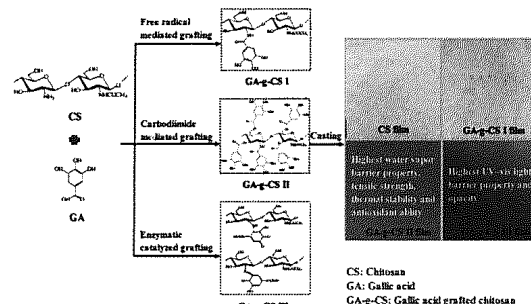


1–10

**Effect of grafting method on the physical property and antioxidant potential of chitosan film functionalized with gallic acid**

Xin Zhang, Jun Liu, Chunlu Qian, Juan Kan, Changhai Jin

College of Food Science and Engineering, Yangzhou University, Yangzhou, 225127, PR China



11–19

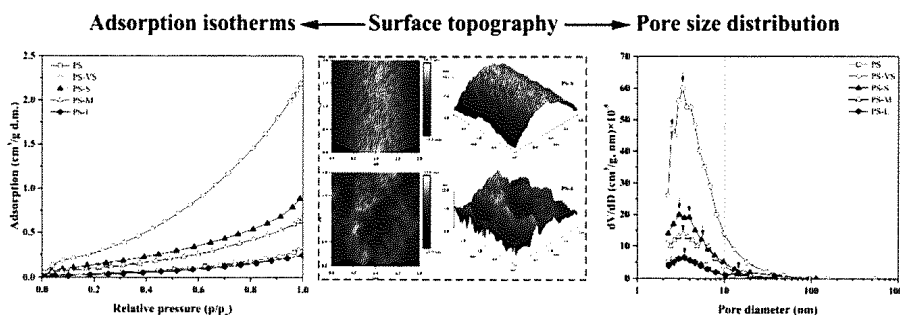
**Comprehensive investigation and comparison of surface microstructure of fractionated potato starches**

Long Chen<sup>a,c</sup>, Rongrong Ma<sup>a</sup>, Zipei Zhang<sup>c</sup>, Meigui Huang<sup>b</sup>, Canxin Cai<sup>a</sup>, Ruojie Zhang<sup>c</sup>, David Julian McClements<sup>c</sup>, Yaoqi Tian<sup>a</sup>, Zhengyu Jin<sup>a</sup>

<sup>a</sup>State Key Laboratory of Food Science and Technology, Jiangnan University, Wuxi, 214122, China

<sup>b</sup>Department of Food Science and Engineering, College of Light Industry and Food Engineering, Nanjing Forestry University, Nanjing, 210037, China

<sup>c</sup>Department of Food Science, University of Massachusetts, Amherst, MA, 01003, USA



20–28

**Novel, multifunctional mucilage composite films incorporated with cellulose nanofibers**

Muhammad Mujtaba<sup>a</sup>, Lalehan Akyuz<sup>b</sup>, Behlul Koc<sup>d</sup>, Murat Kaya<sup>d</sup>, Sedef Ilk<sup>f</sup>, Demet Cansaran-Duman<sup>a</sup>, Asier Salaberria Martinez<sup>e</sup>, Yavuz S. Cakmak<sup>d</sup>, Jalel Labidi<sup>e</sup>, Sami Boufi<sup>c</sup>

<sup>a</sup>Institute of Biotechnology, Ankara University, Ankara, 06110, Turkey

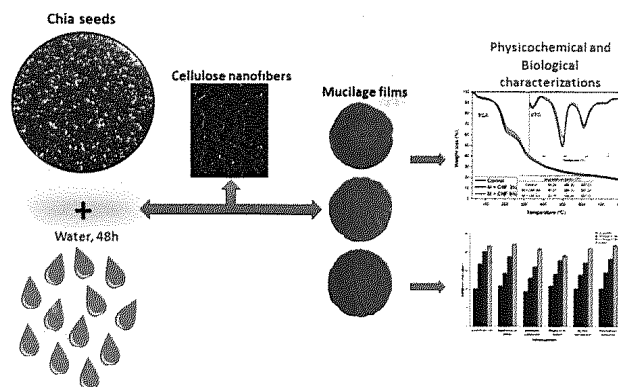
<sup>b</sup>Aksaray University, Technical Vocational School, Department of Chemistry Technology, 68100, Aksaray, Turkey

<sup>c</sup>University of Sfax, Faculty of Science, LMSE, BP 802, 3018, Sfax, Tunisia

<sup>d</sup>Department of Biotechnology and Molecular Biology, Faculty of Science and Letters, Aksaray University, 68100, Aksaray, Turkey

<sup>e</sup>Biorefinery Processes Research Group, Department of Chemical and Environmental Engineering, University of the Basque Country (UPV/EHU), Plaza Europa 1, 20018, Donostia-San Sebastian, Spain

<sup>f</sup>Central Laboratory Research Center, Ömer Halisdemir University, 51240, Niğde, Turkey



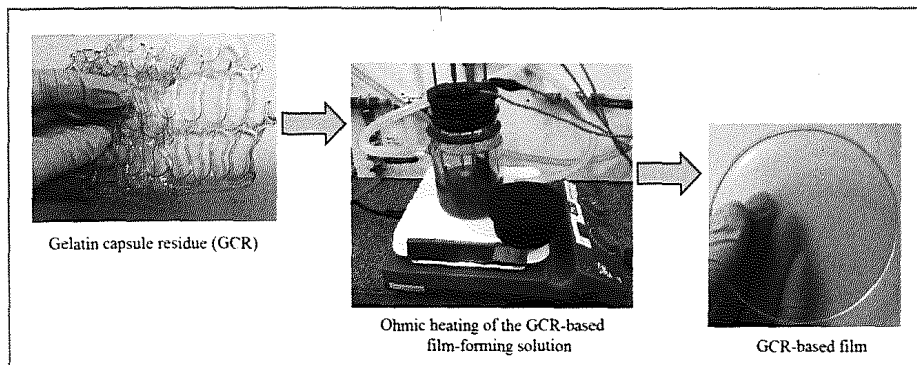
29-35

### Effect of moderate electric field on the properties of gelatin capsule residue based films

Aline Oliveira e Silva Iahnke<sup>a,b</sup>,  
Carolina Galarza Vargas<sup>a</sup>,  
Giovana Domeneghini Mercali<sup>a</sup>,  
Alessandro de Oliveira Rios<sup>a</sup>, Hubert Rahier<sup>b</sup>,  
Simone Hickmann Flôres<sup>a</sup>

<sup>a</sup>Institute of Food Science and Technology,  
Federal University of Rio Grande do Sul (UFRGS),  
Av. Bento Gonçalves, 9500, Agronomia, 91501-970,  
Porto Alegre, Rio Grande do Sul, Brazil

<sup>b</sup>Physical Chemistry and Polymer Science (FYSC), Department of Materials and Chemistry,  
Faculty of Engineering, Vrije Universiteit Brussel (VUB), Pleinlaan 2, B-1050, Brussels, Belgium



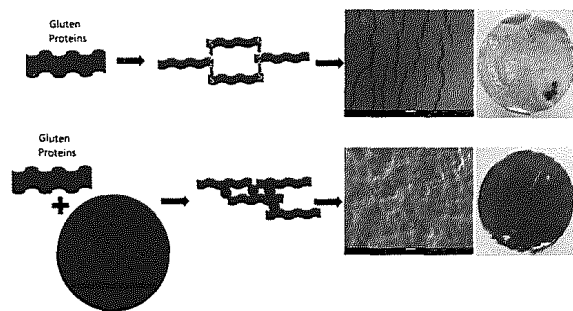
36-43

### Effects of condensed vs hydrolysable tannins on gluten film strength and stability

Audrey L. Girard<sup>a,b</sup>, Tadesse Teferra<sup>a,b</sup>, Joseph M. Awika<sup>a,b</sup>

<sup>a</sup>Texas A&M University, Soil & Crop Sciences Department, 2474 TAMU,  
College Station, TX, 77843, USA

<sup>b</sup>Texas A&M University, Nutrition & Food Science Department, College Station,  
TX, 77843, USA



44-55

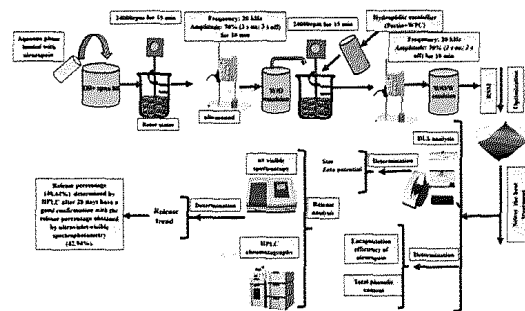
### Fabrication of double W<sub>1</sub>/O/W<sub>2</sub> nano-emulsions loaded with oleuropein in the internal phase (W<sub>1</sub>) and evaluation of their release rate

Pouria Gharehbeiglou<sup>a</sup>, Seid Mahdi Jafari<sup>a</sup>, Aziz Homayouni<sup>b</sup>,  
Hamed Hamishekar<sup>c</sup>, Habibollah Mirzaei<sup>a</sup>

<sup>a</sup>Department of Food Materials and Process Design Engineering, Gorgan University of  
Agricultural Sciences and Natural Resources, Gorgan, Iran

<sup>b</sup>Department of Food Science and Technology, Faculty of Health and Nutrition,  
Tabriz University of Medical Sciences, Tabriz, Iran

<sup>c</sup>Pharmaceutical Technology Laboratory, Drug Applied Research Center,  
Tabriz University of Medical Sciences, Tabriz, Iran

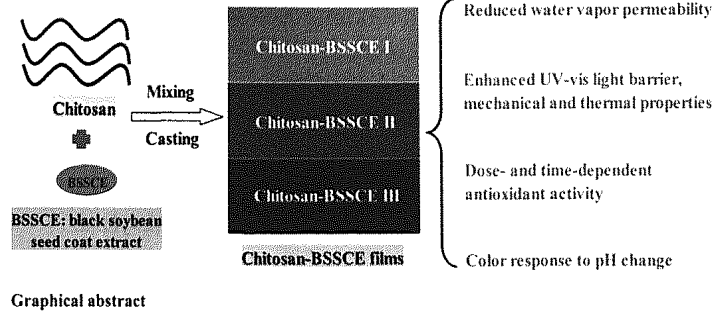


56-66

### Preparation and characterization of antioxidant and pH-sensitive films based on chitosan and black soybean seed coat extract

Xingchi Wang, Huimin Yong, Li Gao, Lulu Li, Meijuan Jin, Jun Liu

College of Food Science and Engineering, Yangzhou University, Yangzhou, 225127, PR China



67-79

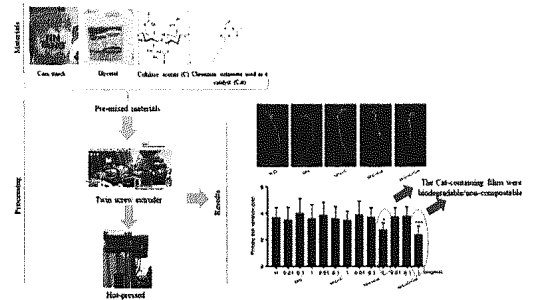
### Characterization of biodegradable/non-compostable films made from cellulose acetate/corn starch blends processed under reactive extrusion conditions

Clémence Herniou-Julien<sup>a</sup>, Julieta R. Mendieta<sup>b</sup>, Tomy J. Gutiérrez<sup>c</sup>

<sup>a</sup>Faculté Sciences & Sciences de l'ingénieur, Université de Bretagne-Sud (UBS), 2 rue Coat Saint-Haouen, 56100 Lorient, France

<sup>b</sup>Grupo de Fisiología del Estrés en Plantas, Instituto de Investigaciones Biológicas (IIB), Facultad de Ciencias Exactas y Naturales, Universidad Nacional de Mar del Plata (UNMdP), Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) y Comisión de Investigaciones Científicas (CIC), Deán Funes 3250, B7602AY, Mar del Plata, Argentina

