# **CHEMICAL & PHARMACEUTICAL BULLETIN**

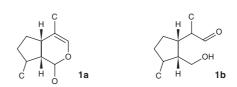
Vol. 55, No. 2 February 2007

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### Review

Naturally Occurring Iridoids. A Review, Part 1 B. Dinda, S. Debnath, and Y. Harigaya



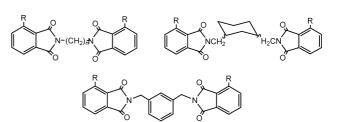
Four hundred and eighteen new naturally occurring iridoids (glycosides, aglycones and derivatives) reported during the period 1994 to 2005 are reviewed. The review consists of physical constants, spectral (UV, IR and NMR) data and plant source with reference for each compound.

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## **Regular** Articles

#### Thalidomide Analogs from Diamines: Synthesis and Evaluation as Inhibitors of TNF-α Production

M. V. de Almeida, F. M. Teixeira, M. V. N. de Souza, G. W. Amarante, C. C. S. Alves, S. H. Cardoso, A. M. Mattos, A. P. Ferreira, and H. C. Teixeira

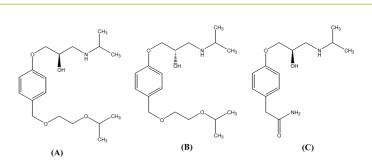


R = H, NO<sub>2</sub> or NH<sub>2</sub>; n=2, 3, 4 or 6

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Enantioanalysis of Bisoprolol in Human Plasma with a Macrocyclic Antibiotic HPLC Chiral Column Using Fluorescence Detection and Solid Phase Extraction

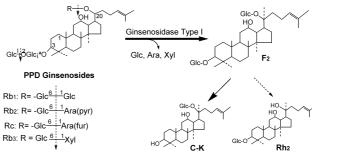
M. M. Hefnawy, M. A.-A. Sultan, and M. M. Al-Shehri





Purification and Characterization of New Special Ginsenosidase Hydrolyzing Multi-Glycisides of Protopanaxadiol Ginsenosides, Ginsenosidase Type I

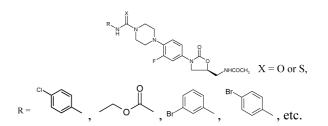
H. Yu, C. Zhang, M. Lu, F. Sun, Y. Fu, and F. Jin



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#### Synthesis and Evaluation of Urea and Thiourea Derivatives of Oxazolidinones as Antibacterial Agents

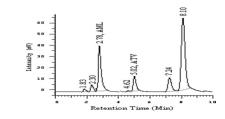
S. K. R. Aaramadaka, M. k. Guha, G. Prabhu, S. G. Kini, and M. Vijayan



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Stability Indicating RP-HPLC Method for **Simultaneous Determination of Atorvastatin** and Amlodipine from Their Combination Drug **Products** 

B. G. Chaudhari, N. M. Patel, and P. B. Shah

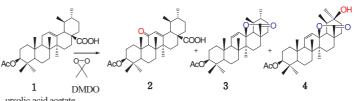


Simultaneous estimation of Atorvastatin and Amlodipine in presence of their degradation products.

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#### **Oxyfunctionalization Products of Terpenoids** with Dimethyldioxirane and Their Biological Activity

S. Ogawa, K. Hosoi, N. Ikeda, M. Makino, Y. Fujimoto, and T. Iida

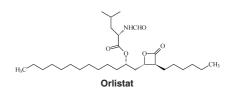


ursolic acid acetate

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#### HPLC Analysis of Orlistat and Its Application to Drug Quality Control Studies

E. Souri, H. Jalalizadeh, A. Kebriaee-Zadeh, and B. Zadehvakili



A simple, accurate and reproducible method was developed for determination of orlistat in pharmaceutical dosage forms. The dissolution conditions were also determined.

