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Effect of the xanthan gum on the rheological properties of alginate hydrogels

Martina Cofelice, Maria Cristina Messia, Emanuele Marconi, Francesca Cuomo and Francesco Lopez

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Stability, rheological behavior and microstructure of Pickering emulsions co-stabilized by soy protein and carboxymethyl chitosan

Guo Huang, Guichen Liu, Zejian Xu, Lianzhou Jiang, Yan Zhang and Xiaonan Sui

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Effects of CaCl₂ concentration on fibrils formation and characteristics of soybean protein isolate and β -conglycinin/glycinin

Liming Miao, Jianyu Zhu, Xinhui Peng, Jianling Feng, Hongxia Dong, Xiaohong Tong, Huan Wang and Lianzhou Jiang

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Soluble complexes of ovalbumin with fucoidan: Energetics of binding, protein stability and functional properties

Tatiana V. Burova, Natalia V. Grinberg, Alexander S. Dubovik, Irina G. Plashchina, Anatoly I. Usov and Valerij Y. Grinberg

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Structural properties of meat analogue with added konjac gels

Oni Yuliarti, Lisa Ng, Wen Min Koh, Muhammad Faiz Bin Muhd Faizal Abdullah Tan and Aan Dwi Sentana

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Synergistic interactions between pea protein isolate and rapid-swelling starch

Stacie Dobson, Erica Pensini, John H. Dupuis, Rickey Y. Yada and Alejandro G. Marangoni

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Tamarind seed polysaccharide-assisted fabrication of stable emulsion-based oleogel structured with gelatin: Preparation, interaction, characterization, and application

Fan Xie, Xiaolong Ren, Zengjin Zhu, Jiayi Luo, Hui Zhang, Zhiqiang Xiong, Yan Wu, Zibo Song and Lianzhong Ai

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Interfacial properties of protein nanofibrils with different morphology prepared using aqueous solvent with ethanol: Part I. preparation and characterization

Nan Yang, Jing Li, Bao Zhang, Yongqi Huang, Behrouz Ghorani, Bahareh Emadzadeh and Katsuyoshi Nishinari

Ethanol enhanced interaction between proteins and solvent molecules, resulting in unfolding and aggregation of precursor proteins, and thus facilitated formation of fibrils with worm-like morphology.

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Effect of Artemisia sphaerocephala Krasch gum on the gel properties of myofibrillar protein and its application in cooked sheep sausage

Jiatao Zhang, Jie Meng, Xueyan Yun and Tungalag Dong

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Biopolymer-based UV protection functional films for food packaging

Parya Ezati, Ajahar Khan, Ruchir Priyadarshi, Tanima Bhattacharya, Sai Kumar Tammina and Jong-Whan Rhim

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Effects of temperature and pH on interfacial viscoelasticity, bulk rheology and tribological properties of whey protein isolate-stabilized high internal phase emulsions

Beibei Zhou, Stephan Drusch and Sean A. Hogan

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Mechanism of fat globule size and surface composition regulating *in vitro* dynamic digestion, absorption and transport of structured emulsions

Yingying Hou, Ping Shen, Ruijie Wang, Jianzhong Han, Quanquan Lin, Feifei Han and Weilin Liu

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Enzymatic synthesis of propionyl-fructooligosaccharides and their evaluation as a gut microbiota modulator

Diming Tan, Weiwen Chen, Zixin Yang, Minjing Rong, Rui Huang, Xiyang Wu, Weibin Bai and Lingmin Tian

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Transparent thermoreversible gels of β -(1 \rightarrow 6)-branched β -(1 \rightarrow 3)-glucan derived from the cauliflower mushroom *Sparassis crispa*

Ayasa Furuta, Momoka Ikegami, Tomoe Yaguchi, Hideyuki Ito, Koichi Tanaka, Katsuyoshi Nishinari and Yoko Nitta

