

## Graphical abstracts

### Chemical studies on antioxidant mechanism of garcinol: analysis of radical reaction products of garcinol with peroxy radicals and their antitumor activities

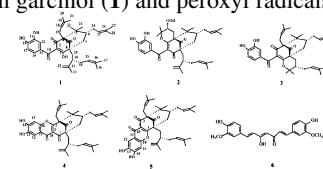
Tetrahedron 58 (2002) 10095

Shengmin Sang,<sup>a</sup> Chiung-Ho Liao,<sup>b</sup> Min-Hsiung Pan,<sup>b</sup> Robert T. Rosen,<sup>a</sup> Shoei-Yn Lin-Shiau,<sup>b</sup> Jen-Kun Lin<sup>b</sup> and Chi-Tang Ho<sup>b,\*</sup>

<sup>a</sup>Department of Food Science and Center for Advanced Food Technology, Rutgers University, 65 Dudley Road, New Brunswick, NJ 08901-8520, USA

<sup>b</sup>Institute of Biochemistry and Toxicology, College of Medicine, National Taiwan University, 1 Section 1, Jen-ai Road, Taipei, Taiwan, ROC

Four major reaction products (**2–5**) were isolated and identified from the oxidation reaction between garcinol (**1**) and peroxy radicals generated by thermolysis of the azo initiator azo-bis-isobutyryl-nitrile (AIBN). Their structures were determined on the basis of detailed high field 1D and 2D spectral analysis. The identification of these products provides the first unambiguous proof that the double bond of the isopentenyl group is a principal site of the antioxidant reaction of **1**. The induction of apoptosis in human leukemia HL-60 cells, the inhibition of NO generation, and the inhibition of LPS-induced iNOS gene expression by Western blot analysis by **1** and its four oxidation products (**2–5**) were investigated.



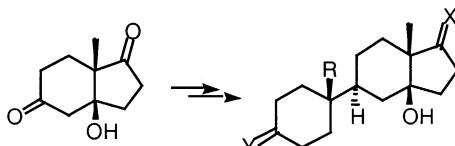
### Synthesis of B,B-dinor-B-secosteroids as potential cardenolide analogues

Tetrahedron 58 (2002) 10103

Luis G. Sevillano, Esther Caballero, Fernando Tomé, Manuel Medarde\* and Arturo San Feliciano

Laboratorio de Química Orgánica y Farmacéutica, Facultad de Farmacia, Campus Miguel de Unamuno, E-37007 Salamanca, Spain

A straight forward synthesis of title compounds has been carried out starting from the Hajos–Parrish diketone.



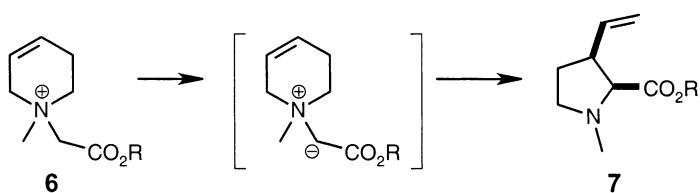
### [2,3]-Sigmatropic rearrangements of didehydropiperidinium ylids

Tetrahedron 58 (2002) 10113

J. B. Sweeney,<sup>a,\*</sup> Ali Tavassoli,<sup>a</sup> Neil B. Carter<sup>a</sup> and Jerome F. Hayes<sup>b</sup>

<sup>a</sup>Department of Chemistry, University of Reading, Whiteknights, Reading RG6 6AD, UK

<sup>b</sup>SmithKline Beecham Pharmaceuticals, Old Powder Mills, Leigh, Tonbridge TN11 9AN, UK