<sup>c</sup>Grupo de Materiales Compuestos Termoplásticos (CoMP), Instituto de Investigaciones en Ciencia y Tecnología de Materiales (INTEMA), Facultad de Ingeniería, Universidad Nacional de Mar del Plata (UNMdP) y Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Colón 10850, B7608FLC, Mar del Plata, Argentina



80-89

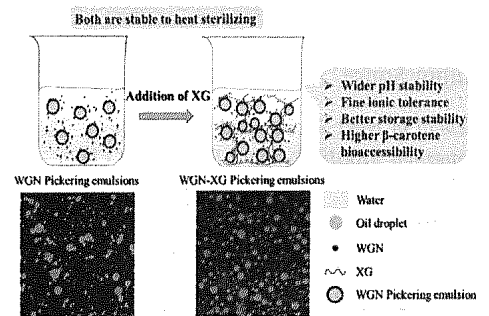
### Encapsulation of $\beta$ -carotene in wheat gluten nanoparticle-xanthan gum-stabilized Pickering emulsions: Enhancement of carotenoid stability and bioaccessibility

Dongwen Fu<sup>a</sup>, Sumeng Deng<sup>a</sup>, David Julian McClements<sup>b</sup>, Lei Zhou<sup>a</sup>, Liqiang Zou<sup>a</sup>, Jiang Yi<sup>c</sup>, Chengmei Liu<sup>a</sup>, Wei Liu<sup>a</sup>

<sup>a</sup>State Key Laboratory of Food Science and Technology, Nanchang University, No. 235 Nanjing East Road, Nanchang, Jiangxi, 330047, China

<sup>b</sup>Biopolymers & Colloids Research Laboratory, Department of Food Science, University of Massachusetts, Amherst, MA, 01003, USA

<sup>c</sup>College of Chemistry and Environmental Engineering, Shenzhen University, Shenzhen, 518060, China



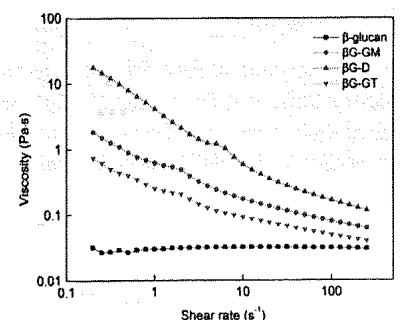
90-94

### Effect of Maillard reaction on rheological, physicochemical and functional properties of oat $\beta$ -glucan

Tao Sun<sup>a,b</sup>, Yingying Qin<sup>a,b</sup>, Jing Xie<sup>a,b</sup>, Honglei Xu<sup>a,b</sup>, Jianhong Gan<sup>a,b</sup>, Jikui Wu<sup>a,b</sup>, Xiaojun Bian<sup>a,b</sup>, Xiaohui Li<sup>a,b</sup>, Zhenhai Xiong<sup>a,b</sup>, Bin Xue<sup>a,b</sup>

<sup>a</sup>College of Food Science & Technology, Shanghai Ocean University, Shanghai, 201306, China

<sup>b</sup>Shanghai Engineering Research Center of Aquatic-Product Processing & Preservation, Shanghai, 201306, China



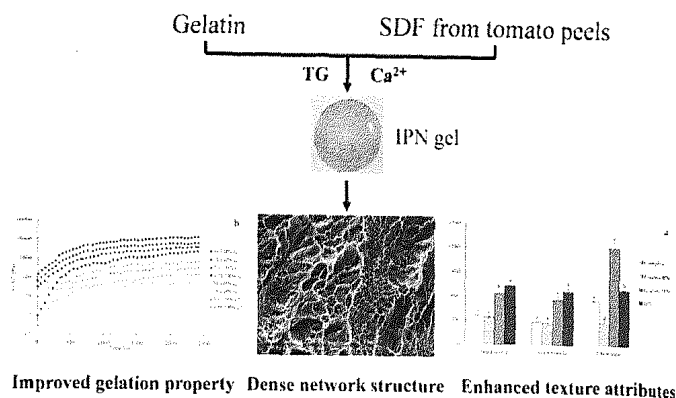
95-99

### Interpenetrating network gels composed of gelatin and soluble dietary fibers from tomato peels

Yuge Niu<sup>a</sup>, Qi Xia<sup>a</sup>, Meidong Gu<sup>a</sup>, Liangli (Lucy) Yu<sup>b</sup>

<sup>a</sup>Institute of Food and Nutraceutical Science, School of Agriculture and Biology, Shanghai Jiao Tong University, Shanghai, 200240, China

<sup>b</sup>Department of Nutrition and Food Science, University of Maryland, College Park, MD, 20742, United States



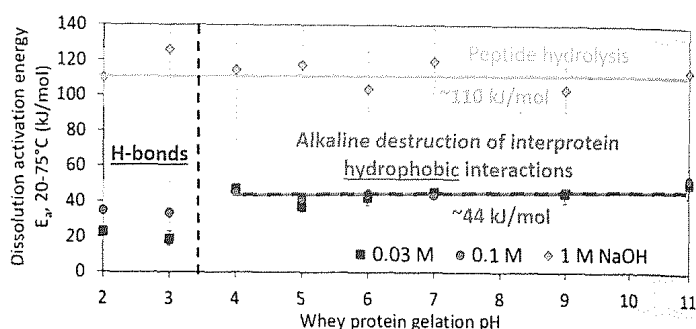
100-110

### The role of non-covalent interactions in the alkaline dissolution of heat-set whey protein hydrogels made at gelation pH 2-11

Liyuan Fan<sup>a</sup>, Anlei Ge<sup>a</sup>, Xiao Dong Chen<sup>a</sup>, Ruben Mercadé-Prieto<sup>a,b</sup>

<sup>a</sup>Suzhou Key Laboratory of Green Chemical Engineering, School of Chemical and Environmental Engineering, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou City, Jiangsu, 215123, PR China

<sup>b</sup>Department of Chemical and Materials Engineering, School of Engineering, Nazarbayev University, Astana, 010000, Kazakhstan



111-121

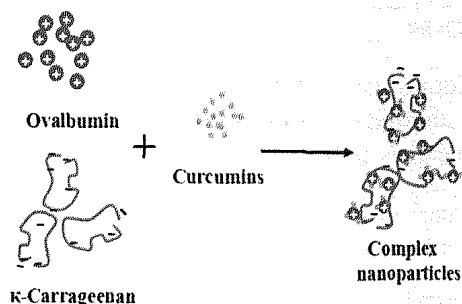
### Fabrication of ovalbumin/ $\kappa$ -carrageenan complex nanoparticles as a novel carrier for curcumin delivery

Hujun Xie<sup>a</sup>, Chuyue Xiang<sup>a</sup>, Yang Li<sup>a</sup>, Lihong Wang<sup>a</sup>, Yutong Zhang<sup>a</sup>, Zhijun Song<sup>a</sup>, Xiangjuan Ma<sup>a</sup>, Xiaoxing Lu<sup>b</sup>, Qunfang Lei<sup>c</sup>, Wenjun Fang<sup>c</sup>

<sup>a</sup>School of Food Science and Biotechnology, Zhejiang Gongshang University, Hangzhou 310018, People's Republic of China

<sup>b</sup>School of Pharmacy, Guangdong Pharmaceutical University, Guangzhou 510006, People's Republic of China

<sup>c</sup>Department of Chemistry, Zhejiang University, Hangzhou 310027, People's Republic of China



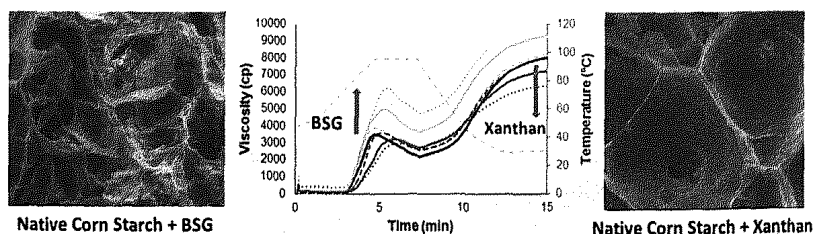
122-130

### The impact of basil seed gum on native and pregelatinized corn flour and starch gel properties

Lara Matia-Merino<sup>a</sup>, Montse Prieto<sup>b</sup>, Laura Roman<sup>b</sup>, Manuel Gómez<sup>b</sup>

<sup>a</sup>Massey Institute of Food Science & Technology, Massey University, Palmerston North, New Zealand

<sup>b</sup>Food Technology Area, College of Agricultural Engineering, University of Valladolid, Palencia, Spain



131-142

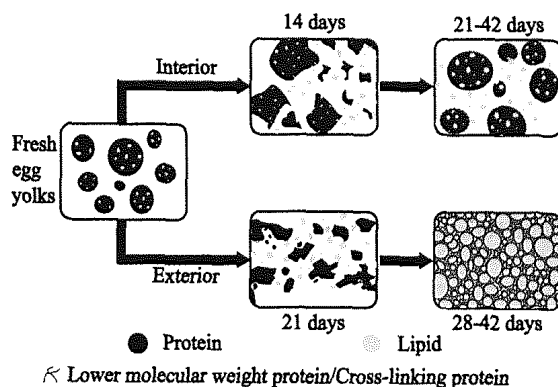
### Changes in physico-chemical properties, microstructure and intermolecular force of preserved egg yolk gels during pickling

Yuan Yang<sup>a</sup>, Yan Zhao<sup>b,c</sup>, Mingsheng Xu<sup>a</sup>, Na Wu<sup>a</sup>, Yao Yao<sup>a</sup>, Huaying Du<sup>a</sup>, Haiyan Liu<sup>a</sup>, Yonggang Tu<sup>a</sup>

<sup>a</sup>Jiangxi Key Laboratory of Natural Products and Functional Food, Jiangxi Agricultural University, Nanchang, 330045, China

<sup>b</sup>Engineering Research Center of Biomass Conversion, Ministry of Education, Nanchang University, Nanchang, 330047, China

<sup>c</sup>State Key Laboratory of Food Science and Technology, Nanchang University, Nanchang, 330047, China

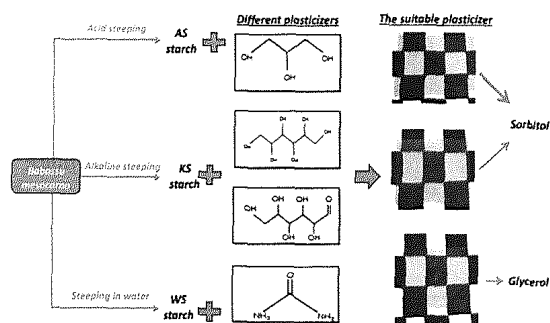


143-152

### Which plasticizer is suitable for films based on babassu starch isolated by different methods?

Bianca C. Maniglia, Larissa Tessaro, Ana Paula Ramos, Delia R. Tapia-Blácido

Departamento de Química, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo, Bandeirantes Avenue 3900, CEP 14040-901, Ribeirão Preto, SP, Brazil



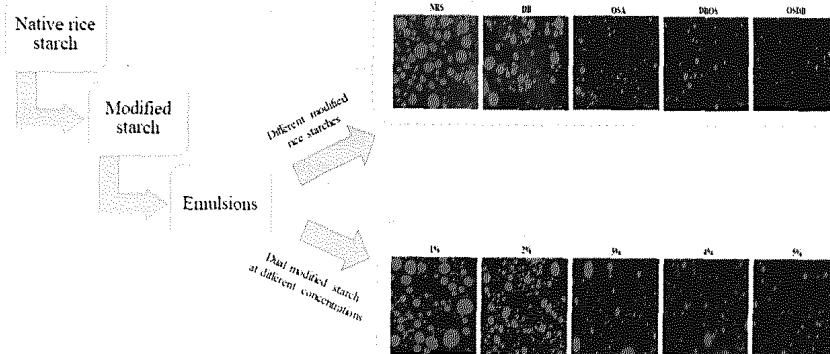
153-162

### Design and synthesis of modified and resistant starch-based oil-in-water emulsions

Surangna Jain<sup>a</sup>, Thunnalin Winuprasith<sup>b</sup>, Manop Suphantharika<sup>a</sup>

