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DE GRUYTER

User Guide

(주)제이알엠

02-2038-8519

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<KERIS 대학 라이선스 De Gruyter e-Journal HSS Collection 소개>

▶ 출판사 소개

: 1749년 독일에서 설립

: 매 년 1,300여 종 이상의 신간 타이틀, 360여 종의 저널, 550여 종의 Open Access 저널과 50여 개의 데이터베이스를 포함하여 다양한 디지털 프로덕트를 출판

▶ HSS Journal Collection 소개

: 제공 종 수 - 258종

: 커버리지 - 1995년 ~ Current

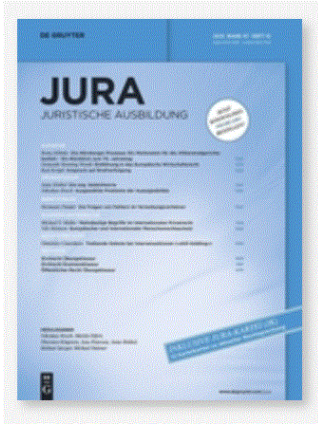
: 엠바고 없음

: 주제 분야별 제공 종 수

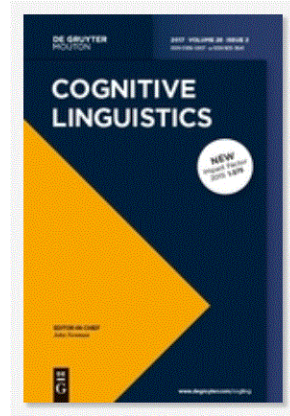
주제	언어학, 문학	정치학, 사회학, 경제학	법학	철학, 종교	고전, 역사	문헌정보학
종 수	84	50	45	37	33	9

<De Gruyter e-Journal HSS Collection 주요 저널>

-법학-



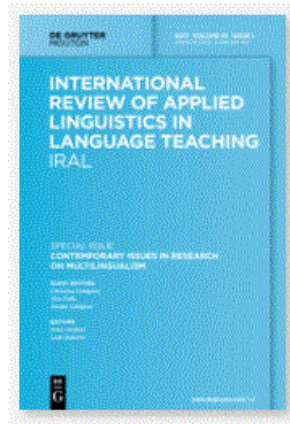
-언어학-



-종교학-



-철학-



1. De Gruyter Main Homepage

The screenshot shows the De Gruyter main homepage with several annotations in Korean. At the top right, there is a search bar with a magnifying glass icon, labeled "간단검색" (Simple Search). Below it is an "Advanced Search" link. To the left of the search bar, there are two blue boxes: "주제별" (By Subject) and "자료유형" (By Product Type). Below these are two red-bordered boxes containing lists of subjects and product types. The main banner features the text "OUT OUR NEW ONLINE REFERENCE WORKS. FREE TRIALS AVAILABLE!". Below the banner is a "HIGHLIGHTS" section with book covers. On the right side, there is a "MY CART" icon, a "고급검색" (Advanced Search) label, and a "DE GRUYTER NEWSLETTER" sign-up box. A "Feedback" button is located at the bottom right.

주제별

자료유형

간단검색

Search De Gruyter Online

Advanced Search >

MY CART

고급검색

SUBJECTS ▾

- Architecture and Design
- Arts
- Asian and Pacific Studies
- Business and Economics
- Chemistry
- Classical and Ancient Near Eastern Studies
- Computer Sciences
- Cultural Studies
- Engineering
- General Interest
- Geosciences
- History
- Industrial Chemistry
- Islamic and Middle Eastern Studies
- Jewish Studies
- Law
- Library and Information Science, Book Studies
- Life Sciences
- Linguistics and Semiotics
- Literary Studies
- Materials Sciences
- Mathematics

PRODUCT TYPES ▾

- Books
- Textbooks
- Journals/Yearbooks
- Databases
- Multi-Volume Works
- Book Series
- New Publications
- Upcoming Publications

TECHNOLOGY, CHEMISTRY AND LIFE SCIENCES @ DE GRUYTER

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NEW ONLINE REFERENCE WORKS.
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HIGHLIGHTS

STAUDINGER
BGB

NEUROFORUM

KARL MARX
FRIEDRICH ENGELS
DEUTSCHE IDEOLOGIE
ZUR KRITIK
DER PHILOSOPHIE

Dieckmann
DIE STELLUNG
DER DEUTSCHEN
SPRACHE IN
DER WELT

DE GRUYTER NEWSLETTER

Free regular emails on new products and current topics from your field of interest.