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Oral oil release improves lubrication and sensory properties of meat analogs with protein-stabilized oleogel

Chuanwu Han, Gaoshang Wang, Jian Guo, Jinmei Wang and Xiaoquan Yang

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Large amplitude oscillatory shear stress (LAOStress) analysis for an acid-curd Spanish cheese: Afuega'l Pitu atroncau blancu and roxu (PDO)

Lorena Piñeiro-Lago, Nabil Ramlawi, Inmaculada Franco, Clara A. Tovar, Laura Campo-Deaño and Randy H. Ewoldt

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Effect of safflower oil and magnetic field-modified soy 11S globulin on rheological and emulsifying properties of oil-in-water emulsions

Zhuang-Li Kang, Jing-jie Xie, Zhong-liang Hu, Yan-ping Li and Han-Jun Ma

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Enzymatic arabinose depletion of wheat arabinoxylan regulates *in vitro* fermentation profiles and potential microbial degraders

Hong Yao, Bernadine M. Flanagan, Barbara A. Williams, Munirah Ismail, Astrada Dyna Ersya, Michael J. Gidley and Deirdre Mikkelsen

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Impact of binding interaction modes between whey protein concentrate and quercetin on protein structural and functional characteristics

Jinju Cheng, Olayemi Eyituoyo Dudu, Jingjinqiu Zhang, Yu Wang, Lu Meng, Wanlinhao Wei, Xiaodong Li and Tingsheng Yan

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Gelation behaviour and gel properties of the 7S and 11S globulin protein fractions from faba bean (*Vicia faba* var. *minor*) at different NaCl concentrations

Mathias Johansson, Saeid Karkehabadi, Daniel P. Johansson and Maud Langton

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Phytosterols photooxidation in O/W emulsion: Influence of emulsifier composition and interfacial properties

Bo-wen Yang, Sheng-yang Ji, Tian Zhao, Zhang-tie Wang, Yan-song Zhang, Qian-nan Pan, Wei-su Huang and Bai-yi Lu

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Impact of starch-hydrocolloid interaction on pasting properties and enzymatic hydrolysis

Maria Santamaria, Raquel Garzon and Cristina M. Rosell

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Harnessing plum (*Prunus domestica* L.) processing wastes for the fabrication of bio-composite edible films: An attempt towards a food circular bioeconomy

Mohd Aaqib Sheikh, Charanjiv Singh Saini and Harish Kumar Sharma

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Oleogels from mesoporous whey and potato protein based aerogel microparticles: Influence of microstructural properties on oleogelation ability

Isabella Jung, Baldur Schroeter, Stella Plazzotta, Lorenzo De Berardinis, Irina Smirnova, Pavel Gurikov and Lara Manzocco

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Small and large oscillatory shear behaviors of gelatin/starch system regulated by amylose/amylopectin ratio

Dongling Qiao, Yuchun Huang, Guohua Zhao, Yuyan Zhang, Xinran Hou, Binjia Zhang and Fatang Jiang

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Physicochemical and *in vitro* digestion properties of gelatin/low-methoxyl pectin synbiotic microgels co-encapsulating *Lactocaseibacillus casei* and pectic oligosaccharides via double-crosslinking with transglutaminase and calcium ions

Jeong Ho Byeon, Yu-Ra Kang and Yoon Hyuk Chang

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High internal phase Pickering emulsion stabilized by zein-tannic acid-sodium alginate complexes: β -Carotene loading and 3D printing

Xin Liu, Fang Xie, Jiaojiao Zhou, Jiangling He, Zia-ud Din, Shuiyuan Cheng and Jie Cai

Tannic acid (TA) and sodium alginate (SA) were used to improve the surface wettability of zein to prepare Zein-TA-SA composite particles (ZTSs). The ZTSs were used as emulsifiers to stabilize high-inter-phase Pickering emulsions (HIPEs), which were used as encapsulation material for β -carotene and safe delivery of carotenoids in simulating gastrointestinal digestion. Furthermore, the emulsions also provided a new material for 3D printing, offering a small step forward to personalize customized food products.