### Isolation and structure elucidation of four new triterpenoid estersaponins from fruits of *Pittosporum tobira* AIT.

Tetrahedron 58 (2002) 10127

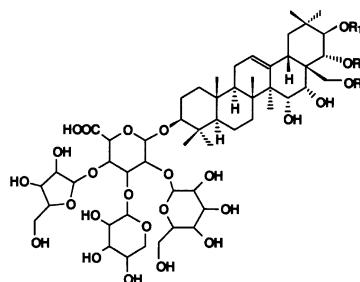
Ilaria D'Acquarica,<sup>a</sup> Maria Cristina Di Giovanni,<sup>a</sup> Francesco Gasparri,<sup>a,\*</sup> Domenico Misiti,<sup>a</sup> Claudio D'Arrigo,<sup>b</sup> Nicolina Fagnano,<sup>b</sup> Decimo Guarneri,<sup>b</sup> Giovanni Iacono,<sup>b</sup> Giuseppe Bifulco<sup>c</sup> and Raffaele Riccio<sup>c</sup>

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

<sup>b</sup>IDI Farmaceutici S.p.A., Via dei Castelli Romani 83/85, 00040 Pomezia, Roma, Italy

<sup>c</sup>Dipartimento di Scienze Farmaceutiche, Università di Salerno, Via Ponte don Melillo, 84084 Fisciano, Salerno, Italy

Isolation and characterization of four new acylated triterpenoid estersaponins with anticancer activity from fruits of *Pittosporum tobira* AIT.



## Synthesis of some diazino-fused tricyclic systems via Suzuki cross-coupling and regioselective nitrene insertion reactions

Tetrahedron 58 (2002) 10137

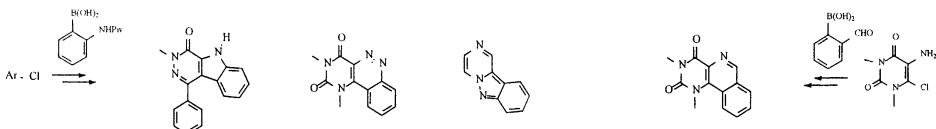
Pál Tapolcsányi,<sup>a</sup> Gábor Krajcsovszky,<sup>a</sup> Rómeó Andó,<sup>a</sup> Péter Lipcsey,<sup>a</sup> Gyula Horváth,<sup>b</sup> Péter Mátyus,<sup>a,\*</sup> Zsuzsanna Riedl,<sup>c</sup> György Hajós,<sup>c</sup> Bert U. W. Maes<sup>d</sup> and Guy L. F. Lemière<sup>d</sup>

<sup>a</sup>Department of Organic Chemistry, Semmelweis University, Högyes E. u. 7., Budapest 1092, Hungary

<sup>b</sup>IVAX Institute for Drug Research, Ltd, H-1045 Budapest, Berlini u. 47-49, Hungary

<sup>c</sup>Chemical Research Center, Institute of Chemistry, Hungarian Academy of Sciences, P.O. Box 17, H-1525 Budapest, Hungary

<sup>d</sup>Department of Chemistry, University of Antwerp (RUCA), Groenenborgerlaan 171, B-2020 Antwerpen, Belgium

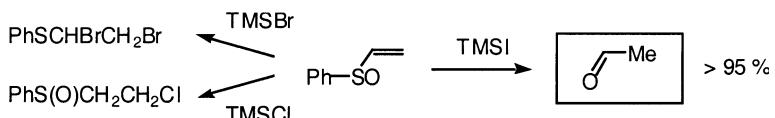


## An investigation of the behaviour of $\alpha,\beta$ -unsaturated sulfoxides in the presence of trimethylsilyl iodide

Tetrahedron 58 (2002) 10145

Maria C. Aversa,\* Anna Barattucci,\* Paola Bonaccorsi and Placido Giannetto

Dipartimento di Chimica organica e biologica, Università degli Studi di Messina, Salita Sperone 31 (vill. S. Agata), 98166 Messina, Italy



## Conformational profile, energy barriers and optical properties of quinque thiophene-S,S-dioxides

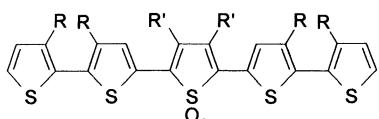
Tetrahedron 58 (2002) 10151

Alessandro Bongini,<sup>a,\*</sup> Giovanna Barbarella,<sup>b</sup> Laura Favaretto,<sup>b</sup> Giovanna Sotgiu,<sup>b</sup> Massimo Zambianchi<sup>b</sup> and Daniele Casarini<sup>c</sup>

