

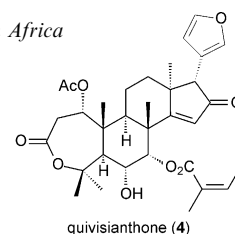
Quivisianthone, an evodulone limonoid from the Madagascan Meliaceae *Quivisia papinae*

Philip H. Coombes^a, Dulcie A. Mulholland^a, Milijaona Randrianarivelojosia^{a,b}

^aNatural Products Research Group, School of Pure and Applied Chemistry, University of Natal, Durban 4041, South Africa

^bMalaria Research Group, BP 1274, Antananarivo (101), Institut Pasteur de Madagascar, Madagascar

The seeds of the Madagascan Meliaceae *Quivisia papinae* have yielded quivisianthone, a novel evodulone group limonoid, together with the known azadiradione and two novel derivatives: 6 α -hydroxyazadiradione and 7-deacetyl-7-angeloyl-6 α -hydroxyazadiradione. Quivisianthone is the first reported evodulone group limonoid possessing both a ring A lactone and an azadiradione-type ring D.



Phytochemistry, 2004, **65**, 377

Four illudane sesquiterpenes from *Coprinopsis episcopalis*

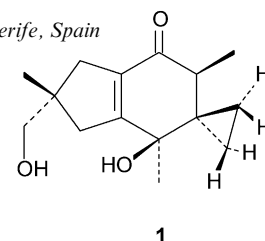
Matías Reina^a, Juan C. Orihuela^a, Azucena González-Coloma^b, Concepción de Inés^b, Mercedes de la Cruz^c, Antonio González del Val^c, José R. Torno^c, Braulio M. Fraga^a

^aInstituto de Productos Naturales y Agrobiología, CSIC, Avda. Astrofísico F. Sánchez, 3, 38206 La Laguna, Tenerife, Spain

^bCentro de Ciencias Medioambientales, CSIC, Serrano 115, 28006 Madrid, Spain

^cCentro de Investigación Básica, Merck Sharp & Dohme de España, Josefa Valcárcel 38, 28027 Madrid, Spain

Four new illudane derivatives, illudins I (1), I₂ (2), J (3) and J₂ (4), have been isolated from the fungus *Coprinopsis episcopalis*.



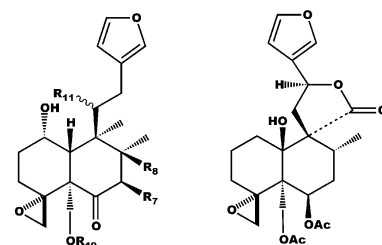
Phytochemistry, 2004, **65**, 381

Neo-clerodane diterpenes from *Teucrium fruticans*

Josep Coll, Yudelsy Tandrón

Instituto de Investigaciones Químicas y Ambientales de Barcelona "Josep Pascual Vila", Consejo Superior de Investigaciones Científicas, Jordi Girona 18-26, 08034-Barcelona, Spain

Four new neo-clerodane diterpenes were isolated from aerial parts of *T. fruticans*, together with four known compounds. Antifeedant activity against *Spodoptera littoralis* was determined.



Phytochemistry, 2004, **65**, 387

Lanostanes and friedolanostanes from the bark of *Garcinia speciosa*

Luis M.M. Vieira^{a,b}, Anake Kijjoa^{a,c}, Artur M.S. Silva^d, Ing-On Mondranondra^e, Surapong Kengthong^e, Luis Gales^{a,f}, Ana Margarida Damas^{a,f}, Werner Herz^g

^aInstituto de Ciências Biomédicas de Abel Salazar, Universidade do Porto, 4099-003 Porto, Portugal

^bCEQOFF—Centro de Estudos de Química Orgânica, Fitoquímica e Farmacologia da Universidade do Porto, Rua Aníbal Cunha 164, 4050-047 Porto, Portugal

^cCIIMAR—Universidade do Porto, 4099-003 Porto, Portugal

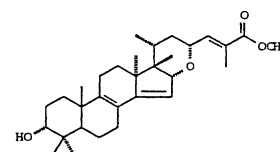
^dDepartamento de Química, Universidade de Aveiro, 3810-193 Aveiro, Portugal

^eDepartment of Pharmaceutical Botany, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok 10330, Thailand