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Extrusion for reducing malondialdehyde-induced whey protein isolate oxidation in relation with its physicochemical, functional and *in vitro* digestive properties

Zhanmei Jiang, Yifei Meng, Chenyue Hou, Munkh-Amgalan Gantumur, Yitong Gao, Yuxuan Huang, Siyuan Zhang, Yu Sun, Sukhbaatar Narantuya, Zhishen Mu and Juncai Hou

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Insights into the structural, morphological, and thermal property changes in simulated digestion and fermentability of four resistant starches from high amylose maize starch

Ranran Chang, Zhengyu Jin and Yaoqi Tian

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Targeting transportation of curcumin by soybean lipophilic protein nano emulsion: Improving its bioaccessibility and regulating intestinal microorganisms in mice

Zhen Zeng, Siqi Deng, Yang Liu, Cheng Li, Zhengfeng Fang, Bin Hu, Hong Chen, Caixia Wang, Saiyan Chen, Wenjuan Wu and Yuntao Liu

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Evaluation of ionic calcium and protein concentration on heat- and cold-induced gelation of whey protein isolate gels as a potential food formulation for 3D food printing

Ricardo Uribe-Alvarez, Craig P. Murphy, Caroline Coleman-Vaughan and Norah O'Shea

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Formation of thermo-reversible gels from whey proteins after combined thermal and ethanol pretreatment

Marios Andreadis and Thomas Moschakis

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Impact of varying macronutrient composition on the printability of pea-based inks in extrusion-based 3D food printing

Aaditya Venkatachalam, Ajay Balasubramaniam, Patrick F.C. Wilms, Lu Zhang and Maarten A.I. Schutyser

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Electrostatically reinforced and sealed nanocellulose-based macrosphere by alginate/chitosan multi-layer coatings for delivery of probiotics

Qian Luan, Hao Zhang, Jiahui Wang, Yan Li, Miaoyu Gan, Qianchun Deng, Luyun Cai, Hu Tang and Fenghong Huang

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Effects of epigallocatechin-3-gallate on the structural hierarchy of the gluten network in dough

Chong Chong Wang, Zheng Sheng, Ya Hui Zhang, Qi Zhen Du, Qin Li, Pen Jin, Dong Chao Xie, Wei Hong Min and Hai Hua Zhang

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Preparation and characterization of emulsions of soy protein isolate-chitosan quaternary ammonium salt complexes and peppermint essential oil with extended release effect

Xiaolu Tian, Di Wang, Yihan Li, Zhe Xu, Xueyan Ren and Qingjun Kong

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Whey protein isolate nanofibrils as emulsifying agent to improve printability of Cheddar cheese for 3D printing

Dongxu Wang, Jiakuan Guo, Yexuan Wang, Yue Yang, Bin Jiang, Dongmei Li, Zhibiao Feng and Chunhong Liu

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Co-incorporation of probiotics into 3D printed custard cream with hydrophilic and hydrophobic bioactives

Qingying Cai, Yinglin Zhong, Qingrong Huang, Guiying Huang and Xuanxuan Lu

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Preparation and characterization of particle-filled microgels by ion induction based on zein and κ -carrageenan for delivering the CoQ₁₀

Meijuan Liao, Ruyi Zhang, Yi Zhou, Duoxia Xu, Yahong Han, Fuguo Liu, Jiaqi Su and Shuai Chen

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Lactoferrin as a carrier of iron: Development and physicochemical characterization

Arlete M. Marques, Ana I. Bourbon, Rui M. Rodrigues, José A. Teixeira, Lorenzo M. Pastrana and Miguel A. Cerqueira

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Yeast protein-based meat analogues: Konjac glucomannan induces the fibrous structure formation by modifying protein structure

