

LWT—Food Science and Technology

CONTENTS

Volume 99, January 2019

Research papers

Cooking quality, digestibility, and sensory properties of proso millet pasta as impacted by amylose content and prolamin profile

I.G. Cordelino, C. Tyl, L. Inamdar, Z. Vickers, A. Marti and B.P. Ismail

Convective drying and quality attributes of elephant foot yam (*Amorphophallus paeoniifolius*)

K.S. Srikanth, V.S. Sharanagat, Y. Kumar, R. Bhadra, L. Singh, P.K. Nema and V. Kumar

Isolation and characterization of melanin from black garlic and sepia ink

L.-F. Wang and J.-W. Rhim

Protection and delivery of mandarin (*Citrus reticulata* Blanco) peel extracts by encapsulation of whey protein concentrate nanoparticles

Y. Hu, G. Kou, Q. Chen, Y. Li and Z. Zhou

Development of an UHPLC-Q-Orbitrap HRMS method for simultaneous determination of mycotoxins and isoflavones in soy-based burgers

Y. Rodríguez-Carrasco, L. Castaldo, A. Gaspari, G. Graziani and A. Ritteni

Development of a novel colorimetric food package label for monitoring lean pork freshness

H.-z. Chen, M. Zhang, B. Bhandari and C.-h. Yang

Inhibitory effects of high pressure treatment on microbial growth and biogenic amine formation in marinated herring (*Clupea harengus*) inoculated with *Morganella psychrotolerans*

I. Ucak, N. Gokoglu, M. Kiessling, S. Toepfl and C.M. Galanakis

Influence of biopolymers and freeze-drying shelf temperature on the quality of a mandarin snack

N. Martínez-Navarrete, A. Salvador, C. Oliva and M.M. Camacho

The apoptosis of *Staphylococcus aureus* induced by glycinin basic peptide through ROS oxidative stress response

H.-Q. Ning, Y.-Q. Li, Q.-W. Tian, Z.-S. Wang and H.-Z. Mo

Myofibrillar protein–curcumin nanocomplexes prepared at different ionic strengths to improve oxidative stability of marinated chicken meat products

C. Wu, L. Li, Q. Zhong, R. Cai, P. Wang, X. Xu, G. Zhou, M. Han, Q. Liu, T. Hu and T. Yin

1 Statistical optimization of enzymatic hydrolysis of rice bran protein concentrate for enhanced hydrolysate production by papain

T.P. Singh, R.A. Siddiqi and D.S. Sogi

8 Effect of different quantities of miracle fruit on sour and bitter beverages

A.C. Andrade, M.B. Martins, J.F. Rodrigues, S.B. Coelho, A.C.M. Pinheiro and S.C. Bastos

17 The W/O/W emulsion containing FeSO₄ in the different phases alters the hedonic thresholds in milk-based dessert

A.A. Simiqueli, T. Lima Filho, L.A. Minim, E.B. de Oliveira, I.V. Torres, M.C.T.R. Vidigal and V.P.R. Minim

24 Gelling properties of vacuum-freeze dried surimi powder as influenced by heating method and microbial transglutaminase

X. Guo, L. Shi, S. Xiong, Y. Hu, J. You, Q. Huang and T. Yin

34 Effect of different drying methods on the sensory quality and chemical components of black tea

F. Qu, X. Zhu, Z. Ai, Y. Ai, F. Qiu and D. Ni

43 Thermal assisted high-pressure processing of Indian gooseberry (*Emblica officinalis* L.) juice – Impact on colour and nutritional attributes

A.S. Raj, S. Chakraborty and P.S. Rao

50 Peeling of kiwifruit using infrared heating technology: A feasibility and optimization study

Z. Mohammadi, M. Kashaninejad, A.M. Ziaifar and M. Ghorbani

57 Understanding the shear and extensional properties of pomace-fibre suspensions prior to the spray drying process

S.N.M. Rozali, A.H.J. Paterson, J.P. Hindmarsh and L.M. Huffman

62

[Contents continued on inside back cover]

