

JOURNAL OF POLYMER ENGINEERING

EDITOR-IN-CHIEF

Nino Grizzuti, Naples

EDITORS

Abdellah Aji, Montreal, QC

Pedro Fardim, Turku

Hiroshi Ito, Yamagata

Shih-Jung Liu, Tao-Yuan

Ana Vera Machado, Minho

Tim A. Osswald, Madison, WI

Roberto Pantani, Salerno

Peter Van Puyvelde, Leuven

ADVISORY BOARD

Francisco J. Baltá Calleja, Madrid

Satinath N. Bhattacharya, Melbourne

Shia-Chung Chen, Chung-Li

José A. Covas, Guimarães

Igor Emri, Ljubljana

Donald L. Feke, Cleveland, OH

Dino Ferri, Mantua

Walter W. Focke, Hatfield

Russell E. Gorga, Raleigh, NC

Juan P. Hernández Ortiz, Medellín

Christian Hopmann, Aachen

Sadhan C. Jana, Akron, OH

Takeshi Kikutani, Tokyo

Christopher W. Macosko, Minneapolis, MN

Ica Manas-Zloczower, Cleveland, OH

Han E. H. Meijer, Eindhoven

Ashok Misra, Bombay

Luiz A. Pessan, São Carlos

Hans-J. Radusch, Wittenberg

Tadamoto Sakai, Tokyo

Bruno Vergnes, Sophia Antipolis

Xinling Wang, Shanghai

Zehev Tadmor, Haifa

DE GRUYTER

ABSTRACTED/INDEXED IN Baidu Scholar; Celdes; Chemical Abstracts Service (CAS) - CAlus; Chemical Abstracts Service (CAS) - SciFinder; CNKI Scholar (China National Knowledge Infrastructure); CNPIE; EBSCO (relevant databases); EBSCO Discovery Service; Elsevier - Compendex; Elsevier - Engineering Village; Elsevier - Reaxys; Elsevier - SCOPUS; Genamics JournalSeek; Google Scholar; Inspec; J-Gate; JournalTOCs; Naviga (Softweco); Paperbase; Pirabase; Polymer Library; Primo Central (ExLibris); ReadCube; ResearchGate; SCImago (SJR); Sherpa/RoMEO; Summon (Serials Solutions/ProQuest); TDOne (TDNet); TEMA Technik und Management; Thomson Reuters - Current Contents/Engineering, Computing, and Technology; Thomson Reuters - Journal Citation Reports/Science Edition; Thomson Reuters - Reaction Citation Index; Thomson Reuters - Science Citation Index Expanded; Ulrich's Periodicals Directory/ulrichsweb; WorldCat (OCLC)

The publisher, together with the authors and editors, has taken great pains to ensure that all information presented in this work (programs, applications, amounts, dosages, etc.) reflects the standard of knowledge at the time of publication. Despite careful manuscript preparation and proof correction, errors can nevertheless occur. Authors, editors and publisher disclaim all responsibility for any errors or omissions of liability for the results obtained from use of the information, or parts thereof, contained in this work.

The citation of registered names, trade names, trademarks, etc. in this work does not imply, even in the absence of a specific statement, that such names are exempt from laws and regulations protecting trademarks etc. and therefore free for general use.

ISSN 0334-6447 · e-ISSN 2191-0340

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/polyeng

RESPONSIBLE EDITOR Prof. Nino Grizzuti, Department of Chemical, Materials and Production Engineering, University of Naples Federico II, Piazzale V. Tecchio 80, 80125 Naples, Italy, Tel.: +39-081-7682285, Email: nino.grizzuti@unina.it

JOURNAL MANAGER Dr. Gunda Stöber, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany, Tel.: +49 (0)30 260 05-279, Fax: +49 (0)30 260 05-298, Email: polyeng.editorial@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Claudia Neumann, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany. Tel.: +49 (0)30.260 05-226, Fax: +49 (0) 30.260 05-264 Email: anzeigen@degruyter.com

© 2017 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING Compuscript Ltd., Shannon, Ireland

PRINTING Franz X. Stückle Druck und Verlag e.K., Ettenheim
Printed in Germany



Contents

Original articles

Zefeng Wang, Yong Kang and Zhao Wang

Pulverization of end-of-life tires by ultra-high pressure water jet process — 211

Qi Liu, Wei Luo, Shengtai Zhou, Huawei Zou and Mei Liang

Tribological behavior and morphology of PTFE particulate-reinforced POM matrix composites — 227

Baijun Liu, Yinglin Wang, Yuan Gao, Rui Zhong, Fucai Zhang, Mingyao Zhang and Huixuan Zhang

Effect of the matrix plasticization behavior on mechanical properties of PVC/ABS blends — 239

John Olusanya, Krishnan Kanny and Shalini Singh

Bulk cure study of nanoclay filled epoxy glass fiber reinforced composite material — 247

Leilei Song, Jialu Li, Yufen Zhao, Xiaoming Chen and Li Chen

Improvement of interlaminar shear strength of 2.5D fabric laminated composites with short-cut web interlayer — 261

Takanori Negoro, Rutchaneekorn Wongpajan, Wiranphat Thodsaratpreeyakul, Jitlada Boonlertsamut, Supaphorn Thumsorn, Hiroyuki Inoya and Hiroyuki Hamada

Optimizing of vented injection molding on mechanical performance and miscibility of recycled poly(ethylene terephthalate) and polycarbonate blends — 271

Fatima Zohra Talhi, Mohamed Tahar Benaniba, Naima Belhaneche-Bensemra and Valérie Massardier

Comparison of material properties in butt welds of used and unused polyethylene pipes for natural gas distribution — 279

Yilmaz Kismet and Manfred H. Wagner

Enhancing the potential of employing thermosetting powder recyclates as filler in LLDPE by structural modifications — 287

S. Periyasamy, G. Krishna Prasad, Sajal Kumar Chattopadhyay, A.S.M. Raja, K. Raj Kumar and Santosh Jagadale

Micro-roughening of polyamide fabric using protease enzyme for improving adhesion strength of rubber-polyamide composite — 297

Satheesh Chandran, Ashok Panayamthatta, Ravi Varma and Sujith Athiyanathil

The real time optical transmittance of swollen heterogeneous natural rubber/poly (ethylene-co-vinyl acetate) blends — 307

Manman Xie, Xia Feng, Juncheng Hu, Zhengyi Liu, Zijian Wang, Li Chen and Yiping Zhao

Preparation and characterization of anti-fouling PVDF membrane modified by chitin — 313