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<sup>b</sup>CNR-ISOF, Via Gobetti 101, 40129 Bologna, Italy

<sup>c</sup>Dipartimento Chimico, Università della Basilicata, Via N. Sauro 85, 85100 Potenza, Italy



R = R' = Methyl; R = Methyl, R' = n-Hexyl;  
R = Cyclohexyl, R' = n-Hexyl; R = R' = Neopentyl

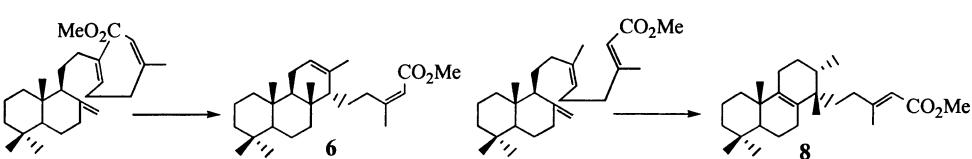
## Studies towards the synthesis of cheilanthane sesterterpenoids: superacidic cyclisation of methyl 13Z,17Z- and 13Z,17E-bicyclogeranyl farnesoates

Tetrahedron 58 (2002) 10159

Nicon Ungur,<sup>a,\*</sup> Veaceslav Kulcițki,<sup>a</sup> Margherita Gavagnin,<sup>b</sup> Francesco Castelluccio,<sup>b</sup> Pavel F. Vlad<sup>a</sup> and Guido Cimino<sup>b</sup>

<sup>a</sup>Institutul de Chimie al Academiei de Științe a Republicii Moldova, str. Academiei 3, MD 2028 Chișinău, Moldova

<sup>b</sup>Istituto di Chimica Biomolecolare CNR, Via Campi Flegrei 34, Fabbr. 70, I-80078 Pozzuoli (Na), Italy



Sesterterpenoids **6** and **8**  
were obtained in one step.

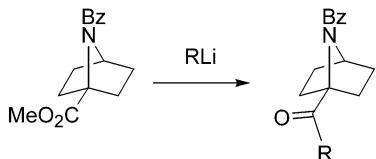
**Addition of organolithium reagents to Ahc methyl ester.**

Tetrahedron 58 (2002) 10167

**An approach to new  $\alpha$ -amino ketones**

Alberto Avenoza,\* Jesús H. Bustó and Jesús M. Peregrina\*

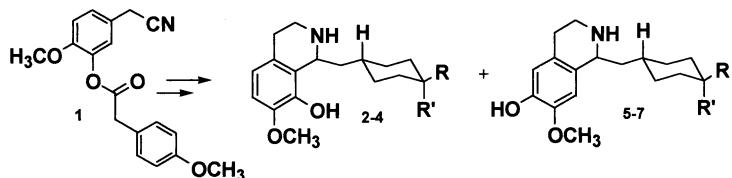
Departamento de Química, Grupo de Síntesis Química de La Rioja, Universidad de La Rioja, U.A.-C.S.I.C., Madre de Dios, 51, E26006 Logroño, Spain

**Syntheses of dopaminergic 1-cyclohexylmethyl-7,8-dioxy-  
genated tetrahydroisoquinolines by selective heterogeneous  
tandem hydrogenation**

Tetrahedron 58 (2002) 10173

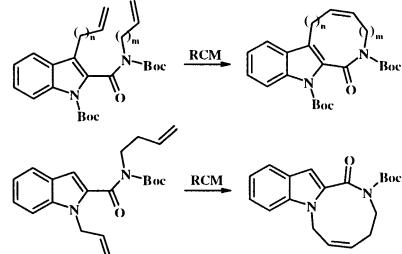
Immaculada Andreu,<sup>a</sup> Nuria Cabedo,<sup>a</sup> Gregorio Torres,<sup>b</sup> Abdeslam Chagraoui,<sup>c</sup> M. Carmen Ramírez de Arellano,<sup>d</sup> Salvador Gil,<sup>d</sup> Almudena Bermejo,<sup>a</sup> María Valpuesta,<sup>b</sup> Philippe Protais<sup>c</sup> and Diego Cortes<sup>a,\*</sup><sup>a</sup>Departamento de Farmacología, Facultad de Farmacia, Universidad de Valencia, 46100 Burjassot, Valencia, Spain<sup>b</sup>Departamento de Química Orgánica, Facultad de Ciencias,