^fIBMC—Instituto de Biologia Molecular e Celular, Universidade do Porto, 4150-180 Porto, Portugal

^gDepartment of Chemistry and Biochemistry, The Florida State University, Tallahassee, FL 32306-4390, USA

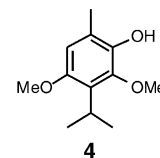
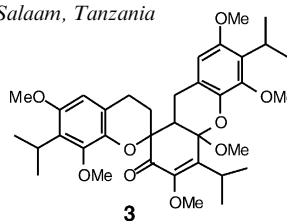
Five 17,14-friedolanostanes and five lanostanes were isolated from the bark of *Garcinia speciosa*. Structures of new compounds were established by spectroscopic methods.



(±)-Schefflone: a trimeric monoterpenoid from the root bark of *Uvaria scheffleri*

Phytochemistry, 2004, **65**, 399Mayunga H.H. Nkunya^a, Stephan A. Jonker^a, René de Gelder^b, Sabina W. Wachira^a, Charles Kihampa^a^aDepartment of Chemistry, University of Dar es Salaam, PO Box 35061, Dar es Salaam, Tanzania^bDepartment of Inorganic Chemistry, University of Nijmegen, Toernooiveld 1, 6525 ED Nijmegen, The Netherlands

The trimeric monoterpene and mild mosquito larvicide (±)-schefflone (**3**), and the antiprotozoal and presumed monoterpene precursor espintanol (**4**) were isolated from the root bark of *Uvaria scheffleri*. Structure **3** was determined from spectral and single-crystal X-ray data.



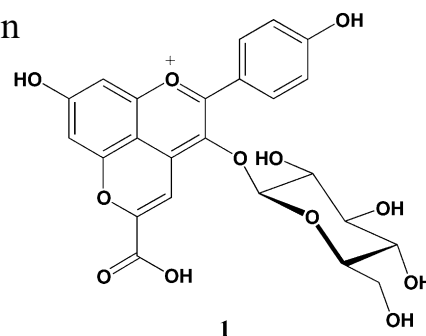
Anthocyanin from strawberry (*Fragaria ananassa*) with the novel aglycone, 5-carboxypyranopelargonidin

Phytochemistry, 2004, **65**, 405

Øyvind M. Andersen, Torgils Fossen, Kjell Torskangerpoll, Arve Fossen, Unni Hauge

Department of Chemistry, University of Bergen, Allégt. 41, N-5007 Bergen, Norway

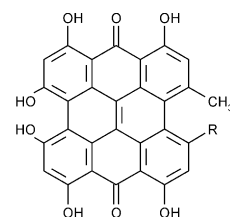
The minor anthocyanin 5-carboxypyranopelargonidin 3-*O*-β-glucopyranoside, **1**, has been isolated from acidified, methanolic extracts of strawberries. Its UV–Vis absorption spectra and CIELAB parameter have been recorded at various pH values.



Detection of hypericins in the “red glands” of *Hypericum elodes* by ESI–MS/MS

Phytochemistry, 2004, **65**, 411Anna Piovan^a, Raffaella Filippini^a, Rosy Caniato^a, Anna Borsarini^a, Laura Bini Maleci^b, Elsa Mariella Cappelletti^a^aDepartment of Biology, Padua University, Via U. Bassi 58/B, 35131 Padua, Italy^bDepartment of Pharmaceutical Sciences, Florence University, Via G. Capponi 9, 50121 Florence, Italy

The biologically active naphthodianthrone hypericin and pseudohypericin were detected by electrospray ionization mass spectrometry (ESI–MS/MS) in microsamples from the sepals of *Hypericum elodes* (Hypericaceae) containing the so-called “red glands”.

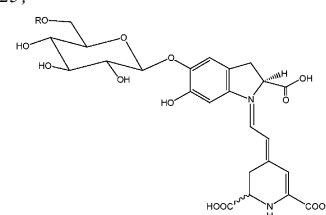


R = CH₃ Hypericin
R = CH₂OH Pseudohypericin

Structural investigations on betacyanin pigments by LC NMR and 2D NMR spectroscopy

Phytochemistry, 2004, **65**, 415Florian C. Stintzing^a, Jürgen Conrad^b, Iris Klaiber^b, Uwe Beifuss^b, Reinhold Carle^a^aInstitute of Food Technology, Section Plant Foodstuff Technology, Hohenheim University, Garbenstrasse 25, D-70599 Stuttgart, Germany^bInstitute of Chemistry, Section Bioorganic Chemistry, Hohenheim University, Garbenstrasse 30, D-70599 Stuttgart, Germany

