

Joint International Symposium on Wood Composites & Veneer Processing and Products 2011

**Seattle, Washington, USA
5-7 April 2011**

Volume 1 of 2

Editors:

**Vikram Yadama
Karl Englund**

Robert J. Tichy

ISBN: 978-1-61839-119-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2011) by the Forest Products Society
All rights reserved.

Printed by Curran Associates, Inc. (2011)

For permission requests, please contact the Forest Products Society
at the address below.

Forest Products Society
2801 Marshall Ct.
Madison, WI 53705-2295

Phone: (608) 231-1361
Fax: (608) 231-2152

www.forestprod.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

VOLUME 1

KEYNOTE SESSION: FOREST PRODUCTS INDUSTRY FUTURE – WHAT’S HAPPENING, WHAT’S NEXT:

Panel Markets: Will Global Recovery Falter in 2011-2012?	1
<i>Bernard Fuller</i>	
Key Markets for North American Wood Products	20
<i>Craig Adair</i>	
Diversifying Forest Products Options – A New Paradigm	75
<i>Miles Drake</i>	
Future Trends in Forest Products R&D	103
<i>Alan Potter</i>	
Innovative LVL Applications in Commercial and Multi-story Buildings	136
<i>Murray Sturgeon, Andy Van Houtte</i>	
Codes and Standards Affecting the use of Wood Products in China	162
<i>Xu Fang</i>	

PB, MDF, OSB PROCESSING & PRODUCTS SESSION:

What’s Going on Inside your Hot Press?	204
<i>Ulrich Hilbers, Jorg Hasener</i>	
How New Ways of Blow Detection Technology can Improve Online Evaluation of Panel Characteristics by Implementing Advanced Calibration Methods	222
<i>Jan Pippert</i>	
Spray Nozzle Rechnology Allows Composite Board Plants to Increase Production	247
<i>Brian Valley</i>	
Measurement of OSB Green-End Fines to Optimize Mill Processing Efficiency	278
<i>C. Kevin Groves, Robert M. Knudson</i>	
Natural Nanotube as a Novel Filler for Particleboard Production	312
<i>Xuelian Zhang, Gregory D. Smith</i>	
Effects of Wood-Resources on Selected Particleboard Properties	337
<i>Rupert Wimmer, Stefan Schoneberg, Martin Weigl</i>	
Wood Fiber and U.S. Public Policy	345
<i>Corey Connors</i>	
Fiber Quality Control for MDF Production	365
<i>Oliver Pieper, Benjamin Seppke, Martin Ohlmeyer, Jorg Hasener</i>	
Blending Efficiency Part A: Solving the Problem of Chipout in Laminated Particleboard - Part B: Core Blending and How to Improve it	366
<i>Raymond J. Roberts</i>	
Medium Density Fiberboard (MDF) from Hot-water Extracted Hardwood	425
<i>Vikram Yadama, Thomas E. Amidon</i>	

VENEER PROCESSING & PRODUCTS SESSION:

Technological Improvements in Plywood/LVL Manufacturing	449
<i>Chunping Dai</i>	
The Opportunity for the Lower Grade Douglas Fir Veneer to Produce High Value LVL Products	476
<i>Bob Gordon, Sandy Chen</i>	
Veneer and Plywood from Early-age Thinnings of Plantations of Sub-tropical Hardwoods in Queensland, Australia	494
<i>Michael J. Kennedy, Henri Bailleres, Robert McGavin</i>	
On-line Heating Temperatures of green-wood prior to peeling	524
<i>Anna Duplex, Remy Marchal, Mark Hughes, Laurent Bleron, Frederic Rossi</i>	

Effect of Peeling Checks on Bond Quality Between Birch (Betula Pendula) Veneer and PF-Resin	551
<i>Anti Rohumaa, Janne Logren, Mark Hughes</i>	
Results from Experiments with a New Veneer Drying Method	570
<i>Olli Paaajanen, Henrik Holmberg, Pia Lahti, Matti Kairi</i>	
Characterising Veneer Surfaces with XPS: The Effect of Soaking Temperature	589
<i>Leena-Sisko Johansson, Anti Rohumaa, Akio Yamamoto, Janne Lain, Tapani Vuorinen, Mark Hughes</i>	

VOLUME 2

Veneer Grading Strategies for Maximizing Resource Utilization	616
<i>Harry Moore</i>	
The Strategic Development and Marketing of an Innovative New Plywood Product	652
<i>Christian Blyt</i>	
Technical Challenges of Accurately Moisture Sorting Southern Yellow Pine Green Veneer	700
<i>Brian Martin</i>	

SUSTAINABILITY, ENVIRONMENTAL ISSUES, AND REGULATIONS:

Development of an ISO Standard Draft for the Assessment of Systems of Conformity in the Field of Formaldehyde Emission of Wood Based Panels	729
<i>Harald Schwab</i>	
The ACC Formaldehyde Panel: Challenges in 2011	777
<i>David B. Fischer</i>	
The Impact of Building Code Changes on Wood Structural Panel Wall Sheathing Market	788
<i>Thomas D. Skaggs</i>	
Cross Laminated Timber Structures (CLT) - Composite Technology for Multi-story Buildings	845
<i>Erol Karacabeyli</i>	
Veneer-based Lightweight Sandwich Panel for High-end Interior Applications: Manufacturing, Evaluation and Cost Analysis	901
<i>Debes Bhattacharyya, Stephen Kavermann, Prasad Penneru, Sanjeev Rao</i>	
Builder's Perceptions of Green Building Programs: Japan vs China	912
<i>Ivan Eastin, Indroneil Ganguly, Jeff Cao</i>	
Environmental Product Declarations: The Next Generation for Ecolabels	1003
<i>Jennifer O'Connor</i>	
Alternate Adhesive Systems for the Wood Composites Industry	1033
<i>Marcia Vidal</i>	
Formaldehyde Scavengers: Overview and Tests - Production of Low Formaldehyde Emission Wood Panels	1060
<i>Georges Francis</i>	
Wood Particle and Fiber Combustibility in the Presence of a pMDI Binder	1089
<i>Chris Moriarty</i>	
Emissions of Volatile Organic Compounds (VOC) from MDF	1107
<i>Martin Ohlmeyer, Jonas Vagt, Joachim Hasch, Michael Scholer</i>	
Commercial Evaluation of Soy Adhesives	1160
<i>James M. Wescott</i>	
Author Index	