Songgang Xia, Jian Song, Ku Li, Tingting Hao, Chengxin Ma, Shuo Shen, Xiaoming Jiang, Changhu Xue and Yong Xue

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Understanding of hydrocolloid functions for enhancing the physicochemical features of rice flour and noodles

Supaluck Kraithong, Atiruj Theppawong, Suyong Lee and Riming Huang

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Assembly of plant-based meat analogs using soft matter physics: A coacervation-shearing-gelation approach

Jaekun Ryu, Xiaoke Xiang, Xiaoyan Hu, Shuli E. Rosenfeld, Dingkui Qin, Hualu Zhou and David Julian McClements

Soft matter physics method for preparing meat analogs using coacervation, shearing, and gelation to create fiber-like structures.

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Encapsulation of SOD in chitosan-coated gel particles of alginate or mixture of alginate and shellac for targeted intestinal delivery

Zeliang Zhu, Yi Yuan, Jingke Guo, Xiaolin Luo, Shutao Liu and Song Miao

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Novel multilayer chitosan/emulsion-loaded syringic acid grafted apple pectin film with sustained control release for active food packaging

Lihui Zhang, Min Zhang, Arun S. Mujumdar, Dayuan Wang and Yamei Ma

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Use of oxidized potato starch as simultaneous fat and casein replacer in analogue mozzarella cheese-II: Impact on functional and sensory properties of cheese

Maria Ahsan, Tahira Mohsin Ali and Abid Hasnain

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Destabilization of oil-in-water emulsions: Influences of interfacial assembly of octenyl succinic anhydride starch and chitosan

Tian Xu, Zhengbiao Gu, Li Cheng, Caiming Li, Zhaofeng Li and Yan Hong

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Insights into the supramolecular self-assembly of sodium caseinate and calixarene

Ruslan Kashapov, Yuliya Razuvayeva, Albina Ziganshina,
Syumbelya Amerhanova, Anastasiia Sapunova, Alexandra Voloshina,
Vadim Salnikov and Lucia Zakharova

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Water-in-oil oleogel with biphasic stabilization for fabrication of low-fat salad dressing

Fuying Wang, Li Guo, Han Liu, Hongxun Tao, Bin Yu, Haibo Zhao,
Jianpeng Li, Haiteng Tao, Bo Cui and Yuxiao Wang

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Preparation of sodium-containing coacervates via high-voltage electrostatic field treatment: Saltiness perception of prefabricated chicken patties

Lihui Zhang, Min Zhang, Arun S. Mujumdar and Yamei Ma

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Preparing bright *Monascus* yellow pigments by loading quercetin-Sn(II)-albumin –chitosan: Enhanced stability and bioactivity

Zhenfeng Huang, Huixin Xie, Tingting Hu, Jiarui Zeng, Xiaofei Tian and Zhenqiang Wu

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Structural properties of *Bletilla striata* polysaccharide and the synergistic gelation of polysaccharide and xanthan gum

Yanjie Hou, Jiaying Zhao, Junyi Yin and Shaoping Nie

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Optimization of ultrasonic-assisted hot acidic solvent extraction of ulvan from *Ulva intestinalis* of the Persian Gulf: Evaluation of structural, techno-functional, and bioactivity properties

Mohsen Kazemi, Moiteza Fathi, Kambiz Jahanbin, Maryam Taghdir and Sepideh Abbaszadeh

Schematic overview of extraction and analyses of ulvan from *U. intestinalis*.