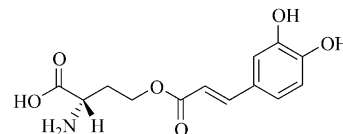
Four betacyanin pigments hitherto characterised by mass spectrometric and proton nuclear magnetic resonance (NMR) analyses were subjected to extensive NMR characterisation. A new solvent system considering the pH stability characteristics of betalain pigments was developed. For the first time, ¹³C NMR data of betanin, isobetanin, phyllocactin and hylocerenin could thus be obtained.



L-O-Caffeoylhomoserine from *Matteuccia struthiopteris*

Phytochemistry, 2004, **65**, 423Toshiyuki Kimura^a, Masahiro Suzuki^a, Makiko Takenaka^b, Kenji Yamagishi^a, Hiroshi Shinmoto^b^aLaboratory of Post-harvest Crop Management, National Agricultural Research Center for Tohoku Region, 50 Harajukuminami, Arai, Fukushima-city, Fukushima, Fukushima 960-2156, Japan^bNational Food Research Institute, Tsukuba, Ibaraki 305-8642, Japan

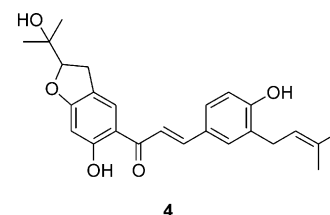
A caffeic acid derivative was isolated from *Matteuccia struthiopteris* (ostrich fern) as a major radical scavenger. The compound consists of caffeic acid and L-homoserine.



Diprenylated chalcones and other constituents from the twigs of *Dorstenia barteri* var. *subtriangularis*

Phytochemistry, 2004, **65**, 427Barthelemy Ngameni^a, Bonaventure T. Ngadjui^a, Gabriel N. Folefoc^a, Jean Watchueng^a, Berhanu M. Abegaz^b^aDepartment of Organic Chemistry, University of Yaounde-1, BP 812, Yaounde, Cameroon^bDepartment of Chemistry, University of Botswana, Private Bag 0022, Gaborone, Botswana

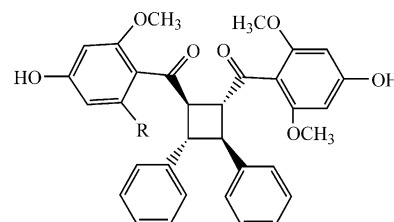
The twigs of *Dorstenia barteri* var. *subtriangularis* yielded three new diprenylated chalcones, named: bartericins A (**3**), B (**4**) and C (**5**).



Cyclobutanes from *Combretum albopunctatum*

Phytochemistry, 2004, **65**, 433David R. Katerere^a, Alan R. Kennedy^b, Robert J. Nash^c, Roger D. Waigh^a^aDepartment of Pharmaceutical Sciences, University of Strathclyde, 27 Taylor Street, Glasgow G4 0NR, UK^bDepartment of Pure and Applied Chemistry, University of Strathclyde, 295 Cathedral Street, Glasgow, G1 1XL, UK^cMolecularNature Ltd, IGER, Plas Goggerdan, Aberystwyth, Dyfed, SY23 3EB, UK

Two new cyclobutane chalcone dimers have been isolated from the aerial parts of *C. albopunctatum*.



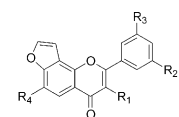
Furanoflavonoids from *Pongamia pinnata* fruits[☆]

Phytochemistry, 2004, **65**, 439

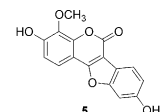
Prem P. Yadav, Ghufuran Ahmad, Rakesh Maurya

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

Fruits of *Pongamia pinnata* afforded four new furanoflavonoids, pongapinnol A–D (**1–4**), and a new coumestan, pongacoumestan (**5**), along with 13 known compounds **6–18**. Compounds **16** and **17** are isolated for the first time from this plant.



