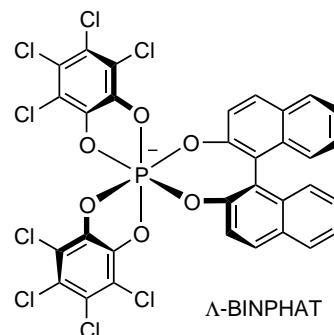
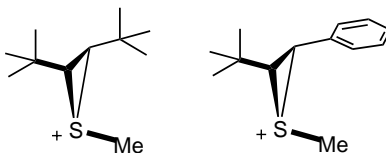


**NMR enantiodifferentiation of thiiranium cations by chiral hexacoordinated phosphate anions**

Tetrahedron Letters 43 (2002) 5517

Lucia Pasquato,<sup>a,\*</sup> Christelle Herse<sup>b</sup> and Jérôme Lacour<sup>b</sup><sup>a</sup>CMRO-CNR, Dipartimento di Chimica Organica, Università di Padova, via Marzolo 1, I-35131 Padova, Italy<sup>b</sup>Département de Chimie Organique, Université de Genève, quai Ernest Ansermet 30, CH-1211 Genève-4, Switzerland

BINPHAT anion is an efficient NMR chiral shift reagent for thiiranium ions.

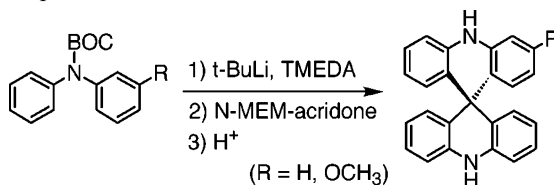
**Convenient synthesis and host-guest compounds of 9,9'(10H,10'H)-spirobiacridines**

Tetrahedron Letters 43 (2002) 5521

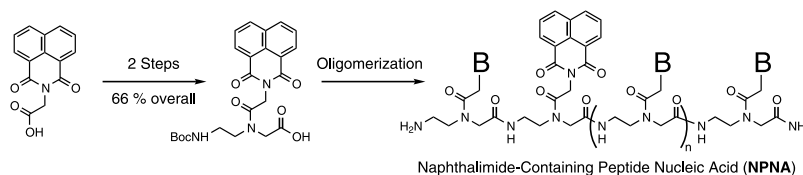
Motohiro Ooishi, Makoto Seino, Ron Imachi, Takayuki Ishida\* and Takashi Nogami\*

Department of Applied Physics and Chemistry, The University of Electro-Communications, Chofu, Tokyo 182-8585, Japan

A one-pot method under mild conditions was developed for the preparation of 9,9'(10H,10'H)-spirobiacridines, and crystal structures of the solvated compounds were determined.

**Synthesis and characterization of naphthalimide-containing peptide nucleic acid**

Tetrahedron Letters 43 (2002) 5525

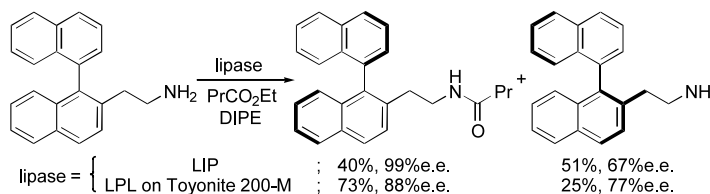
Hisafumi Ikeda,<sup>a</sup> Yushin Nakamura<sup>a</sup> and Isao Saito<sup>b,\*</sup><sup>a</sup>Department of Biological Science & Technology, Faculty of Industrial Science and Technology, Science University of Tokyo, 2641 Yamazaki, Noda, Chiba 278-8510, Japan<sup>b</sup>Department of Synthetic Chemistry and Biological Chemistry, Faculty of Engineering, Kyoto University, CREST, Japan Science and Technology Corporation, Yoshida, Sakyo, Kyoto 606-8501, Japan**Kinetic resolution of 1,1'-binaphthylamines via lipase-catalyzed amidation**

Tetrahedron Letters 43 (2002) 5529

Naoto Aoyagi\* and Taeko Izumi

Department of Chemistry and Chemical Engineering, Graduate School of Science and Engineering, Yamagata University, Jyonan, Yonezawa, Yamagata 992-8510, Japan

Lipase-catalyzed amidation of 2-(2-aminoethyl)-1,1'-binaphthyl gave the optically active 2-[2-(butyrylamino)ethyl]-1,1'-binaphthyl with high optical yield.



lipase =	LIP	40%, 99%e.e.
	LPL on Toyonite 200-M	73%, 88%e.e.

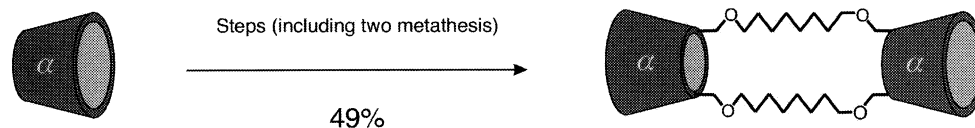
51%, 67%e.e.
25%, 77%e.e.

