

LWT—Food Science and Technology

CONTENTS

Volume 140, April 2021

Research papers

- Chemical content and sensory changes of *Oloroso* Sherry wine when aged with four different wood types**
M.V. García-Moreno, M.M. Sánchez-Guillén, M.J. Delgado-González, E. Durán-Guerrero, M.C. Rodríguez-Dodero, C. García-Barroso and D.A. Guillén-Sánchez 110706
- Chitosan-sodium alginate bioactive coatings containing ϵ -polylysine combined with high CO₂ modified atmosphere packaging inhibit myofibril oxidation and degradation of farmed pufferfish (*Takifugu obscurus*) during cold storage**
P. Li, J. Mei and J. Xie 110652
- Chemical composition, antibiofilm activities of Tunisian spices essential oils and combinatorial effect against *Staphylococcus epidermidis* biofilm**
M. Jardak, S. Mnif, R. Ben Ayed, F. Rezgui and S. Aifa 110691
- Screening of probiotic *Lactobacilli* with potential anti-allergic activity based on hyaluronidase inhibition and degranulation of RBL-2H3 cells *in vitro***
W. Lei, C. Liu, L. Pan, C. Peng, J. Wang and H. Zhou 110707
- Autolysis of rainbow trout (*Oncorhynchus mykiss*) by-products: Enzymatic activities, lipid and protein oxidation, and antioxidant activity of protein hydrolysates**
M. Nikoo, J.M. Regenstein, F. Noori and S. Piri Gheshlaghi 110702
- Comparison on sensory profile, volatile composition and consumer's acceptance for PDO or non-PDO tigernut (*Cyperus esculentus* L.) milk**
J. Clemente-Villalba, M. Cano-Lamadrid, H. Issa-Issa, P. Hurtado, F. Hernández, Á.A. Carbonell-Barrachina and D. López-Lluch 110606
- Improve properties of sweet potato starch film using dual effects: Combination *Mesona chinensis* Benth polysaccharide and sodium carbonate**
Y. Ren, Z. Wu, M. Shen, L. Rong, W. Liu, W. Xiao and J. Xie 110679
- Influence of *Lactobacillus plantarum* on managing lipolysis and flavor generation of *Staphylococcus xylosum* and *Saccharomyces cerevisiae* in fish paste**
L. Li and Y. Xu 110709
- Diversity and technological characterization of *Pediococcus pentosaceus* strains isolated from Nigerian traditional fermented foods**
A.T. Adesulu-Dahunsi, A.I. Sanni and K. Jeyaram 110697
- Influence of the wall material on the moisture sorption properties and conditions of stability of sesame oil hydrogel beads by ionic gelation**
S.K. Velázquez-Gutiérrez, E. Alpiñar-Reyes, A.Y. Guadarrama-Lezama, J.G. Báez-González, J. Alvarez-Ramírez and C. Pérez-Alonso 110695
- Effect of slaughter weight on carcass characteristics, meat quality, and lipidomics profiling in *longissimus thoracis* of finishing pigs**
J. Li, Y. Yang, T. Zhan, Q. Zhao, J. Zhang, X. Ao, J. He, J. Zhou and C. Tang 110705
- Interaction between pH-shifted β -conglycinin and flavonoids hesperetin/hesperidin: Characterization of nanocomplexes and binding mechanism**
Y. Tian, G. Xu, W. Cao, J. Li, A. Taha, H. Hu and S. Pan 110698
- Bacterial cell recovery after hollow fiber microfiltration sample concentration: Most probable bacterial composition in frozen vegetables**
P. Irwin, Y. He, L. Nguyen, M. Gehring, A.G. Gehring, C.-Y. Chen and J. Capobianco 110647

- Oil-in-water camellia seeds oil nanoemulsions via high pressure microfluidization: Formation and evaluation**
L.-W. Li, X.-Y. Chen, L.-C. Liu, Y. Yang, Y.-J. Wu, G. Chen, Z.-F. Zhang and P. Luo 110815
- Profiling of free amino acids in sparkling wines during over-lees aging and evaluation of sensory properties**
S. Sartor, V.M. Burin, V. Caliani and M.T. Bordignon-Luiz 110847
