

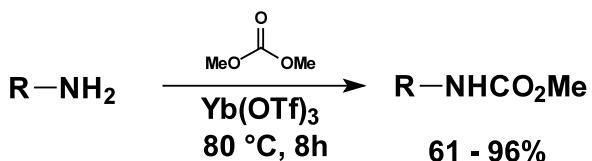
## Graphical abstracts

### Carbamate synthesis from amines and dimethyl carbonate under ytterbium triflate catalysis

Tetrahedron Letters 43 (2002) 4895

Massimo Curini,\* Francesco Epifano,\* Federica Maltese and Ornelio Rosati

Dipartimento di Chimica e Tecnologia del Farmaco, Sezione di Chimica Organica, Università degli Studi, Via del Liceo, 06123 Perugia, Italy

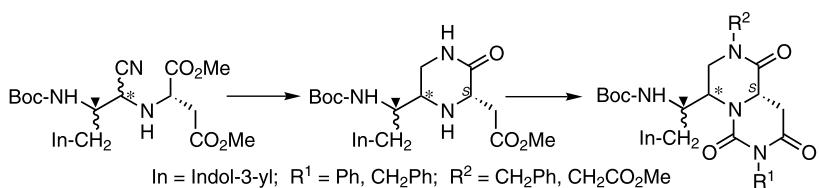


### Synthesis of chiral 1,6,8-trioxoperhydropyrazino[1,2-*c*]pyrimidines as novel highly functionalized scaffolds for peptidomimetics

Tetrahedron Letters 43 (2002) 4899

Susana Herrero, Antonio Salgado, M. Teresa García-López and Rosario Herranz\*

Instituto de Química Médica (CSIC), Juan de la Cierva 3, E-28006 Madrid, Spain

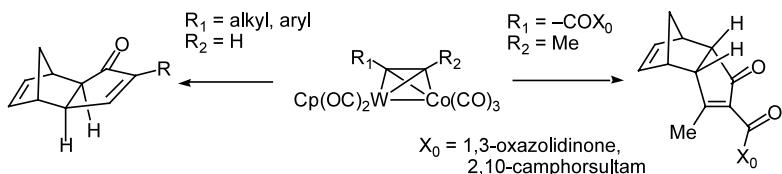


### Heterobimetallic (Co–W) intermolecular Pauson–Khand reactions: scope and selectivity

Tetrahedron Letters 43 (2002) 4903

Ramon Rios, Miquel A. Pericàs and Albert Moyano\*

Unitat de Recerca en Síntesi Asimètrica, Departament de Química Orgànica, Facultat de Química, Universitat de Barcelona, Martí i Franquès, 1-11, 08028 Barcelona, Spain

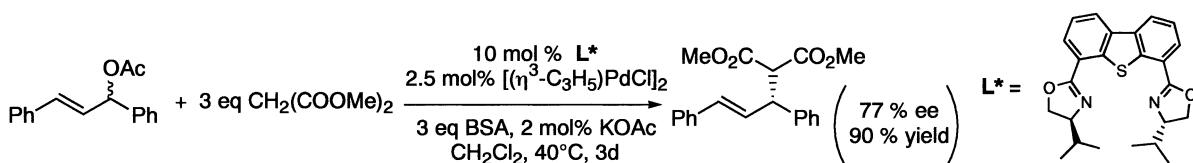


### Dibenzothiophene-bis(oxazolines): new sulfur-containing ligands tested in asymmetric palladium-catalyzed allylic substitutions

Tetrahedron Letters 43 (2002) 4907

Arnaud Voituriez, Jean-Claude Fiaud and Emmanuelle Schulz\*

Laboratoire de Catalyse Moléculaire, Institut de Chimie Moléculaire d'Orsay, Université Paris-Sud, UPRESA CNRS 8075, Bât 420, 91405 Orsay cedex, France

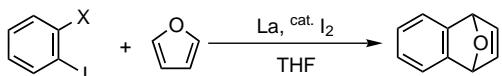


**Reaction of 1,2-dihalogen substituted arenes with lanthanum metal: a new generation method of benzyne**

Tetrahedron Letters 43 (2002) 4911

Hiroshi Kawabata, Toshiki Nishino, Yutaka Nishiyama\* and Noboru Sonoda\*

Department of Applied Chemistry, Faculty of Engineering, Kansai University, Suita, Osaka 564-8680, Japan