**Symmetrical doubly connected head-to-head  $\alpha$ -cyclodextrin dimers: a high yield synthesis of a novel type of neoglycolipid**

*Tetrahedron Letters* 43 (2002) 5533

Thomas Lecourt, Jean-Maurice Mallet and Pierre Sinaÿ\*

*Ecole Normale Supérieure, Département de Chimie, UMR CNRS 8642, 24 rue Lhomond, 75231 Paris Cedex 05, France*



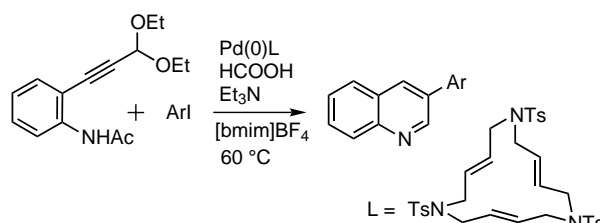
**The [(*E,E,E*)-1,6,11-tris(*p*-toluenesulfonyl)-1,6,11-triazacyclopentadeca-3,8,13-triene]Pd(0) complex in the hydroarylation of alkynes in ionic liquids. An approach to quinolines**

*Tetrahedron Letters* 43 (2002) 5537

Sandro Cacchi,<sup>a,\*</sup> Giancarlo Fabrizi,<sup>a</sup> Antonella Goggiamani,<sup>a</sup> Marcial Moreno-Mañas<sup>b</sup> and Adelina Vallribera<sup>b</sup>

<sup>a</sup>*Dipartimento di Studi di Chimica e Tecnologia delle Sostanze Biologicamente Attive, Università degli Studi "La Sapienza", P.le A. Moro 5, 00185 Rome, Italy*

<sup>b</sup>*Department of Chemistry, Universitat Autònoma de Barcelona, Cerdanyola, 08193 Barcelona, Spain*



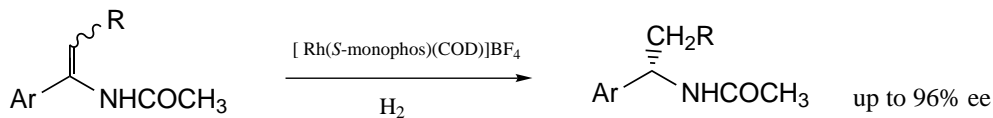
**Highly enantioselective hydrogenation of enamides catalyzed by rhodium–monodentate phosphoramidite complex**

*Tetrahedron Letters* 43 (2002) 5541

Xian Jia,<sup>a,b</sup> Rongwei Guo,<sup>a</sup> Xingshu Li,<sup>a</sup> Xinsheng Yao<sup>b</sup> and Albert S. C. Chan<sup>a,\*</sup>

<sup>a</sup>*Open Laboratory of Chirotechnology of the Institute of Molecular Technology for Drug Discovery and Synthesis and Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong, China*

<sup>b</sup>*Shenyang Pharmaceutical University, Shenyang, China*

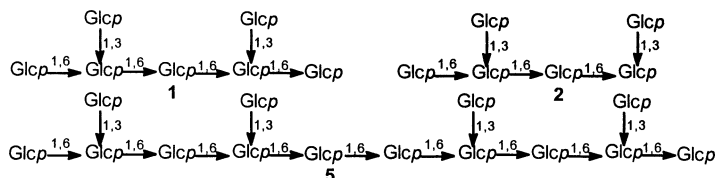


**A general strategy for the synthesis of 3,6-branched gluco-oligosaccharides: facile synthesis of the phytoalexin elicitor oligosaccharides**

*Tetrahedron Letters* 43 (2002) 5545

Jun Ning,\* Yuetao Yi and Fanzuo Kong\*

*Research Center for Eco-Environmental Sciences, Academia Sinica, PO Box 2871, Beijing 100085, PR China*

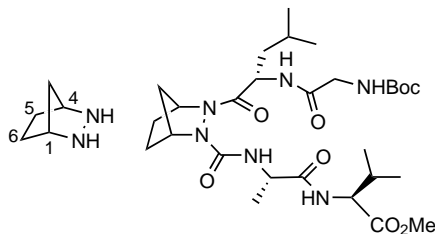


## Development of 2,3-diazabicyclo[2.2.1]heptane as a constrained azapeptide template and its uses in peptidomimetic studies

*Tetrahedron Letters* 43 (2002) 5551

Tushar K. Chakraborty,\* Animesh Ghosh, A. Ravi Sankar and Ajit C. Kunwar

Indian Institute of Chemical Technology, Hyderabad 500 007, India



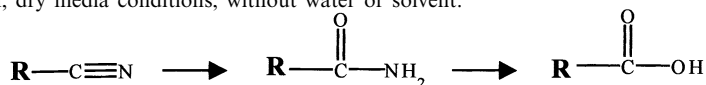
## Towards the rehabilitation of the Mathews' 'dry' hydrolysis reaction using microwave technology

*Tetrahedron Letters* 43 (2002) 5555

Farid Chemat\*

Laboratoire de Chimie des Substances Naturelles et des Sciences des Aliments, Faculté des Sciences et Technologies, Université de la Réunion, 15 avenue René Cassin, B.P. 7151, F-97715 Saint Denis messag cedex 9, La Réunion, France D.O.M

Microwave heating, 250°C, 10 atm, dry media conditions, without water or solvent.