Effect of reversible permeabilization in combination with different drying methods on the structure and sensorial quality of dried basil (<i>Ocimum basilicum</i> L.) leaves A. Telfser and F. Gómez Galindo	148	Encapsulation of bacteriophage T4 in mannitol-alginate dry macrospheres and survival in simulated gastrointestinal conditions P. Śliwka, P. Miłuta, A. Miłuta, G. Skaradziński, A. Chojińska-Pulit, N. Niezgodna, B. Weber-Dąbrowska, M. Żaczek and A. Skaradzińska	238
Changes in soy protein immunoglobulin E reactivity, protein degradation, and conformation through fermentation with <i>Lactobacillus plantarum</i> strains X. Rui, J. Huang, G. Xing, Q. Zhang, W. Li and M. Dong	156	RAPD-PCR characterisation of two <i>Enterococcus lactis</i> strains and their potential on <i>Listeria monocytogenes</i> growth behaviour in stored chicken breast meats: Generalised linear mixed-effects approaches O. Ben Braïek, S. Smaoui, K. Ennouri, S. Morandi, P. Cremonesi, K. Hani and T. Ghrairi	244
FTIR-ATR determination of protein content to evaluate whey protein concentrate adulteration J. Andrade, C.G. Pereira, J.C.d. Almeida Junior, C.C.R. Viana, L.N.d.O. Neves, P.H.F.d. Silva, M.J.V. Bell and V.d.C.d. Anjos	166	Effect of sodium carbonate solution pretreatment on drying kinetics, antioxidant capacity changes, and final quality of wolfberry (<i>Lycium barbarum</i>) during drying D. Zhao, J. Wei, J. Hao, X. Han, S. Ding, L. Yang and Z. Zhang	254
The antioxidant activity of nanoemulsions based on lipids and peptides from <i>Spirulina</i> sp. LEB18 A.M. Costa, K.T.L. Bueno, A.P.C.d. Rosa and J.A.V. Costa	173	Evaluating of quality of rice bran protein concentrate prepared by a combination of isoelectronic precipitation and electrolyzed water treatment M. Watanabe, C. Yamada, I. Maeda, C. Techapun, A. Kuntiya, N. Leksawasdi, P. Seesuriyachan, T. Chaiyaso, S. Takenaka, T. Shiono, K. Nakamura and S. Endo	262
Different variations in structures of A- and B-type starches subjected to microwave treatment and their relationships with digestibility X. Xu, Y. Chen, Z. Luo and X. Lu	179	Effect of high voltage electrostatic field treatment on thawing characteristics and post-thawing quality of lightly salted, frozen pork tenderloin G. Jia, K. Sha, J. Meng and H. Liu	268
Selection of an autochthonous yeast starter culture for industrial production of Primitivo “Gioia del Colle” PDO/DOC in Apulia (Southern Italy) M. Tufariello, G. Maiorano, P. Rampino, G. Spano, F. Grieco, C. Perrotta, V. Capozzi and F. Grieco	188	Effects of a freeze-thaw-pressing muscle separation on the biochemical quality and self-stability of leg meat from red snow crab (<i>Chionoecetes japonicus</i>) J.-Y. Jun, M.-J. Jung, I.-H. Jeong, D.-S. Kim and B.-M. Kim	276
Dried date paste as carrier of the proposed probiotic <i>Bacillus coagulans</i> BC4 and viability assessment during storage and simulated gastric passage M.S. Marcial-Coba, A.S. Pjaca, C.J. Andersen, S. Knøchel and D.S. Nielsen	197	New method based on Solid Phase Microextraction and Multidimensional gas chromatography-mass spectrometry to determine pesticides in strawberry jam M.L. Ruiz del Castillo, M. Rodríguez-Valenciano, G. Flores and G.P. Blanch	283
The role of calcium in wheat starch-<i>Mesona chinensis</i> polysaccharide gels: Rheological properties, <i>in vitro</i> digestibility and enzyme inhibitory activities A. Yuris, A.K. Hardacre, K.K.T. Goh and L. Matia-Merino	202	Comparison of quality protein maize (QPM) and normal maize with respect to properties of instant porridge N. Kaur, B. Singh and S. Sharma	291
Evaluation of ultrasound assisted and conventional methods for production of olive pomace oil enriched in sterols and squalene S. Chanioti and C. Tzia	209	Specialty rice malt optimization and improvement of rice malt beer aspect and aroma D. Ceccaroni, V. Sileoni, O. Marconi, G. De Francesco, E.G. Lee and G. Perretti	299
Optimal combination of multiple cryoprotectants and freezing-thawing conditions for high lactobacilli survival rate during freezing and frozen storage G. Wang, X. Yu, Z. Lu, Y. Yang, Y. Xia, P.F.-H. Lai and L. Ai	217	Development of a multifunctional yogurt-like product from germinated brown rice P.J. Cáceres, E. Peñas, C. Martínez-Villaluenga, P. García-Mora and J. Frías	306
Assessment of yeasts for apple juice fermentation and production of cider volatile compounds M. Lorenzini, B. Simonato, D. Slaghenaufi, M. Ugliano and G. Zapparoli	224	Impact of fermentation on <i>in vitro</i> bioaccessibility of phenolic compounds of tef <i>injera</i> H. Shumoy, M. Gabaza, J. Vandavelde and K. Raes	313
Mould starter selection for extended solid-state fermentation of quinoa A. Starzyńska-Janiszewska, B. Stodolak, A.M. Gómez-Caravaca, B. Mickowska, B. Martín-García and Ł. Byczyński	231		