**Palladium(II)-mediated cyclization–carbonylation of 4-yn-1-ones: facile access to 2-cyclopentenone carboxylates**

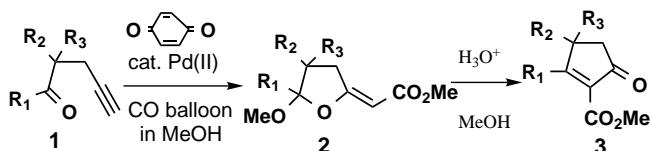
Tetrahedron Letters 43 (2002) 4915

Keisuke Kato,<sup>a,\*</sup> Yasuhiro Yamamoto<sup>b</sup> and Hiroyuki Akita<sup>a,\*</sup>

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

<sup>b</sup>Department of Chemistry, Faculty of Science, Toho University, 2-2-1 Miyama, Funabashi, Chiba 274-8510, Japan

The oxidative cyclization–carbonylation of 4-yn-1-ones **1** in the presence of (CH<sub>3</sub>CN)<sub>2</sub>PdCl<sub>2</sub>/p-benzoquinone in methanol under a carbon monoxide atmosphere (balloon) afforded cyclic-ketals **2** in good to moderate yields. The product **2** were easily converted into 2-cyclopentenone carboxylates **3**.



**Photoinduced electron transfer within porphyrin–cyclodextrin conjugates**

Tetrahedron Letters 43 (2002) 4919

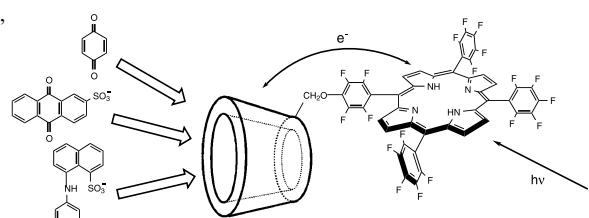
Kamil Lang,<sup>a,\*</sup> Vladimír Král,<sup>b</sup> Petr Kapusta,<sup>c</sup> Pavel Kubát<sup>d</sup> and Petr Vašek<sup>b</sup>

<sup>a</sup>Institute of Inorganic Chemistry, Academy of Sciences of the Czech Republic, 250 68 Řež, Czech Republic

<sup>b</sup>Institute of Chemical Technology, Technická 5, 166 28 Praha 6, Czech Republic

<sup>c</sup>Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University, V Holešovičkách 2, 180 00 Praha 8, Czech Republic

<sup>d</sup>J. Heyrovský Institute of Physical Chemistry, Academy of Sciences of the Czech Republic, Dolejškova 3, 182 23 Praha 8, Czech Republic



The synthetic procedure offers versatile molecular conjugates of porphyrins bearing one or more cyclodextrin units that are suitable for systematic investigation of photoinduced processes within noncovalently bound supramolecular systems.

**A new route to 6,6'-dicyano-2,2':6',2''-terpyridines and their complexes with Ni(II)**

Tetrahedron Letters 43 (2002) 4923

Dmitry N. Kozhevnikov,<sup>a,\*</sup> Valery N. Kozhevnikov,<sup>a,\*</sup>

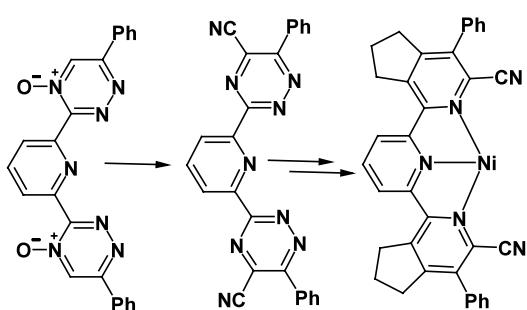
Tatiana V. Nikitina,<sup>a</sup> Vladimir L. Rusinov,<sup>a</sup>