R : PhCN (benzonitrile)

Reaction time (15 min.)

Yield (99 %)

Selectivity (99 %)

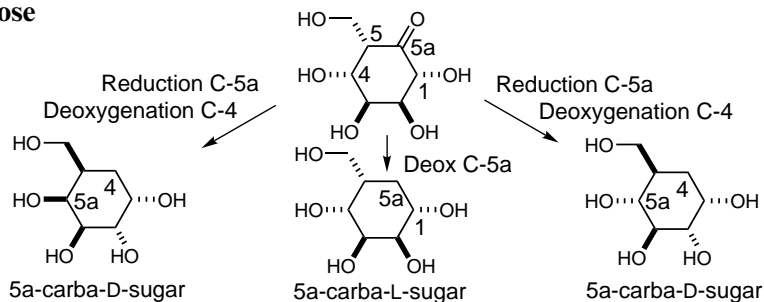
Microwave heating, 250°C, 10 atm., dry media conditions, without water or solvent.

## A general stereodivergent strategy for the preparation of carbasugars. Syntheses of 5a-carba- $\alpha$ -D-glucose, $\alpha$ -D-galactose, and $\beta$ -L-gulose pentaacetates from D-mannose

*Tetrahedron Letters* 43 (2002) 5559

Ana M. Gómez,\* Eduardo Moreno, Serafín Valverde and J. Cristóbal López\*

Instituto de Química Orgánica General, C.S.I.C., Juan de la Cierva 3, 28006 Madrid, Spain



## Selective halogenation of flavanones

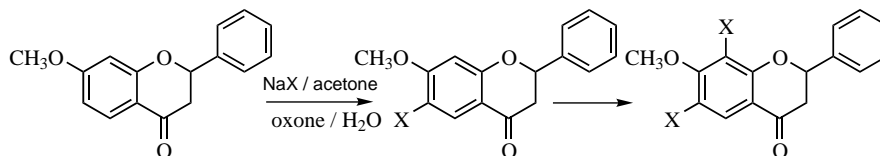
*Tetrahedron Letters* 43 (2002) 5563

Paolo Bovicelli,<sup>a,\*</sup> Roberta Bernini,<sup>b,\*</sup> Roberto Antonioletti<sup>a</sup> and Enrico Mincione<sup>b</sup>

<sup>a</sup>Istituto di Chimica Biomolecolare del CNR, Sezione di Roma, Dipartimento di Chimica, Università "La Sapienza", P.le A. Moro 5, 00185 Rome, Italy

<sup>b</sup>Dipartimento A.B.A.C., Università degli Studi della Tuscia, V. S. Camillo de Lellis, 01100 Viterbo, Italy

Flavonoids are selectively halogenated by the DMD/NaX or oxone/acetone/water/NaX systems.



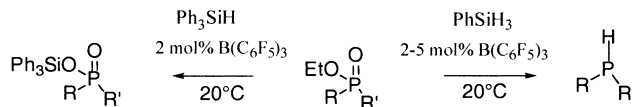
## $B(C_6F_5)_3$ -catalyzed silylation versus reduction of phosphonic and phosphinic esters with hydrosilanes

*Tetrahedron Letters* 43 (2002) 5569

Jean-Marc Denis,<sup>a,\*</sup> Henrietta Forintos,<sup>a</sup> Helga Szelke<sup>b</sup> and György Keglevich<sup>b</sup>

<sup>a</sup>Université de Rennes I, CNRS-UMR 6510, Campus de Beaulieu, F35042 Rennes, France

<sup>b</sup>Department of Organic Chemical Technology, Budapest University of Technology and Economics, 1521 Budapest, Hungary

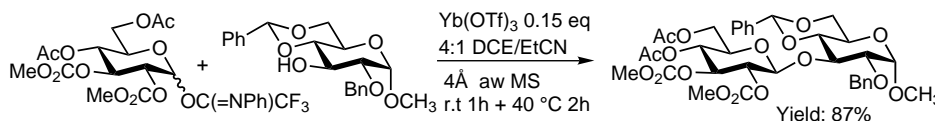


## Efficient activation of glycosyl *N*-(phenyl)trifluoroacetimidate donors with ytterbium(III) triflate in the glycosylation reaction

*Tetrahedron Letters* 43 (2002) 5573

Matteo Adinolfi, Gaspare Barone, Alfonso Iadonisi\* and Marialuisa Schiattarella

Dipartimento di Chimica Organica e Biochimica, Università degli Studi di Napoli Federico II, Via Cynthia 4, I-80126 Napoli, Italy



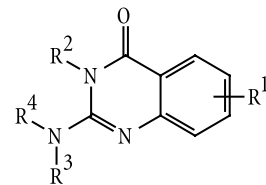
## Solid-phase synthesis of quinazolin-4(3*H*)-ones with three-point diversity

*Tetrahedron Letters* 43 (2002) 5579

A. P. Kesarwani, G. K. Srivastava, S. K. Rastogi and B. Kundu\*

Medicinal Chemistry Division, Central Drug Research Institute, Lucknow 226 001, India

A versatile method for the solid-phase synthesis of differentially substituted quinazolin-4(3*H*)-ones has been developed using immobilized arylguanidines. The latter were obtained by treating the amino group of polymer-linked anthranilamide with isothiocyanates followed by coupling with secondary amines in the presence of DIC. Finally a cyclative cleavage strategy was applied to give the desired compounds in high yields and purities.

