

Most-Accessed Articles from a Highly Cited Leader in Biochemistry, Biophysical Chemistry & Molecular Biology

Listed below are the ten most-accessed articles during 2008. Go to the *Biochemistry* homepage at pubs.acs.org/biochemistry to view lists of most-read and most-cited articles from the journal.

Editor: Richard N. Armstrong, Vanderbilt University School of Medicine

Farnesyldiphosphate Synthase. Altering the Catalytic Site To Select for Geranyl Diphosphate Activity
Suzanne M. Stanley-Fernandez, Brenda A. Keeling, and C. Dale Poulter
[Article], 2000, 39 (50), 15516-15525
DOI: 10.1021/bi001430s

Free-Energy Landscape of Enzyme Catalysts
Stephen J. Reskuk, Gordon C. Hammes, and Sharon Hammes-Schiffer
[New Concepts], 2008, 47 (11), 3317-3322
DOI: 10.1021/bi00049r

The Glycosyphosphatidylinositol Anchor: A Complex Membrane-Anchoring Structure for Proteins
Margot G. Paulick and Carolyn R. Bertozzi
[Current Topics/Perspectives], 2008, 47 (27), 6991-7000
DOI: 10.1021/bi0006924

AFM: A Nanotool in Membrane Biology
Daniel J. Muller
[Current Topics/Perspectives], 2008, 47 (11), 7946-7950
DOI: 10.1021/bi000750x

DNA Polymerases as Therapeutic Targets
Anthony J. Brudz
[Current Topics/Perspectives], 2008, 47 (32), 8253-8260
DOI: 10.1021/bi001179t

Phospholamban Thiools Play a Central Role in Activation of the Cardiac Muscle Sarcoplasmic Reticulum Calcium Pump by Nitroxy
Jeffrey P. Froehlich, James E. Mahaney, Glenn Kocik, Christopher M. Pawloski, Russell Goldstein, Abigail J. Redwood, Carla Sumbila, Dong J. Lee, Carlo G. Iocchetti, David A. Ross, Nazareno Paulino, and John P. Toscano
[Rapid Report], 2008, 47 (50), L3350-L3352
DOI: 10.1021/bi001925p

Misfolding of the Cystic Fibrosis Transmembrane Conductance Regulator and Disease
Joanne L. Cheung and Charles M. Deber
[Current Topics/Perspectives], 2008, 47 (6), 1465-1473
DOI: 10.1021/bi072201h

Residence Time of Receptor-Ligand Complexes and Its Effect on Biological Function
Peter J. Luminao and Robert A. Copeland
[Current Topics/Perspectives], 2008, 47 (20), 5481-5482
DOI: 10.1021/bi0002023

Analysis of Hsp90 Chaperone Interactions Reveals a Novel Mechanism for TPR Protein Recognition
Ahmed Chahli, Elizabeth S. Brunema, Bridget Stensgaard, and David Joff
[Article], 2008, 47 (9), 2850-2857
DOI: 10.1021/bi072335z

Revisiting Heme Mechanisms. A Perspective on the Mechanisms of Nitric Oxide Synthase (NOS), Heme Oxygenase (HO), and Cytochrome P450s [CYP450s]
Yaogu Zhu and Richard B. Silverman
[Current Topics/Perspectives], 2008, 47 (5), 2233-2244
DOI: 10.1021/bi0703817

Quantification of Milk Fat Globule Membrane Proteins Using Selected Reaction Monitoring Mass Spectrometry
Bertram Y. Fong* and Carmen S. Norris

July 22, 2009

JAFCAU 57(14):5987-6484 (2009) ISSN 0021-8561
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REVIEWS

- 5987 **Application of Natural Antimicrobials for Food Preservation**
Brijesh K. Tiwari, Vasilis P. Valdramidis, Colm P. O' Donnell, Karisivianathan Muthukumarappan, Paula Bourke, and P. J. Cullen*

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- 6001 **Rapid Authentication of Olive Oil Adulteration by Raman Spectrometry**
Ming-Qiang Zou, Xiao-Fang Zhang*, Xiao-Hua Qi, Han-Lu Ma, Ying Dong, Chun-Wei Liu, Xut Guo, and Hong Wang
- 6007 ■ **Combined Normal-Phase and Reversed-Phase Liquid Chromatography/ESI-MS as a Tool To Determine the Molecular Diversity of A-type Procyandins in Peanut Skins**
Maaike M. Appeldoorn, Jean-Paul Vincken, Mark Sanders, Peter C. H. Hollman, and Harry Gruppen*
- 6014 **Investigation of Natural Phosphatidylcholine Sources: Separation and Identification by Liquid Chromatography-Electrospray Ionization-Tandem Mass Spectrometry (LC-ESI-MS²) of Molecular Species**
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- 6021 **Quantification of Milk Fat Globule Membrane Proteins Using Selected Reaction Monitoring Mass Spectrometry**
Bertram Y. Fong* and Carmen S. Norris
- 6029 **Methods for Mucin Analysis: A Comparative Study**
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- 6036 **Determination of Ochratoxin A in Ready-To-Drink Coffee by Immunoaffinity Cleanup and Liquid Chromatography-Tandem Mass Spectrometry**
Shigeaki Noba*, Atsuo Uyama, and Naoki Mochizuki
- 6041 **NMR Metabolic Profiling of Transgenic Maize with the *Cry1A(b)* Gene**
Fabiana Piccioni, Donatella Capitani, Lello Zolla, and Luisa Mammì*
- 6050 ■ **Quantitative PCR Method To Measure the Fungal Endophyte in Locoweeds**
Daniel Cook*, Dale R. Gardner, Kevin D. Welch, Jessie M. Roper, Michael H. Ralphs, and Benedict T. Green

