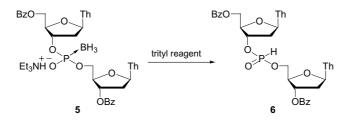
## Novel aromatics bearing 4-O-methylglucose unit isolated from the oriental crude drug *Bombyx Batryticatus*

Haruhisa Kikuchi, Nahoko Takahashi and Yoshiteru Oshima\*

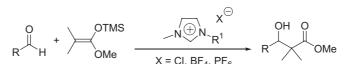


## $BH_3$ as a protecting group for phosphonic acid: a novel method for the synthesis of dinucleoside H-phosphonate

Mamoru Shimizu, Kiyoshi Tamura, Takeshi Wada\* and Kazuhiko Saigo

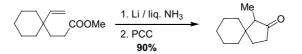


## Mukaiyama aldol reaction using ketene silyl acetals with carbonyl compounds in ionic liquids Shui-Ling Chen, Shun-Jun Ji<sup>\*</sup> and Teck-Peng Loh<sup>\*</sup>



## Lithium–liquid ammonia mediated carbocyclisation of $\delta_{\text{,}\epsilon\text{-unsaturated}}$ esters: annulation of cyclopentanones

A. Srikrishna\* and S. S. V. Ramasastry



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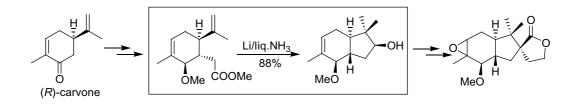
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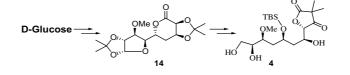
Carbanion cyclisation of esters. Part 2: Enantiospecific construction of the tricyclic framework of the marine sesquiterpenes, spirodysins

A. Srikrishna,<sup>\*</sup> P. Ravi Kumar and S. S. V. Ramasastry



Toward a synthesis of the antitumor macrolide peloruside A: a chiral pool approach for the C(1)-C(11) segment

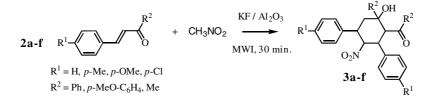
Mukund K. Gurjar,\* Yakambram Pedduri, C. V. Ramana, Vedavati G. Puranik and Rajesh G. Gonnade



A chiral pool approach starting from D-glucose involving RCM and stereoselective dihydroxylation as key steps, addressed the synthesis of 4, an advanced intermediate corresponding to the C(1)-C(11) portion of peloruside A.

### Microwave solvent-free synthesis of nitrocyclohexanols

Olivier Correc, Karine Guillou, Jack Hamelin, Ludovic Paquin, Françoise Texier-Boullet\* and Loïc Toupet



Microwave-assisted synthesis of primary amine HX salts from halides and 7M ammonia in methanol pp 397–399 Mark G. Saulnier,<sup>\*</sup> Kurt Zimmermann,<sup>\*</sup> Charles P. Struzynski, Xiaopeng Sang, Upender Velaparthi, Mark Wittman and David B. Frennesson

Microwave-assisted synthesis of HX salts of primary amines from their corresponding halides and 7M ammonia in methanol provides practical high yield access to even volatile primary amines for parallel synthesis.

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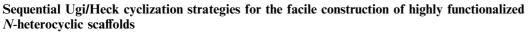
Daniel L. Fox, John T. Ruxer, John M. Oliver, Kasey L. Alford and Ralph Nicholas Salvatore\*

$$R \stackrel{H}{\longrightarrow} S \stackrel{S}{\longrightarrow} R' \stackrel{Cs_2CO_3, CS_2, R'X}{\text{TBAI, DMF, 23 °C}} \stackrel{R}{\longrightarrow} N \stackrel{H}{\longrightarrow} \frac{Cs_2CO_3, CO_2, R'X}{\text{TBAI, DMF, 23 °C}} \stackrel{R}{\longrightarrow} N \stackrel{N}{\longrightarrow} \frac{Cs_2CO_3, CO_2, R'X}{\text{TBAI, DMF, 23 °C}} \stackrel{R}{\longrightarrow} N \stackrel{N}{\longrightarrow} N \stackrel{N}{\longrightarrow} \frac{Cs_2CO_3, CO_2, R'X}{\text{TBAI, DMF, 23 °C}} \stackrel{R}{\longrightarrow} N \stackrel{N}{\longrightarrow} N \stackrel$$