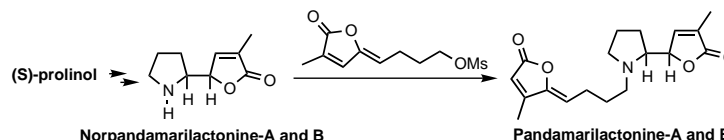


## Total synthesis of four *Pandanus* alkaloids: pandamarilactonine-A and -B and their chemical precursors norpandamarilactonine-A and -B

*Tetrahedron Letters* 43 (2002) 5583

Félix Busqué, Pedro de March, Marta Figueredo,\* Josep Font and Elena Sanfeliu

Departament de Química, Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain

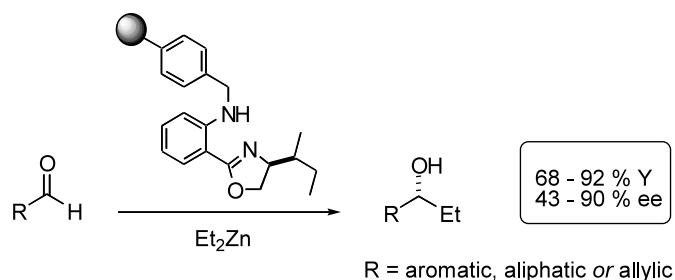


**New polymer anchored chiral amino oxazolines as effective catalysts for enantioselective addition of diethylzinc to aldehydes**

*Tetrahedron Letters 43 (2002) 5587*

Nadim S. Shaikh, Vishnu H. Deshpande\* and Ashutosh V. Bedekar\*

*Division of Organic Chemistry: Technology, National Chemical Laboratory, Pune 411008, India*

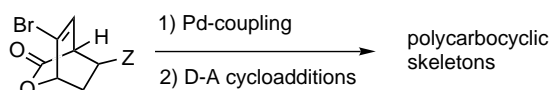


**Pd-catalyzed cross-coupling reactions of the cycloadducts from 3,5-dibromo-2-pyrone and their synthetic applications towards various mono- and polycyclic compounds**

*Tetrahedron Letters 43 (2002) 5591*

Hyun-Soo Lee, Daesung Kim, Hoshik Won, Jung Hoon Choi, Haiwon Lee and Cheon-Gyu Cho\*

*Department of Chemistry, Hanyang University, Seoul 133-791, Republic of Korea*



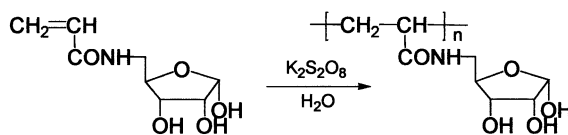
**The catalytic activity of ribose-containing polymers for the hydrolysis of phosphodiester and the cleavage of nucleic acid**

*Tetrahedron Letters 43 (2002) 5597*

Man Jung Han,<sup>a,\*</sup> Kyung Soo Yoo,<sup>a</sup> Young Heui Kim<sup>a</sup> and Ji Young Chang<sup>b</sup>

<sup>a</sup>*Department of Molecular Science and Technology, Ajou University, Suwon 442-749, Republic of Korea*

<sup>b</sup>*School of Materials Science and Engineering, and Hyperstructured Organic Materials Research Center, Seoul National University, Seoul 151-744, Republic of Korea*

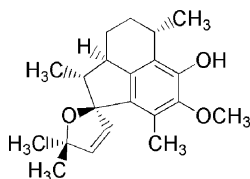


**Ileabethin: isolation and structure of a new class of perhydroacenaphthene diterpene from the Caribbean Sea Whip *Pseudopterogorgia elisabethae* (Bayer)**

*Tetrahedron Letters 43 (2002) 5601*

Abimael D. Rodríguez\* and Ileana I. Rodríguez

*Department of Chemistry, University of Puerto Rico, PO Box 23346, U.P.R. Station, San Juan 00931-3346, Puerto Rico*



## On the use of deuterium isotope effects in chemical synthesis

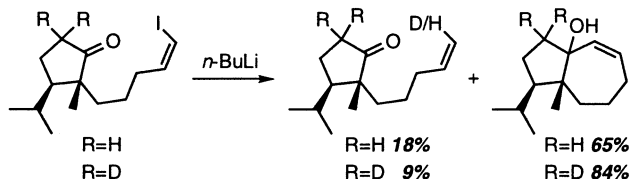
Tetrahedron Letters 43 (2002) 5605

Gregory B. Dudley,<sup>a</sup> Samuel J. Danishefsky<sup>a,b,\*</sup> and George Sukenick<sup>a</sup>

<sup>a</sup>Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, 1275 York Ave, New York, NY 10021, USA

<sup>b</sup>Department of Chemistry, Columbia University, Havemeyer Hall, 3000 Broadway, New York, NY 10027, USA

The decreased kinetic acidity of deuterium relative to hydrogen can be used to gain an advantage in the cyclization of an alkenyllithium species onto a ketone.