<sup>a</sup>Department of Biotechnology, Faculty of Science, Mahidol University, Rama 6 Road, Bangkok, 10400, Thailand

<sup>b</sup>Institute of Nutrition, Mahidol University, Nakhon Pathom, 73170, Thailand



163-170

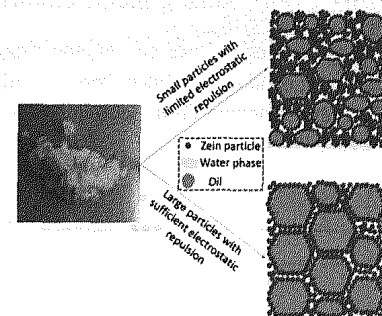
### Tuning particle properties to control rheological behavior of high internal phase emulsion gels stabilized by zein/tannic acid complex particles

Yuan Zou<sup>a,b,c</sup>, Xiaoquan Yang<sup>b</sup>, Elke Scholten<sup>c</sup>

<sup>a</sup>Department of Bioengineering, College of Food Science, South China Agricultural University, Guangzhou, 510640, PR China

<sup>b</sup>Food Protein Research and Development Center, Department of Food Science and Technology, South China University of Technology, Guangzhou, 510640, PR China

<sup>c</sup>Laboratory of Physics and Physical Chemistry of Foods, Wageningen University, P. O. Box 17, 6700 AA, Wageningen, the Netherlands



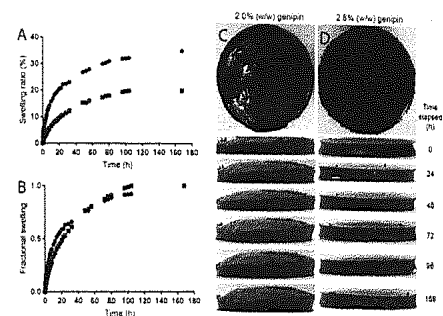
171-179

### Controlled release of ascorbic acid from genipin-crosslinked gelatin matrices under moving boundary conditions

Felicity A. Whitehead<sup>a</sup>, Vilia D. Paramita<sup>b</sup>, Shahla Teimouri<sup>a</sup>, Simon Young<sup>a</sup>, Stefan Kasapis<sup>a</sup>

<sup>a</sup>School of Science, RMIT University, Melbourne, Victoria, 3083, Australia

<sup>b</sup>State Polytechnic of Ujung Pandang, Tamalanrea, Makassar, 90245, Indonesia



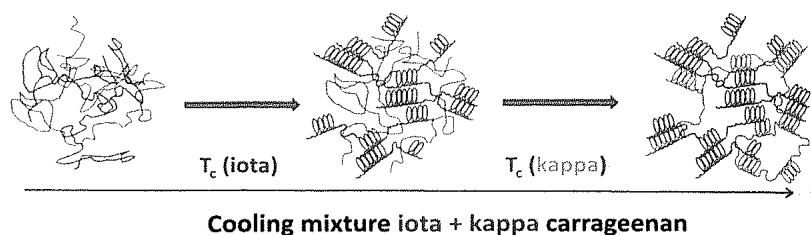
180-187

### Rheology and microstructure of mixtures of iota and kappa-carrageenan

Viet T.N.T. Bui<sup>a</sup>, Bach T. Nguyen<sup>b</sup>, Frederic Renou<sup>a</sup>, Taco Nicolai<sup>a</sup>

<sup>a</sup>Le Mans Université, IMMM UMR-CNRS 6283, Polymères, Colloïdes et Interfaces, 72085, Le Mans, cedex 9, France

<sup>b</sup>Food Technology Faculty, Nha Trang University, Khanh Hoa, Viet Nam



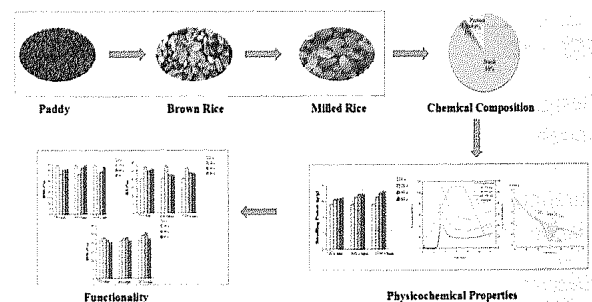
188-195

### Combined speed and duration of milling affect the physicochemical properties of rice flour

Chen Qiu<sup>a</sup>, Peng Li<sup>b</sup>, Zijun Li<sup>a</sup>, Harold Corke<sup>a</sup>, Zhongquan Sui<sup>a</sup>

<sup>a</sup>Department of Food Science & Technology, School of Agriculture and Biology, Shanghai Jiao Tong University, Shanghai, 200240, China

<sup>b</sup>Department of Food Science and Engineering, Qingdao Agricultural University, Qingdao, 266109, China



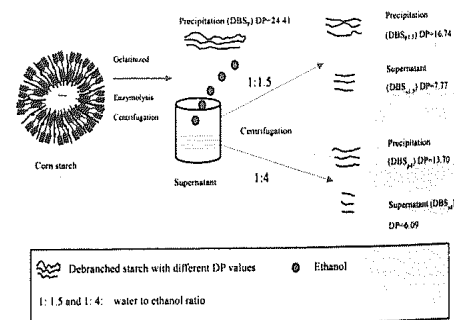
196-206

### Separation and characterization of linear glucans debranched from normal corn, potato and sweet potato starches

Hao Lu<sup>a</sup>, Liu Xiong<sup>a</sup>, Man Li<sup>a</sup>, Haihua Chen<sup>a</sup>, Junxia Xiao<sup>a</sup>, Shiqing Wang<sup>a</sup>, Lizhong Qiu<sup>b</sup>, Xiliang Bian<sup>b</sup>, Chunrui Sun<sup>b</sup>, Qingjie Sun<sup>a</sup>

<sup>a</sup>College of Food Science and Engineering, Qingdao Agricultural University, Qingdao, Shandong Province, 266109, China

<sup>b</sup>Zhucheng Xingmao Corn Developing Co., Ltd, Weifang, Shandong Province, 262200, China

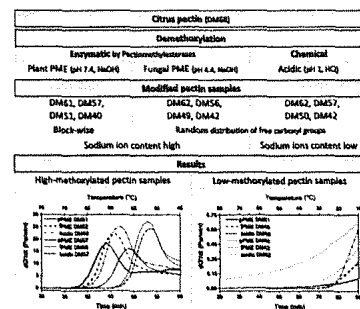


207-215

### Influence of enzymatic and acidic demethoxylation on structure formation in sugar containing citrus pectin gels

H. Kastner, U. Einhorn-Stoll, S. Drusch

Technische Universität Berlin, Food Technology and Food Material Science, Königin-Luise-Strasse 22, D-14195 Berlin, Germany

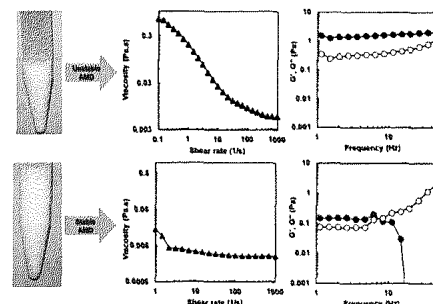


216-223

### Influence of combination carboxymethylcellulose and pectin on the stability of acidified milk drinks

Oni Yulianti, Khang Hui Mei, Zoe Kam Xue Ting, Kuan Yong Yi

School of Chemical and Life Sciences, Singapore Polytechnic, 500 Dover Road, Singapore



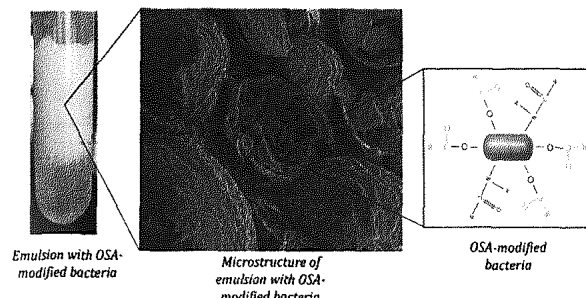
224-233

### Surface engineered bacteria as Pickering stabilizers for foams and emulsions

Xiaoyi Jiang<sup>a</sup>, Cigdem Yucel Falco<sup>a</sup>, Kim Nicole Dalby<sup>b</sup>, Henrik Siegumfeldt<sup>a</sup>, Nils Arneborg<sup>a</sup>, Jens Risbo<sup>a</sup>

<sup>a</sup>University of Copenhagen, Department of Food Science, Rolighedsvej 30, DK-1958, Copenhagen, Denmark

<sup>b</sup>University of Copenhagen, Department of Chemistry, Universitetsparken 5, DK-2100, Copenhagen, Denmark



234-240

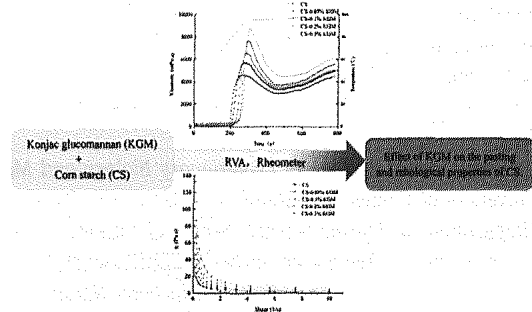
### Effects of konjac glucomannan on pasting and rheological properties of corn starch

Shuping Ma<sup>a,b</sup>, Peilei Zhu<sup>a,b,c</sup>, Mingchun Wang<sup>a,b</sup>

<sup>a</sup>Anhui Province Engineering Laboratory of Agricultural Products Processing, Anhui Agricultural University, Hefei, 230036, China

<sup>b</sup>Department of Food Science and Engineering, Anhui Agricultural University, Hefei, 230036, China

<sup>c</sup>Institute of Horticulture, Anhui Academy of Agricultural Sciences, Hefei, 230031, China



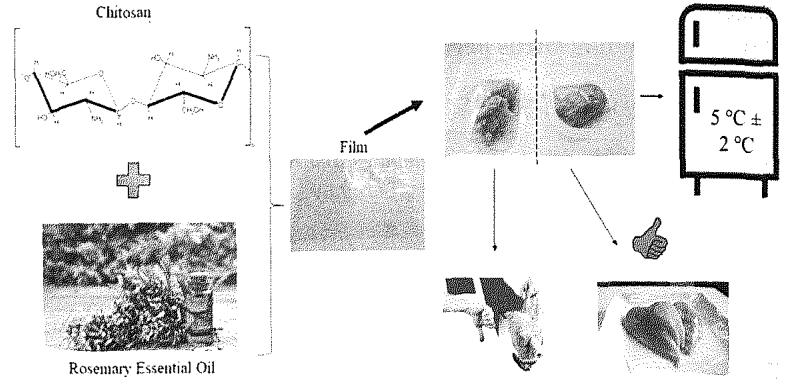
241-252

### Activity of chitosan-montmorillonite bionanocomposites incorporated with rosemary essential oil: From *in vitro* assays to application in fresh poultry meat

Victor Gomes Lauriano Souza<sup>a</sup>, João R.A. Pires<sup>a</sup>,  
Érica Torrico Vieira<sup>a</sup>, Isabel M. Coelho<sup>b</sup>,  
Maria Paula Duarte<sup>a</sup>, Ana Luisa Fernando<sup>a</sup>

<sup>a</sup>MEtRiCS, Departamento de Ciências e Tecnologia da Biomassa, Faculdade de Ciências e Tecnologia, FCT, Universidade Nova de Lisboa, Campus de Caparica, 2829-516, Caparica, Portugal

<sup>b</sup>LAQV-REQUIMTE, Departamento de Química, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, 2829-516, Campus de Caparica, 2829-516, Caparica, Portugal