Universidad de Málaga, 29071 Málaga, Spain

<sup>c</sup>Laboratoire de Physiologie, Faculté de Médecine-Pharmacie,  
Université de Rouen, 76183 Rouen, France<sup>d</sup>Departamento de Química Orgánica, Facultad de Química,  
Universidad de Valencia, 46100 Burjassot, Valencia, Spain**Ring closure metathesis of indole 2-carboxylic acid  
allylamide derivatives**

Tetrahedron 58 (2002) 10181

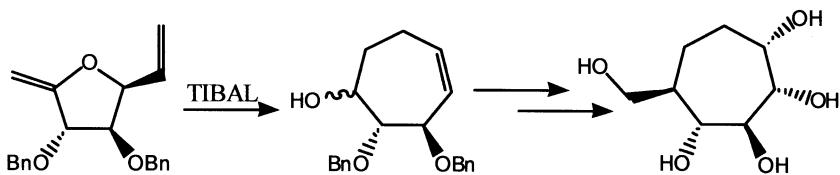
Lidwine Chacun-Lefèvre, Valérie Bénéteau, Benoît Joseph and Jean-Yves Mérour\*

Institut de Chimie Organique et Analytique, UMR-CNRS 6005, Université d'Orléans,  
B.P. 6759, 45067 Orléans cedex 2, France**Cycloheptanic sugar mimetics, bridging the gap in the  
homologous series of carbocyclic analogues**

Tetrahedron 58 (2002) 10189

Eugen Sisu, Matthieu Sollogoub, Jean-Maurice Mallet and Pierre Sinay\*

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

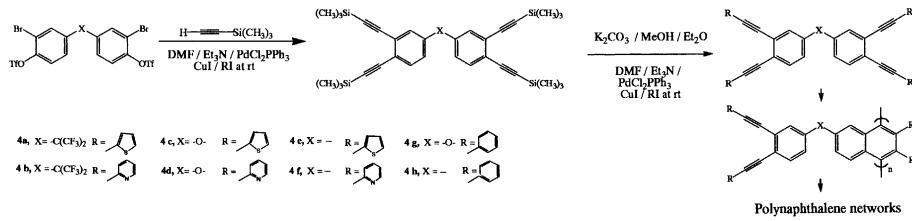


## Synthesis and thermal cyclopolymerization of heterocycle containing bis-*ortho*-diynyl arenes

Tetrahedron 58 (2002) 10197

K. Prasanna U. Perera, Mariusz Krawiec and Dennis W. Smith Jr.\*

Department of Chemistry, Clemson University, Clemson, SC 29634, USA



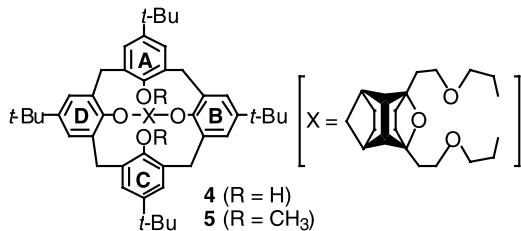
## Synthesis and alkali metal picrate extraction studies of lower rim functionalized *p*-*tert*-butylcalix[4]arene crown ethers

Tetrahedron 58 (2002) 10205

Alan P. Marchand,<sup>a,\*</sup> Hyun-Soon Chong,<sup>a</sup> T. Pavan Kumar,<sup>a</sup> Zilin Huang,<sup>a</sup> Sulejman Alihodzic,<sup>a</sup> William H. Watson<sup>b,\*</sup> and Krzysztof Ejsmont<sup>b</sup>