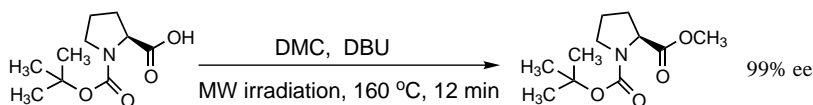
## Large scale microwave-accelerated esterification of carboxylic acids with dimethyl carbonate

Tetrahedron Letters 43 (2002) 5607

Wen-Chung Shieh,<sup>\*</sup> Steven Dell and Oljan Repič

Chemical and Analytical Development, Novartis Institute for Biomedical Research, One Health Plaza, East Hanover, NJ 07936, USA

Esterification of carboxylic acids with dimethyl carbonate (DMC) can be accelerated by using DBU as a catalyst (chemical acceleration) and microwave irradiation as energy (physical acceleration). By combining these two strategies, overall reaction time for esterifications can be reduced from a day to several minutes.



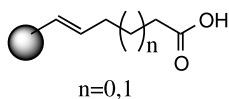
## Synthesis of 4-pentenoic and 5-hexenoic acids on polystyrene resin and their use as cleavable linkers

Tetrahedron Letters 43 (2002) 5611

MaoJun Guo<sup>\*</sup> and Laszlo Varady

ArQule Inc., 19 Presidential Way, Woburn, MA 01801, USA

Direct synthesis of 4-pentenoic and 5-hexenoic acid derivatives on polystyrene resin was achieved and their use as cleavable linkers in solid phase organic synthesis has been demonstrated.



## An unexpected chemical behavior of 5-N-(benzotriazol-1-ylmethyl)-amino-3-tert-butyl-1-phenylpyrazole

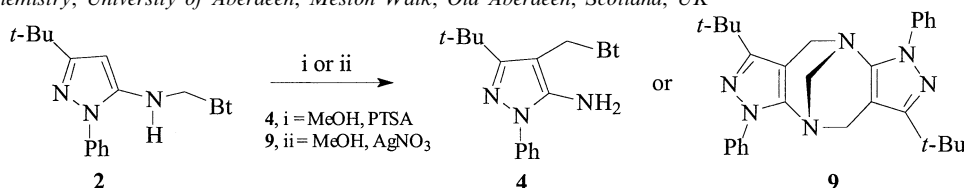
Tetrahedron Letters 43 (2002) 5617

Rodrigo Abonia,<sup>a,\*</sup> Emerson Rengifo,<sup>a</sup> Jairo Quiroga,<sup>a</sup> Braulio Insuasty,<sup>a</sup> Adolfo Sánchez,<sup>b</sup> Justo Cobo,<sup>b</sup> John Low<sup>c</sup> and Manuel Nogueras<sup>b</sup>

<sup>a</sup>Department of Chemistry, Universidad del Valle, A.A. 25360 Cali, Colombia

<sup>b</sup>Departamento de Química Inorgánica y Orgánica, Universidad de Jaén, 23071 Jaén, Spain

<sup>c</sup>Department of Chemistry, University of Aberdeen, Meston Walk, Old Aberdeen, Scotland, UK

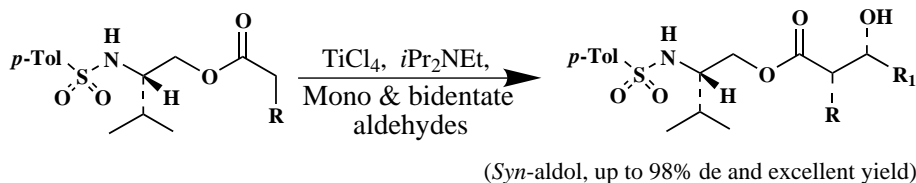


**Chelation-controlled ester-derived titanium enolate aldol reaction: diastereoselective *syn*-aldols with mono- and bidentate aldehydes**

Tetrahedron Letters 43 (2002) 5621

Arun K. Ghosh\* and Jae-Hun Kim

Department of Chemistry, University of Illinois at Chicago, 845 West Taylor Street, Chicago, IL 60607, USA



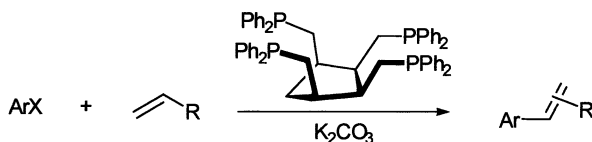
**Heck reaction with heteroaryl halides in the presence of a palladium–tetraphosphine catalyst**