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Feedback

https://www.degruyter.com/browse

2. Search : 간단검색

The screenshot shows the De Gruyter search results page. At the top left is the De Gruyter logo. The top right contains navigation links: Log in, Register, Help, and Deutsch. A search bar is highlighted with a red box and labeled '저널 타이틀 입력' (Journal title input). Below the search bar is a 'MY CART' icon. The main content area is titled 'Search Results - De Gruyter Publishers' and is labeled '검색 결과' (Search results). It includes filters for 'SUBJECTS' and 'PRODUCT TYPES'. A sidebar on the left is labeled '주제 별로 선택 가능' (Selectable by subject) and lists various subjects. The main results list shows 'International Journal of Food Engineering' with a 'LICENSED ACCESS' button highlighted in red and labeled '원문 접속 권한' (Full-text access). Below it is 'Product and Process Design (2018)' with a 'SAVE' button. The bottom right corner has a 'Feedback' button.

DE GRUYTER

Log in Register Help Deutsch

저널 타이틀 입력

Search De Gruyter Online

Advanced Search >

MY CART

SUBJECTS PRODUCT TYPES

Print | Save search | Your opinion | Email | Share

Search Results - De Gruyter Publishers

검색 결과

Per page 10 Sort by Relevance

es Chapters, Articles, Entries Page: 1 2 3 4 5 6 7

You are looking at 1-10 of 69 items for: International Journal of Food Engineering

International Journal of Food Engineering Clear All

International Journal of Food Engineering

Product Type: Journals/Yearbooks

Format: Online

SAVE LICENSED ACCESS

원문 접속 권한

Product and Process Design (2018)

Harmsen, Jan / de Haan, André B. / Swinkels, Pieter L. J.

ISBN: 978-3-11-046774-1

Product Type: Textbooks

Format: eBook (PDF)

Also available as eBook (EPUB), Paperback

SAVE

Feedback

주제 별로 선택 가능

SUBJECT

- Business and Economics (1)
- Chemistry (19)
- Classical and Ancient Near Eastern Studies (1)
- Engineering (4)
- General Interest (22)
- Geosciences (2)
- Industrial Chemistry (30)
- Life Sciences (17)
- Materials Sciences (13)
- Medicine (2)
- Physics (4)

REFINE BY DATE

- 1980-1989 (1)
- 2000-2009 (3)
- 2010-2019 (59)
- 2020-2029 (1)

2. Search : 간단검색

REFINE BY DATE

- 1980-1989 (1)
- 2000-2009 (3)
- 2010-2019 (59)
- 2020-2029 (1)

날짜별로 선택 가능

PRODUCT TYPE

- Journals/Yearbooks (34)
- Book Series (0)
- Multi-Volumed Works (0)
- Books (16)
- Databases (0)
- Textbooks (11)

UPDATE

출판물 타입별로 선택 가능

COMING SOON / NEW RELEASES

- Future Publications (11)
- Upcoming Publications (1)
- New Publications (3)

앞으로 출시될 출판물

ACCESSIBLE CONTENT

- Free Access
- Open Access
- All-accessible-content

UPDATE

검색 결과에서 원문 접속의 범위를 설정

PUBLISHER

- De Gruyter (103)
- Sciendo (12)
- Böhlau (2)
- Birkhäuser (12)
- De Gruyter Oldenbourg (31)
- De Gruyter Akademie Forschung (6)
- transcript Verlag (5)

