

Volume 96, issue 2, 25 July 2013

ISSN 0144-8617

Editors

J.F. Kennedy

J.R. Mitchell

Associate Editors

R.A.A. Muzzarelli

M.A. Coimbra

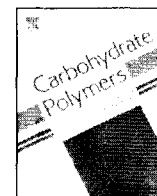
K.J. Edgar

Carbohydrate Polymers

SCIENTIFIC AND TECHNOLOGICAL ASPECTS OF
INDUSTRIALLY IMPORTANT POLYSACCHARIDES

Available online at www.sciencedirect.com

SciVerse ScienceDirect



Vol. 96, issue 2, 25 July 2013

CONTENTS

(Abstracted/indexed in: BIOSIS (Biological Abstracts); Chemical Abstracts; Current Contents/Agriculture, Biology, Environmental Sciences; Engineering Index; Food Science and Technology Abstracts; Polymer Contents; Process and Chemical Engineering; Science Citation Index; SciSearch; Theoretical Chemical Engineering). Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®.

- 371 Phosphorylation of low-molecular-weight polysaccharide from *Enteromorpha linza* with antioxidant activity
X. WANG, Z. ZHANG, Q. YAO, M. ZHAO, H. QI (China)
- 376 Antitumor activity of *Portulaca oleracea* L. polysaccharides against cervical carcinoma in vitro and in vivo
R. ZHAO, X. GAO, Y. CAI, X. SHAO, G. JIA, Y. HUANG, X. QIN, J. WANG, X. ZHENG (PR China)
- 384 Preparation and properties of Starch-g-PLA/poly(vinyl alcohol) composite film
Y. HU, Q. WANG, M. TANG (China)
- 389 Structural characterization and *in vitro* antitumor activity of a novel polysaccharide from *Taxus yunnanensis*
C. YAN, Y. YIN, D. ZHANG, W. YANG, R. YU (China)
- 396 Fabrication of cotton fabric with superhydrophobicity and flame retardancy
M. ZHANG, C. WANG (China)
- 403 Green synthesis of silver nanoparticles using polysaccharides extracted from marine macro algae
H.M. EL-RAFIE, M.H. EL-RAFIE, M.K. ZAHARAN (Egypt)
- 411 Extraction optimization and bioactivity of polysaccharides from *Aspergillus fumigatus* AF1
X. JIN, Y. NING (China)
- 417 Bioconversion to chitosan: A two stage process employing chitin deacetylase from *Penicillium oxalicum* SAE_M-51
N. PAREEK, V. VIVEKANAND, P. AGARWAL, S. SAROJ, R.P. SINGH (India)
- 426 Ultra-small and anionic starch nanospheres: Formation and *in vitro* thrombolytic behavior study
Y. HUANG, S. DING, M. LIU, C. GAO, J. YANG, X. ZHANG, B. DING (PR China)
- 435 Multifunctional finishing of cotton with 3,3',4,4'-benzophenone tetracarboxylic acid: Functional performance
A. HOU (China, USA), G. SUN (USA)
- 440 Characterization of ionic liquid pretreated aspen wood using semi-quantitative methods for ethanol production
A. GOSHADROU (Canada, Iran), K. KARIMI (Iran), M. LEFSRUD (Canada)
- 450 New calcareous soil-alginate composites for efficient uptake of Fe(III), Mn(II) and As(V) from water
I.M. EL-SHERBINY, M.I. ABDEL-HAMID, M. RASHAD, A.S.M. ALI, Y.A. AZAB (Egypt)
- 460 Production, fractionation, characterization of extracellular polysaccharide from a newly isolated *Trametes gibbosa* and its hypoglycemic activity
Y. MA, D. MAO, L. GENG, Z. WANG, C. XU (PR China)
- 466 Structure and anti-inflammatory capacity of peptidoglycan from *Lactobacillus acidophilus* in RAW-264.7 cells
Z. WU, D.-D. PAN, Y. GUO, X. ZENG (PR China)
- 474 Ultrasonic effect on the desizing efficiency of α -amylase on starch-sized cotton fabrics
L. HAO, R. WANG, K. FANG, J. LIU (China)
- 481 Ion exchanger from chemically modified banana leaves
A.A. EL-GENDY, S.H. MOHAMED (Egypt), A.H. ABD-ELKADER (Saudi Arabia)
- 487 Evaluation of anisotropic chitosan hydrogels using analytical Mueller matrix method and scanned laser pico-projector
C.-L. HUANG, C.-H. CHUANG, Y.-L. LO (Taiwan)
- 495 Preparation, characterization and antioxidant property of water-soluble ferulic acid grafted chitosan
S. WORANUCH, R. YOKSAN (Thailand)
- 503 On-line separation and characterization of hyaluronan oligosaccharides derived from radical depolymerization
X. ZHAO (China, USA), B. YANG, L. LI, F. ZHANG, R.J. LINHARDT (USA)
- 510 Properties of rosin-based waterborne polyurethanes/cellulose nanocrystals composites
H. LIU, S. CUI, S. SHANG, D. WANG (China), J. SONG (USA)
- 516 Immunoenhancement effect of rehmanna glutinosa polysaccharide on lymphocyte proliferation and dendritic cell
Y. HUANG, C. JIANG, Y. HU, X. ZHAO, C. SHI, Y. YU, C. LIU, Y. TAO, H. PAN, Y. FENG, J. LIU, Y. WU, D. WANG (PR China)

