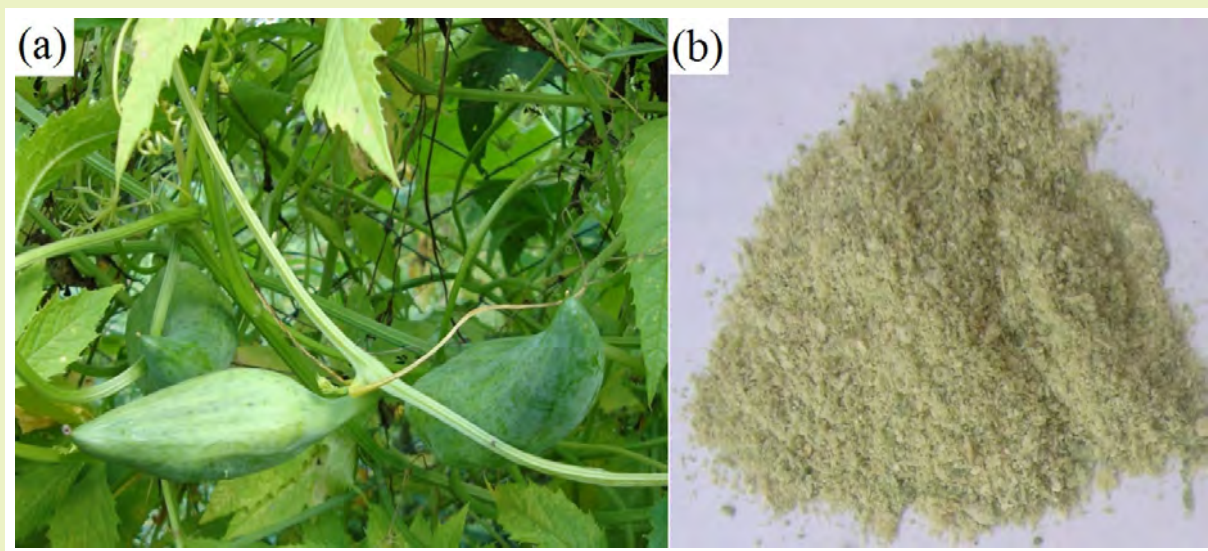


Food and Nutrition Sciences

Special Issue on Antioxidant Research in Food Science



ISSN Print: 2157-944X ISSN Online: 2157-9458
<http://www.scirp.org/journal/fns>

ISSN Print: 2157-944X ISSN Online: 2157-9458
<http://www.scirp.org/journal/fns>

Prof. Alessandra Bordini University of Bologna, Italy

Prof. Xufeng Huang	University of Wollongong, Australia
Prof. Michael G. Kontominas	University of Ioannina, Greece
Prof. Yousheng Li	Nanjing University, China