출판사별로 선택 가능

Product Type: Textbooks

Formulation Science and Technology

Tadros, Tharwat F.
Volume 4 Agrochemicals, Paints and Coatings and Food Colloids (2018)

Also available as eBook (EPUB), Hardcover

SAVE

ISBN: 978-3-11-061201-1
Product Type: Books
Format: Hardcover

Integrated Bioprocess Engineering (2018)

ISBN: 978-3-11-031539-4
Product Type: Textbooks
Format: eBook (PDF)

Chemistry of Nanomaterials

Volume 1 Metallic Nanomaterials (to be published October 2018)

3. Advanced Search : 고급검색

DE GRUYTER

Log in Register Help Deutsch

My Content (6) My Searches (2) Search De Gruyter Online

Advanced Search >

MY CART

저자 명, 글 전체, ISBN/ISSN, Keywords, 언어, 주제, 제목으로 상세 검색이 가능

Advanced search

Search by entering a word or phrase in the search box. Press the Enter key or click the search button to execute the search. You can add new row(s) to include additional words or phrases and refine your search further.

Author
Full text
ISBN/ISSN
Keywords
Language
Subject
Title

Author
Author
Full text
ISBN/ISSN
Keywords
Language
Subject
Title

Journals/Yearbooks Databases Multi-Volumed Works Book Series Textbooks

출판물의 종류

De Gruyter Harvard University Press Sciendo Böhlau Birkhäuser De Gruyter Oldenbourg De Gruyter Akademie transcript Verlag University of Toronto Press
Forschung Cornell University Press

Constrain results to publications only. Do not search documents - articles, chapters and entries

출판물만 검색하도록 제한

De Gruyter 하위 카테고리

Print Publication Date: From: YYYY To: YYYY Exact: YYYY

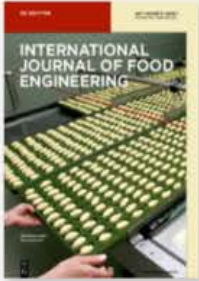
출판 년도

CLEAR SEARCH

Feedback

LIBRARIES TRADE AUTHORS SOCIETIES NEWSROOM LEHRBÜCHER OPEN ACCESS

4. View : 열람하기



International Journal of Food Engineering

Editor-in-Chief: Chen, Xiao Dong
12 Issues per year
IMPACT FACTOR 2017: 0.923
CiteScore 2017: 0.98
SCImago Journal Rank (SJR) 2017: 0.323
Source Normalized Impact per Paper (SNIP) 2017: 0.505

LICENSED ACCESS

Online
ISSN 1556-3758

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[Get New Article Alert](#)

개요

- Overview** >
- Content >
- Most Downloaded Articles >
- Submission of Manuscripts >

Issue Journal/Yearbook

Volume Issue Page

Overview

Your benefits

- Excellent contributions from all over the world
- Outstanding platform for sharing most recent researches on food processing
- Researchers from top engineering programs
- Fast access to contributions due to the ahead of print publishing
- Interdisciplinary approach to the subject matter
- Groundbreaking research methods and strategies

Aims and Scope

Objective

International Journal of Food Engineering is devoted to engineering disciplines related to processing foods. The areas of interest include heat, mass transfer and fluid flow in food processing; food microstructure development and characterization; application of artificial intelligence in food engineering research and in industry; food biotechnology; and mathematical modeling and software development for food processing purposes. Authors and editors come from top engineering programs around the world: the U.S., Canada, the U.K., and Western Europe, but also South America, Asia, Africa, and the Middle East.

Feedback

4. View : 열람하기

The screenshot shows a journal's 'View' page. At the top left, there is a small image of a keyboard and a 'LICENSED ACCESS' checkbox. The top right corner displays 'Online ISSN 1556-3758' and a menu for 'See all formats and pricing'. Below this are buttons for 'Print Flyer', 'Recommend to Librarian', 'Get eTOC Alert', and 'Get New Article Alert'. The main content area is divided into a left sidebar and a main list. The sidebar includes 'Overview', 'Current Issue', 'Most Downloaded Articles', and 'Submission of Manuscripts'. A search box is also present. The main list shows 'Volume 14 (2018)' and 'Volume 13 (2017)', each with a list of issues and their dates. Three blue callout boxes with red borders provide instructions: one points to 'Current Issue', another to 'Select Volume and Issue', and a third to the search filters.