253-259

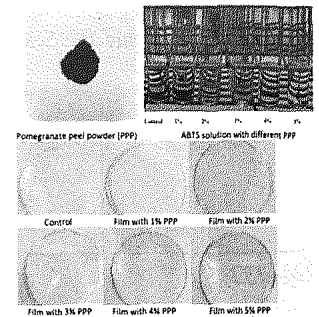
### Effect of pomegranate (*Punica granatum* L.) peel powder on the antioxidant and antimicrobial properties of fish gelatin films as active packaging

Z.A. Nur Hanani<sup>a,b</sup>, F. Cheng Yee<sup>a</sup>, M.A.R. Nor-Khaizura<sup>c</sup>

<sup>a</sup>Department of Food Technology, Faculty of Food Science and Technology, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

<sup>b</sup>Halal Products Research Institute, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

<sup>c</sup>Department of Food Science, Faculty of Food Science and Technology, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia



260-271

### Characterization of agar from *Gracilaria tikvahiae* cultivated for nutrient bioextraction in open water farms

Cristina M.R. Rocha<sup>a,b</sup>, Ana M.M. Sousa<sup>a</sup>,  
Jang K. Kim<sup>c,d,e</sup>, Júlia M.C.S. Magalhães<sup>a</sup>,  
Charles Yarish<sup>c</sup>, Maria do Pilar Gonçalves<sup>a</sup>

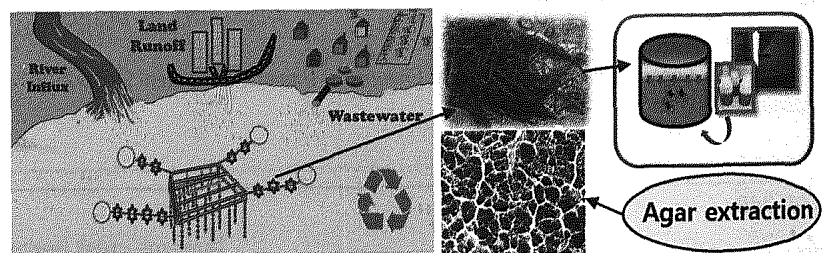
<sup>a</sup>REQUIMTE, LAQV, Departamento de Engenharia Química, Faculdade de Engenharia, Universidade do Porto, Rua Dr. Roberto Frias, 4200-465, Porto, Portugal

<sup>b</sup>CEB - Centre of Biological Engineering, University of Minho, Campus de Gualtar, 4710-057, Braga, Portugal

<sup>c</sup>Departments of Ecology & Evolutionary Biology and Marine Sciences, University of Connecticut-Stamford, 1 University Place, Stamford, CT, 06901, USA

<sup>d</sup>Department of Marine Science, School of Natural Sciences, Incheon National University, 119 Academy-ro, Yeonsu-gu, Incheon, 22012, South Korea

<sup>e</sup>Research Institute of Basic Sciences, Incheon National University, 119, Academy-ro, Yeonsu-gu, Incheon, 22012, South Korea

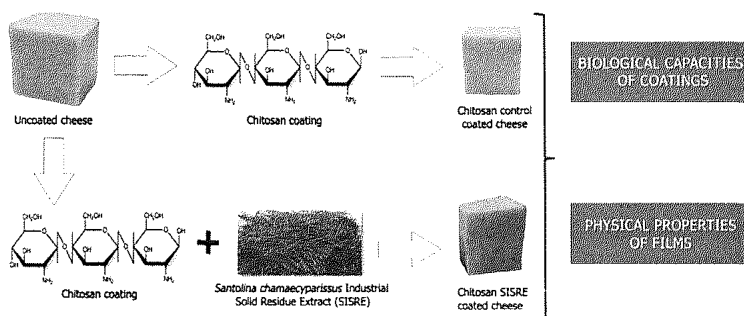




272-282

### Optimization of a chitosan solution as potential carrier for the incorporation of *Santolina chamaecyparissus* L. solid by-product in an edible vegetal coating on 'Manchego' cheese

Gonzalo Ortiz de Elguea-Culebras<sup>a,b</sup>, Ana I. Bourbon<sup>c,d</sup>, Maria J. Costa<sup>c,d</sup>, Nuria Muñoz-Tebar<sup>a</sup>, Manuel Carmona<sup>e</sup>, Ana Molina<sup>a</sup>, Raúl Sánchez-Vioque<sup>b,f</sup>, M. Isabel Berruga<sup>a</sup>, António A. Vicente<sup>c</sup>



<sup>a</sup>Departamento de Ciencia y Tecnología Agroforestal y Genética, ETSIAM-IDR, Universidad de Castilla-La Mancha, Campus Universitario, 02071, Albacete, Spain

<sup>b</sup>Centro de Investigación Agroforestal de Albaladejito (IRIAF-JCCM), Carretera Toledo-Cuenca km 174, 16194, Cuenca, Spain

<sup>c</sup>Centre of Biological Engineering (CEB), University of Minho, Campus de Gualtar, 4710-057, Braga, Portugal

<sup>d</sup>International Iberian Nanotechnology Laboratory (INL), Av. Mestre José Veiga, 4715-330, Braga, Portugal

<sup>e</sup>Universidad Europea de Madrid, School of Architecture, Engineering and Design, Food Technology Lab, Madrid, Spain

<sup>f</sup>Instituto de Recursos Humanos para la Ciencia y la Tecnología (INCRECYT), Fundación Parque Científico y Tecnológico de Castilla-La Mancha, Paseo de la Innovación 1, 02006, Albacete, Spain

283-293

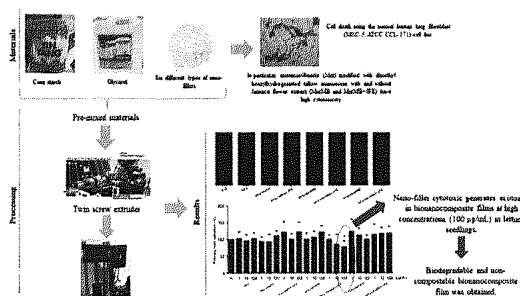
### Hydrogen-bonding interactions and compostability of bionanocomposite films prepared from corn starch and nano-fillers with and without added Jamaica flower extract

Tomy J. Gutiérrez<sup>a</sup>, Luis A. Toro-Márquez<sup>a,b</sup>, Danila Merino<sup>a</sup>, Julieta R. Mendieta<sup>c</sup>

<sup>a</sup>Grupo de Materiales Compuestos Termoplásticos (CoMP), Instituto de Investigaciones en Ciencia y Tecnología de Materiales (INTEMA), Facultad de Ingeniería, Universidad Nacional de Mar del Plata (UNMdP) y Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Colón 10850, B7608FLC, Mar del Plata, Argentina

<sup>b</sup>Grupo de Polímeros, Departamento de Ciencia de los Materiales, Universidad Simón Bolívar (USB), Apartado 89000, Caracas 1080-A, Venezuela

<sup>c</sup>Grupo de Fisiología del Estrés en Plantas, Instituto de Investigaciones Biológicas (IIB), Facultad de Ciencias Exactas y Naturales, Universidad Nacional de Mar del Plata (UNMdP), Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) y Comisión de Investigaciones Científicas (CIC), Deán Funes 3250, B7602AYJ, Mar del Plata, Argentina

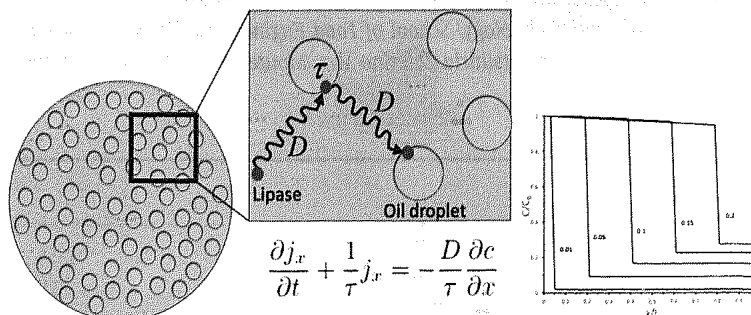


294-301

### Coarse-grained models for diffusion in oil-filled hydrogel microbeads

Leonard.M.C. Sagis

Physics and Physical Chemistry of Food, Wageningen University, Bornse Weiland 9, 6708WG, Wageningen, the Netherlands



302-310

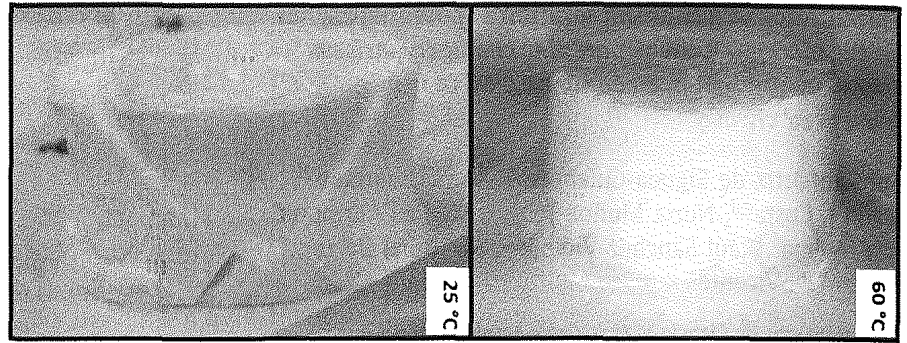
**Alteration of the structural properties of inulin gels**

Steffen Beccard<sup>a</sup>, Jörg Bernard<sup>b</sup>, Rudy Wouters<sup>b</sup>, Karin Gehrich<sup>b</sup>, Birgitta Zielbauer<sup>a</sup>, Markus Mezger<sup>a,c</sup>, Thomas A. Vilgis<sup>a</sup>

<sup>a</sup>Max-Planck-Institute for Polymer Research, Ackermannweg 10, 55128, Mainz, Germany

<sup>b</sup>Südzucker AG, CRDS, Wormser Straße 11, 67283, Obrigheim, Germany

<sup>c</sup>Institute of Physics, Johannes Gutenberg University, 55128, Mainz, Germany



311-320

**Preparation of physically modified oat starch with different sonication treatments**

Seid Reza Falsafi<sup>a,b</sup>, Yahya Maghsoudlou<sup>a</sup>, Hadis Rostamabadi<sup>a</sup>, Mohammad Mahdi Rostamabadi<sup>c</sup>, Hassan Hamed<sup>d</sup>, Seyed Mohammad Hashem Hosseini<sup>e</sup>

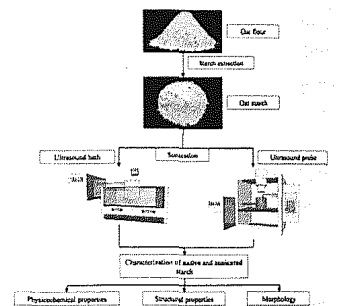
<sup>a</sup>Department of Food Science and Technology, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran

<sup>b</sup>Niksa, Design and Development Company, Avadis Holding Group, 1917734795, Tehran, Iran

<sup>c</sup>Department of Food Science and Technology, College of Agriculture, Isfahan University of Technology, Isfahan, Iran

<sup>d</sup>Department of Food Hygiene, Faculty of Medical Sciences, Science and Research Branch, Islamic Azad University, Tehran, Iran

<sup>e</sup>Department of Food Science and Technology, School of Agriculture, Shiraz University, Shiraz, Iran



321-329

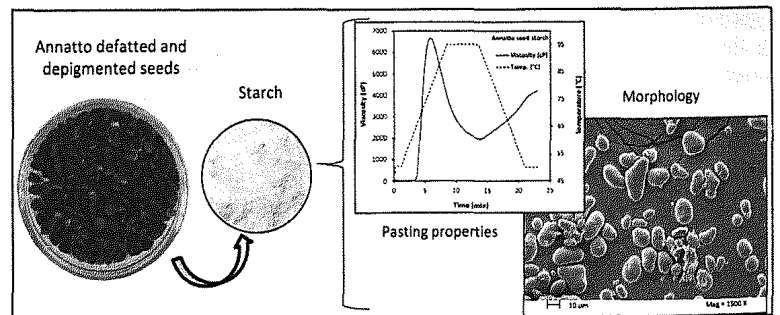
**Physicochemical, morphological, thermal and pasting properties of a novel native starch obtained from annatto seeds**