1. R₁=R₃=OCH₃, R₂=OH, R₄=H
2. R₁=R₂=R₃=OCH₃, R₄=H
3. R₁=OCH₃, R₂=OH, R₃=R₄=H
4. R₁=OCH₃, R₄=OH, R₂=R₃=H

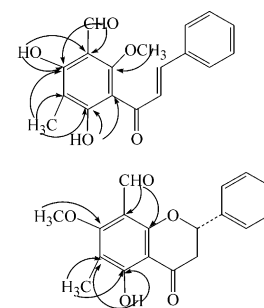


Flavonoids from *Cleistocalyx operculatus*

Chun-Lin Ye, Yan-Hua Lu, Dong-Zhi Wei

State Key Laboratory of Bioreactor Engineering, Institute of Biochemistry, East China University of Science and Technology, Shanghai 200237, China

Two flavonoids and five known compounds were isolated from the buds of *Cleistocalyx operculatus*. The structures were elucidated by spectroscopic methods, including analysis by 2D NMR spectroscopy.



Phytochemistry, 2004, **65**, 445

N, β -D-Glucopyranosyl vincosamide, a light regulated indole alkaloid from the shoots of *Psychotria leiocarpa*

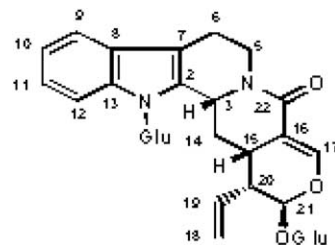
Amélia T. Henriques^a, Sílvia O. Lopes^a, Juçara T. Paranhos^b, Tatiana S. Gregianini^b, Gilsane Lino Von Poser, Arthur G. Fett-Neto^b, Jan Schripsema^c

^aFaculdade Farmácia, Universidade Federal do Rio Grande do Sul, Avenida Ipiranga 2752, 90610-000 Porto Alegre, RS, Brazil

^bLaboratório de Fisiologia Vegetal, Universidade Federal do Rio Grande do Sul, Centro de Biotecnologia e Departamento de Botânica, Caixa Postal 15005, Porto Alegre, RS, Brazil

^cLaboratório de Ciências Químicas, Universidade Estadual do Norte Fluminense, Centro de Ciências e Tecnologia, Av. Alberto Lamego 2000, Horto, 28015-620 Campos de Goytacazes, RJ, Brazil

The first *N*-glycosylated monoterpenoid indole alkaloid, *N*, β -D-glucopyranosyl vincosamide was isolated from leaves of *Psychotria leiocarpa*. It was restricted to shoots (2.5% dry wt in leaves) and its accumulation was promoted by light and age.



Phytochemistry, 2004, **65**, 449

Enteridinines A and B from slime mold

Enteridium lycoperdon

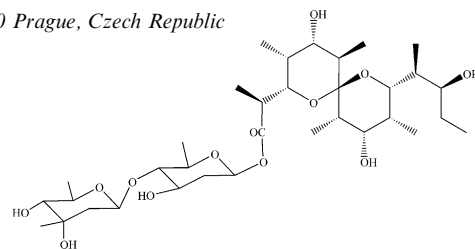
Tomáš Řezanka^a, Radmila Dvořáková^b, Lumír O. Hanuš^c, Valery M. Dembitsky^c

^aInstitute of Microbiology, Academy of Sciences of Czech Republic, Vědeňská 1083, 14220 Prague, Czech Republic

^bSouth-Moravian Museum, Přemyslovců 8, 66902 Znojmo, Czech Republic

^cDepartment of Medicinal Chemistry and Natural Products, School of Pharmacy, PO Box 12065, Hebrew University of Jerusalem, Jerusalem 91120, Israel

Two novel deoxysugar esters, named enteridinines A and B, were isolated from the slime mold *Enteridium lycoperdon*. They have structures containing 1,7-dioxaspiro[5.5]undecanes with deoxysugars and showed growth inhibitory activities against Gram positive bacteria.