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Thermal stability and *in vitro* digestion of alginate–starch–iron beads for oral delivery of iron

A. Mihaly Cozmuta, M.A.K. Purbayanto, A. Jastrzębska, A. Peter, C. Nicula, A. Uivarasan and L. Mihaly Cozmuta

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Formation and characterization of oleogels derived from emulsions: Evaluation of polysaccharide ratio and emulsification method

Lihua Huang, Yongjian Cai, Di Fang, Jiaqi Su, Mouming Zhao, Qiangzhong Zhao and Paul Van der Meeren

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Preparation of high internal phase Pickering emulsion by centrifugation for 3D printing and astaxanthin delivery

Jia Song, Yuanda Sun, Haitao Wang and Mingqian Tan

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Molecular simulation of partially denatured β -lactoglobulin

Zhuo Zhang, Valeria Arrighi, Lydia Campbell, Julien Lonchamp and Stephen R. Euston

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Marine fucoidans: Structural, extraction, biological activities and their applications in the food industry

Emmanuel Ofosu Mensah, Osman Nabayire Kanwugu, Pritam Kumar Panda and Parise Adadi

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Impact of potato starch structural transitions on microstructure development during deep-frying

I.M. Riley, U. Verma, S. Canals Rovira, N. Ooms, M.A. Nivelle, P. Verboven, B. Nicolai and J.A. Delcour

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Steam explosion pretreatment for bovine limed hide waste gelatin extraction

Cesar Vinicius Toniciolli Rigueto, Marieli Rosseto, Karolynne Sousa Gomes, Raquel Aparecida Loss, Bárbara Biduski, Christian Manera, Marcelo Godinho, Vandr e Barbosa Bri o, Aline Dettmer and Ionara Regina Pizzutti

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Development of biodegradable and vermicompostable films based on alginate and waste eggshells

Valeria Villanueva, Fabrizio Vald es, Rommy N. Z niga, Mar a Gabriela Villanizar-Sarmiento, Eduardo Soto-Bustamante, Patricio Romero-Hasler, Ana Luisa Riveros, Jose Tapia, Judit Lisoni, Felipe Oyarzun-Ampuero and Carolina Valenzuela

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Development and characterization of walnut oleogels structured by cellulose nanofiber

Xiufen Li, Guanshui Guo, Yuxuan Zou, Jia Luo, Jun Sheng, Yang Tian and Jienan Li

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Effect of various thermal processing on the structural and in vitro prebiotic characteristics of β -glucan from Hullless Barley

Yong Xie, Qingqing Liu, Haibo Liu, Zhiping Fan, Jia Shi and Xiong Liu

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High uptake of citrus essential oil-loaded zein particles into *E. coli* tuned by the wet-crosslinked folic acid

Feilong Yang, Chengying Zhao, Liping Feng, Yanqi Wang, Mengyu Ma, Vincenzo Fogliano, Jinkai Zheng and Ashkan Madadlou

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Construction of butyric acid modified porous starch for stabilizing pickering emulsions: Encapsulation of paclitaxel

Yunxiang Ma, Min Li, Zidi Chen, Juan Feng, Ruixi Chen, Zhipeng Wang, Jinfeng Chen and Shenggui Zhang

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Development of *in vitro* digestion simulation of gastrointestinal tract to evaluate lipolysis and proteolysis: Comparison of infant model digestion of breast milk and adult model digestion of cow milk

Pu Zhao, Xue Yang, Dan Li, Xinghe Zhang, Wei Wei, Qingzhe Jin and Xingguo Wang

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Preparation, chemical composition, glycolipid-lowering activity and functional property of high-purity polysaccharide from *Moringa oleifera* Lam. leaf: A novel plant-based functional hydrophilic colloid

Xinyi Yang, Lianzhu Lin and Mouming Zhao

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Experimental and modeling approaches applied to the whey proteins and vitamin B9 complexes study

Rocío Corfield, Gabriel Lalou, Santiago Di Lella, Karina D. Martínez, Carolina Schebor, Mariana C. Allievi and Oscar E. Pérez

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Properties of complexes of whey protein isolate fibrils (WPIF) and octenyl succinate starch (OSS) and their applications in emulsion stabilization and custard cream

Wenlong Niu, Ling Wu, Wen Gong, Xu Kang, Jiantao Zhang, Katsuyoshi Nishinari and Meng Zhao