Giovani L. Zobot<sup>a</sup>, Eric Keven Silva<sup>b</sup>, Lucas B. Emerick<sup>b</sup>, Mária Herminia F. Felisberto<sup>c</sup>, Maria Teresa P. Silva Clerici<sup>c</sup>, M. Angela A. Meireles<sup>b</sup>

<sup>a</sup>Laboratory of Agroindustrial Processes Engineering (LAPE), Federal University of Santa Maria, UFSM, Presidente Vargas Av., 1958, Cachoeira do Sul, RS, 96506-302, Brazil

<sup>b</sup>LASEFI/DEA/FEA (School of Food Engineering)/UNICAMP (University of Campinas), Rua Monteiro Lobato, 80, Campinas, SP, CEP 13083-862, Brazil

<sup>c</sup>Department of Food Technology, School of Food Engineering, University of Campinas (UNICAMP) - Cidade Universitária Zeferino Vaz, Monteiro Lobato, 80, Campinas, São Paulo, Brazil

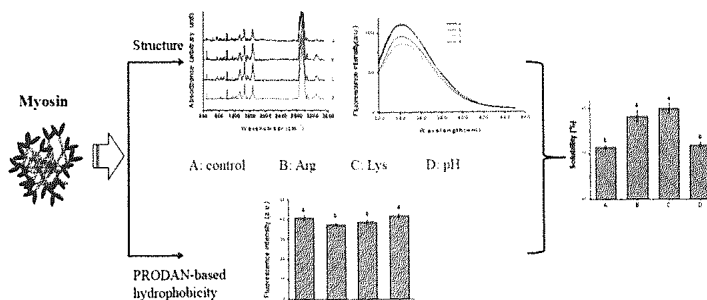


330-336

Conformational and charge changes induced by L-Arginine and L-lysine increase the solubility of chicken myosin

Shiyi Li, Linxian Li, Xiaoxu Zhu, Cheng Ning, Kezhou Cai, Cunliu Zhou

School of Food and Biological Engineering, Hefei University of Technology, Hefei, 230009, China



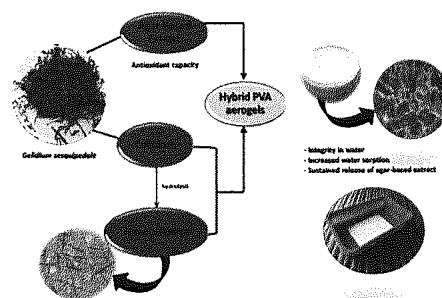
337-350

Development of food packaging bioactive aerogels through the valorization of Gelidium sesquipedale seaweed

Jean Paulo de Oliveira<sup>a,b</sup>, Graziella Pinheiro Bruni<sup>a,b</sup>, Maria José Fabra<sup>b</sup>, Eleassandra da Rosa Zavareze<sup>a</sup>, Amparo López-Rubio<sup>b</sup>, Marta Martínez-Sanz<sup>b</sup>

<sup>a</sup>Department of Agroindustrial Science and Technology, Federal University of Pelotas, 96010-900 Pelotas, Brazil

<sup>b</sup>Food Safety and Preservation Department, IATA-CSIC, Avda. Agustín Escardino 7, 46980 Paterna, Valencia, Spain



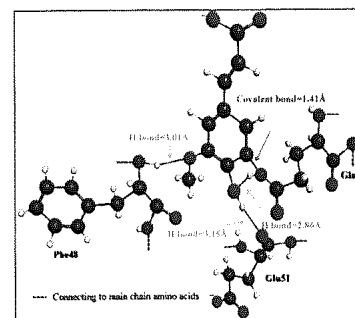
351-359

Combined spectroscopic, molecular docking and quantum mechanics study of β-casein and ferulic acid interactions following UHT-like treatment

Lloyd Conduct<sup>a</sup>, Jasmeet Kaur<sup>a</sup>, Andrew Hung<sup>a</sup>, John Ashton<sup>b</sup>, Stefan Kasapis<sup>a</sup>

<sup>a</sup>School of Science, RMIT University, Bundoora West Campus, Plenty Road, Melbourne, VIC, 3083, Australia

<sup>b</sup>Sanitarium Development and Innovation, Sanitarium Health and Wellbeing Company, Cooranbong, NSW, 2265, Australia

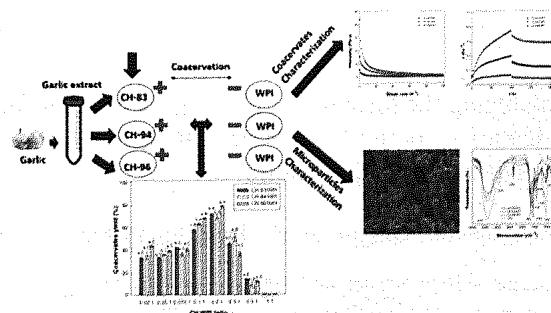


360-369

Encapsulation of garlic extract using complex coacervation with whey protein isolate and chitosan as wall materials followed by spray drying

Lolene Tavares, Caciano Pelayo Zapata Noreña

Institute of Food Science and Technology, Federal University of Rio Grande do Sul, Av. Bento Gonçalves, no. 9500, CEP 91501-970, RS, Brazil



370-378

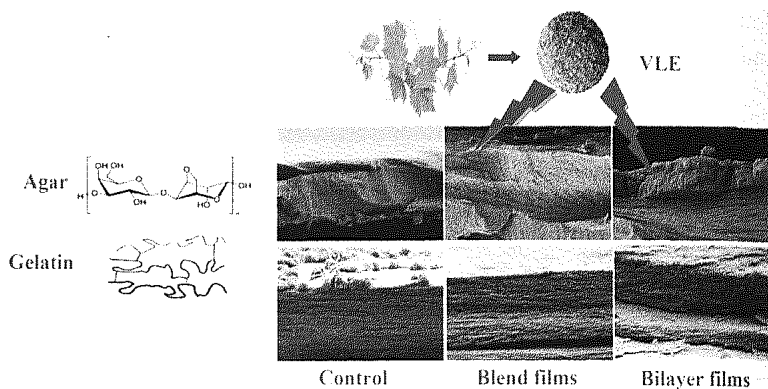
**Development and characterization of grey triggerfish gelatin/agar bilayer and blend films containing vine leaves bioactive compounds**

Mourad Jridi<sup>a,b</sup>, Ola Abdelhedi<sup>a</sup>, Nacim Zouari<sup>a,c</sup>, Nahed Fakhfakh<sup>a,c</sup>, Moncef Nasri<sup>a</sup>

<sup>a</sup>Laboratory of Enzyme Engineering and Microbiology, Engineering National School of Sfax (ENIS), University of Sfax, Sfax, Tunisia

<sup>b</sup>Higher Institute of Biotechnology of Beja, University of Jendouba, Beja, Tunisia

<sup>c</sup>Higher Institute of Applied Biology of Medenine, University of Gabes, Medenine, Tunisia



379-385

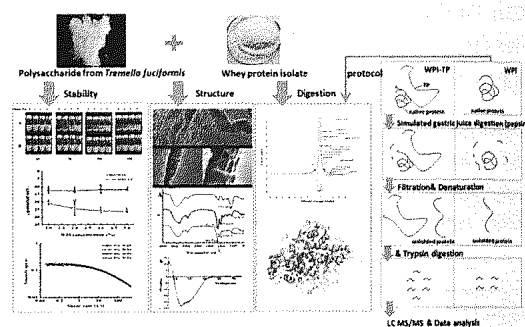
**Stability, microstructure, and digestibility of whey protein isolate – Tremella fuciformis polysaccharide complexes**

Jing Hu<sup>a,b</sup>, Tiefeng Zhao<sup>a,b</sup>, Shengjie Li<sup>a,b</sup>, Zhenyu Wang<sup>a,b</sup>, Chengrong Wen<sup>a,b</sup>, Haitao Wang<sup>a,b</sup>, Chenxu Yu<sup>b,c</sup>, Chaofan Ji<sup>a,b</sup>

<sup>a</sup>School of Food Science and Technology, Dalian Polytechnic University, Dalian 116034, PR China

<sup>b</sup>National Engineering Research Center of Seafood, Dalian 116034, PR China

<sup>c</sup>Department of Agricultural and Biosystems Engineering, Iowa State University, Ames, IA 50010, USA

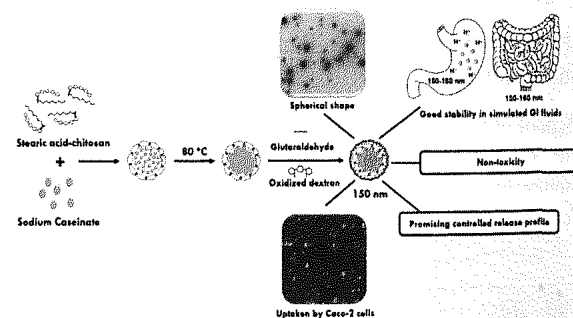


386-395

**Biocompatible polymeric nanoparticles with exceptional gastrointestinal stability as oral delivery vehicles for lipophilic bioactives**

Qiaobin Hu, Minkyung Bae, Erika Fleming, Ji-Young Lee, Yangchao Luo

Department of Nutritional Sciences, University of Connecticut, Storrs, CT, 06269, USA



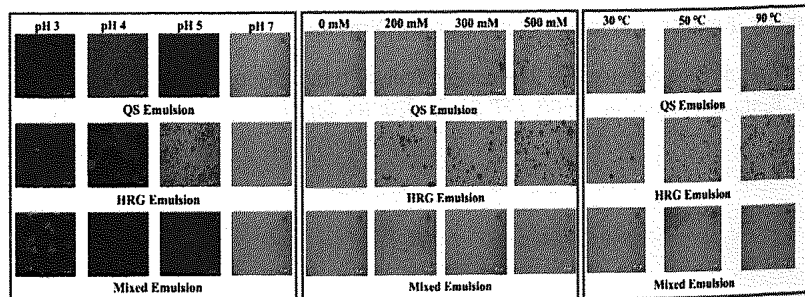
396-405

**Enhancing the formation and stability of emulsions using mixed natural emulsifiers: Hydrolyzed rice glutelin and quillaja saponin**

Xingfeng Xu<sup>a</sup>, Qingjie Sun<sup>a</sup>, David Julian McClements<sup>b</sup>

<sup>a</sup>College of Food Science and Engineering, Qingdao Agricultural University, Qingdao, Shandong Province, 266109, China

<sup>b</sup>Department of Food Science, University of Massachusetts, Amherst, MA 01003, USA



406-415

### Colligative and hydrodynamic properties of aqueous solutions of pectin from cornelian cherry and commercial apple pectin

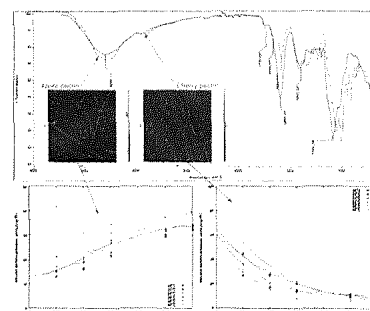
Michał Pancerz<sup>a</sup>, Anna Ptaszek<sup>a</sup>, Kamila Sofińska<sup>b</sup>, Jakub Barbasz<sup>b</sup>, Paweł Szlachcic<sup>c</sup>, Mateusz Kucharek<sup>c</sup>, Marcin Łukasiewicz<sup>d</sup>

<sup>a</sup>Department of Engineering and Equipment for Food Industry, Faculty of Food Technology, University of Agriculture in Krakow, Balicka 122, 30-149, Krakow, Poland