Phytochemistry, 2004, **65**, 455

C,*O*-Bisglycosylapigenins from the leaves of *Rhamnella inaequilatera*

Yoshio Takeda^a, Yoshihiro Okada^a, Toshiya Masuda^a, Eiji Hirata^b, Takakazu Shinzato^c, Hideaki Otsuka^d

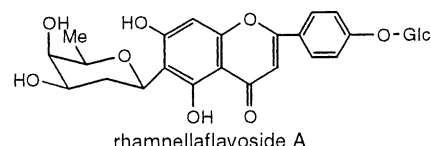
^aFaculty of Integrated Arts and Sciences, The University of Tokushima, 1-1, Minamijosanjima, Tokushima 770-8502, Japan

^bFaculty of Agriculture, University of the Ryukyus, 1 Senbaru, Nishihara-cho, Nakagami-gun, Okinawa 903-0213, Japan

^cYona Field, Subtropical Field Science Center, Faculty of Agriculture, University of the Ryukyus, 685 Yona, Kunigami-son, Kunigami-gun, Okinawa 905-1427, Japan

^dDepartment of Pharmacognosy, Graduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan

From the leaves of *Rhamnella inaequilatera*, three flavone *C*,*O*-bisglycosides were isolated and the structures were elucidated.

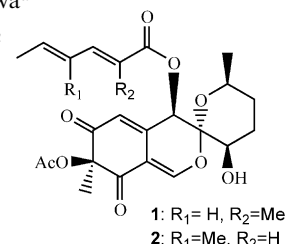


Phytochemistry, 2004, **65**, 463

Cyclic azaphilones daldinins E and F from the ascomycete fungus *Hypoxylon fuscum* (Xylariaceae)

Phytochemistry, 2004, **65**, 469Dang Ngoc Quang^a, Toshihiro Hashimoto^a, Masami Tanaka^a, Marc Stadler^b, Yoshinori Asakawa^a^aFaculty of Pharmaceutical Sciences, Tokushima Bunri University, Yamashiro-cho, Tokushima 770-8514, Japan^bBayer Health Care, Pharma Research, Europe, ET Natural Products, POB 101709, D-42096 Wuppertal, Germany

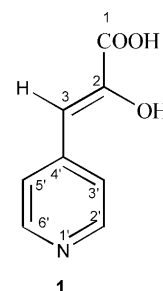
Two azaphilones named daldinins E (**1**) and F (**2**) together with two known compounds daldinin C and tetrahydroxybinaphthyl were isolated from the xylariaceous ascomycete *Hypoxylon fuscum*. Their structures were determined by a combination of 2D NMR, IR, UV, CD and MS.



Ascsonochine, the enol tautomer of 4-pyridylpyruvic acid with herbicidal activity produced by *Ascochyta sonchi*

Phytochemistry, 2004, **65**, 475Antonio Evidente^a, Anna Andolfi^a, Mohamed A. Abouzeid^a, Maurizio Vurro^b, Maria Chiara Zonno^b, Andrea Motta^c^aDipartimento di Scienze del Suolo della Pianta e dell'Ambiente, Università di Napoli Federico II, Via Università 100, 80055 Portici, Italy^bIstituto di Scienze delle Produzioni Alimentari del CNR, Viale L. Einaudi 51, 70125 Bari, Italy^cIstituto di Chimica Biomolecolare del CNR, Comprensorio Olivetti, Edificio 70, Via Campi Flegrei 34, 80078 Pozzuoli, Italy

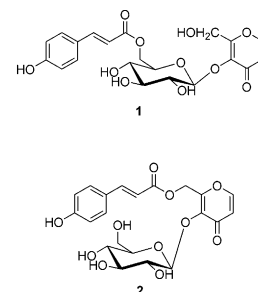
We report the isolation and the chemical and biological characterisation of ascsonochine (**1**), the (Z)-2-hydroxy-3-(4-pyridyl)-2-propenoic acid produced by *Ascochyta sonchi*, and showing interesting selective herbicidal properties, not associated to antibacterial, antifungal or zootoxic activities.



Maltol glucosides from the tuber of *Smilax bockii*

Phytochemistry, 2004, **65**, 481Hongzhu Guo^{a,b}, Kazuo Koike^a, Wei Li^a, Dean Guo^b, Tamotsu Nikaido^a^aDepartment of Pharmacognosy, Faculty of Pharmaceutical Sciences, Toho University, 2-2-1 Miyama, Funabashi, Chiba 274-8510, Japan^bDivision of Pharmacognostical Biotechnology, School of Pharmaceutical Sciences, Peking University, Beijing 100083, China

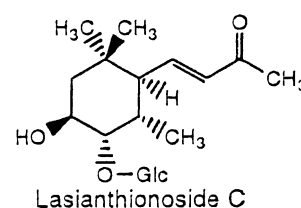
Two maltol glucosides, bockiosides A (**1**) and B (**2**), along with ten known compounds were isolated from the tuber of *Smilax bockii*. Their structures were elucidated by spectral and chemical analysis.