- Comparison of lactose free and traditional mozzarella cheese during shelf-life by aroma compounds and sensory analysis**
F. Cincotta, C. Condurso, G. Tripodi, M. Merlino, O. Prestia, C. Stanton and A. Verzera 110845
- Phenotypic properties and genotyping analysis of *Bacillus cereus* group isolates from dairy and potato products**
Y. Huang, S.H. Flint, S. Yu, Y. Ding and J.S. Palmer 110853
- Fructans (agavins) from *Agave angustifolia* and *Agave potatorum* as fat replacement in yogurt: Effects on physicochemical, rheological, and sensory properties**
P.A. Santiago-García, E. Mellado-Mojica, F.M. León-Martínez, J.G. Dzul-Cauich, M.G. López and M.I. García-Vieyra 110846
- Mid-infrared spectra feature extraction and visualization by convolutional neural network for sugar adulteration identification of honey and real-world application**
Q. Li, J. Zeng, L. Lin, J. Zhang, J. Zhu, L. Yao, S. Wang, J. Du and Z. Wu 110856
- Investigation of using egg shell powder for bleaching of soybean oil**
E. Abdi, M. Gharachorloo and M. Ghavami 110859
- Mutagenicity assessment of aflatoxin B₁ exposed to essential oils**
R.C. Oliveira, J. Cortés-Eslava, S. Gómez-Arroyo and M. Carvajal-Moreno 110622
- Special section on 'Recovery, enhancement and functionalization of value-added bioactive materials from food processing by-products'; edited by Dr. Matteo Bordiga and Dr. Harold Corke**
- Extraction kinetics and quality evaluation of oil extracted from bitter melon (*Momordica charantia* L.) seeds using emergent technologies**
M. Naik, V. Natarajan, A. Rawson, J. Rangarajan and L. Manickam 110714
- Special section on 'Emerging Processing Technologies to Improve the Safety and Quality of Foods'; edited by Dr. Amin Mousavi Khaneghah and Dr. Mohsen Gavahian**
- A novel bacteriocin from *Lactobacillus salivarius* against *Staphylococcus aureus*: Isolation, purification, identification, antibacterial and antibiofilm activity**
H.-W. Li, Y.-Z. Xiang, M. Zhang, Y.-H. Jiang, Y. Zhang, Y.-Y. Liu, L.-B. Lin and Q.-L. Zhang 110826
- Single and combined decontamination effects of power-ultrasound, peroxyacetic acid and sodium chloride sanitizing treatments on *Escherichia coli*, *Bacillus cereus* and *Penicillium expansum* inoculated dried figs**
A. Görgüç, E. Gençdağ, F. Okuroğlu, F.M. Yılmaz, H.H. Bıyık, S. Öztürk Köse and S. Ersus 110844
- Corrigendum**
- Corrigendum to "Influence of partial sodium replacement on proximate composition, physical and sensory quality of marinated anchovy (*Engraulis encrasicolus*)" [LWT 137 (2021) (February 2021) 110476]**
N.D. Erol, Ö.A. Erdem and S. Cakli 110925
- Erratum**
- Erratum to "Effect of cold-pressed on fatty acid profile, bioactive compounds and oil oxidation of hazelnut during oxidation process" [LWT - Food Science and Technology 129 (2020) 109552]**
N. Cui, G. Wang, Q. Ma, T. Zhao, R. Li and L. Liang 110834
- Erratum to "Inducing fungal resistance of spinach treated with preharvest hormetic doses of UV-C" [LWT - Food Science and Technology, 113 (2019) 108302]**
A. Martínez-Sánchez, J. Guirao-Martínez, J.A. Martínez, P. Lozano-Pastor and E. Aguayo 110835
- Retraction notice to "Physicochemical and biological characterization of the EPS produced by *L. acidophilus* isolated from rice bran sourdough" [LWT - Food Science and Technology 127 (2020) 109373]**
A. Abedfar, S. Abbaszadeh, M. Hosseini-zhad and M. Taghdir 110971
- Retraction notice to "Effect of wheat bran sourdough with exopolysaccharide producing *Lactobacillus plantarum* (NR_104573.1) on quality of pan bread during shelf life" [LWT - Food Science and Technology 111 (2019) 158–166]**