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*Mohd Shahnaz Khan, Medha Priyadarshini, and Bilquees Bano**

- 6060 Anti-inflammatory Activity of Flavokawain B from *Alpinia pricei* Hayata
*Chien-Tsung Lin, K. Jayabal Senthil Kumar, Yen-Hsueh Tseng, Zi-Jie Wang, Mu-Yun Pan, Jun-Hong Xiao, Shih-Chang Chien, and Sheng-Yang Wang**

- 6066 Red Wine Protects against Ethanol-Induced Oxidative Stress in Rat Liver
Marco Assunção, Maria J. Santos-Marques, Rosário Monteiro, Isabel Azevedo, José P. Andrade, Fálix Carvalho, and Maria J. Martins*

- 6074 Mechanisms of Hop Inhibition: Hop Ionophores
*Jürgen Behr and Rudi F. Vogel**

- 6082 Comparison of Major Phenolic Constituents and in Vitro Antioxidant Activity of Diverse Kudingcha Genotypes from *Ilex kudingcha*, *Ilex cornuta*, and *Ligustrum robustum*
*Fan Zhu, Yi-Zhong Cai, Mei Sun, Jinxia Ke, Dayan Lu, and Harold Cooke**

- 6090 Synthesis and Insect Antifeedant Activity of Plumbagin Derivatives with the Amino Acid Molety
*Thonithula Sreelatha, Atmakur Hymavathi, Katragadda Suresh Babu, Joish Madhusudana Murthy, Usha Rani Pathipati, and Janaswamy Madhusudana Rao**

- 6095 Stability Studies on Astaxanthin Extracted from Fermented Shrimp Byproducts
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- 6101 Biotransformation of Sesaminol Triglucoside to Mammalian Lignans by Intestinal Microbiota
Kuo-Ching Jan, Lucy Sun Hwang, and Chi-Tang Ho**

- 6107 Changes in *Lupinus albus* and *Lupinus angustifolius* Alkaloid Profiles in Response to Mechanical Damage
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- 6114 Anticancer Activity of Rhamnollosan against DU-145 Cells Is Kinetically Complementary to Coexisting Polyphenolics in *Psidium guajava* Budding Leaves
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- 6123 Attenuation of Renoinflammatory Cascade in Experimental Model of Diabetic Nephropathy by Sesamol
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- 6129 A Novel Immunomodulatory Protein from *Poria cocos* Induces Toll-like Receptor 4-Dependent Activation within Mouse Peritoneal Macrophages
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- 6140 Antiviral Effect of Epigallocatechin Gallate on Enterovirus 71
Hung-Yao Ho, Mei-Ling Cheng, Shiu-Fen Weng, Yann-Lii Lee, and Daniel Tian-Yee Chiu**

- 6148 Bioprocessing of Wheat Bran Improves in vitro Bioaccessibility and Colonic Metabolism of Phenolic Compounds
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- 6156 Antihypertensive Effect of a Polyphenol-Rich Cocoa Powder Industrially Processed To Preserve the Original Flavonoids of the Cocoa Beans
*Elena Cienfuegos-Jovelanos, María del Mar Quiñones, Begona Miguez, Leila Moulay, Marta Miguel, and Amaya Aleixandre**

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- 6167 Dissolution of Beech and Spruce Milled Woods in LiCl/DMSO
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- 6171 ■ Simultaneous Degradation of Organophosphates and 4-Substituted Phenols by *Stenotrophomonas* Species LZ-1 with Surface-Displayed Organophosphorus Hydrolase
Zheng Liu, Chao Yang, Hong Jiang, Ashok Mulchandani, Wilfred Chen, and Chuanling Qiao**

- 6178 Effects of Salinity Changes on the Growth of *Dunaliella salina* and Its Isozyme Activities of Glycerol-3-phosphate Dehydrogenase
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- 6183 Supramolecular Structure and Conformation of a (1→3)(1→2)- β -D-Glucan from *Lactobacillus suebicus* CUPV221 as Observed by Tapping Mode Atomic Force Microscopy
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- 6189 ■ Squalene versus Ergosterol Formation Using *Saccharomyces cerevisiae*: Combined Effect of Oxygen Supply, Inoculum Size, and Fermentation Time on Yield and Selectivity of the Bioprocess
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- 6199 Expression Analysis Identifies *FAD2-2* as the Olive Oleate Desaturase Gene Mainly Responsible for the Linoleic Acid Content in Virgin Olive Oil
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- 6207 Clp and RpPF Up-regulate Transcription of *pelA1* Gene Encoding the Major Pectate Lyase in *Xanthomonas campestris* pv. *campestris*
Yi-Min Hsiao, Mei-Chung Fang, Pei-Fang Sun, and Yi-Hsiung Tseng**

- 6216 Production of a Recombinant Type 1 Antifreeze Protein Analogue by *L. lactis* and Its Applications on Frozen Meat and Frozen Dough
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- 6224 Production and Physicochemical Properties of Recombinant *Lactobacillus plantarum* Tannase
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