<sup>b</sup>Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Niezapominajek 8, 30-239, Krakow, Poland

<sup>c</sup>Institute of Chemistry, Faculty of Food Technology, University of Agriculture in Krakow, Balicka 122, 30-149, Krakow, Poland

<sup>d</sup>Department of Carbohydrate Technology, Faculty of Food Technology, University of Agriculture in Krakow, Balicka 122, 30-149, Krakow, Poland



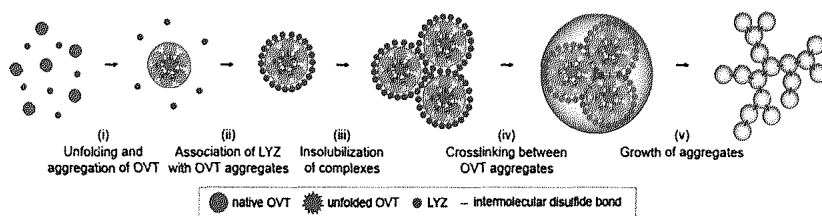
416-424

### Co-aggregation of ovotransferrin and lysozyme

Kazuki Iwashita<sup>a</sup>, Akihiro Handa<sup>b</sup>, Kentaro Shiraki<sup>a</sup>

<sup>a</sup>Faculty of Pure and Applied Sciences, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8573, Japan

<sup>b</sup>Institute of Technology Solution, R&D Division, Kewpie Corporation, 2-5-7 Sengawa, Chofu, Tokyo 182-0002, Japan



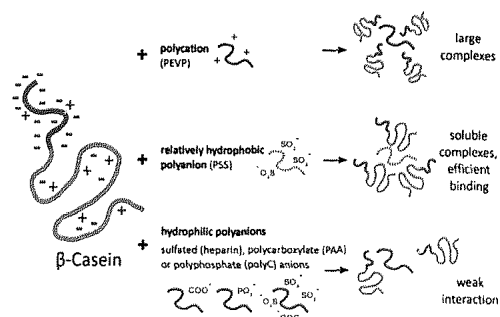
425-433

### The influence of $\beta$ -casein glycation on its interaction with natural and synthetic polyelectrolytes

Alina Sofronova<sup>a</sup>, Pavel Semenyuk<sup>b</sup>, Vladimir Muronetz<sup>a,b</sup>

<sup>a</sup>Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russia

<sup>b</sup>Belozersky Institute of Physico-Chemical Biology, Lomonosov Moscow State University, Moscow, Russia

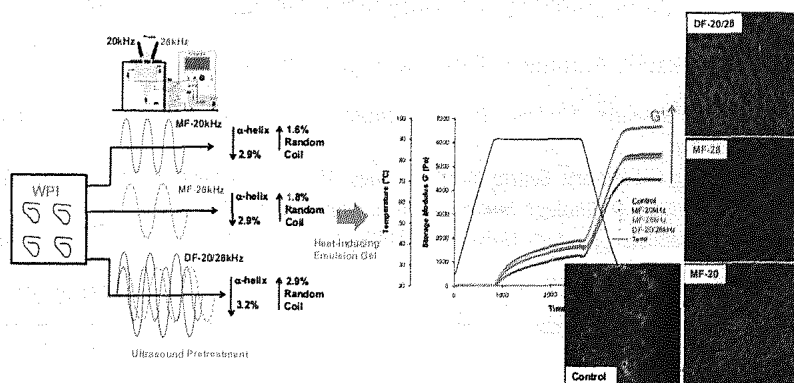


434-442

### Effect of ultrasound pretreatment with mono-frequency and simultaneous dual frequency on the mechanical properties and microstructure of whey protein emulsion gels

Yu Cheng, Prince Ofori Donkor, Xiaofeng Ren, Juan Wu, Kwabena Agyemang, Ishmael Ayim, Haile Ma

School of Food and Biological Engineering, Jiangsu University, 301 Xuefu Road, Zhenjiang, Jiangsu, 212013, China

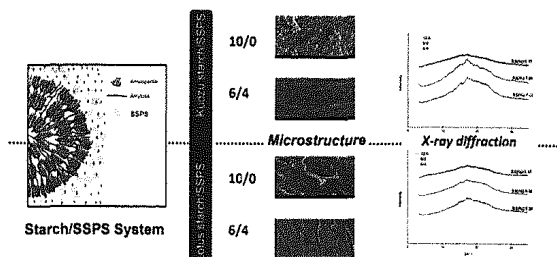


443-452

Effect of soybean soluble polysaccharide on the pasting, gels, and rheological properties of kudzu and lotus starches

Dan Liu<sup>a</sup>, Zhi Li<sup>b</sup>, Ziwei Fan<sup>a</sup>, Xun Zhang<sup>a</sup>, Geng Zhong<sup>a</sup>

<sup>a</sup>College of Food Science, Southwest University, Chongqing, 400715, China  
<sup>b</sup>Institute of Food Industry, Chongqing, 630020, China

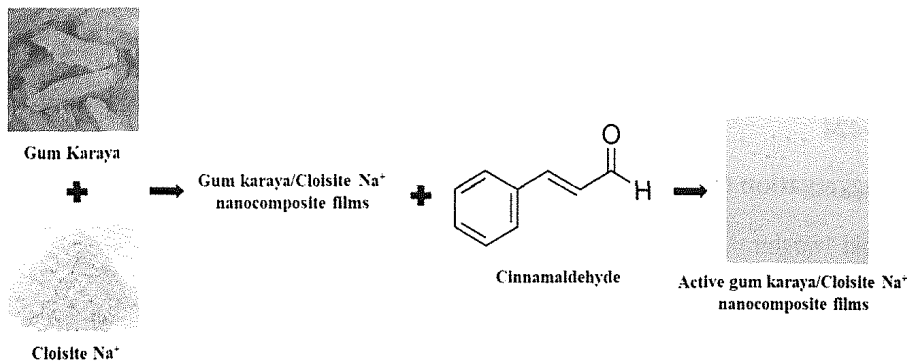


453-460

Active gum karaya/Cloisite Na<sup>+</sup> nanocomposite films containing cinnamaldehyde

Thi Luyen Cao, Kyung Bin Song

Department of Food Science and Technology,  
Chungnam National University, Daejeon 34134,  
Republic of Korea

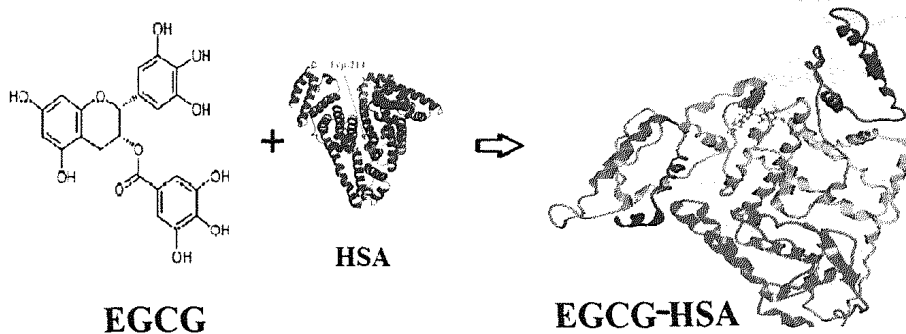


461-467

Tea polyphenols bind serum albumins: A potential application for polyphenol delivery

P. Chanphai, H.A. Tajmir-Riahi

Department of Chemistry-Biochemistry and Physics,  
University of Québec at Trois-Rivières, C. P. 500,  
Trois-Rivières, Québec, G9A 5H7, Canada



468-480

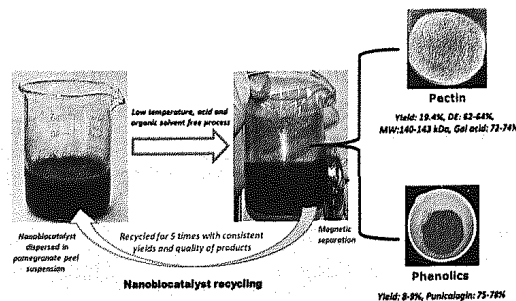
Recyclable enzymatic recovery of pectin and punicalagin rich phenolics from waste pomegranate peels using magnetic nanobiocatalyst

Sachin Talekar<sup>a,b</sup>, Antonio F. Patti<sup>c</sup>, R. Vijayraghavan<sup>c</sup>, Amit Arora<sup>a,b</sup>

<sup>a</sup>IITB-Monash Research Academy, Indian Institute of Technology Bombay, Powai, Mumbai, 400076, India

<sup>b</sup>Bioprocessing Laboratory, Centre for Technology Alternatives for Rural Areas (CTARA), Indian Institute of Technology Bombay, Powai, Mumbai, 400076, India

<sup>c</sup>School of Chemistry, Monash University, Wellington Road, Clayton, Victoria, 3800, Australia



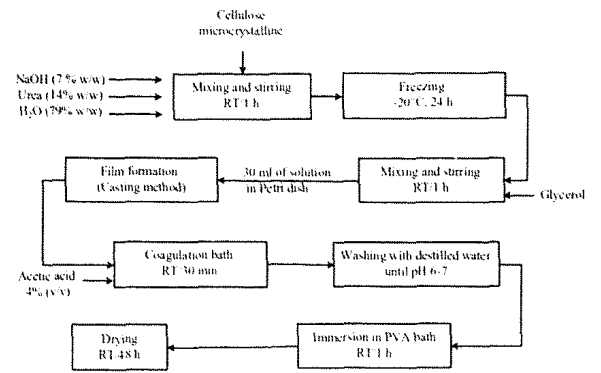
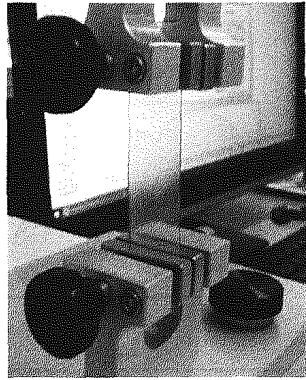
481-491

### Novel composite films from regenerated cellulose-glycerol-polyvinyl alcohol: Mechanical and barrier properties

Patricia Cazón<sup>a</sup>, Gonzalo Velazquez<sup>b</sup>, Manuel Vázquez<sup>a</sup>

<sup>a</sup>Department of Analytical Chemistry, Faculty of Veterinary, University of Santiago de Compostela, 27002, Lugo, Spain

<sup>b</sup>Instituto Politécnico Nacional, CICATA unidad Querétaro, Cerro Blanco No. 141, Colinas del Cimataro, Querétaro, 76090, Mexico



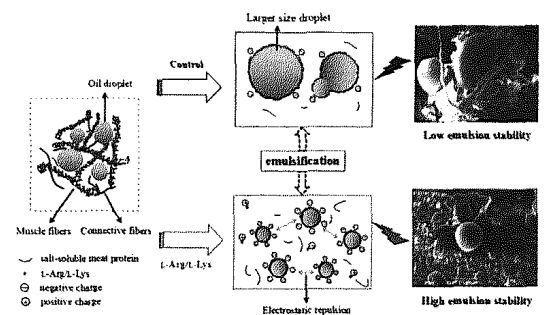
492-502

### L-Arginine/L-lysine improves emulsion stability of chicken sausage by increasing electrostatic repulsion of emulsion droplet and decreasing the interfacial tension of soybean oil-water

Xiaoxu Zhu<sup>a,b</sup>, Linxian Li<sup>a,b</sup>, Shiyi Li<sup>a,b</sup>, Cheng Ning<sup>a,b</sup>, Cunliu Zhou<sup>a,b</sup>

<sup>a</sup>Engineering Research Center of Bio-Process, Ministry of Education, Hefei University of Technology, Hefei 230009, Anhui, PR China

<sup>b</sup>School of Food and Biological Engineering, Hefei University of Technology, Hefei 230009, China