CiteScore 2017: 0.98
SCImago Journal Rank (SJR) 2017: 0.323
Source Normalized Impact per Paper (SNIP) 2017: 0.505

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ISSN 1556-3758

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현재 이슈

Select Volume and Issue

원하는 Volume, Issue로 이동이 가능

Volume Issue Page GO

Volume, Issue, Page로 검색이 가능

Feedback

4. View : 열람하기

Overview >
Current Issue >
Most Downloaded Articles >
Submission of Manuscripts >

Select Volume and Issue

Volume 14, Issue 5-6 (May 2018)

Search within...
Issue Journal/Yearbook

Volume Issue Page GO

Immobilized enzymolysis of corn gluten meal under triple-frequency ultrasound
Qu, Wenjuan / Sehemu, Raya Masoud / Zhang, Tian / Song, Bingjie / Yang, Lan / Ren, Xiaofeng / Ma, Haile
Article number 20170347
Published Online: 06/02/2018

The Effect of Solution Properties on the Photochemical Ability of Pulsed Light to Inactivate Soybean Lipoxygenase
Alhendil, Abeer / Yang, Wade / Sarnoski, Paul J.
Article number 20180086
Published Online: 05/25/2018

Batter Rheology and Quality of Sponge Cake Enriched with High Percentage of Resistant Starch (Hi-maize)
Hedayati, Sara / Majzoobi, Mahsa / Farahnaky, Asgar
Article number 20170293
Published Online: 05/01/2018

Development of a Novel Kinetic Model for Cocoa Fermentation Applying the Evolutionary Optimization Approach
López-Pérez, Pablo A. / Cuervo-Parra, Jaime A. / Robles-Olvera, Victor José / Del C Rodriguez Jimenes, Guadalupe / Pérez España, Victor H. / Romero-Cortes, Teresa
Article number 20170206
Published Online: 05/25/2018

Drying Performance and Product Quality of Sliced Carrots by Infrared Blanching Followed by Different Drying Methods
Wu, Bengang / Pan, Zhongli / Xu, Baoguo / Bai, Junwen / El-Mashad, Hamed M. / Wang, Bel / Zhou, Cunshan / Ma, Haile