- 522 A novel high mechanical strength shape memory polymer based on ethyl cellulose and polycaprolactone
Y. BAI, C. JIANG, Q. WANG, T. WANG (PR China)
- 528 Polysaccharide-based polyelectrolytes hollow microcapsules constructed by layer-by-layer technique
Y. ZHANG, C. CHEN, J. WANG, L. ZHANG (China)
- 536 Hyaluronan scaffolds via diglycidyl ether crosslinking: Toward improvements in composition and performance
A. LA GATTA, C. SCHIRALDI, A. PAPA, A. D'AGOSTINO, M. CAMMAROTA, A. DE ROSA, M. DE ROSA (Italy)
- 545 Low-cost, easy-to-prepare magnetic chitosan microparticles for enzymes immobilization
K. POSPISKOVA, I. SAFARIK (Czech Republic)
- 549 Chemical modification of cellulosic fibers for better convertibility in packaging applications
S. VUOTI, E. LAATIKAINEN, H. HEIKKINEN, L.-S. JOHANSSON, E. SAHARINEN, E. RETULAINEN (Finland)
- 560 Processing of waxy starch/xanthan gum mixtures within the gelatinization temperature range
B. HEYMAN, F. DEPYPERE, P. VAN DER MEEREN, K. DEWETTINCK (Belgium)
- 568 Influence of xanthan transition on the rheological properties of waxy starches
B. HEYMAN, D. DE HERTOOGH, P. VAN DER MEEREN, F. DEPYPERE, K. DEWETTINCK (Belgium)
- 578 Eugenol-loaded chitosan nanoparticles: I. Thermal stability improvement of eugenol through encapsulation
S. WORANUCH, R. YOKSAN (Thailand)
- 586 Eugenol-loaded chitosan nanoparticles: II. Application in bio-based plastics for active packaging
S. WORANUCH, R. YOKSAN (Thailand)
- 593 Characterization of starch films containing starch nanoparticles
A.-M. SHI, L.-J. WANG, D. LI (China), B. ADHIKARI (Australia)
- 602 Characterization of starch films containing starch nanoparticles. Part 2: Viscoelasticity and creep properties
A.-M. SHI, L.-J. WANG, D. LI (China), B. ADHIKARI (Australia)
- 611 Poly(lactic acid)/natural rubber/cellulose nanocrystal bionanocomposites Part I. Processing and morphology
N. BITINIS, R. VERDEJO (Spain), J. BRAS (France), E. FORTUNATI (Italy), J.M. KENNY (Spain, Italy), L. TORRE (Italy),
M.A. LÓPEZ-MANCHADO (Spain)
- 621 Poly(lactic acid)/natural rubber/cellulose nanocrystal bionanocomposites. Part II: Properties evaluation
N. BITINIS (Spain), E. FORTUNATI (Italy), R. VERDEJO (Spain), J. BRAS (France), J.M. KENNY (Spain, Italy), L. TORRE (Italy),
M.A. LÓPEZ-MANCHADO (Spain)