<sup>a</sup>Department of Chemistry, University of North Texas, Denton, TX 76203-5070, USA

<sup>b</sup>Department of Chemistry, Texas Christian University, Fort Worth, TX 76129-8860, USA



## Efficient and versatile synthesis of mucin-like glycoprotein mimics

Tetrahedron 58 (2002) 10213

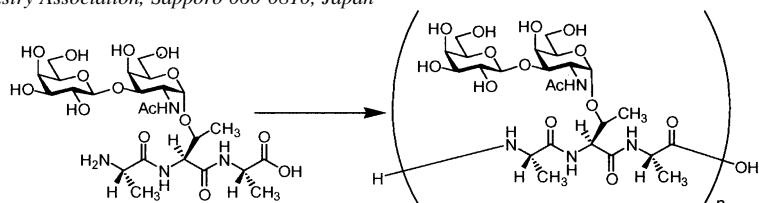
Yuki Tachibana,<sup>a</sup> Naoki Matsubara,<sup>a</sup> Fumio Nakajima,<sup>b</sup> Tetsuro Tsuda,<sup>b</sup> Sakae Tsuda,<sup>c</sup> Kenji Monde<sup>a</sup> and Shin-Ichiro Nishimura<sup>a,d,\*</sup>

<sup>a</sup>Laboratory for Bio-Macromolecular Chemistry, Division of Biological Sciences, Graduate School of Science, Hokkaido University, Kita-ku, Sapporo 060-0810, Japan

<sup>b</sup>Sapporo Laboratory for Glycocluster Project, Japan Bioindustry Association, Sapporo 060-0810, Japan

<sup>c</sup>Structural Biology Group, National Institute of Advanced Industrial Science and Technology (AIST), Sapporo 062-8517, Japan

<sup>d</sup>Glycochemosynthesis Team, Research Center for Glycoscience, National Institute of Advanced Industrial Science and Technology (AIST), Sapporo 062-8517, Japan



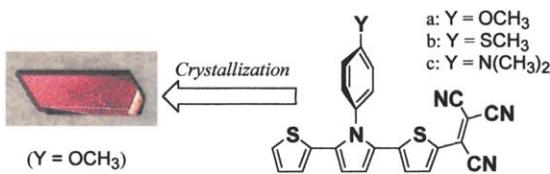
## Novel organic crystals with red-violet metallic luster: 1-aryl-2-(2-thienyl)-5-[5-(tricyanoethylidene)-2-thienyl]pyrrole derivatives bearing a heteroatom combined methyl substituent

Tetrahedron 58 (2002) 10225

Rui Zhao,<sup>a</sup> Motohiro Akazome,<sup>b</sup> Shoji Matsumoto<sup>b</sup> and Katsuyuki Ogura<sup>a,b,\*</sup>

<sup>a</sup>Graduate School of Science and Technology, Chiba University, 1-33 Yayoicho, Inageku, Chiba 263-8522, Japan

<sup>b</sup>Department of Materials Technology, Faculty of Engineering, Chiba University, 1-33 Yayoicho, Inageku, Chiba 263-8522, Japan



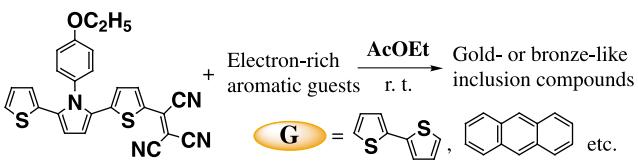
**Supramolecular architecture of metal-lustrous inclusion crystals based on aromatic CH- $\pi$  interaction: versatile inclusion of 1-(*p*-ethoxyphenyl)-2-(2-thienyl)-5-[5-(tricyanoethenyl)-2-thienyl]pyrrole host with various electron-rich aromatic guest molecules**

Tetrahedron 58 (2002) 10233

Rui Zhao,<sup>a</sup> Shoji Matsumoto,<sup>b</sup> Motohiro Akazome<sup>b</sup> and Katsuyuki Ogura<sup>a,b,\*</sup>