Oleg N. Chupakhin,<sup>a</sup> Igor L. Eremenko<sup>b</sup> and

Grigory G. Aleksandrov<sup>b</sup>

<sup>a</sup>Urals State Technical University, 620002 Ekaterinburg, Russia

<sup>b</sup>Institute of General and Inorganic Chemistry, Moscow, Russia



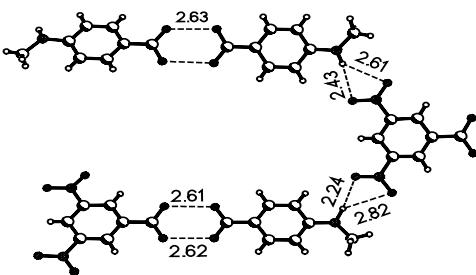
**Unique homo and hetero carboxylic acid dimer-mediated supramolecular assembly: rational analysis of the crystal structure of 3,5-dinitrobenzoic acid and 4-(N-methylamino)benzoic acid**

Tetrahedron Letters 43 (2002) 4927

V. R. Pedireddi\* and J. PrakashaReddy

Division of Organic Chemistry, National Chemical Laboratory, Pune 411 008, India

3,5-Dinitrobenzoic acid and 4-(N-methylamino)benzoic acid form co-crystals comprising homo and hetero carboxylic dimers that can be rationalized through acceptor–donor interactions between -NO<sub>2</sub> and -NH(CH<sub>3</sub>) groups.



**An asymmetric synthesis of a 4-substituted-1,4-dihydropyridine**

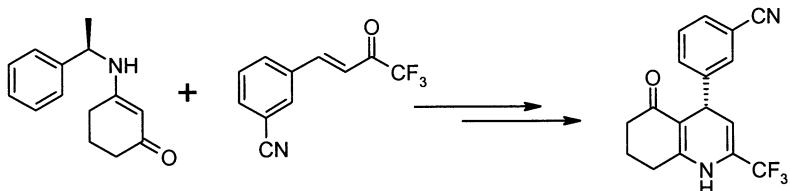
Tetrahedron Letters 43 (2002) 4931

Ian Ashworth,<sup>a</sup> Phillip Hopes,<sup>b</sup> Danny Levin,<sup>c</sup> Ian Patel<sup>b,\*</sup> and Rashida Salloo<sup>a</sup>

<sup>a</sup>Syngenta, Technology and Projects, Huddersfield Manufacturing Centre, PO Box A38, Huddersfield HD2 1FF, UK

<sup>b</sup>AstraZeneca, Process Research and Development, Avlon Works, Hallen, Bristol BS10 7ZE, UK

<sup>c</sup>AstraZeneca, Process Research and Development, Silk Road Business Park, Macclesfield SK10 2NA, UK

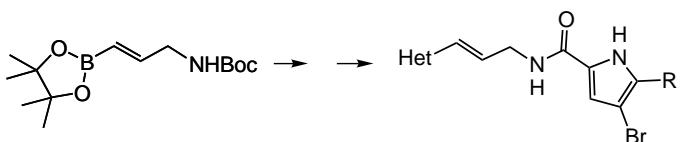


**Synthesis of the marine sponge alkaloid oroidin and its analogues via Suzuki cross-coupling reactions**

Tetrahedron Letters 43 (2002) 4935

Fabienne Berrée, Pascale Girard-Le Bleis and Bertrand Carboni\*

Synthèse et Electrosynthèse Organiques, UMR CNRS 6510, Bat 10A, Institut de Chimie, Université de Rennes 1, Campus de Beaulieu, F-35042 Rennes CEDEX, France

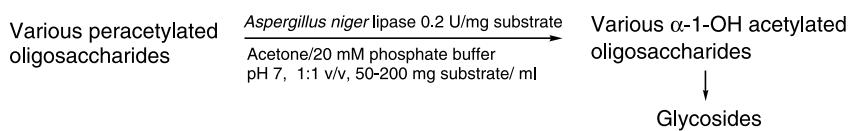


**Freeing anomeric hydroxyl groups of peracetylated oligosaccharides by *Aspergillus niger* lipase**

Tetrahedron Letters 43 (2002) 4939

Assunta Giordano and Antonio Trincone\*

Istituto di Chimica Biomolecolare C.N.R., Via Campi Flegrei, 34 80072 Pozzuoli, Napoli, Italy