A. Abedfar, M. Hosseini-zhad and A. Corsetti 110972

- Characterization of fatty acids, amino acids and organic acids in three colored quinoas based on untargeted and targeted metabolomics**
J. Song, Y. Yan, X. Wang, X. Li, Y. Chen, L. Li and W. Li 110690
- Modeling the effect of temperature and relative humidity on the ethylene oxide fumigation of *Salmonella* and *Enterococcus faecium* in whole black peppercorn**
X. Wei, L. Chen, B.D. Chaves, M.A. Ponder and J. Subbiah 110742
- Effect of germination on the physicochemical, nutritional, functional, thermal properties and *in vitro* digestibility of Bambara groundnut flours**
C.E. Chinma, J.O. Abu, B.N. Asikwe, T. Sunday and O.A. Adebo 110749
- Evaluation of negative behaviors for single specific spoilage microorganism on little yellow croaker under modified atmosphere packaging: Biochemical properties characterization and spoilage-related volatiles identification**
J. Huang, Y. Zhou, M. Chen, J. Huang, Y. Li and Y. Hu 110741
- Physical, chemical, microbiological properties and shelf life kinetic of spray-dried cantaloupe juice powder during storage**
S.L. Tan, R. Sulaiman, Y. Rukayadi and N.S. Ramli 110597
- Effects of the pre-frying process on the cooking quality of rice**
C. Paesani and M. Gómez 110743
- Evaluation of modified starch and rice protein concentrate as wall materials on the microencapsulation of flaxseed oil by freeze-drying**
F. Perrechil, V.C. Louzi, L. Alves da Silva Paiva, G.S. Valentin Natal and M.B. Braga 110760
- Multi-response surface optimisation of extrusion cooking to increase soluble dietary fibre and polyphenols in lupin seed coat**
L. Zhong, Z. Fang, M.L. Wahlqvist, J.M. Hodgson and S.K. Johnson 110767
- Comparison of chemical and fatty acid composition of green coffee bean (*Coffea arabica* L.) from different geographical origins**
M. Zhu, Y. Long, Y. Ma, Y. Chen, Q. Yu, J. Xie, B. Li and J. Tian 110802
- Effects of xylooligosaccharide on angiotensin I-converting enzyme inhibitory activity of fish actomyosin and quality of snakehead balls with or without high hydrostatic pressure treatment**
H. Liu, Y. Li, B. Tang, Y. Peng, X. Wu, L. Che, S.-Y. Quek and N. He 110803
- Physical and antimicrobial properties of zein and methyl cellulose composite films with plasticizers of oleic acid and polyethylene glycol**
L. Zhou and Y. Wang 110811
- The effect of dry heat parboiling processing on the short-range molecular order structure of highland barley**
Y.-d. Zhu, Y. Wang, D. Li and L.-j. Wang 110797
- An innovative hybrid-solar-vacuum dryer to produce high-quality dried fruits and vegetables**
T.B. Roratto, R.L. Monteiro, B.A.M. Carciofi and J.B. Laurindo 110777
- Impact of tempering process on yield and composition of quinoa flour**
P. De Bock, F. Van Bockstaele, K. Raes, P. Vermeir, P. Van der Meeren and M. Eeckhout 110808
- Characteristics and functional properties of Persian lime (*Citrus latifolia*) seed protein isolate and enzymatic hydrolysates**
I. Fathollahy, J. Farmani, M.R. Kasaai and H. Hamishehkar 110765
- Lentil (*Lens culinaris*) flour addition to yogurt: Impact on physicochemical, microbiological and sensory attributes during refrigeration storage and microstructure changes**
F. Benmeziane, R.K. Raigar, N.E.-H. Ayat, D. Aoufi, L. Djermoune-Arkoub and A. Chala 110793
- Evaluation of the flavour properties of cooked chicken drumsticks as affected by sugar smoking times using an electronic nose, electronic tongue, and HS-SPME/GC-MS**