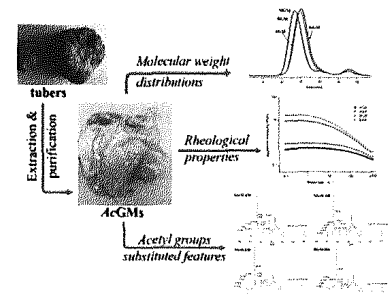
503-511

### Studies on O-acetyl-glucomannans from Amorphophallus species: Comparison of physicochemical properties and primary structures

Xiao-Dan Shi<sup>a</sup>, Jun-Yi Yin<sup>a,b</sup>, Liu-Jing Zhang<sup>a</sup>, Xiao-Jun Huang<sup>a</sup>, Shao-Ping Nie<sup>a</sup>

<sup>a</sup>State Key Laboratory of Food Science and Technology, China-Canada Joint Lab of Food Science and Technology (Nanchang), Nanchang University, 235 Nanjing East Road, Nanchang, Jiangxi Province, 330047, China

<sup>b</sup>Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Kowloon, Hong Kong, China



512-522

### Influence of okara dietary fiber with varying particle sizes on gelling properties, water state and microstructure of tofu gel

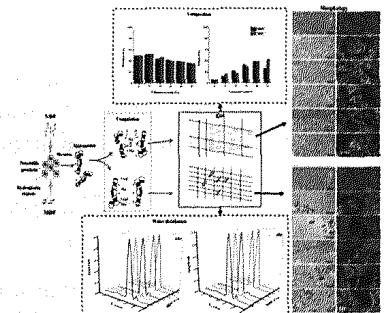
Ikram Ullah<sup>a,b,c,d</sup>, Yang Hu<sup>a,b,c</sup>, Juan You<sup>a,b,c</sup>, Tao Yin<sup>a,b,c</sup>, Shanbai Xiong<sup>a,b,c</sup>, Zia-ud Din<sup>a</sup>, Qilin Huang<sup>a</sup>, Ru Liu<sup>a</sup>

<sup>a</sup>College of Food Science and Technology, Huazhong Agricultural University, Wuhan, Hubei Province, 430070, PR China

<sup>b</sup>National R & D Branch Center for Conventional Freshwater Fish Processing, Wuhan, Hubei Province, 430070, PR China

<sup>c</sup>Key Laboratory of Environment Correlative Dietology, Ministry of Education, Wuhan, Hubei Province, PR China

<sup>d</sup>Department of Agricultural Chemistry, Faculty of Nutrition Sciences, The University of Agriculture Peshawar, Pakistan

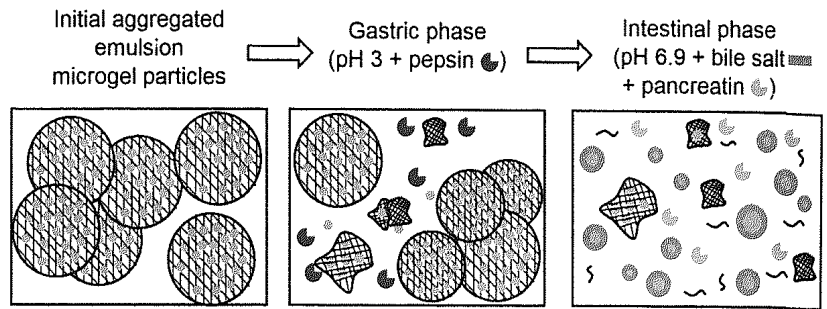


523-533

### Overcoming *in vitro* gastric destabilisation of emulsion droplets using emulsion microgel particles for targeted intestinal release of fatty acids

Ophelie Torres, Brent S. Murray, Anwesha Sarkar

Food Colloids and Processing Group, School of Food Science and Nutrition, University of Leeds, Leeds, LS2 9JT, UK



534-541

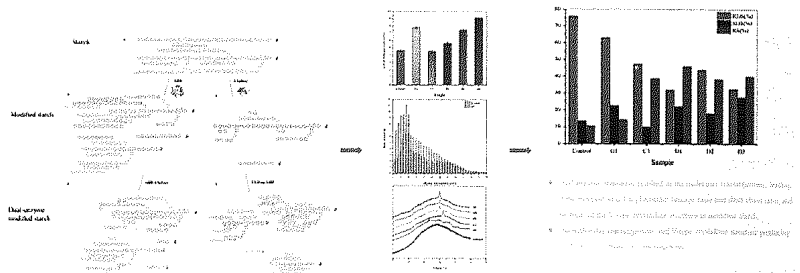
### Digestion properties of corn starch modified by $\alpha$ -D-glucan branching enzyme and cyclodextrin glycosyltransferase

Yang Li<sup>b</sup>, Caiming Li<sup>b,c</sup>, Zhengbiao Gu<sup>a,b,c</sup>, Li Cheng<sup>a,b,c</sup>, Yan Hong<sup>a,b,c</sup>, Zhaofeng Li<sup>a,b,c</sup>

<sup>a</sup>State Key Laboratory of Food Science and Technology, Jiangnan University, Wuxi, Jiangsu, 214122, People's Republic of China

<sup>b</sup>School of Food Science and Technology, Jiangnan University, Wuxi, Jiangsu, 214122, People's Republic of China

<sup>c</sup>Collaborative Innovation Center of Food Safety and Quality Control, Jiangnan University, Wuxi, Jiangsu, 214122, People's Republic of China



542-553

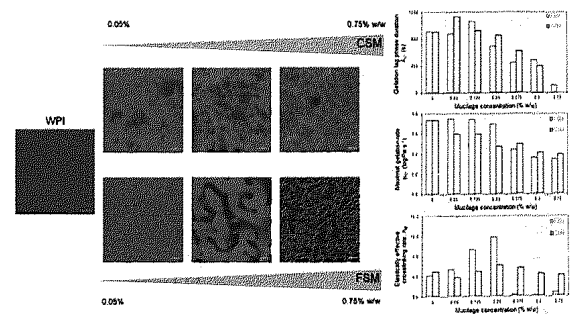
### Rheological and structural characterisation of whey protein acid gels co-structured with chia (*Salvia hispanica* L.) or flax seed (*Linum usitatissimum* L.) mucilage

Christos Soukoulis<sup>a</sup>, Sébastien Cambier<sup>a</sup>, Tommaso Serchi<sup>a</sup>, Maria Tsevdou<sup>c</sup>, Claire Gaiani<sup>b</sup>, Pau Ferrer<sup>a</sup>, Petros S. Taoukis<sup>c</sup>, Lucien Hoffmann<sup>a</sup>

<sup>a</sup>Luxembourg Institute of Science and Technology, Environmental Research and Innovation, 5 avenue des Hauts-Fourneaux, L4362, Esch-sur-Alzette, Luxembourg

<sup>b</sup>Université de Lorraine, LIBio, Laboratoire d'Ingénierie des Biomolécules, 2 av de la Forêt de Haye, BP 20163, F-54505, Vandoeuvre lès Nancy, France

<sup>c</sup>National Technical University of Athens, School of Chemical Engineering, Heron Polytechniou 5, 15780, Zografou Campus, Athens, Greece



554-562

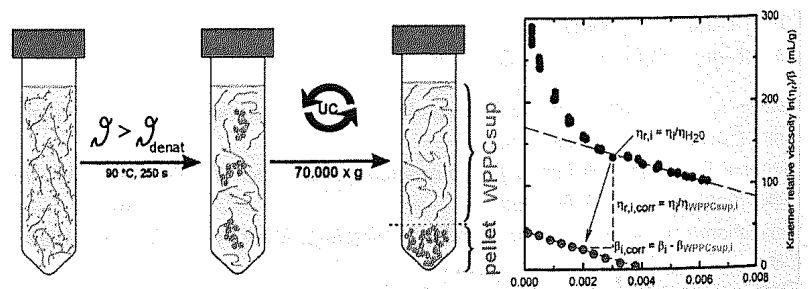
### Establishing the biopolymer ratio of whey protein-pectin complexes before and after thermal stabilisation

Kristin Protte<sup>a</sup>, Franziska Balinger<sup>a</sup>, Jochen Weiss<sup>b</sup>, Ronny Löffler<sup>c</sup>, Stefan Nöbel<sup>a</sup>

<sup>a</sup>University of Hohenheim, Department of Soft Matter Science and Dairy Technology, Garbenstraße 21, 70599, Stuttgart, Germany

<sup>b</sup>University of Hohenheim, Department of Food Physics and Meat Science, Garbenstraße 23, 70599, Stuttgart, Germany

<sup>c</sup>University of Tübingen, Center for Light-Matter Interaction, Sensors & Analytics LISA+, Auf der Morgenstelle 15, 72076, Tübingen, Germany





563-569

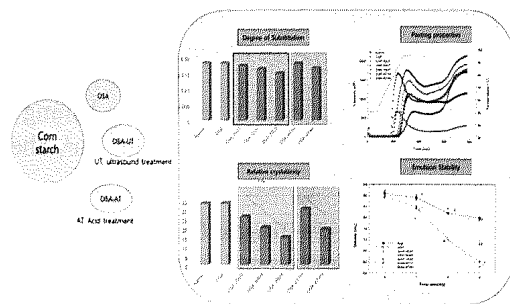
### Physical and emulsifying properties of OSA-corn dextrin with various manufacturing methods

Jung-Ah Han<sup>a</sup>, Hyun-Jung Chung<sup>b</sup>, Seung-Taik Lim<sup>c</sup>

<sup>a</sup>Department of Food and Nutrition, Sangmyung University, Seoul 03016, Republic of Korea

<sup>b</sup>Department of Food and Nutrition, Chonnam National University, Gwangju, 500-757, Republic of Korea

<sup>c</sup>Department of Biotechnology, College of Life Sciences and Biotechnology, Korea University, Seoul 136-701, South Korea

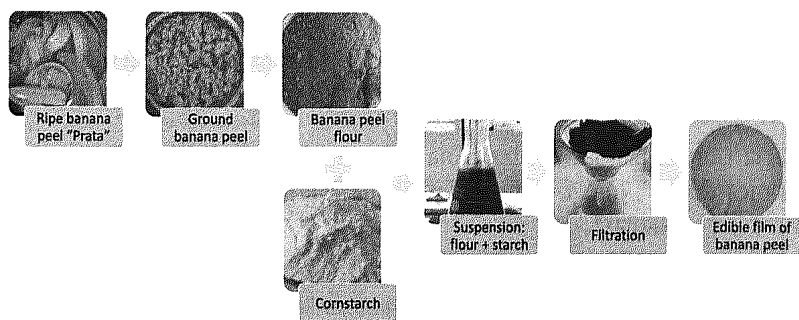


570-578

### Characterization of edible coatings based on ripe "Prata" banana peel flour

Priscila Borges de Faria Arquelau,  
Viviane Dias Medeiros Silva,  
Maria Aparecida Vieira Teixeira Garcia,  
Raquel Linhares Bello de Araújo, Camila Argenta Fante

Department of Food Science, Faculty of Pharmacy,  
Federal University of Minas Gerais, CEP 31270-901,  
Belo Horizonte, MG, Brazil



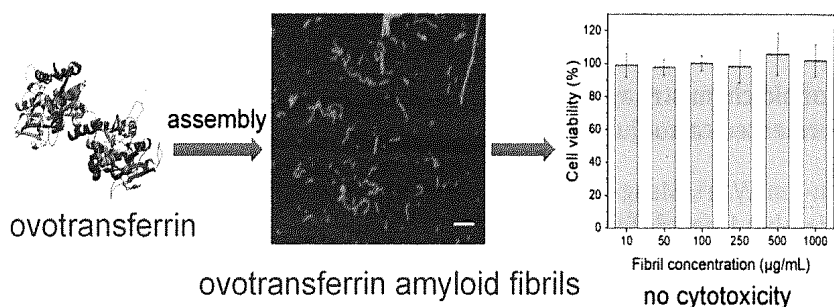
579-589

### Assembly of iron-bound ovotransferrin amyloid fibrils

Zihao Wei<sup>a</sup>, Qingrong Huang<sup>a,b</sup>

<sup>a</sup>Department of Food Science, Rutgers University,  
65 Dudley Road, New Brunswick, NJ 08901, United States