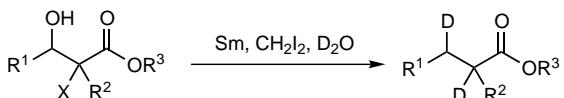


**Synthesis of 2,3-dideuterioesters from 2-halo-3-hydroxyesters by using metallic samarium and diiodomethane**

Tetrahedron Letters 43 (2002) 4943

José M. Concellón\* and Mónica Huerta

Departamento de Química Orgánica e Inorgánica, Facultad de Química, Universidad de Oviedo, Julián Clavería, 8, 33071 Oviedo, Spain



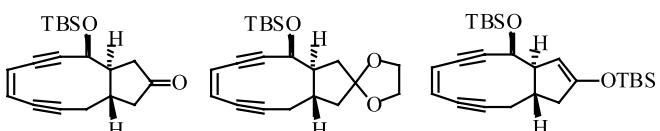
**A simple synthesis and evaluation of the bicyclo[8.3.0] enediyne framework**

Tetrahedron Letters 43 (2002) 4947

M. F. Semmelhack,\* Mark Jaskowski, Richmond Sarpong and Douglas M. Ho

Department of Chemistry, Princeton University, Princeton, NJ 08544, USA

A *trans* bicyclo[8.3.0] framework as a potential functional model for the enediyne roxins has been designed, synthesized, and evaluated in the cycloaromatization reaction, comparing with simple predictions.

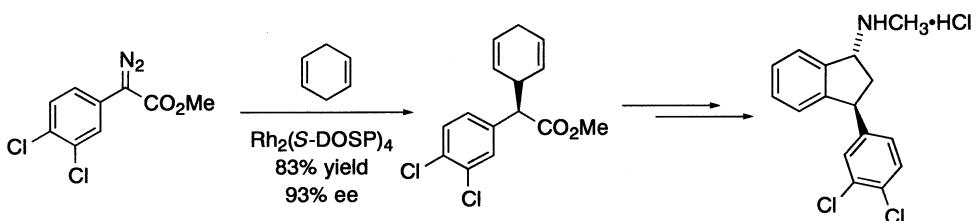


**Asymmetric synthesis of (+)-indatraline using rhodium-catalyzed C–H activation**

Tetrahedron Letters 43 (2002) 4951

Huw M. L. Davies\* and Timothy M. Gregg

Department of Chemistry, University at Buffalo, State University of New York, Buffalo, NY 14260-3000, USA

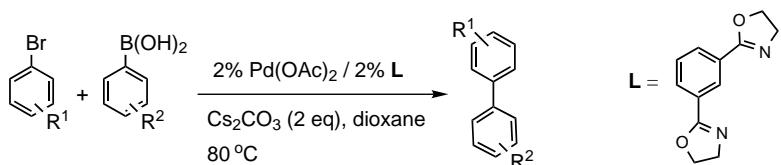


**Pd(OAc)<sub>2</sub>/2-aryl-2-oxazolines catalyzed Suzuki coupling reactions of aryl bromides and arylboronic acids**

Tetrahedron Letters 43 (2002) 4955

Bin Tao and David W. Boykin\*

Department of Chemistry, Center for Biotechnology and Drug Design, Georgia State University, Atlanta, GA 30303, USA

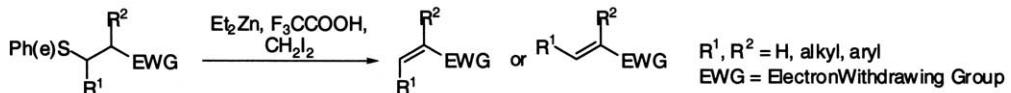


**Carbenoid-mediated elimination of sulfides and selenides. A mild and efficient method for introducing  $\alpha,\beta$ -double bonds to electron-withdrawing substituents**

Tetrahedron Letters 43 (2002) 4959

Arnaud Gautier,\* Goulnara Garipova, Reynald Deléens and Serge R. Piettre\*

Laboratoire des Fonctions Azotées et Oxygénées Complexes, UMR 6014 CNRS, IRCOF, Université de Rouen, F-76821 Mont Saint Aignan, France