Tetrahedron Letters 43 (2002) 5625

Florian Berthiol, Marie Feuerstein, Henri Doucet\* and Maurice Santelli\*

Laboratoire de Synthèse Organique associé au CNRS, Faculté des Sciences de Saint Jérôme, Avenue Escadrille Normandie-Niemen, 13397 Marseille Cedex 20, France

$1/2 [\text{Pd}(\text{C}_3\text{H}_5)\text{Cl}]_2$



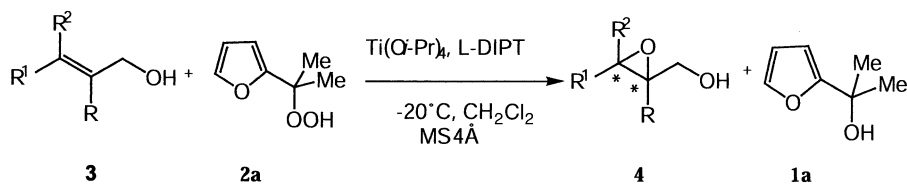
TONs up to  $9.6 \cdot 10^5$

**Catalytic asymmetric epoxidation of allylic alcohols using a renewable hydroperoxide**

Tetrahedron Letters 43 (2002) 5629

Alessandra Lattanzi,\* Patrizia Iannece and Arrigo Scettri

Dipartimento di Chimica, Università di Salerno, Via S. Allende 84081 I Baronissi, Salerno, Italy



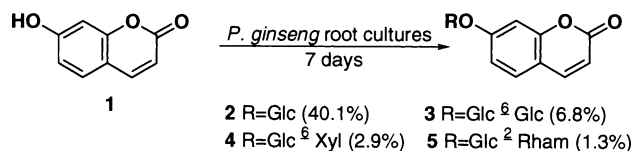
**Biotransformation of umbelliferone by *Panax ginseng* root cultures**

Tetrahedron Letters 43 (2002) 5633

Wei Li,<sup>a</sup> Kazuo Koike,<sup>a</sup> Yoshihisa Asada,<sup>b</sup> Takafumi Yoshikawa<sup>b</sup> and Tamotsu Nikaido<sup>a,\*</sup>

<sup>a</sup>Faculty of Pharmaceutical Sciences, Toho University, 2-2-1 Miyama, Funabashi-city, Chiba 274-8510, Japan

<sup>b</sup>School of Pharmaceutical Sciences, Kitasato University, 5-9-1 Shirokane, Minato-ku, Tokyo 108-8641, Japan

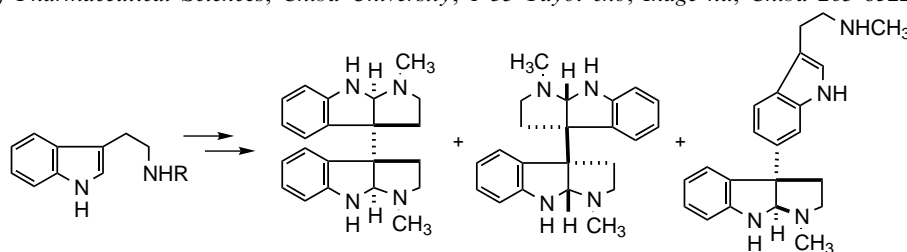


**Dimerization of indole derivatives with hypervalent iodines(III): a new entry for the concise total synthesis of *rac*- and *meso*-chimonanthines**

*Tetrahedron Letters* 43 (2002) 5637

Hayato Ishikawa, Hiromitsu Takayama\* and Norio Aimi

*Graduate School of Pharmaceutical Sciences, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522, Japan*



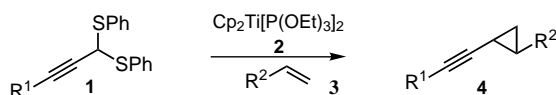
**Preparation of alkynylcyclopropanes by the titanocene(II)-promoted reaction of 1,1-bis(phenylthio)-2-alkynes with 1-alkenes**

*Tetrahedron Letters* 43 (2002) 5641

Takeshi Takeda,\* Shuichi Kuroi, Kenjiro Yanai and Akira Tsubouchi

*Department of Applied Chemistry, Tokyo University of Agriculture and Technology, Koganei, Tokyo 184-8588, Japan*

The desulfurization of 1,1-bis(phenylthio)-2-alkynes **1** with the titanocene(II) species **2** in the presence of 1-alkenes **3** produced 1-alkyn-1-ylcyclopropanes **4** in good yields.