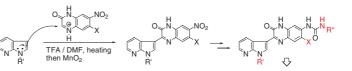
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Potent Platelet-Derived Growth Factor-β Receptor (PDGF- $\beta$  Inhibitors: Synthesis and Structure– Activity Relationships of 7-[3-(Cyclohexylmethyl)ureido]-3-{1-methyl-1H-pyrrolo[2,3-b]pyridin-3yl}quinoxalin-2(1*H*)-one Derivatives

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- H. Hirokawa, J. Koseki, T. Hattori, K. Niitsu,
- S. Takeda, M. Aburada, and K. Miyamoto

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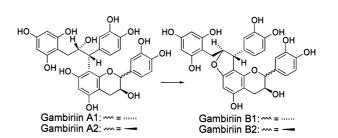


SAR study for PDGF-B Receptor inhibitor

#### Revised Structures of Gambiriins A1, A2, B1, and B2, Chalcane-Flavan Dimers from Gambir (*Uncaria gambir* Extract)

S. Taniguchi, K. Kuroda, K. Doi, M. Tanabe,

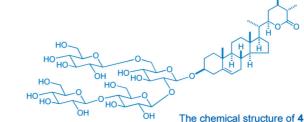
T. Shibata, T. Yoshida, and T. Hatano



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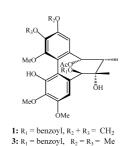
A. Yokosuka and Y. Mimaki

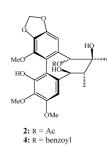


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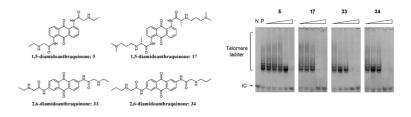




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#### Synthesis and Human Telomerase Inhibition of a Series of Regioisomeric Disubstituted Amidoanthraquinones

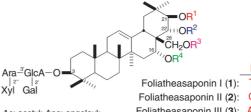
H.-S. Huang, I.-B. Chen, K.-F. Huang, W.-C. Lu, F.-Y. Shieh, Y.-Y. Huang, F.-C. Huang, and J.-J. Lin

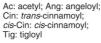


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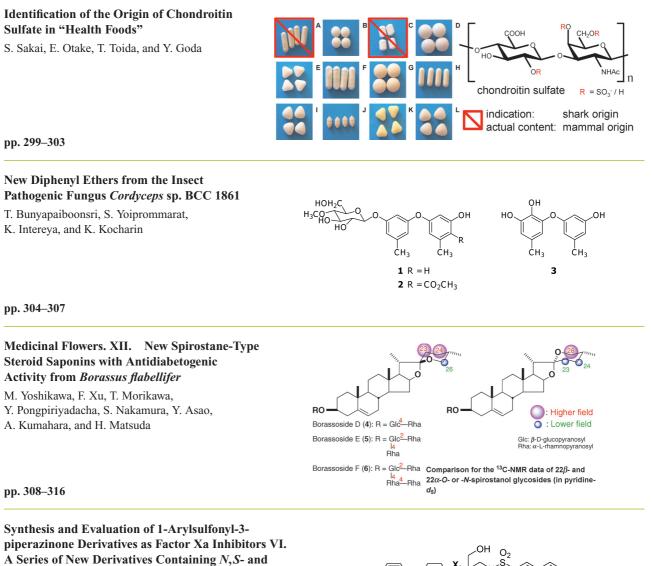
T. Morikawa, S. Nakamura, Y. Kato, O. Muraoka, H. Matsuda, and M. Yoshikawa





R R<sup>3</sup> R<sup>4</sup> Ac Tig н Ac Foliatheasaponin II (2): Cin Н н Ac Foliatheasaponin III (3): Ang Ac н Ac Foliatheasaponin IV (4): cis-Cin Ac H Ac Foliatheasaponin V (5): Cin H Ac H