- Optimization of fermentation medium for a newly isolated yeast strain (*Zygosaccharomyces rouxii* JM-C46) and evaluation of factors affecting biosynthesis of D-arabitol**
Q. Guo, H. Zayed, H. Zhang, X. Wang, J. Yun, G. Zhang, M. Yang, W. Sun and X. Qi 319
- Comparative analysis of pomelo volatiles using headspace-solid phase micro-extraction and solvent assisted flavour evaporation**
R.M. Vivian Goh, H. Lau, S.Q. Liu, B. Lassabliere, R. Guervilly, J. Sun, Y. Bian and B. Yu 328
- In vitro* investigation of health-promoting benefits of fermented camel sausage by novel probiotic *Lactobacillus plantarum*: A comparative study with beef sausages**
M. Ayyash, S.-Q. Liu, A. Al Mheiri, M. Aldhaheiri, B. Raeisi, A. Al-Nabulsi, T. Osaili and A. Olaimat 346
- Potential application of infrared assisted freeze drying (IRAFD) for banana snacks: Drying kinetics, energy consumption, and texture**
A. Khampakool, S. Soisungwan and S.H. Park 355
- Effect of steam treatment on the profile of bioactive compounds and antioxidant activity of defective roasted coffee (*Coffea canephora*)**
D.L. Kalschne, M.C. Viegas, A.J. De Conti, M.P. Corso and M.d.T. Benassi 364
- Production and stability of probiotic cocoa juice with sucralose as sugar substitute during refrigerated storage**
A.L.d. Santos Filho, H.V. Freitas, S. Rodrigues, V.K.G. Abreu, T.d.O. Lemos, W.F. Gomes, N. Narain and A.L.F. Pereira 371
- Gamma-irradiation induced effects on biogenic amine formation and quality of frog legs (*Rana esculenta*) during storage**
M.E. Büyükdeveci, E.K. Boga and G. Ozyurt 379
- The functional potential of immortalized (*Helichrysum italicum*) based edible films reinforced with proteins and hydrogel particles**
S. Karača, K. Trifković, A. Bušić, V. Đorđević, A. Belščak-Cvitanović, A.V. Cebin, B. Bugarski and D. Komes 387
- Effects of microbial transglutaminase treatment on physicochemical properties and emulsifying functionality of faba bean protein isolate**
C. Liu, S. Damodaran and M. Heinonen 396
- Improved probiotic survival to *in vitro* gastrointestinal stress in a mousse containing *Lactobacillus acidophilus* La-5 microencapsulated with inulin by spray drying**
D. Xavier dos Santos, A.A. Casazza, B. Aliakbarian, R. Bedani, S.M.I. Saad and P. Perego 404
- Properties of polysaccharides and glutamine transaminase used in mozzarella cheese as texturizer and crosslinking agents**
H. Li, Y. Liu, Y. Sun, H. Li and J. Yu 411
- Optimization of composite dough for the enrichment of bread crust with antifungal active compounds**
E. Debonne, H. Baert, M. Eeckhout, F. Devlieghere and F. Van Bockstaele 417
- Physicochemical and microbial changes in yogurts produced under different pressure and temperature conditions**
R.P. Lopes, M.J. Mota, C.A. Pinto, S. Sousa, J.A. Lopes da Silva, A.M. Gomes, I. Delgadillo and J.A. Saraiva 423
- In vitro* bioaccessibility and bioavailability of iron from breads fortified with microencapsulated iron**
M.A. Bryszewska, L. Tomás-Cobos, E. Gallego, M. Villalba, D. Rivera, D.L. Taneyo Saa and A. Gianotti 431
- Effects of organic and conventional farming on the physicochemical and functional properties of jujube fruit**
J. Reche, F. Hernández, M.S. Almansa, Á.A. Carbonell-Barrachina, P. Legua and A. Amorós 438
- Production of mango leathers by cast-tape drying: Product characteristics and sensory evaluation**
R. da Silva Simão, J.O. de Moraes, P.G. de Souza, B.A. Mattar Carciofi and J.B. Laurindo 445
- Using emulsion gels made with sonicated soy protein isolate dispersions to replace fat in frankfurters**
C.d.S. Paglarini, S. Martini and M.A.R. Pollonio 453
- Effects of suboptimal growth conditions on the subsequent UV-C resistance of *Listeria monocytogenes* in coconut liquid endosperm and apple juice**
A.A. Gabriel and Ma.M.L. Ancog 460
- Stabilization of sourdough starter by spray drying technique: New breadmaking perspective**
A. Reale, T. Di Renzo, M. Preziuso, G. Panfili, L. Cipriano and M.C. Messia 468
- Waxy starch as dough component and anti-staling agent in gluten-free bread**
M. Witzak, J. Korus, R. Ziobro and L. Juszcak 476
- Structure and property changes of the maltose-glycated caseinate prepared through the Maillard reaction in an ionic liquid medium**
W. Xu and X.-H. Zhao 483
- Changes in quality, bioactive compounds, fatty acids, tocopherols, and phenolic composition in oven- and microwave-roasted poppy seeds and oil**
K. Ghafoor, M.M. Özcan, F. AL-Juhaimi, E.E. Babiker and G.J. Fadimu 490
- Effect of microwave power and blanching time in relation to different geometric shapes of vegetables**
K. Liburdi, I. Benucci and M. Esti 497
- Liposome-whey protein interactions and its relation to emulsifying properties**
X. Yi, Q. Zheng, B. Ding, M.-h. Pan, Y.-s. Chiou, L. Li and Z. Li 505
- Protection effect of sodium alginate against heat-induced structural changes of lactoferrin molecules at neutral pH**
Q. Li, H. Lan and Z. Zhao 513
- Effect of frying oil degradation on surface tension and wettability**
S.N. Sahasrabudhe, J.A. Staton and B.E. Farkas 519
- Optimization of proteolysis and angiotensin converting enzyme inhibition activity in a model cheese using response surface methodology**
D. Sahingil, Y. Gokce, M. Yuceer and A.A. Hayaloglu 525