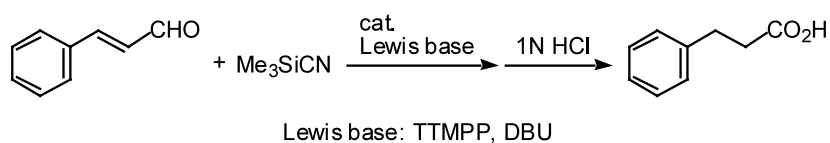


**Lewis base-catalyzed transformation of  $\alpha,\beta$ -unsaturated aldehydes to saturated carboxylic acids, esters and amides**

*Tetrahedron Letters* 43 (2002) 5645

Hirotooshi Kawabata and Masahiko Hayashi\*

*Department of Chemistry, Faculty of Science, Kobe University, Kobe 657-8501, Japan*



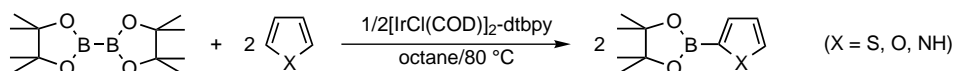
**Iridium-catalyzed C–H coupling reaction of heteroaromatic compounds with bis(pinacolato)diboron: regioselective synthesis of heteroarylboronates**

*Tetrahedron Letters* 43 (2002) 5649

Jun Takagi,<sup>a</sup> Kazuaki Sato,<sup>a</sup> John F. Hartwig,<sup>b</sup> Tatsuo Ishiyama<sup>a,\*</sup> and Norio Miyaura<sup>a,\*</sup>

<sup>a</sup>*Division of Molecular Chemistry, Graduate School of Engineering, Hokkaido University, Sapporo 060-8628, Japan*

<sup>b</sup>*Department of Chemistry, Yale University, P.O. Box 208107, New Haven, CT 06520-8107, USA*





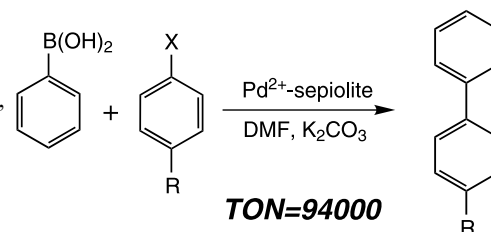
### Suzuki cross-coupling reaction catalyzed by palladium-supported sepiolite

*Tetrahedron Letters* 43 (2002) 5653

Ken-ichi Shimizu,<sup>a,\*</sup> Toshiki Kan-no,<sup>a</sup> Tatsuya Kodama,<sup>b</sup>  
Hisahiro Hagiwara<sup>a</sup> and Yoshie Kitayama<sup>b</sup>

<sup>a</sup>Graduate School of Science and Technology, Niigata University, Ikarashi-2,  
Niigata 950-2181, Japan

<sup>b</sup>Department of Chemistry & Chemical Engineering, Faculty of Engineering,  
Niigata University, Ikarashi-2, Niigata 950-2181, Japan

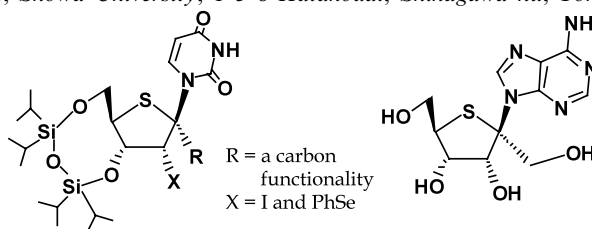


### Stereoselective entry to 1'-C-branched 4'-thionucleosides from 4-thiofuranoid glycal: synthesis of 4'-thioangustmycin C

*Tetrahedron Letters* 43 (2002) 5657

Kazuhiro Haraguchi,<sup>\*</sup> Haruhiko Takahashi and Hiromichi Tanaka

School of Pharmaceutical Sciences, Showa University, 1-5-8 Hatanodai, Shinagawa-ku, Tokyo 142-8555, Japan

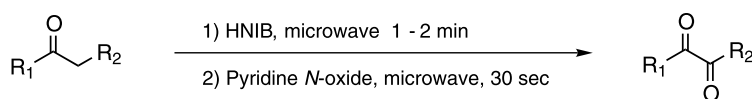


### Rapid microwave-promoted solvent-free oxidation of $\alpha$ -methylene ketones to $\alpha$ -diketones

*Tetrahedron Letters* 43 (2002) 5661

Jong Chan Lee,<sup>\*</sup> Hong-Jun Park and Jin Young Park

Department of Chemistry, Chung-Ang University, Seoul 156-756, South Korea



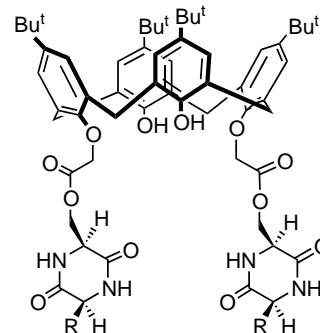
### Design, synthesis, and enantiomeric recognition of dicyclodipeptide-bearing calix[4]arenes: a promising family for chiral gas sensor coatings

*Tetrahedron Letters* 43 (2002) 5665

Wei Guo, Jing Wang, Chun Wang, Jia-Qi He, Xi-wen He and Jin-Pei Cheng<sup>\*</sup>

Department of Chemistry, Nankai University, Tianjin 300071, China

Three dicyclodipeptide-bearing calix[4]arenes were designed and synthesized for application as chiral gas sensor coatings. These calix[4]arene derivatives showed good selectivity in discriminating enantiomers of methyl lactate using the QCM method.