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Self-assembly of plant polyphenols-grafted soy proteins to manufacture a highly stable antioxidative Pickering emulsion gel for direct-ink-write 3D printing

Adeleh Mohammadi, Peyman Asghartabar Kashi, Mahboobeh Kashiri, Amirhossein Bagheri, Jianshe Chen, Rammile Ettelaie, Henry Jäger and Mahdiyar Shahbazi

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Color formation during the fibrillization of whey protein isolate: Maillard reaction and protein oxidation

Kefan Ouyang, Hexiang Xie, Yufeng Wang, Fangjian Ning, Hua Xiong and Qiang Zhao

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High internal phase emulsions stabilized by pea protein isolate-inulin conjugates: Application as edible inks for 3D printing

Wen Jiang, Wenhan Li, Juxiu Li, David Julian McClements, Cuicui Ma, Shuai Chen, Xuebo Liu and Fuguo Liu

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Enhanced mechanical property and freeze-thaw stability of alkali-induced heat-set konjac glucomannan hydrogel through anchoring interface effects of carboxylated cellulose nanocrystals

Cailing Tong, Shizhong Jiang, Da Ye, Kailin Li, Jingwen Liu, Xinxin Zeng, Chunhua Wu and Jie Pang

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Regulating the physicochemical and structural properties of different starches by complexation with tea polyphenols

Jinwang Li, Mingyue Shen, Wenhao Xiao, Yulin Li, Wentao Pan and Jianhua Xie

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Optimization and characterization of new oleogels developed based on sesame oil and rice bran oil

Subajiny Sivakanthan, Sabrina Fawzia, Sagadevan Mundree, Terrence Madhujith and Azharul Karim

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Tailoring the rheological properties of high protein suspension by thermal-mechanical treatment

Uzma Siddiqui, Jan Ilavsky and Da Chen

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Feasibility of *Agaricus bisporus* waste biomass to develop biodegradable food packaging materials

Zaida Pérez-Bassart, Alcira Reyes, Antonio Martínez-Abad, Amparo López-Rubio and María José Fabra

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The functionalisation of fruit and vegetable cell wall material as texturizing agent: The role of pectin depletion and particle size reduction techniques

J. Van Audenhove, T. Bernaerts, N.I. Putri, A.M. Van Loey and M.E. Hendrickx

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Effect of emulsifying salts on functional, textural and rheological properties of milk protein concentrate 80 (MPC80) based processed cheese product

Chandni Dularia, Ganga Sahay Meena, Shamim Hossain, Yogesh Khetra and Sumit Arora

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Formation and physicochemical properties of insoluble complexes resulted from high methoxyl pectin – protein interactions

Marianthi Zioga and Vasiliki Evageliou

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Structure, rheology, and antifreeze property of the exopolysaccharide from *Naematelia aurantialba* through basidiospore fermentation

Tao Sun, Xiaoyi Xu, Yuhang Ma, Hao jiang, Kai Yang, Rui Wang, Yian Gu, Sha Li, Yibin Qiu, Dafeng Sun, Hong Xu and Peng Lei

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Carvacrol/cyclodextrin inclusion complex loaded gelatin/pullulan nanofibers for active food packaging applications

Kubra Ertan, Asli Celebioglu, Rimi Chowdhury, Gulum Sumnu, Serpil Sahin, Craig Altier and Tamer Uyar

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Characterization and comparison of physical properties and *in vitro* simulated digestion of multi-component oleogels with different molecular weights prepared by the direct method

Hongtu Qiu, Kexin Qu, Hua Zhang and Jong-Bang Eun

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Design rules of plant-based yoghurt-mimic: Formulation, functionality, sensory profile and nutritional value

Damodar Dhakal, Tayyaba Younas, Ram Prasad Bhusal, Lavaraj Devkota, Christiani Jeyakumar Henry and Sushil Dhital