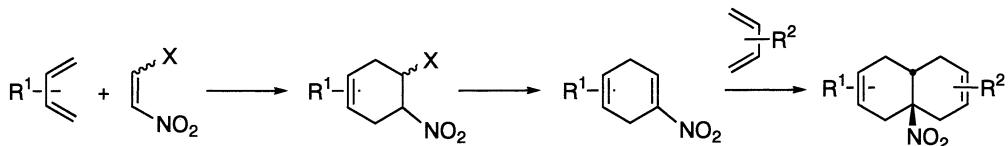


**A new strategy for the construction of polycycles bearing a nitrogen atom on the ring fusion**

Tetrahedron Letters 43 (2002) 4963

Reynald Deléens, Arnaud Gautier and Serge R. Piettre\*

Laboratoire des Fonctions Azotées et Oxygénées Complexes, UMR 6014 CNRS, Université de Rouen, rue Tesnière, F-76821 Mont Saint Aignan, France



**Synthesis of novel nitroso-fulleropyrrolidines**

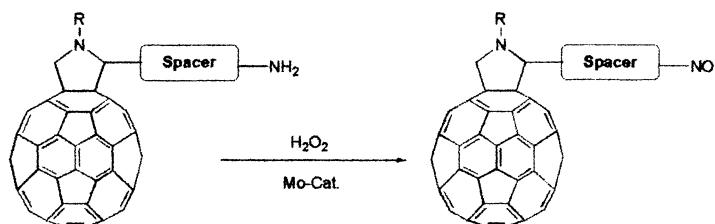
Tetrahedron Letters 43 (2002) 4969

Giuseppe Vasapollo,<sup>a,\*</sup> Giuseppe Mele,<sup>a</sup> Luigia Longo,<sup>a</sup> Roberto Ianne,<sup>a</sup> Brian G. Gowenlock<sup>b</sup> and Keith G. Orrell<sup>b</sup>

<sup>a</sup>Dipartimento di Ingegneria dell'Innovazione, Università di Lecce, via Arnesano 73100 Lecce, Italy

<sup>b</sup>School of Chemistry, University of Exeter, Exeter EX4 4QD, UK

Novel fulleropyrrolidines containing differently head groups ( $-\text{NO}_2$ ,  $-\text{NH}_2$ ,  $-\text{NO}$ ) spaced by a long chain from the fulleropyrrolidine moiety have been synthesised and characterised.



**A useful synthesis of the Phe-Arg phosphinic acid dipeptide isostere**

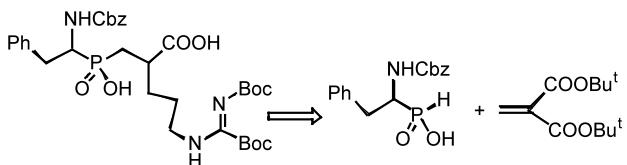
Tetrahedron Letters 43 (2002) 4973

Andrew S. Kende,<sup>a,\*</sup> Han-Qing Dong,<sup>a</sup> Xuewei Liu<sup>b</sup> and Frank H. Ebetino<sup>b</sup>

<sup>a</sup>Chemistry Department, University of Rochester, Rochester, NY 14627-0216, USA

<sup>b</sup>Procter & Gamble Pharmaceuticals, Health Care Research Center, Mason, OH 45040-8006, USA

A modular method for construction of polypeptides containing the Phe-Arg phosphinic acid isostere is described.



