

WOOD RESEARCH

62(5): 2017

Wood Research publishes original papers aimed at recent advances in all branches of wood science (biology, chemistry, wood physics and mechanics, mechanical and chemical processing etc.) Authors are responsible for the fact that the paper has not been published before and it is not under consideration for publication elsewhere.

EDITORS:

Štefan ŠTELLER, Slovak Forest Products Research Institute, Dúbravská cesta 14, SK-841 04 Bratislava, Slovak Republic.

Marián BABIAK, Technical University in Zvolen, Masarykova 24, SK-960 53 Zvolen, Slovak Republic

ASSOCIATE EDITOR:

Eva NEUSCHLOVÁ, Slovak Forests Products Research Institute, Dúbravská cesta 14, SK-841 04 Bratislava, Slovak Republic

EDITORIAL BOARD:

Štefan BARCÍK, Faculty of Environmental and Manufacturing Technology of Technical University in Zvolen, Študentská 26, 960 53 Zvolen, Slovak Republic

Ingo BURGERT, ETH Zürich, Institute for Building Materials, HIF E 23.2, Stefano-Franscini-Platz 3, 8093 Zürich, CH-Switzerland

Ignacio J. DIAZ-MAROTO, University of Santiago de Compostela, High School Polytechnic, University Campus s/n, 27002 Lugo, Spain

Miha HUMAR, University of Ljubljana, Jamnikarjeva 101, SI-1001 Ljubljana, Slovenia

Jan KANÓCZ, Technical University of Košice, Letná 9, 042 00 Košice

Bohuš KASAL, Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut WKI, Bienroder Weg 54 E, D-38108 Braunschweig, Germany

Svetozár KATUŠČÁK, Slovak Technical University, Radlinského 9, SK-812 37 Bratislava, Slovak Republic

Radomír KLVÁČ, Mendel University in Brno, Zemedelska 3, CZ-613 00 Brno, Czech Republic

Jozef KÚDELA, Faculty of Wood Sciences and Technology of Technical University in Zvolen, Masarykova 24, 960 53 Zvolen, Slovak Republic

Bartłomiej MAZELA, Poznań University of Life Sciences, ul. Wojska Polskiego 28, PL-60-637 Poznań, Poland

Holger MILITZ, University of Göttingen, Büsgenweg 4, D-37077, Göttingen, Germany

Róbert NÉMETH, University of West Hungary, Bajcsy Zs. u. 4, H-9400 Sopron, Hungary

Milan ORŠANIĆ, University of Zagreb, Svetošimunska 25, HR-40000 Zagreb, Croatia

Ján SEDLIAČIK, Faculty of Wood Sciences and Technology of Technical University in Zvolen, Masarykova 24, 960 53 Zvolen, Slovak Republic

Alfred TEISCHINGER, Boku-University of Natural Resources and Life Sciences, Institute for Wood Technology and Renewable Materials, Konrad Lorenz Strasse 24, 3430 Tulln, Austria

Aleš ZEIDLER, Czech University of Life Science in Prague, Kamýcká 1176, CZ-165 21 Praha 6 Suchbátka, Czech Republic

EDITORIAL OFFICE

Slovenský drevársky výskumný ústav/ Slovak Forest Products Research Institute

Dúbravská cesta 14, SK-841 04, Bratislava, Slovak Republic

Phone: 0911 728 624

E-mail: woodresearch.sdvu@vupc.sk, WEB: www.woodresearch.sk

SUBSCRIPTION INFORMATION:

Wood Research is published six times a year. Subscription rate 150 EUR (including mailing expenses). Subscription order should be sent to Slovak Forest Products Research Institute, Dúbravská cesta 14, SK-841 04 Bratislava, Slovak Republic

© 2017 by SDVÚ Bratislava, Slovak Republic

All rights reserved. By submitting a manuscript, the authors agree that the copyright for their article is transferred to their publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in retrieval system or transmitted in any form or by any means, photocopying, electronic, recording, etc. without the prior written permission of the publisher as mentioned in Slovak Copyright Law No 383/1997.

Issued: October 2017

IČO 31 380 051

Printed by Pulp and Paper Research Institute, Dúbravská cesta 14, Bratislava, e-mail: sekretariat@vupc.sk

WOOD RESEARCH

Volume 62, Number 5, 2017

CONTENTS

1. LIPING LIN, YAN YANG, JIAN QIU, BEI LUO, LEI QIN: Effects of thermo-vacuum treatment on the anatomical structures of Szemao pine wood and alder birch wood 673
2. LINA KARLINASARI, M. IRFAN DANU, DODI NANDIKA, MAMAN TUJAMAN: Drilling resistance method to evaluate density and hardness properties of resinous wood of agarwood (*Aquilaria malaccensis*) 683
3. IGOR ČUNDERLÍK, PETER VILKOVSKY, VLADIMÍR RAČKO: Shear strength and analysis of shear area on wood/bark interface on beech wood (*Fagus sylvatica* L.) 691
4. LING CHEN, JINGQUAN HAN, RUNZHOU HUANG, XINWU XU, QINGLIN WU: Thermal decomposition properties of recycled tire rubber filled wood/high density polyethylene composites 701
5. JOZEF BALBERCAK, STEFAN BOHACEK, PETER MEDO, VLADIMIR IHNAT, HENRICH LUBKE: Chemical processing of waste wood based agglomerates Part I: Evaluation of properties of fluting liners made of semichemical pulp obtained by a mildly alkaline sulphur-free cooking process 715
6. KATARZYNA PENTOŚ, DETA ŁUCZYCKA, TOBIASZ WYSOCZAŃSKI: Dielectric properties of selected wood species in Poland 727
7. ERGUN BAYSAL, TURKAY TURKOGLU, ERDOGAN GAVCAR, HILMI TOKER, AHMET GUNDUZ, MUSTAFA KUCUKTUVEK, HUSEYIN PEKER, DURSUN KEMAL BAYRAKTAR : Weathering properties of Scots pine treated with some chemicals 737
8. MILAN GAFF, MIROSLAV GAŠPARÍK, MOMIKA KVIETKOVÁ: Evaluation of the wood surface quality depending on the parameters of embossing. 751
9. DIAZ-MAROTO, I.J., VILA-LAMEIRO, P., TAHIR, S.: Assessment of anatomical characteristics of wood – bark, sapwood and heartwood – in hardwoods species of Galician oaks by image processing: Relationship with age 763
10. ZHE WANG, BAILING SUN, JUNLIANG LIU: Investigation of volatile products released during vacuum heat treatment of larch wood 773
11. OSMAN EMRE ÖZKAN, ALI TEMIZ, HASAN VURDU: Effects of heat treatment on Turkish fir wood properties. 783
12. KAIMENG XU, KUNYONG KANG, CAN LIU, YUANBO HUANG, GANG ZHU, ZHIFENG ZHENG WENLUN LI: The effects of expoxidized soybean oil on the mechanical, water absorption thermal stability and melting processing properties of wood plastic composites. 795
13. TOMÁŠ KUVIK, JOZEF KRILEK, JÁN KOVÁČ, MILAN ŠTEFÁNEK, JIŘÍ DVOŘÁK: Impact of the selected factors on the cutting force when using a chainsaw 807
14. ZBIGNIEW KOŁAKOWSKI, WŁODZIMIERZ SZEWCZYK, GABRIELA KMITA-FUDALEJ: Calculation of honeycomb paperboard flat crush resistance 815
15. RONGRONG LI, WEI XU, LU FANG, PINGXIANG CAO, XIAOLEI GUO, MATS EKAVED: Short Note: Non-standard test method for glue line shear strength 825