

INDUSTRIAL CROPS AND PRODUCTS

VOLUME 96

February 2017

Contents

Fats and oils

- Retraction notice to Castor bean (*Ricinus communis* L.) established in twin rows increases seed yield in irrigated conditions [INDCRO 96(2017) 42–45]
W. Mai, X. Xue, Z. Zhao, K. Zhang and C. Tian (China) R1
- Castor bean (*Ricinus communis* L.) established in twin rows increases seed yield in irrigated conditions
W. Mai, X. Xue, Z. Zhao, K. Zhang and C. Tian (China) 42
- Phytochemical profiling of volatile components of *Lavandula angustifolia* Miller propagated under in vitro conditions
N. Kirimer, S. Mokhtarzadeh, B. Demirci, F. Goger, K.M. Khawar and F. Demirci (Turkey) 120

Non-food bioactive products

- Correlation between the dynamic accumulation of the main effective components and their associated regulatory enzyme activities at different growth stages in *Lonicera japonica* Thunb
D.-x. Kong, Y.-q. Li, M. Bai, H.-j. He, G.-x. Liang and H. Wu (China) 16
- Two new triterpenoid saponins from the leaves of *Impatiens parviflora* DC. and their cytotoxic activity
K. Grabowska, I. Podolak, A. Galanty, P. Żmudzki, P. Koczurkiewicz, K. Piska, E. Pękala and Z. Janeczko (Poland) 71
- Evaluation of the effects of Zinc on the chemical composition and biological activity of basil essential oil by using Raman spectroscopy
M.A. Hanif, H. Nawaz, M.A. Ayub, N. Tabassum, N. Kanwal, N. Rashid, M. Saleem and M. Ahmad (Pakistan) 91
- Chemical composition, antibacterial and antioxidant activities of hydrosols from different parts of *Areca catechu* L. and *Cocos nucifera* L.
X. Shen, W. Chen, Y. Zheng, X. Lei, M. Tang, H. Wang and F. Song (PR China) 110
- First use of cactus and cushcush as biocatalysts in the enantioselective reduction of β -keto esters
M.M. Victor, J.E. Uchôa and V.B. Riatto (Brazil) 126
- Differential anti-proliferative effect on K562 leukemia cells of *Lippia alba* (Verbenaceae) essential oils produced under diverse growing, collection and extraction conditions
L.T. García, A.F. Leal, É.M. Moreno, E.E. Stashenko and H.J. Arteaga (Colombia) 140
- Biological activities of the legume crops *Melilotus officinalis* and *Lespedeza capitata* for skin care and pharmaceutical applications
G. Pastorino, C. Marchetti, B. Borghesi, L. Cornara, S. Ribulla and B. Burlando (Italy) 158

Utilization of the ethyl acetate fraction of <i>Zanthoxylum rhetsa</i> bark extract as an active ingredient in natural sunscreen formulations <i>R.k. Santhanam, M.T. Akhtar, S. Ahmad, F. Abas, I.S. Ismail, Y. Rukayadi and K. Shaari (Malaysia)</i>	165
Synergized mixtures of Apiaceae essential oils and related plant-borne compounds: Larvicidal effectiveness on the filariasis vector <i>Culex quinquefasciatus</i> Say <i>G. Benelli, R. Pavela, R. Iannarelli, R. Petrelli, L. Cappellacci, K. Cianfaglione, F.H. Afshar, M. Nicoletti, A. Canale and F. Maggi (Italy, Czechia, Iran, France)</i>	186
Biorefinery, valorization of byproducts	
Extraction of hemicellulose by hot water to reduce adsorbable organic halogen formation in chlorine dioxide bleaching of bagasse pulp <i>S. Yao, S. Nie, H. Zhu, S. Wang, X. Song and C. Qin (China)</i>	178
Bioenergy - crops and processing	
Impact of drying-grinding sequence on loblolly pine chips preprocessing effectiveness <i>O. Oyedeji and O. Fasina (USA)</i>	8
Dynamic changes of photosynthetic properties and chemical compositions of <i>Eucommia ulmoides</i> Oliver under two planting models <i>M.-Q. Zhu, W.-Z. Xu, J.-L. Wen, Y.-H. Zhu, Y. Li, Y.-Q. Su, Q. Zhang and R.-C. Sun (China)</i>	46
A mixed model approach for evaluating yield improvements in interspecific hybrids of shrub willow, a dedicated bioenergy crop <i>E.S. Fabio, A.R. Kemanian, F. Montes, R.O. Miller and L.B. Smart (USA)</i>	57
High-performance micropropagation of dendroenergetic poplar hybrids in photomixotrophic Temporary Immersion Bioreactors (TIBs) <i>A.D. Arencibia, A. Gómez, M. Poblete and C. Vergara (Chile)</i>	102
Genetic variability and associations in the accessions of <i>Manduk parni</i> { <i>Centella asiatica</i> (L.)} <i>R.K. Lal, P. Gupta and B.K. Dubey (India)</i>	173
Bio-based Materials from Crops	
Life cycle comparison of petroleum- and bio-based paper binder from distillers grains (DG) <i>R. Anthony, M.A. Sharara, T.M. Runge and R.P. Anex (USA)</i>	1
Synthesis of chiral esters and alcohols via enantioselective esterification with <i>Citrus aurantium</i> peels as biocatalyst <i>F.F.M. da Silva, D.A. Ferreira, F.J.Q. Monte and T.L.G. de Lemos (Brazil)</i>	23
Phenolic and lignosulfonate-based matrices reinforced with untreated and lignosulfonate-treated sisal fibers <i>F. de Oliveira, C.G. da Silva, L.A. Ramos and E. Frollini (Brazil)</i>	30
Optimization of the acetosolv extraction of lignin from sugarcane bagasse for phenolic resin production <i>F.G.C. Pinheiro, A.K.L. Soares, S.T. Santaella, L.M.A.e. Silva, K.M. Canuto, C.A. Cáceres, M. de Freitas Rosa, J.P. de Andrade Feitosa and R.C. Leitão (Brazil)</i>	80
Anionic waterborne polyurethane-imide dispersions from cottonseed oil based ionic polyol <i>S.k. Gaddam and A. Palanisamy (India)</i>	132
Distribution and penetration of tung oil in wood studied by magnetic resonance microscopy <i>M. Žlahtič, U. Mikac, I. Serša, M. Merela and M. Humar (Slovenia)</i>	149
Standard density measurement method development for flax fiber <i>A. Amiri, Z. Triplett, A. Moreira, N. Brezinka, M. Alcock and C.A. Ulven (USA, Canada)</i>	196