Lasianthionosides A–C, megastigmane glucosides from leaves of *Lasianthus fordii*

Phytochemistry, 2004, **65**, 485Yoshio Takeda^a, Toshiya Masuda^a, Eiji Hirata^b, Takakazu Shinzato^c, Masahiko Bando^d, Hideaki Otsuka^e^aFaculty of Integrated Arts and Sciences, The University of Tokushima, 1-1 Minamijosanjima-cho, Tokushima 770-8502, Japan^bFaculty of Agriculture, University of the Ryukyus, 1 Senbaru, Nishihara-cho, Nakagami-gun, Okinawa 903-0129, Japan^cYona Field, Subtropical Field Science Center, Faculty of Agriculture, University of the Ryukyus, 685 Yona, Kunigami-son, Kunigami-gun, Okinawa 905-1427, Japan^dMedicinal Chemistry Research Institute, Otsuka Pharmaceutical Co. Ltd., 463-10 Kagasuno, Kawauchi-cho, Tokushima 771-0192, Japan^eGraduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan

From the leaves of *Lasianthus fordii*, three megastigmane glucosides were isolated and the structures were elucidated by means of spectroscopic analyses and X-ray analysis.



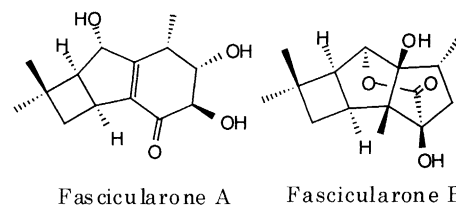
Fascicularones A and B from a mycelial culture of *Naematoloma fasciculare*

Phytochemistry, 2004, **65**, 491

Yoshihito Shiono, Ryutarou Matsuzaka, Hiroko Wakamatsu, Kimiko Muneta, Tetsuya Murayama, Michimasa Ikeda

Department of Bioresources, Faculty of Agriculture, Yamagata University, Tsuruoka, Yamagata 997-8555, Japan

Two sesquiterpenoids, fascicularones A and B, were isolated from the mycelia of a poisonous mushroom, *Naematoloma fasciculare* in a shaken culture. The structures of compounds were established on the basis of spectroscopic techniques.



Structure elucidation and phytotoxicity of C_{13} nor-isoprenoids from *Cestrum parqui*

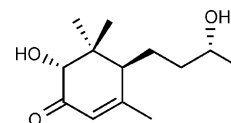
Phytochemistry, 2004, **65**, 497

Brigida D'Ambrosia^a, Marina DellaGreca^b, Antonio Fiorentino^a, Pietro Monaco^a, Palma Orianò^a, Fabio Temussi^b

^aDipartimento di Scienze della Vita, Seconda Università di Napoli, via Vivaldi 43, I-81100 Caserta, Italy

^bDipartimento di Chimica Organica e Biochimica, Università Federico II, via Cynthia 4, I-80126 Napoli, Italy

Twelve C_{13} nor-isoprenoids have been isolated from the leaves of *Cestrum parqui*. All the structures have been determined by spectroscopic means and chemical correlations. The compounds showed phytotoxic effect on the germination and growth of *Lactuca sativa*.



Cytotoxic cardenolide glycoside from the seeds of *Cerbera odollam*

Phytochemistry, 2004, **65**, 507

Surat Laphookhieo^a, Sarot Cheenpracha^a, Chatchanok Karalai^a, Suchada Chantrapromma^a, Yanisa Rat-a-pa^a, Chanita Ponglimanont^a, Kan Chantrapromma^b

^aDepartment of Chemistry, Faculty of Science, Prince of Songkla University, Hat-Yai, Songkhla 90112, Thailand

^bInstitute of Science, Walailak University, Thasala, Nakhon Si Thammarat 80160, Thailand

Cardenolide glycoside, 3 β -O-(2'-O-acetyl-l-thevetosyl)-15(14 \rightarrow 8)-abeo-5 β -(8R)-14-oxo-card-20(22)-enolide (2'-O-acetyl cerleaside A), was isolated from methylene chloride extract from the seeds of *Cerbera odollam*.