L. Zhang, Y. Hu, Y. Wang, B. Kong and Q. Chen 110764
- Thermal processing influences the physicochemical properties, *in vitro* digestibility and prebiotics potential of germinated highland barley**
L. Huang, J.-L. Dong, K.-Y. Zhang, Y.-y. Zhu, R.-L. Shen and L.-b. Qu 110814
- Optimization of ultrasound-assisted extraction of bioactive properties from date palm (*Phoenix dactylifera* L.) spikelets using response surface methodology**
I.A. Almusallam, I.A. Mohamed Ahmed, E.E. Babiker, F.Y. Al Juhaimi, G.J. Fadimu, M.A. Osman, S.A. Al Maiman, K. Ghaffoor and H.A.S. Alqah 110816
- Formation and characterization of debranched starch-alcohol complexes with six aliphatic alcohols**
H. Lu, T. Zhen, X. Dong, N. Ji, L. Dai, R. Shi, L. Xiong and Q. Sun 110805
- Producing crispy chickpea snacks by air, freeze, and microwave multi-flash drying**
R.L. Monteiro, N.N. Domschke, G. Tribuzi, J.T. Teleken, B.A.M. Carciofi and J.B. Laurindo 110781
- Untargeted mass spectrometry-based metabolomics approach unveils molecular changes in milk fermented by *Lactobacillus plantarum* P9**
M. Zha, K. Li, W. Zhang, Z. Sun, L.-Y. Kwok, B. Menghe and Y. Chen 110759
- Quality and shelf life assessment of a new beverage produced from water kefir grains and red pitaya**
R.S. Bueno, J.B. Ressutte, N.N.Y. Hata, F.C. Henrique-Bana, K.B. Guergoletto, A.G. de Oliveira and W.A. Spinosa 110770
- Effects of radio frequency heating on mortality of lesser grain borer, quality and storage stability of packaged milled rice**
Q. Liu, Y. Qu, J. Liu and S. Wang 110813

- Orange, red and purple barberries: Effect of *in-vitro* digestion on antioxidants and ACE inhibitors
E. Şensu, K.N. Kasapoğlu, M. Gültekin-Özgiiven, E. Demircan, A. Arslaner and B. Özçelik 110820
- Efficient separation of *N*-Alkylamides from *Piper longum* L. using off-line two-dimensional coupled with gradient high-speed counter-current chromatography
Z. Li, J. Ali, J. Yu, L. Cui, H. Zhu, W. Ma, G. Li and D. Wang 110817
- A barometric approach for high temperature water desorption isotherm determination
T. Linke, R. Kirsch and R. Kohlus 110750
- Effects of superfine grinding on asparagus pomace. Part II: Changes on intestinal function and health
Q. Meng, F. Chen and W. Gao 110799
- Biochemical components and fungal community dynamics during the flowering process of Moringa-Fu brick tea, a novel microbially fermented blended tea
C. Zhang, J. Guo, Z. Zhang, S. Tian, Z. Liu and C. Shen 110822
- Shelf-life assessment of bread containing *Cyperus rotundus* rhizome aqueous extract with antimicrobial compounds identified by ¹H-NMR
H.L. Alboory, H. Kadum and B.J. Muhialdin 110823
- Encapsulation of carotenoids with sucrose by co-crystallization: Physicochemical properties, characterization and thermal stability of pigments
P. Kaur, A. Elsayed, J. Subramanian and A. Singh 110810
- Correlation between the quality and microbial community of natural-type and artificial-type Yongchuan Douchi
Y. Zhang, T. Zeng, H. Wang, J. Song and H. Suo 110788
- Detection of giblets in chicken meat products using microRNA markers and droplet digital PCR assay
M.R. Vishmuraj, S. Devatkal, S. Vaitthyanathan, R. Uday Kumar, C. Srinivas and S.K. Mendiratta 110798
- Inhibitory mechanism of Chinese herbal medicine extracts on *Escherichia coli* and its application to fermented-bag sausage
Y. Dang, L. Hao, X. Li, Y. Sun, D. Pan, Z. Wu and J. Shen 110825
- Preparation of human milk fat substitutes similar to human milk fat by enzymatic acidolysis and physical blending
X. Wang, Z. Huang, L. Hua, F. Zou, X. Cheng and X. Wang 110818