<sup>a</sup>Graduate School of Science and Technology, Chiba University, 1-33 Yayoicho, Inageku, Chiba 263-8522, Japan

<sup>b</sup>Department of Materials Technology, Faculty of Engineering, Chiba University, 1-33 Yayoicho, Inageku, Chiba 263-8522, Japan

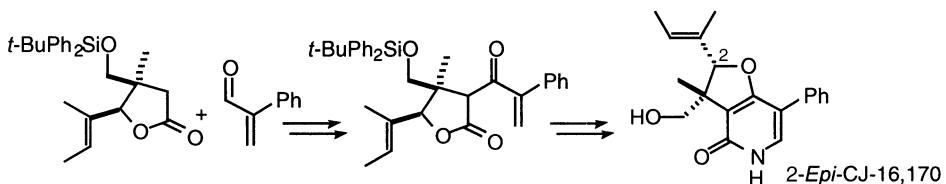


**Studies related to fuopyridinone antibiotics. Synthesis of 2-*epi*-CJ-16,170**

Tetrahedron 58 (2002) 10243

Derrick L. J. Clive\* and Xiaojun Huang

Department of Chemistry, University of Alberta, Edmonton, Alta., Canada T6G 2G2

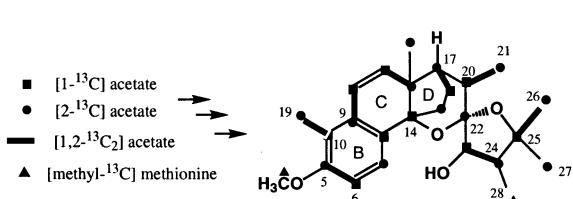


**Biosynthetic studies on blazeispirane and protoblazeispirane derivatives from the cultured mycelia of the fungus *Agaricus blazei***

Tetrahedron 58 (2002) 10251

Masao Hirotani,\* Kou Sai, Asami Kaneko, Yoshihisa Asada and Takafumi Yoshikawa

School of Pharmaceutical Sciences, Kitasato University, Minato-ku 9-1 Shirokane 5, Chome, Tokyo 108-8641, Japan

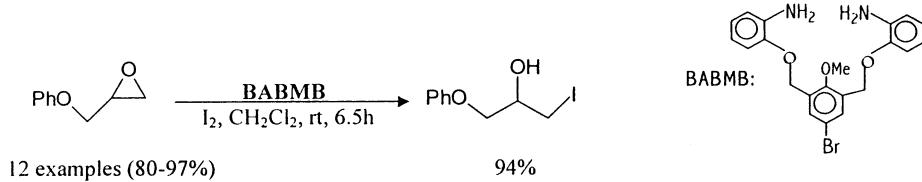


**Cleavage of epoxides into halohydrins with elemental iodine and bromine in the presence of 2,6-bis[2-(*o*-aminophenoxy)-methyl]-4-bromo-1-methoxybenzene (BABMB) as catalyst**

Tetrahedron 58 (2002) 10259

Khodabakhsh Niknam\* and Taibeh Nasehi

Department of Chemistry, Faculty of Science, Persian Gulf University, Bushehr 75168, Iran



**Aggregation of lariat ethers attached to a membrane anchoring unit**

*Tetrahedron* 58 (2002) 10263

Natasha K. Djedović,<sup>a</sup> Riccardo Ferdani,<sup>a</sup> Paul H. Schlesinger<sup>b</sup> and George W. Gokel<sup>a,\*</sup>

<sup>a</sup>Program in Bioorganic Chemistry, Division of Bioorganic Chemistry, Department of Molecular Biology and Pharmacology, Washington University School of Medicine, 660 S. Euclid Ave., Campus Box 8103, St. Louis, MO 63110, USA

<sup>b</sup>Department of Cell Biology and Physiology, Washington University School of Medicine, 660 S. Euclid Ave., St. Louis, MO 63110, USA