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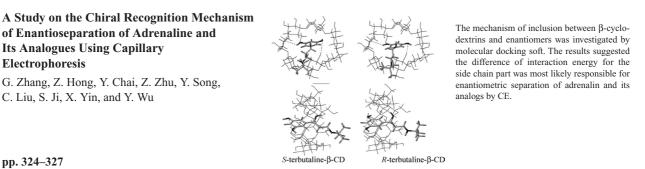
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F. Saitoh, H. Nishida, T. Mukaihira, N. Kosuga, M. Ohkouchi, T. Matsusue, I. Shiromizu, Y. Hosaka, M. Matsumoto, and I. Yamamoto



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### Notes

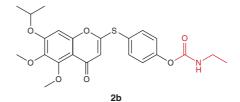


7b (X=S)

10b (X=SO<sub>2</sub>)

#### Synthesis and Evaluation of Carbamate Prodrugs of a Phenolic Compound

Y. Igarashi, E. Yanagisawa, T. Ohshima, S. Takeda, M. Aburada, and K. Miyamoto



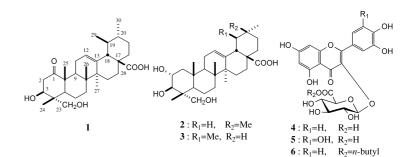
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T. Nakanishi, Y. Inatomi, H. Murata, S. Ishida,

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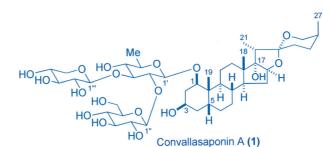
F. A. Lang, and J. Murata



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#### Convallasaponin A, a New 5 $\beta$ -Spirostanol Triglycoside from the Rhizomes of *Convallaria majalis*

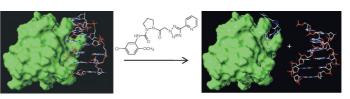
T. Higano, M. Kuroda, H. Sakagami, and Y. Mimaki



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#### Identification of Novel Ligands for the Z-DNA Binding Protein by Structure-Based Virtual Screening

Y.-G. Kim, K.-M. Thai, J. Song, K. K. Kim, and H.-J. Park

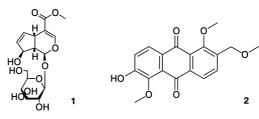


We describe the first discovery of small molecules that bind to the Z-DNA binding domain of human ADAR1 (Adenosine Deaminase Acting on RNA 1) by structure-based virtual screening of chemical database. The molecules identified in this study may serve as novel leads for the design of agents that inhibit biological functions of pathogenic viruses.

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# New Constituents from the Leaves of *Morinda citrifolia*

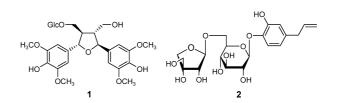
J. Takashima, Y. Ikeda, K. Komiyama, M. Hayashi, A. Kishida, and A. Ohsaki



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# Two New Glycosides from the Whole Plants of *Glechoma hederacea* L.

H. Yamauchi, R. Kakuda, Y. Yaoita, K. Machida, and M. Kikuchi



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About the cover: Chondroitin sulfate (CS) is composed of a repeating disaccharide unit of the structure  $[-4)GlcA(\beta 1-3)GalNAc(\beta 1-]_n$ . The numbers and positions of the *O*-sulfo groups vary among CS samples obtained from different sources. It has been observed without exception that CS from mammals contains GalNAc with a higher percentage of sulfation at the C4-position than that at the C6-position, while CS from shark contains GalNAc with a lower percentage of sulfation at the C4-position than that at the C6-position. Twelve "health foods" products containing CS were purchased from the Japanese market and the origin of the CS was investigated by conducting disaccharide compositional analysis after enzymatic depolymerization and by <sup>1</sup>H-NMR spectroscopy. Nine of the 12 products had labels indicating that the origin of the CS was shark cartilage. However, two of them were found to contain mammalian CS. See the article by Sakai *et al.* on page 299 of this issue.