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4. View : 열람하기

가장 많이 인용된 글

MOST DOWNLOADED ARTICLES

1. Effect of Drum Drying on Physico-chemical Characteristics of Dragon Fruit Peel (*Hylocereus polyrhizus*) by Chia, S.L. and Chong, G.H.
2. Solubility of egg white proteins: Effect of pH and temperature by Gomes, Maria Theraza Moraes Santos and Pelegrine, Daniela Helena Guimarães
3. Frontmatter
4. Moisture Sorption Isotherms and Net Isosteric Heats of Sorption of Green Soybean by Yang, Zhao/ Zhu, Enlong and Zhu, Zongsheng
5. Frontmatter
6. Masthead
7. A Review of Drying Processes in the Production of Pumpkin Powder by Roongruangsi, Warawaran and Bronlund, John E.
8. Physicochemical Characterization of Arrowroot Starch (*Maranta arundinacea* Linn) and Glycerol/Arrowroot Starch Membranes by Sandoval Gordillo, Carlos Andrés/ Ayala Valencia, Germán/ Vargas Zapata, Rubén Antonio and Agudelo Henao, Ana Cecilia
9. Design and Development of Low-Cost Makhana Grading and Roasting Machine by Kumar, Vishal/ Rajak, Dinesh/ Kumar, Raushan/ Kumar, Vikash and Devi Sharma, Pralibha
10. Frontmatter
11. Kaempferol Extraction from *Cuscuta reflexa* using Supercritical Carbon Dioxide and Separation of Kaempferol from the Extracts by Mitra, Pranabendu/ Chang, Kyu-Seob and Yoo, Dae-Seok
12. Microencapsulation of Colors by Spray Drying - A Review by Kandansamy, Kannan and Somasundaram, Priyenka Devi
13. Frontmatter
14. An Improved and Efficient Method for the Extraction of Phycocyanin from *Spirulina* sp by Doke, Jayant Mahadev
15. Heat Transfer Studies in Coiled Agitated Vessel with Varying Heat Input by Perarasu, V.T/ Arivazhagan, M and Sivashanmugam, P
16. Frontmatter
17. Masthead
18. Mass Transfer Coefficients and Correlation of Supercritical Carbon Dioxide Extraction of Sarawak Black Pepper by May Lin, Ting/ Siew Ping, Then/ Saptoro, Agus and Freddie, Panau
19. Evaluation and Optimization of Steam and Lye Peeling Processes of Sweet Potato (*Ipomea batatas*) using Response Surface Methodology (RSM) by Oladejo, Ayobami O./ Sobukola, Olajide P./ Awonori, Samuel O. and Adejuyigbe, Samuel B.
20. Standardization of Curing and Microwave Drying of Turmeric (*Curcuma longa*) Rhizomes by Gagare, Santosh/ Mudgal, V.D./ Champawat, P.S. and Pisal, Amit

Drying Performance and Product Quality of Sliced Carrots by Infrared Blanching Followed by Different Drying Methods
Wu, Bengang / Pan, Zhongli / Xu, Baoguo / Bai, Junwen / El-Mashad, Hamed M. / Wang, Bei / Zhou, Cunshan / Ma, Haile

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4. View : 열람하기

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International Journal of Food Engineering
Editor-in-Chief: Chen, Xiao Dong

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Volume 14, Issue 5-6 [Next Article >](#)

Immobilized enzymolysis of corn gluten meal under triple-frequency ultrasound

Wenjuan Qu | Raya Masoud Sehemu | Tian Zhang | Bingjie Song | Lan Yang | Xiaofeng Ren | Haile Ma

18-06-02 | DOI: <http://ps3.doi.org.libproxy.snu.ac.kr/10.1515/ijfe-2017-0347>

초록

PDF로 보기

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Abstract

The single frequency ultrasound mode is difficult to achieve a higher enzymolysis efficiency. The cost of protein enzymatic hydrolysis, using free enzyme is higher because the enzyme cannot be used repeatedly. Therefore, the effects of triple-frequency ultrasound (TFU) treatment on the performance, kinetics, and thermodynamics of immobilized Alcalase enzymolysis of corn gluten meal (CGM) were investigated in this research. The results showed that degree of hydrolysis (DH), peptide concentration, ACE inhibitory activity, and relative enzyme activity were increased by 20.6 %, 34.4 %, 24.1 %, and 25.8 %, respectively, by TFU treatment at the optimum conditions compared to the control. Kinetics and thermodynamic analyses revealed that TFU treatment successfully decreased the apparent constant (K_M) by 27.0 % and increased the reaction rate constants (k) by 32.1–200 % at 303.15–343.15 K. The energy of activation (E_a), enthalpy of activation (ΔH), and entropy of activation (ΔS) were reduced by 17.1 %, 15.2–15.3 %, and 24.1–31.8 %, respectively. Immobilized enzymolysis assisted by TFU was proved to be an efficient method to increase the enzymolysis efficiency, enzyme activity, and antihypertensive activity of the peptides through performance and mechanism discussion.

Keywords: corn gluten meal; enzymatic hydrolysis; ultrasound; immobilized enzyme; kinetics

1 Introduction

Corn gluten meal (CGM), a by-product in maize starch plant, can be potentially used to prepare functional peptides through enzymatic hydrolysis method because it has a high protein content (67–71 %) and well-balance of essential amino acids [1]. Ma, et al. [2] proved that the Pentapeptide Q-L-L-P-F by enzymatic hydrolysis of CGM protein had a potent ability in facilitating alcohol metabolism. Yang, et al. [3] reported that ACE inhibitory peptides released by CGM enzymolysis had a good antihypertensive activity.

