

Open Journal of Polymer Chemistry



ISSN: 2165-6681



<https://www.scirp.org/journal/ojpchem>

Journal Editorial Board

ISSN 2165-6681 (Print) ISSN 2165-6711 (Online)

<https://www.scirp.org/journal/ojpchem>

Editors-in-Chief

Prof. Emilio Bucio

National University of Mexico, Mexico

Prof. Arno Seeboth

Fraunhofer Institute for Applied Polymer Research, Germany

Editorial Board

Prof. Luc Averous

University of Strasbourg, France

Dr. Durairaj Baskaran

University of Tennessee, USA

Prof. Jeanette M. Cardamone

Eastern Regional Research Center, USA

Dr. Zhengdong Cheng

Texas A&M University, USA

Prof. Ranganathaiah Chikkakuntappa

University of Mysore, India

Prof. Adel Z. El-Sonbati

Mansoura University, Egypt

Prof. Yakai Feng

Tianjin University, China

Prof. Chang-Sik Ha

Pusan National University, South Korea

Prof. Beom Soo Kim

Chungbuk National University, South Korea

Prof. Sang Hak Lee

Kyungpook National University, South Korea

Prof. Junqiu Liu

Jilin University, China

Prof. Tarek M. Madkour

The American University in Cairo, Egypt

Prof. Rinaldo Marguerite

Joseph Fourier University, France

Dr. Mane Rahul Maruti

Shivaji University, India

Prof. Placido Mineo

University of Catania, Italy

Prof. Ajay Kumar Mishra

University of South Africa, South Africa

Dr. Michael R. Roner

University of Texas at Arlington, USA

Prof. Kestur Gundappa Satyanarayana

B.M.S. College of Engineering, India

Prof. De-Yi Wang

Leibniz Institute of Polymer Research, Germany

Dr. Shin-ichi Yusa

University of Hyogo, Japan

Table of Contents

Volume 9 Number 4

November 2019

Nanocellulose Applications in Wood Adhesives—Review

S. K. Vineeth, R. V. Gadhave, P. T. Gadekar.....63

Study on Various Compositions of Polyvinyl Alcohol and Starch Blends by Cross-Linking with Glyoxal

R. V. Gadhave, P. A. Mahanwar, P. T. Gadekar.....76

Chemical Modification of Nanocellulose in Wood Adhesive: Review

S. K. Vineeth, R. V. Gadhave, P. T. Gadekar.....86

Study of the Crosslinking of PVA with Glyoxal in LbL Nanocomposites

F. B. Dhieb, A. C. García, S. H. Tabatabaei, F. Mighri, A. Ajji.....100

Isolation of Nanocellulose from Cotton Cellulose and Computer Modeling of Its Structure

A. Atakhanov, I. Turdikulov, B. Mamadiyrov, N. Abdullaeva, I. Nurgaliev, Y. Khaydar, S. Rashidova.....117

Open Journal of Polymer Chemistry (OJPChem)

Journal Information

SUBSCRIPTIONS

The *Open Journal of Polymer Chemistry* (Online at Scientific Research Publishing, <https://www.scirp.org/>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$69 per issue.

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 and reuse rights for the front matter of the journal:

Copyright © 2019 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

Copyright for individual papers of the journal:

Copyright © 2019 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

Disclaimer of liability

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 assume 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: ojpchem@scirp.org



Open Journal of Polymer Chemistry (OJPChem)

ISSN 2165-6681 (Print) ISSN 2165-6711 (Online)

<https://www.scirp.org/journal/ojpchem>

Open Journal of Polymer Chemistry (OJPChem) is an international peer-reviewed, open-access journal dedicated to the latest advancements in polymer chemistry. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and perspectives in polymer chemistry and related disciplines.

Editors-in-Chief

Prof. Emilio Bucio
Prof. Arno Seeboth

National University of Mexico, Mexico
Fraunhofer Institute for Applied Polymer Research, Germany

Editorial Board

Prof. Luc Averous
Dr. Durairaj Baskaran
Prof. Jeanette M. Cardamone
Dr. Zhengdong Cheng
Prof. Ranganathaiah Chikkakuntappa
Prof. Adel Z. El-Sonbati
Prof. Yakai Feng
Prof. Chang-Sik Ha
Prof. Beom Soo Kim
Prof. Sang Hak Lee

Prof. Junqiu Liu
Prof. Tarek M. Madkour
Prof. Rinaldo Marguerite
Dr. Mane Rahul Maruti
Prof. Placido Mineo
Prof. Ajay Kumar Mishra
Dr. Michael R. Roner
Prof. Kestur Gundappa Satyanarayana
Prof. De-Yi Wang
Dr. Shin-ichi Yusa

Subject Coverage

The journal publishes original papers including but not limited to the following fields:

- Application of Polymers and Water Research and Membrane
- Behavior and Propriety of Polymers in Solid-State, Melt-State or Solution
- Biopolymers
- Characteristics and Properties of Polymer/Inorganic Hybrid Systems
- Chemical Modifications of Natural and Synthetic Polymers for New End-Use Applications
- Functional and Advanced Polymers
- New Architectural Polymers
- Polymer Characterization
- Polymer Physical Chemistry
- Polymerization Kinetics and Mechanisms
- Synthesis and Properties of Macromolecules
- Synthesis-Structure Relationships
- Synthetic Polymers

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

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 submission, please access the website.

Website and E-Mail

<https://www.scirp.org/journal/ojpchem>

E-mail: ojpchem@scirp.org