Detection of <i>Listeria monocytogenes</i> using Dynabeads® anti-<i>Listeria</i> combined with real-time PCR in soybean sprouts <i>S. Wei, B.-J. Park, S.-H. Kim, K.-H. Seo, Y.-G. Jin and D.-H. Oh</i>	533	Effect of inlet air temperature and gum Arabic concentration on encapsulation of probiotics by spray drying <i>D. Arepally and T.K. Goswami</i>	583
Fate of zearalenone, deoxynivalenol and deoxynivalenol-3-glucoside during malting process <i>X. Pascari, S. Gil-Samarra, S. Marín, A.J. Ramos and V. Sanchis</i>	540	Physicochemical properties of <i>gari</i> prepared from frozen cassava roots <i>S.A. Oyeyinka, O.I. Ajayi, C.T. Gbadebo, R.M.O. Kayode, O.R. Karim and A.A. Adeloye</i>	594
Extrusion cooking increases soluble dietary fibre of lupin seed coat <i>L. Zhong, Z. Fang, M.L. Wahlqvist, J.M. Hodgson and S.K. Johnson</i>	547	Enzymatic modification of grapeseed (<i>Vitis vinifera</i> L.) oil aiming to obtain dietary triacylglycerols in a batch reactor <i>N. Bassan, R.H. Rodrigues, R. Monti, C. Tecelão, S. Ferreira-Dias and A.V. Paula</i>	600
Effects of manufacturing conditions on the foaming properties of milk and sensory characteristics of foamed milk <i>S. Hatakeyama, M. Akiyama, R. Yoneyama, K. Watanabe, R. Koizumi, K. Miyaji, Y. Mizota, M. Ikeda and S. Wakao</i>	555	Short communication Effects of different sugars on the thermal properties and microstructures of Mandarin fish (<i>Siniperca chuats</i>) <i>L. Wang, L. Shi, C. Jiao, W. Wu, X. Li, J. Wang, Y. Qiao, L. Liao, A. Ding, G. Xiong and M. Zhang</i>	84
Rapid and simple identification of two closely-related snow crabs (<i>Chionoecetes opilio</i> and <i>C. japonicus</i>) by direct triplex PCR <i>T.S. Kang</i>	562	Corrigendum Corrigendum to “Determination of ten sulfonamides in honey using tetrahydrofuran salting out liquid Liquid extraction and monolithic silica column” [LWT 96C (2018) 7–12] <i>L. Kadziński, R. Banasiuk and B. Banecki</i>	607
Improving quality and shelf-life of whole chilled Pacific white shrimp (<i>Litopenaeus vannamei</i>) by ozone technology combined with modified atmosphere packaging <i>A.A. Gonçalves and T.C. Lira Santos</i>	568		
The effect of high-CO₂ atmosphere in packaging of pork from pigs supplemented with rapeseed oil and antioxidants on oxidation processes <i>M. Brodowska, D. Guzek, A. Józwick, D. Głabska, J. Godziszewska, I. Wojtasik-Kalinowska, M. Zarodkiewicz, M. Gantner and A. Wierzbicka</i>	576		