

Vol. 1, No. 1, 2014

International Journal of
**LIGNOCELLULOSIC
PRODUCTS**



Gorgan University of Agricultural Sciences and Natural Resources

International Journal of Lignocellulosic Products



Gorgan University of Agricultural
Sciences and Natural Resources

Executive Director:

Ali Najafineghad, President of GUASNR

Editor-in-Chief

Hossein Resalati, Professor

Gorgan University of Agricultural Sciences and Natural Resources, Iran

Managing Editor

Mehrab Madhoushi, Associate Professor

Gorgan University of Agricultural Sciences and Natural Resources, Iran

Associate Editor

Ali Ghasemian, Associate Professor

Gorgan University of Agricultural Sciences and Natural Resources, Iran

Editorial Board

Stavros Avramidis, Professor, University of British Columbia, Canada

Martin Philip Ansell, Professor, University of Bath, UK

Paul A Cooper, Professor, University of Toronto, Canada

Ghanbar Ebrahimi, Professor Emeritus, University of Tehran, Iran

Pedro E Fardim, Professor, Åbo Akademi University (ÅA), Finland

Seyed Ziaeddin Hosseini, Professor Emeritus Gorgan University of Agricultural Sciences and Natural Resources, Iran

Martin A. Hubbe, Professor, North Carolina State University, USA

Ahmad Jahan Latibari, Professor, Islamic Azad University, Karaj Branch, Iran

Frank Lam, Professor, University of British Columbia, Canada

Seyed Ahmad Mirshokraie, Professor, Payame Noor University, Tehran, Iran

Yuji Matsumoto, Professor, University of Tokyo, Japan

Leonard Mwaikambo, Associate Professor, University of Dar es Salaam, Tanzania

Yonghao Ni, Professor, University of New Brunswick, Canada

Ashgar Omidvar, Professor Emeritus Gorgan University of Agricultural Sciences and Natural Resources, Iran

Antonio Pizzi, Professor, LERMAB, France

Roger M. Rowell, Professor Emeritus, University of Wisconsin, Madison, USA

Bernard Thibaut, Associate Professor, University Montpellier 2, France

Taghi Tabarsa, Professor, Gorgan University of Agricultural Sciences and Natural Resources, Iran

Aims and Scope: *International Journal of Lignocellulosic Products (IJLP)*, is a quarterly publication by Faculty of Wood and Paper Engineering at Gorgan University of Agricultural and Natural Resources, Iran.

IJLP is a peer-reviewed journal and aims to provide a forum for the prompt publication of original research on all areas of lignocellulosic products and composites, including

- Science, fundamentals, and characterization,
- Physical, chemical and mechanical properties,
- Engineering design, analysis, mathematical modeling and computer simulation,
- Their utilization in traditional, conventional and new applications in all cases,
- Manufacturing economy, raw material supplying and management,
- Modern utilizations and new capabilities,
- New and innovative technologies for the measurement of properties,
- Employing the new technologies such as biotechnology and nanotechnology in production of lignocellulosic products.

IJLP publishes original articles, review articles, case studies and short communications on the above mentioned topics.

All articles subject to a peer review process managed by the co-editors, with oversight by the Editorial Board.

IJLP employs an automated system for web-based submission of articles.

Contact information: Journal Office, Vice-President for Research, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, 49138-15739, Iran.

Website: <http://ijlp.gau.ac.ir>, E-mail: ijlp@gau.ac.ir, Tel: +98-17-32242438, Fax: +98-17-32225989



Contents

Acetylation of wood – A review

Roger M. Rowell.....1

Fiber reinforced plastic composites using recycled materials

A.R. Ashori, A. Nourbakhsh28

Effect of chitosan on the mold resistance of wood and its surface properties

R. Gorgij, A. Tarmian, A.N. Karimi.....39

Preliminary study of the physical and mechanical properties of Soya stalk flour/high density polyethylene composite

M. Mehdinia, A.A. Enayati, M. Layeghi.....50

Applicability of GPC, GC-MS and ¹³C NMR techniques and DFRC method in comparative structural studies of Lignin

S.A. Mirshokraie, V. Haji Aghaei, T. Partovi, S. Noroozi.....58

Investigation on MDF market demand in Iran

M.R. Dehghani Firouzabadi, P. Ghorbannezhad72

Variability in wood properties of promising willow clones

K. Rai Sharma, Aloyce M. Kilemwa, NB Singh, Ch. Lekha82