Dr. Kayanush J. Aryana	Louisiana State University, USA
Dr. Nick Bellissimo	Ryerson University, Canada
Dr. Lauri O. Byerley	Louisiana State University, USA
Dr. Daniel Cozzolino	The University of Adelaide, Australia
Prof. Kelvin J. A. Davies	University of Southern California, USA
Prof. Asim K. Duttaroy	University of Oslo, Norway
Dr. Anthony Fardet	Institut National de la Recherche Agronomique, France
Prof. Tomas Girbes	University of Valladolid, Spain
Dr. Beau K. Greer	Sacred Heart University, USA
Prof. Giulia Guerriero	University of Naples Federico II, Italy
Dr. Jeffrey S. Hampl	Arizona State University, USA
Prof. Yong He	Zhejiang University, China
Dr. Kimberly B. Heidal	East Carolina University, USA
Prof. Yu Huang	Chinese University of Hong Kong, China
Prof. Federico Infascelli	University of Naples Federico II, Italy
Dr. Jagat R. Kanwar	Deakin University, Australia
Dr. Dalia El Khoury	University of Toronto, Canada
Prof. Patricia A. Kruk	University of South Florida, USA
Dr. Jean-Claude Lavoie	University of Montreal, Canada
Dr. Ji Young Lee	University of Connecticut, USA
Dr. Josef Friedhelm Marx	University of Bonn, Germany
Dr. Francisco Javier Moreno	Autonomous University of Madrid, Spain
Prof. Hasan Mukhtar	University of Wisconsin, USA
Dr. Maurice O’Sullivan	University College Cork, Ireland
Dr. Mustafa Zafer Özel	The University of York, UK
Dr. Uma Devi Palanisamy	Monash University Sunway Campus, Australia
Dr. Akhilesh K. Pandey	Texas Tech University Health Sciences Center, USA
Prof. Young W. Park	Fort Valley State University, USA
Dr. Salina Parveen	University of Maryland Eastern Shore, USA
Dr. Glen S. Patten	Commonwealth Scientific and Industrial Research Organization, Australia
Dr. Reza Poureslami	Insta-Pro International, USA
Dr. Jayadev Raju	Health Canada, Canada
Prof. Charles R. Santerre	Purdue University, USA
Dr. Vicki L. Schlegel	University of Nebraska-Lincoln, USA
Dr. Mykola Shynkaryk	The Ohio State University, USA
Dr. Geeta Sikand	University of California, USA
Dr. Heidi J. Silver	Vanderbilt University, USA
Prof. Jesus Simal-Gandara	University of Vigo, Spain
Prof. Linda G. Snetselaar	The University of Iowa, USA
Dr. Lucy Thairu	Touro University, USA
Dr. Brijesh Kumar Tiwari	Manchester Metropolitan University, UK
Prof. Alan C. Tsai	Asia University, Chinese Taipei
Dr. Thomas T. Y. Wang	Johns Hopkins University, USA
Dr. Ali Abas Wani	Technical University of Munich, Germany
Dr. Jack Wing Tak Wong	Stanford University School of Medicine, USA