- Electrospinning of double-layer chitosan-flaxseed mucilage nanofibers for sustained release of *Ziziphora clinopodioides* essential oil and sesame oil
N. Karami, A. Kamkar, Y. Shahbazi and A. Misaghi 110812
- Bioaccessibility and intestinal uptake of carotenoids from microalgae *Scenedesmus obliquus*
T.C. do Nascimento, P.N. Pinheiro, A.S. Fernandes, D.C. Murador, B.V. Neves, C.R. de Menezes, V.V. de Rosso, E. Jacob-Lopes and L.Q. Zepka 110780
- Synergistic antifungal mechanism of thymol and salicylic acid on *Fusarium solani*
J. Kong, Y. Xie, H. Yu, Y. Guo, Y. Cheng, H. Qian and W. Yao 110787
- Incidence, toxin gene profiling, antimicrobial susceptibility, and genetic diversity of *Bacillus cereus* isolated from quick-frozen food in China
H. Guo, P. Yu, S. Yu, J. Wang, J. Zhang, Y. Zhang, X. Liao, S. Wu, Q. Ye, X. Yang, T. Lei, H. Zeng, R. Pang, J. Zhang, Q. Wu and Y. Ding 110824
- Encapsulating probiotics in novel resistant starch wall material for production of rice flour extrudates
B.A. Ashwar, A. Gani, A. Gani, M. Ahmad and A. Shah 110839
- Elimination of ochratoxin A from white and red wines: Critical characteristics of activated carbons and impact on wine quality
F. Cosme, A. Inês, D. Silva, L. Filipe-Ribeiro, L. Abrunhosa and F.M. Nunes 110838
- Treatment with exogenous salicylic acid maintains quality, increases bioactive compounds, and enhances the antioxidant capacity of fresh goji (*Lycium barbarum* L.) fruit during storage
H. Zhang, Z. Ma, J. Wang, P. Wang, D. Lu, S. Deng, H. Lei, Y. Gao and Y. Tao 110837
- New approach for barrel-aged distillates classification based on maturation level and machine learning: A study of cachaça
G.C. Silvello, A.M. Bortoletto, M.C. de Castro and A.R. Alcarde 110836
- Development and characterization of an edible chitosan/zein-cinnamaldehyde nano-cellulose composite film and its effects on mango quality during storage
J. Xiao, C. Gu, D. Zhu, Y. Huang, Y. Luo and Q. Zhou 110809
- Yam (*Dioscorea cayennensis*) protein concentrate: Production, characterization and *in vitro* evaluation of digestibility
E. Silva do Nascimento, J.M. Caju de Oliveira, J.T. Jocelino Gomes de Lacerda, S.B. Montenegro, M.E. Caetano-Silva, M. Dias, M.A. Mendes, M.A. Juliano, T.S. Gadelha, M.T. Bertoldo Pacheco and C. Alberto de Almeida Gadelha 110771
- Selenium enriched *Hypsizygos marmoreus*, a potential food supplement with improved Se bioavailability
T. Hu, H. Li, G. Zhao and Y. Guo 110819
- Physical and bloom stability of low-saturation chocolates with oleogels based on different gelation mechanisms
L. Li, G. Liu and Y. Lin 110807
- Evaluation of crystal nanoplatelet aggregation in intact butter by atomic force microscopy
K. Maisui, T. Kamigaki, R. Wakui, Y. Nishino, Y. Ito, A. Miyazawa, K. Yoshioka and M. Shiota 110801
- Comparative study on antioxidant, antimicrobial, emulsifying and physico-chemical properties of purified bovine and camel β -casein
R. Lajnaf, H. Gharsallah, H. Atia and M.A. Ayadi 110842

- Oil-in-water camellia seeds oil nanoemulsions via high pressure microfluidization: Formation and evaluation**
L.-W. Li, X.-Y. Chen, L.-C. Liu, Y. Yang, Y.-J. Wu, G. Chen, Z.-F. Zhang and P. Luo 110815
- Profiling of free amino acids in sparkling wines during over-lees aging and evaluation of sensory properties**
S. Sartor, V.M. Burin, V. Caliani and M.T. Bordignon-Luiz 110847
- Comparison of lactose free and traditional mozzarella cheese during shelf-life by aroma compounds and sensory analysis**