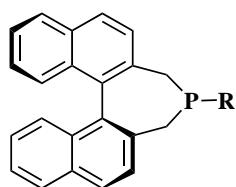
**Synthesis of new chiral monodentate phosphines and their use in asymmetric hydrogenation**

Tetrahedron Letters 43 (2002) 4977

Kathrin Junge,<sup>a</sup> Günther Oehme,<sup>a</sup> Axel Monsees,<sup>b</sup> Thomas Riermeier,<sup>b</sup> Uwe Dingerdissen<sup>b</sup> and Matthias Beller<sup>a,\*</sup>

<sup>a</sup>Institut für Organische Katalyseforschung an der Universität Rostock e.V. (IfOK), Buchbinderstraße 5-6, D-18055 Rostock, Germany

<sup>b</sup>Degussa AG, Projecthouse Catalysis, Industriepark Höchst, D-65296 Frankfurt am Main, Germany

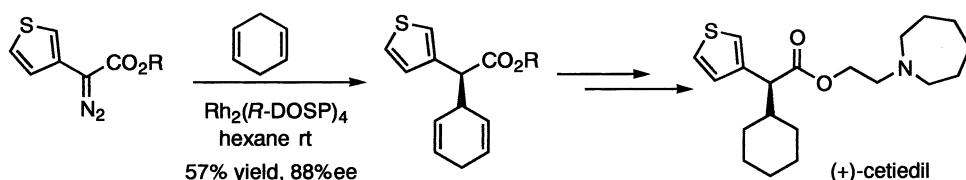


**Catalytic asymmetric C–H activation by methyl thiophen-3-yl diazoacetate applied to the synthesis of (+)-cetiedil**

Tetrahedron Letters 43 (2002) 4981

Huw M. L. Davies,\* Abbas M. Walji and Robert J. Townsend

Department of Chemistry, University at Buffalo, State University of New York, Buffalo, NY 14260-3000, USA

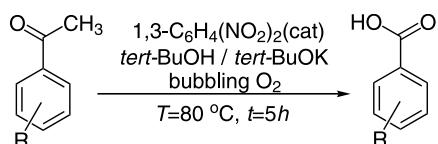


**Carboxylic acids from methyl aryl ketones by means of a new composite aerobic oxidation process**

Tetrahedron Letters 43 (2002) 4985

Hans-René Bjørsvik,\* Lucia Liguori, Raquel Rodríguez González and José Angel Vedia Merinero

Department of Chemistry, University of Bergen, Allégaten 41, N-5007 Bergen, Norway



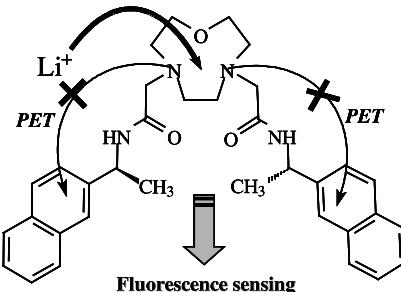
**A novel fluorescent photoinduced electron transfer (PET) sensor for lithium**

Tetrahedron Letters 43 (2002) 4989

Thorfinnur Gunnlaugsson,\* Bastien Bichell and Claire Nolan

Department of Chemistry, Trinity College Dublin, Dublin 2, Ireland

The fluorescent PET sensor **1** shows good Li<sup>+</sup> selectivity over other physiologically relevant alkali and alkali earth ions in CH<sub>3</sub>CN.



## Direct formation of tetrahydropyranols via catalysis in ionic liquid

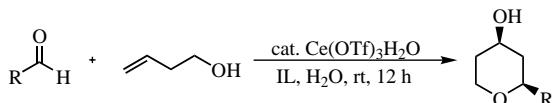
Tetrahedron Letters 43 (2002) 4993

Charlene C. K. Keh,<sup>a</sup> Vasudevan V. Namboodiri,<sup>b</sup> Rajender S. Varma<sup>b</sup> and Chao-Jun Li<sup>a,\*</sup>

<sup>a</sup>Tulane University, Department of Chemistry, New Orleans, LA 70118, USA

<sup>b</sup>Clean Processes Branch, National Risk Management Res. Lab, US Environmental Protection Agency, Cincinnati, OH 45268, USA

Utilizing a simple homoallyl alcohol and an aldehyde in the presence of a catalytic amount of cerium triflate, the direct formation of tetrahydropyranol derivatives in ionic liquid is reported.