## Are quinone methides responsible for yellowing of paper in light?

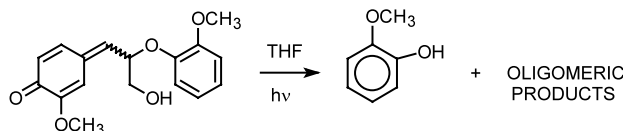
Tetrahedron Letters 43 (2002) 5669

Jozica Dolenc,<sup>a</sup> Boris Sket<sup>b,\*</sup> and Matija Strlic<sup>b</sup>

<sup>a</sup>Pulp and Paper Institute, Bogisiceva 8, 1000 Ljubljana, Slovenia

<sup>b</sup>Department of Chemistry, University of Ljubljana, Askerceva 5, 1000 Ljubljana, Slovenia

Irradiation of quinone methides leads to the formation of yellow oligomeric products, which could be responsible for the yellowing of paper.

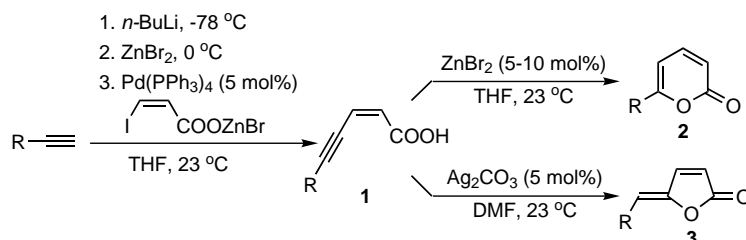


## Catalytic and selective conversion of (Z)-2-en-4-ynoic acids to either 2H-pyran-2-ones in the presence of ZnBr<sub>2</sub> or (Z)-5-alkylidene-2(5H)-furan-2(5H)-ones in the presence of Ag<sub>2</sub>CO<sub>3</sub>

Tetrahedron Letters 43 (2002) 5673

Luigi Anastasia, Caiding Xu and Ei-ichi Negishi\*

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West Lafayette, IN 47907, USA

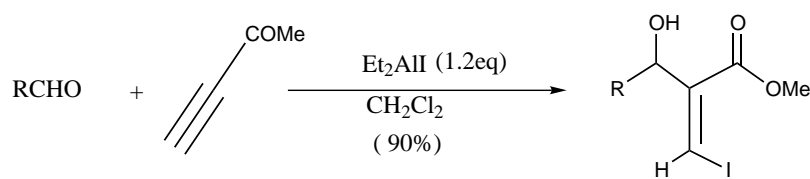


## Synthesis of β-iodo-α-(hydroxyalkyl)acrylates: a convenient and stereoselective reaction

Tetrahedron Letters 43 (2002) 5677

Han-Xun Wei, Joe J. Gao, Guigen Li and Paul W. Paré\*

Department of Chemistry and Biochemistry, Texas Tech University, Lubbock, TX 79409, USA



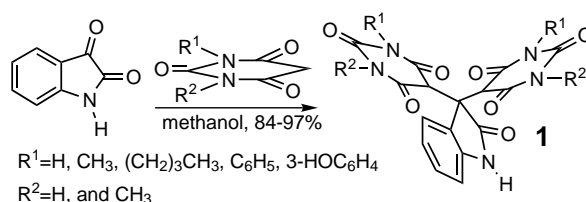
## Preparation of dibarbiturates of oxindole by condensation of isatin and barbituric acid derivatives

Tetrahedron Letters 43 (2002) 5681

Branko S. Jursic\* and Edwin D. Stevens

Department of Chemistry, University of New Orleans, New Orleans, LA 70148, USA

In the study of reaction media dependence on the isatin barbituric acid condensation reaction a very efficient synthetic procedure for the preparation of useful oxindole-dibarbiturates **1** was developed.

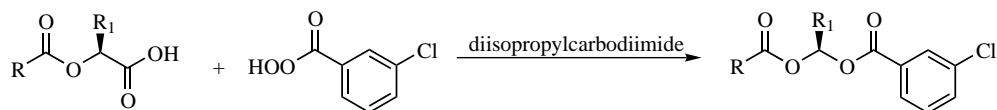


## Preparation of optically active (acyloxy)alkyl esters from optically active *O*-acyl- $\alpha$ -hydroxy acids

*Tetrahedron Letters* 43 (2002) 5685

Peter R. Guzzo,\* Sean R. Dinn, Jianhui Lu and Stefanie Oettinger-Loomis

*Albany Molecular Research, Inc., 21 Corporate Circle, PO 15098, Albany, NY 12212-5098, USA*



## Synthesis and evaluation of six-membered GDP-iminocyclitol

*Tetrahedron Letters* 43 (2002) 5691

Michael L. Mitchell, Lac V. Lee and Chi-Huey Wong\*

*Department of Chemistry, The Scripps Research Institute and the Skaggs Institute for Chemical Biology, 10550 North Torrey Pines Road, La Jolla, CA 92037, USA*

Fructose-diphosphate aldolase and Pd-mediated reductive amination were employed in the chemoenzymatic synthesis of six-membered GDP-iminocyclitols.