TABLE OF CONTENTS

Volume 4 Number 8A

August 2013

The Antioxidant and Free Radical Scavenging Activities of Chlorophylls and Pheophytins	
C.-Y. Hsu, P.-Y. Chao, S.-P. Hu, C.-M. Yang.....	1
Effects of Black Soybean on Atherogenic Prevention in Hypercholesterolemic Rabbits and on Adhesion Molecular Expression in Cultured HAECs	
P.-Y. Chao, Y.-L. Chen, Y.-C. Lin, J.-I. Hsu, K.-H. Lin, Y.-F. Lu, T.-J. Yiu, M.-Y. Huang, C.-M. Yang.....	9
Antioxidant and Anti-Inflammatory Effects of Peanut Skin Extracts	
W. E. Lewis, G. K. Harris, T. H. Sanders, B. L. White, L. L. Dean.....	22
Supplementation of Vitamin E and C Reduces Oxidative Stress in Broiler Breeder Hens during Summer	
B. P. Jena, N. Panda, R. C. Patra, P. K. Mishra, N. C. Behura, B. Panigrahi.....	33
The Effect of Seeds and Fruit Pulp of <i>Adansonia digitata</i> L. (Baobab) on Ehrlich Ascites Carcinoma	
F. G. Elsaid.....	38
Polyphenols, Ascorbic Acid and Carotenoids Contents and Antioxidant Properties of Habanero Pepper (<i>Capsicum chinense</i>) Fruit	
M. R. S. Campos, K. R. Gómez, Y. M. Ordoñez, D. B. Ancona.....	47
Nutritional, Antioxidant and Anti-Inflammatory Properties of <i>Cyclanthera pedata</i>, an Andinean Fruit and Products Derived from Them	
M. Rivas, D. Vignale, R. M. Ordoñez, I. C. Zampini, M. R. Alberto, J. E. Sayago, M. I. Isla.....	55
Indigenous Purple Vegetable Extracts Protect against Hydrogen Peroxide-Induced DNA Damage in Human Lymphocytes	
P.-Y. Chao, W.-Y. Huang, S.-P. Hu, H.-F. Lo, K.-H. Lin, M.-Y. Huang, T.-R. Chang, C.-M. Yang.....	62
Antioxidant Properties of Medicinal Plants from Peru	
A. Berłowski, K. Zawada, I. Wawer, K. Paradowska.....	71
Evaluation for Antioxidative Properties of Phlorotannins Isolated from the Brown Alga <i>Eisenia bicyclis</i>, by the H-ORAC Method	
Y. Fujii, R. Tanaka, H. Miyake, Y. Tamaru, M. Ueda, T. Shibata.....	78
Biophysical Characterization of Genistein in Its Natural Carrier Human Hemoglobin Using Spectroscopic and Computational Approaches	
B. Pahari, S. Chakraborty, B. Sengupta, S. Chaudhuri, W. Martin, J. Taylor, J. Henley, D. Davis, P. K. Biswas, A. K. Sharma, P. K. Sengupta.....	83
Contribution of Major Hydrophilic and Lipophilic Antioxidants from Papaya Fruit to Total Antioxidant Capacity	
L. E. G.-G. Sancho, E. M. Yahia, G. A. González-Aguilar.....	93
Effect of Homogenization Temperature and Pressure on Lipoprotein Lipase Activity and Free Fatty Acids Accumulation in Milk	
L. Wiking, J. A. Dickow.....	101
Extraction of β-Carotene, Vitamin C and Antioxidant Compounds from <i>Physalis peruviana</i> (Cape Gooseberry) Assisted by High Hydrostatic Pressure	
V. Briones-Labarca, C. Giovagnoli-Vicuña, P. Figueroa-Alvarez, I. Quispe-Fuentes, M. Pérez-Won.....	109
Relationships between Fruit Acceptability and Health-Case of Seven Pomegranate (<i>Punica granatum</i> L.) Juices	
C. El Kar, N. Mtimet, A. Ferchichi, J. Bouajila.....	119

The Relationship between Antioxidant and Anti-Ulcer Activities in Saudi Honey Samples Harvested from Various Regions in Different Seasons

N. Al-Jaber.....131

Antioxidant Effect of Roasted Barley (*Hordeum vulgare* L.) Grain Extract towards Oxidative Stress *in Vitro* and *in Vivo*

M. Omwamba, F. Li, G. J. Sun, Q. H. Hu.....139

Aged Vacuum Packaged Lamb Cuts Are Less Brown than Fresh Muscle Cuts under Simulated Retail Display

E. N. Ponnampalam, K. L. Butler, V. F. Burnett, M. B. McDonagh, J. L. Jacobs, D. L. Hopkins.....147

Major Phenolics in Yerba Mate Extracts (*Ilex paraguariensis*) and Their Contribution to the Total Antioxidant Capacity

L. Deladino, A. S. Teixeira, M. Reta, A. D. M. García, A. S. Navarro, M. N. Martino.....154

Effect of Dietary EGCG on Normal and Vitamin E and Selenium Deficient Rats

J. E. Andrade, J. R. Burgess.....163

Identification of Anthocyanins Isolated from Black Bean Canning Wastewater by Macroporous Resin Using Optimized Conditions

X. Wang, C. Hansen, K. Allen.....174

A Comparative Study on the Total Antioxidant and Antimicrobial Potentials of Ethanolic Extracts from Various Organ Tissues of *Allium* spp.