In recent years, using ultrasound technology to improve the enzymolysis efficiency of proteins to prepare bioactive peptides has received much attention [4, 5]. Zhou, et al. [6] proved that for the enzymatic hydrolysis of CGM with a single-frequency ultrasound (SFU) pretreatment, the apparent break-down rate constant (k_A) was increased by 10.98 % compared with the control without ultrasound pretreatment. The mostly used ultrasound frequency at present studies in protein ultrasound pretreatment is basically a single-frequency mode, which is difficult to achieve higher enzymolysis efficiency [6, 7, 8, 9]. Li, et al. [10] used a single-frequency ultrasound to pretreat rice protein first and then enzymatic hydrolysis was performed by free protease. Compared with the enzymolysis without ultrasound (18.05 %), the DH was only increased by 14 % at time of 100 min under single-frequency ultrasound pretreatment. However, the advanced working mode of simultaneous triple-frequency ultrasound (TFU) is rarely used in enzymatic hydrolysis of proteins. TFU represents the simultaneous action of ultrasounds with different frequencies. Multiple ultrasonic waves are focused on a point in the treatment solution, resulting in a broader ultrasonic wave spectrum through the superposition effect of the wave. It is more suitable for the treatment of multi-target complex system and is

Feedback

4. View : 열람하기 (PDF로 보기)

ijfe-2017-0347.pdf 1 / 18

DE GRUYTER International Journal of Food Engineering. 2018; 20170347

Wenjuan Qu¹ / Raya Masoud Sehemu¹ / Tian Zhang¹ / Bingjie Song¹ / Lan Yang¹ / Xiaofeng Ren¹ / Haile Ma¹

Immobilized enzymolysis of corn gluten meal under triple-frequency ultrasound

¹ School of Food and Biological Engineering, Jiangsu University, 301Xuefu Road Zhenjiang, Jiangsu, China, E-mail: wqu@ujs.edu.cn

Abstract:
The single frequency ultrasound mode is difficult to achieve an higher enzymolysis efficiency. The cost of protein enzymatic hydrolysis, using free enzyme is higher because the enzyme cannot be used repeatedly. Therefore, the effects of triple-frequency ultrasound (TFU) treatment on the performance, kinetics, and thermodynamics of immobilized Alcalase enzymolysis of corn gluten meal (CGM) were investigated in this research. The results showed that degree of hydrolysis (DH), peptide concentration, ACE inhibitory activity, and relative enzyme activity were increased by 20.6 %, 34.4 %, 24.1 %, and 25.8 %, respectively, by TFU treatment at the optimum conditions compared to the control. Kinetics and thermodynamic analyses revealed that TFU treatment successfully decreased the apparent constant (K_M) by 27.0 % and increased the reaction rate constants (k) by 32.1–200 % at 303.15–343.15 K. The energy of activation (E_a), enthalpy of activation (ΔH), and entropy of activation (ΔS) were reduced by 17.1 %, 15.2–15.3 %, and 24.1–31.8 %, respectively. Immobilized enzymolysis assisted by TFU was proved to be an efficient method to increase the enzymolysis efficiency, enzyme activity, and antihypertensive activity of the peptides through performance and mechanism discussion.

Keywords: corn gluten meal, enzymatic hydrolysis, ultrasound, immobilized enzyme, kinetics
DOI: 10.1515/ijfe-2017-0347
Received: October 23, 2017; **Revised:** May 11, 2018; **Accepted:** May 23, 2018

1 Introduction

Corn gluten meal (CGM), a by-product in maize starch plant, can be potentially used to prepare functional peptides through enzymatic hydrolysis method because it has a high protein content (67–71 %) and well-balance of essential amino acids [1]. Ma, et al. [2] proved that the Pentapeptide Q-L-L-P-F by enzymatic hydrolysis of

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