F. Cincotta, C. Condurso, G. Tripodi, M. Merlino, O. Prestia, C. Stanton and A. Verzera 110845
- Phenotypic properties and genotyping analysis of *Bacillus cereus* group isolates from dairy and potato products**
Y. Huang, S.H. Flint, S. Yu, Y. Ding and J.S. Palmer 110853
- Fructans (agavins) from *Agave angustifolia* and *Agave potatorum* as fat replacement in yogurt: Effects on physicochemical, rheological, and sensory properties**
P.A. Santiago-García, E. Mellado-Mojica, F.M. León-Martínez, J.G. Dzul-Cauich, M.G. López and M.I. García-Vieyra 110846
- Mid-infrared spectra feature extraction and visualization by convolutional neural network for sugar adulteration identification of honey and real-world application**
Q. Li, J. Zeng, L. Lin, J. Zhang, J. Zhu, L. Yao, S. Wang, J. Du and Z. Wu 110856
- Investigation of using egg shell powder for bleaching of soybean oil**
E. Abdi, M. Gharachorloo and M. Ghavami 110859
- Mutagenicity assessment of aflatoxin B₁ exposed to essential oils**
R.C. Oliveira, J. Cortés-Eslava, S. Gómez-Arroyo and M. Carvajal-Moreno 110622
- Special section on 'Recovery, enhancement and functionalization of value-added bioactive materials from food processing by-products'; edited by Dr. Matteo Bordiga and Dr. Harold Corke**
- Extraction kinetics and quality evaluation of oil extracted from bitter melon (*Momordica charantia* L.) seeds using emergent technologies**
M. Naik, V. Natarajan, A. Rawson, J. Rangarajan and L. Manickam 110714
- Special section on 'Emerging Processing Technologies to Improve the Safety and Quality of Foods'; edited by Dr. Amin Mousavi Khaneghah and Dr. Mohsen Gavahian**
- A novel bacteriocin from *Lactobacillus salivarius* against *Staphylococcus aureus*: Isolation, purification, identification, antibacterial and antibiofilm activity**
H.-W. Li, Y.-Z. Xiang, M. Zhang, Y.-H. Jiang, Y. Zhang, Y.-Y. Liu, L.-B. Lin and Q.-L. Zhang 110826
- Single and combined decontamination effects of power-ultrasound, peroxyacetic acid and sodium chloride sanitizing treatments on *Escherichia coli*, *Bacillus cereus* and *Penicillium expansum* inoculated dried figs**
A. Görgüç, E. Gençdağ, F. Okuroğlu, F.M. Yılmaz, H.H. Bıyık, S. Öztürk Köse and S. Ersus 110844
- Corrigendum**
- Corrigendum to "Influence of partial sodium replacement on proximate composition, physical and sensory quality of marinated anchovy (*Engraulis encrasicolus*)" [LWT 137 (2021) (February 2021) 110476]**
N.D. Erol, Ö.A. Erdem and S. Cakli 110925
- Erratum**
- Erratum to "Effect of cold-pressed on fatty acid profile, bioactive compounds and oil oxidation of hazelnut during oxidation process" [LWT - Food Science and Technology 129 (2020) 109552]**
N. Cui, G. Wang, Q. Ma, T. Zhao, R. Li and L. Liang 110834
- Erratum to "Inducing fungal resistance of spinach treated with preharvest hormetic doses of UV-C" [LWT - Food Science and Technology, 113 (2019) 108302]**
A. Martínez-Sánchez, J. Guirao-Martínez, J.A. Martínez, P. Lozano-Pastor and E. Aguayo 110835
- Retraction notice to "Physicochemical and biological characterization of the EPS produced by *L. acidophilus* isolated from rice bran sourdough" [LWT - Food Science and Technology 127 (2020) 109373]**
A. Abedfar, S. Abbaszadeh, M. Hosseini-zhad and M. Taghdir 110971
- Retraction notice to "Effect of wheat bran sourdough with exopolysaccharide producing *Lactobacillus plantarum* (NR_104573.1) on quality of pan bread during shelf life" [LWT - Food Science and Technology 111 (2019) 158–166]**
A. Abedfar, M. Hosseini-zhad and A. Corsetti 110972