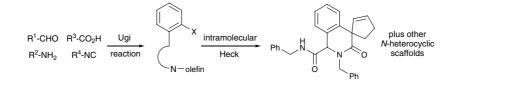
A highly efficient general synthesis of phosphine–borane complexes James McNulty<sup>\*</sup> and Yuehui Zhou



Darío A. Bianchi, Federico Rúa and Teodoro S. Kaufman\*



Vijaya Gracias,<sup>\*</sup> Joel D. Moore and Stevan W. Djuric





TiCl<sub>4</sub>, CH<sub>2</sub>Cl<sub>2</sub>

 $\begin{array}{l} {\sf R}_1{=}\;({\sf CH}_2)_2{\sf CN},\;({\sf CH}_2)_3{\sf CO}_2{\sf Et},\;({\sf CH}_2)_3{\sf OBn} \\ {\sf R}_2{=}\;{\sf CH}_2{\sf Br},\;{\sf CH}_2{\sf SPh},\;({\sf CH}_2)_3{\sf SO}_2{\sf Ph},\;({\sf CH}_2)_3{\sf OTBDPS} \end{array}$ 

MeO

Rž

.OΗ

̈́R<sub>1</sub>

HOAc

pp 411-415

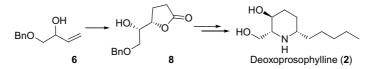
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 $(i)^+$ 

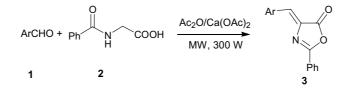
## A concise and stereoselective synthesis of (+)- and (-)-deoxoprosophylline Subhash P. Chavan<sup>\*</sup> and Cherukupally Praveen



An efficient synthesis of (+)- and (-)-deoxoprosophylline was accomplished from the readily available *cis*-2-butene-1,4-diol in which the Sharpless asymmetric dihydroxylation was used as the key step.

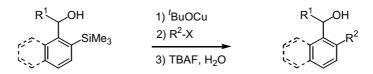
## Calcium acetate catalyzed synthesis of 4-arylidene-2-phenyl-5(4H)-oxazolones under solvent-free conditions

Satya Paul,<sup>\*</sup> Puja Nanda, Rajive Gupta and André Loupy



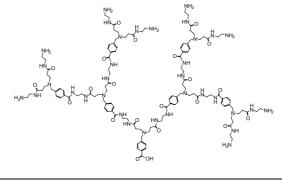
4-Arylidene-2-phenyl-5(4H)-oxazolones were prepared by using calcium acetate under solvent-free conditions with microwave irradiation.

## **Copper(I)** *tert*-butoxide-promoted coupling of *o*-(1-hydroxyalkyl)arylsilanes with organic halides Haruhiko Taguchi, Kazuto Takami, Akira Tsubouchi and Takeshi Takeda<sup>\*</sup>



## Synthesis of aromatic hyperbranched PAMAM polymers

Lance J. Twyman,\* Amy S. H. King, John Burnett and Ian. K. Martin

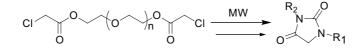


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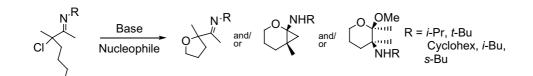
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## **Traceless synthesis of hydantoin by focused microwave irradiation** Ming-Juan Lee and Chung-Ming Sun<sup>\*</sup>



Synthesis of oxygen-containing heterocyclic compounds via  $\alpha$ -chloro- $\delta$ -(trimethylsilyloxy)imines pp 441–444 Wim Aelterman, Nicola Giubellina, Elena Stanoeva, Koen De Geyter and Norbert De Kimpe<sup>\*</sup>



### **OTHER CONTENTS**

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

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