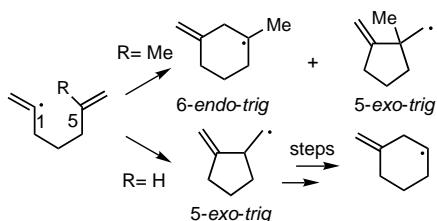


## Six- versus five-membered ring formation in radical cyclization of 1-vinyl-5-methyl-5-hexenyl radicals

Tetrahedron Letters 43 (2002) 4997

Ana M. Gómez,\* María D. Company, Clara Uriel, Serafín Valverde and J. Cristóbal López\*

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



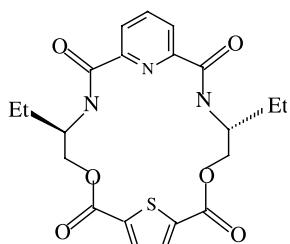
## Synthesis of novel chiral macrolides and their antifungal activity

Tetrahedron Letters 43 (2002) 5001

Ming Zhang Gao,<sup>a,b</sup> Jian Gao,<sup>a</sup> Zun Le Xu<sup>b</sup> and Ralph A. Zingaro<sup>a,\*</sup>

<sup>a</sup>Department of Chemistry, Texas A & M University, College Station, TX 77842-3012, USA

<sup>b</sup>School of Chemistry and Chemical Engineering, ZhongShan University, Guangzhou 510275, PR China

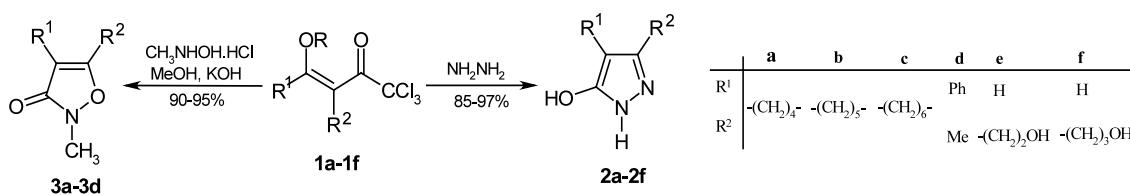


## Synthesis of hydroxypyrazoles and 1-methyl-3-isoxazolones via haloform reactions

Tetrahedron Letters 43 (2002) 5005

Alex F. C. Flores,\* Nilo Zanatta, Adriano Rosa, Sergio Brondani and Marcos A. P. Martins

Departamento de Química, Universidade Federal de Santa Maria, 97105-900, Santa Maria, RS, Brazil



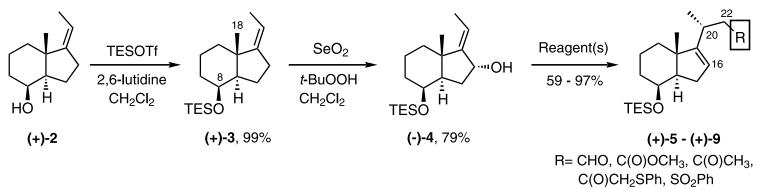
## [3,3]-Sigmatropic rearrangements: short, stereocontrolled syntheses of functionalized vitamin D<sub>3</sub> side-chain units

Tetrahedron Letters 43 (2002) 5009

Mark A. Hatcher\* and Gary H. Posner\*

*The Johns Hopkins University, Department of Chemistry, Charles and 34th Streets, Baltimore, MD 21218, USA*

Enantiomerically pure C,D-ring allylic alcohol **4** stereospecifically undergoes five types of [3,3]-sigmatropic rearrangements to give C-23 functionalized 16-ene vitamin D<sub>3</sub> side-chain units with natural C-20(S) stereochemistry.



## Triphosgene as highly efficient reagent for the solid-phase coupling of *N*-alkylated amino acids—total synthesis of cyclosporin O

Tetrahedron Letters 43 (2002) 5013

Bernd Thern,<sup>a</sup> Joachim Rudolph<sup>b</sup> and Günther Jung<sup>a,\*</sup>

<sup>a</sup>Institute of Organic Chemistry, University of Tübingen, 72076 Tübingen, Germany

<sup>b</sup>Bayer Corporation, Pharmaceutical Division, Department of Chemistry, West Haven, CT 06516 USA

The immunosuppressant cyclosporin O has been prepared by a fast and racemization free solid-phase peptide synthesis using a novel triphosgene coupling method and subsequent cyclization in solution.