T.-C. Chang, H.-T. Chang, S.-T. Chang, S.-F. Lin, Y.-H. Chang, H.-D. Jang.....182

Association between Body Condition and Oxidative Status in Dogs

A. Pasquini, S. Roberti, V. Meucci, E. Luchetti, S. Canello, G. Guidetti, G. Biagi.....191

Antioxidant Enrichment and Antimicrobial Protection of Fresh-Cut Mango Applying Bioactive Extracts from Their Seeds By-Products

V. Vega-Vega, B. A. Silva-Espinoza, M. R. Cruz-Valenzuela, A. T. Bernal-Mercado, G. A. González-Aguilar, I. Vargas-Arispuro, C. G. Corrales-Maldonado, J. F. Ayala-Zavala.....197

Development of a Rapid and Simple Non-Derivatization Method to Determine Constituents and Antioxidative Capacity of Camellia Oils by HPTLC

G.-P. Lv, M. Aoli, B. Zhou, J. Zhao.....204

Antioxidant Potential of Extracts from Processing Residues from Brazilian Food Industries

N. Mezzomo, D. A. Oliveira, S. R. S. Ferreira.....211

Lipid Oxidation in Mechanically Deboned Chicken Meat: Effect of the Addition of Different Agents

J. Bigolin, C. I. Weber, A. da T. Alfaro.....219

Influence of Micronized Chitosan on Antioxidative Activities in Grape Juice

P.-J. Chien, C.-M. Li, C.-H. Lee, H.-H. Chen.....224

Effect of Lipids and Thermal Processing on Antioxidant Activities of Tested Antioxidants and Tom-Kha Paste Extract

N. Pengseng, S. Siripongvutikorn, W. Usawakesmanee, S. Wattanachant, P. Sutthirak.....229

Antioxidant Capacity in Vanilla Extracts Obtained by Applying Focused Microwaves

A. Rojas-López, M. P. Cañizares-Macías.....244

The figure on the front cover is from the article published in Food and Nutrition Sciences, 2013, Vol. 4, No. 8A, pp. 55-61 by Marisa Rivas, *et al.*

Food and Nutrition Sciences

Journal Information

SUBSCRIPTIONS

The *Food and Nutrition Sciences* (Online at Scientific Research Publishing, www.SciRP.org) is published monthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per copy.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright©2013 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

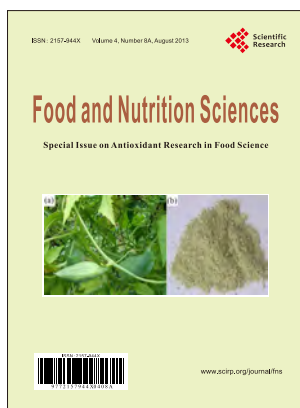
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: fns@scirp.org



Call for Papers

Food and Nutrition Sciences

ISSN Print: 2157-944X ISSN Online: 2157-9458

<http://www.scirp.org/journal/fns>

Food and Nutrition Sciences is a peer reviewed international journal dedicated to the latest advancement in related areas. The goal of this journal is to keep a record of the state-of-the-art research and to promote study, research and improvement within its various specialties.

Subject Coverage

All manuscripts submitted to FNS must be previously unpublished and may not be considered for publication elsewhere at any time during FNS's review period. Additionally, accepted ones will immediately appear online followed by printed in hard copy. Topics to be covered by this journal include, but are not limited to:

- Animal Nutrition
- Antioxidants and Phytochemicals in Food
- Byproducts Processing and Utilization
- Calorie Intake and Consumption
- Carbohydrates and Fibers
- Clinical Nutrition
- Consumer Choice, Preferences, and Concerns
- Diets and Diseases
- Eating Disorders
- Food Chemistry, Engineering and Microbiology
- Food Conservation and Preparation
- Food Machinery
- Food Packaging
- Food Processing Technology
- Food Safety and Hygiene
- Food Science and Technology
- Grain and Oil Engineering
- Healthy Eating Initiatives
- Hormonal Regulations
- Malnutrition
- Maternal and Infant Nutrition
- Metabolism and Nutrition Physiology
- Molecular Gastronomy
- Nutrient Metabolism
- Nutrition and Immunology
- Obesity
- Proteins and Amino Acids
- Public Health Nutrition
- Sensory Analysis
- Sports Nutrition
- Vitamins and Minerals

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of FNS.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/fns>

E-mail: fns@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, world-wide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific
Research**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org