<sup>b</sup>College of Chemistry and Environmental Engineering,  
Wuyi University, Jiangmen, Guangdong 529020, China



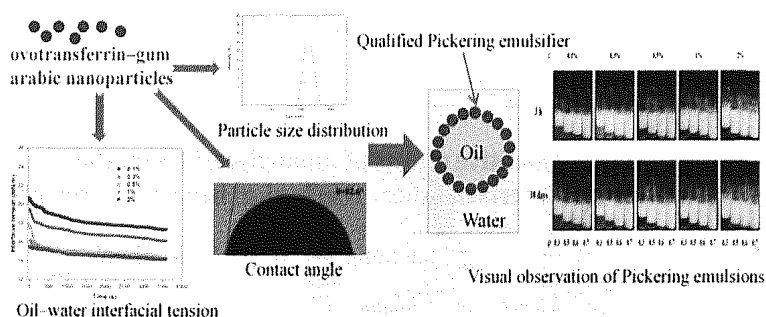
590-601

### Edible Pickering emulsions stabilized by ovotransferrin-gum arabic particles

Zihao Wei<sup>a</sup>, Qingrong Huang<sup>a,b</sup>

<sup>a</sup>Department of Food Science, Rutgers University, 65 Dudley Road,  
New Brunswick, NJ, 08901, United States

<sup>b</sup>College of Chemistry and Environmental Engineering,  
Wuyi University, Jiangmen, Guangdong 529020, China

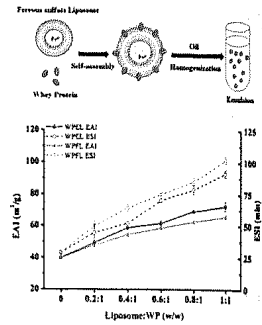


602-612

Liposomal vesicles-protein interaction: Influences of iron liposomes on emulsifying properties of whey protein

Xiangzhou Yi<sup>a</sup>, Quanhui Zheng<sup>a</sup>, Min-hsiung Pan<sup>b</sup>, Yi-shiou Chiou<sup>b</sup>, Zhenshun Li<sup>a</sup>, Li Li<sup>a</sup>, Yang Chen<sup>a</sup>, Jie Hu<sup>a</sup>, Shengzhou Duan<sup>a</sup>, Shudong Weja<sup>a</sup>, Baomiao Ding<sup>a,b,c</sup>

<sup>a</sup>College of Life Science, Yangtze University, Jingzhou, Hubei, 434025, PR China
<sup>b</sup>Institute of Food Sciences and Technology, National Taiwan University, Taipei, 10617, Taiwan, ROC
<sup>c</sup>Jingchu Food Research & Development Centre, Yangtze University, Jingzhou, Hubei, 434025, PR China

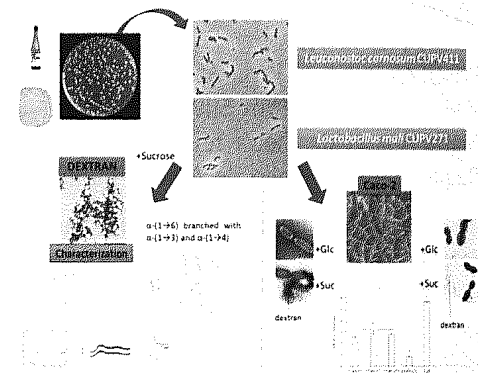


613-622

Characterization of dextrans produced by Lactobacillus mali CUPV271 and Leuconostoc carnosum CUPV411

María Goretti Llamas-Arriba<sup>a</sup>, Ana I. Puertas<sup>a</sup>, Alicia Prieto<sup>b</sup>, Paloma López<sup>b</sup>, Mónica Cobos<sup>a</sup>, José I. Miranda<sup>a</sup>, Cristina Marieta<sup>a</sup>, Patricia Ruas-Madiedo<sup>c</sup>, Ma Teresa Dueñas<sup>a</sup>

<sup>a</sup>University of Basque Country (UPV/EHU), San Sebastián, Spain
<sup>b</sup>Biological Research Centre (CIB), Spanish National Research Council (CSIC), Madrid, Spain
<sup>c</sup>Asturias Dairy Centre (IPLA), Spanish National Research Council (CSIC), Villaviciosa, Spain

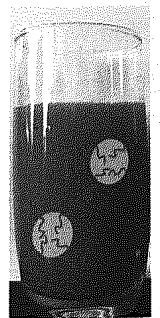


623-630

Colloid chemistry approach to understand the storage stability of fermented carrot juice

Yu-Jun Wan<sup>a</sup>, Meng-Meng Xu<sup>a</sup>, Robert G. Gilbert<sup>b,c</sup>, Jun-Yi Yin<sup>a</sup>, Xiao-Jun Huang<sup>a</sup>, Tao Xiong<sup>a</sup>, Ming-Yong Xie<sup>a</sup>

<sup>a</sup>State Key Laboratory of Food Science and Technology, China-Canada Joint Lab of Food Science and Technology (Nanchang), Nanchang University, 235 Nanjing East Road, Nanchang, 330047, China
<sup>b</sup>Joint International Research Laboratory of Agriculture and Agri-Product Safety, College of Agriculture, Yangzhou University, Yangzhou, Jiangsu, 225009, China
<sup>c</sup>The University of Queensland, Centre for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation, Brisbane, QLD, 4072, Australia

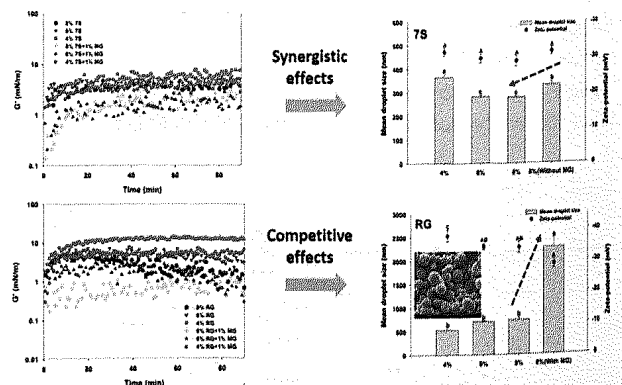


631-636

Synergistic and competitive effects of monoglycerides on the encapsulation and interfacial shear rheological behavior of soy proteins

Weiwei Li<sup>a,c</sup>, Yaosong Wang<sup>b</sup>, Jiacheng Li<sup>c</sup>, Ye Jiao<sup>c</sup>, Jie Chen<sup>c</sup>

<sup>a</sup>Department of Food Science and Technology, Ginling College, Nanjing Normal University, Nanjing, 210097, China
<sup>b</sup>Department of Food Science and Engineering, College of Light Industry and Food Engineering, Nanjing Forestry University, Nanjing, 210037, China
<sup>c</sup>State Key Laboratory of Food Science and Technology, School of Food Science and Technology, Jiangnan University, Wuxi, 214122, China



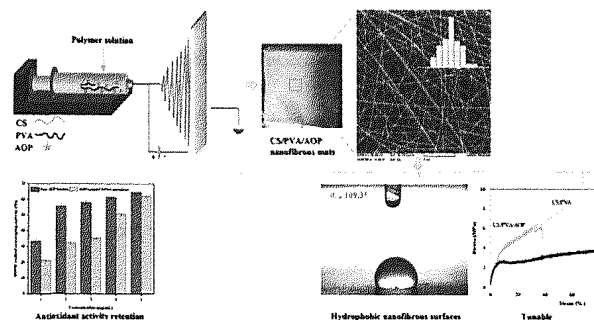
637-648

### Antioxidant peptide-loaded electrospun chitosan/poly(vinyl alcohol) nanofibrous mat intended for food biopackaging purposes

Seyed Fakhreddin Hosseini<sup>a</sup>, Zahra Nahvi<sup>a</sup>, Mojgan Zandi<sup>b</sup>

<sup>a</sup>Department of Seafood Processing, Faculty of Marine Sciences, Tarbiat Modares University, P.O. Box 46414-356, Noor, Iran

<sup>b</sup>Department of Biomaterials, Iran Polymer and Petrochemical Institute (IPPI), P.O. Box 14965/115, Tehran, Iran



649-660

### The stability of triphasic oil-in-water Pickering emulsions can be improved by physical modification of hordein- and secalin-based submicron particles

Sareh Boostani<sup>a</sup>, Seyed Mohammad Hashem Hosseini<sup>a</sup>, Gholamhossein Yousefi<sup>b,c</sup>, Masoud Riazi<sup>d</sup>, Ali-Mohammad Tamaddon<sup>b,c</sup>, Paul Van der Meer<sup>e</sup>

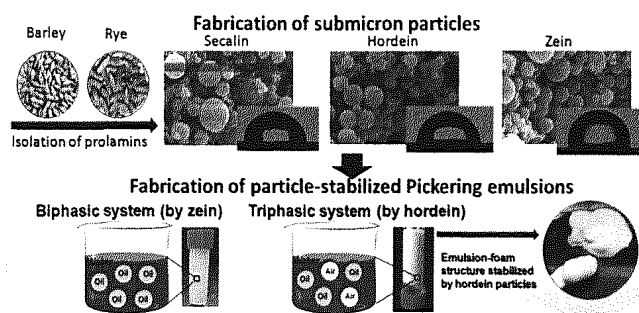
<sup>a</sup>Department of Food Science and Technology, School of Agriculture, Shiraz University, Shiraz, Iran

<sup>b</sup>Department of Pharmaceutics, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>c</sup>Center for Nanotechnology in Drug Delivery, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>d</sup>Enhanced Oil Recovery (EOR) Research Center, School of Chemical and Petroleum Engineering, Shiraz University, Shiraz, Iran

<sup>e</sup>Particle and Interfacial Technology Group, Faculty of Bioscience Engineering, Ghent University, Coupure Links 653, B-9000, Ghent, Belgium



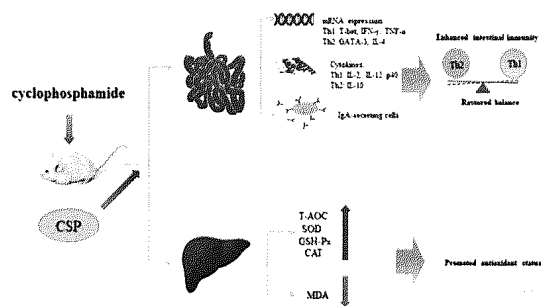
661-667

### Polysaccharide from natural Cordyceps sinensis ameliorated intestinal injury and enhanced antioxidant activity in immunosuppressed mice

Shuping Chen<sup>a,b</sup>, Junqiao Wang<sup>a,b</sup>, Qiuyue Fang<sup>a,b</sup>, Nan Dong<sup>a,b</sup>, Shaoping Nie<sup>a,b</sup>

<sup>a</sup>State Key Laboratory of Food Science and Technology, Nanchang University, Nanchang, 330047, China

<sup>b</sup>China-Canada Joint Lab of Food Science and Technology (Nanchang), Nanchang University, Nanchang, 330047, China

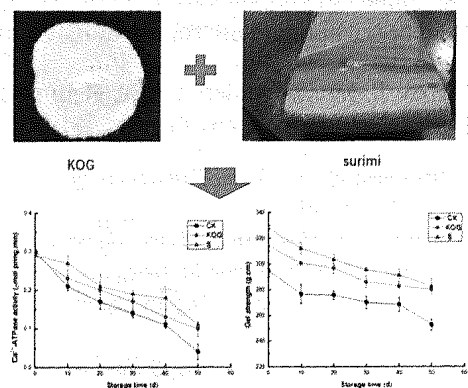


668-673

### Effects of konjac oligo-glucomannan on the physicochemical properties of frozen surimi from red gurnard (Aspitrigla cuculus)

Jianhua Liu, Chunhua Fang, Yahong Luo, Yuting Ding, Shulai Liu

Department of Food Science and Engineering, Ocean College, Zhejiang University of Technology, Hangzhou, 310014, PR China



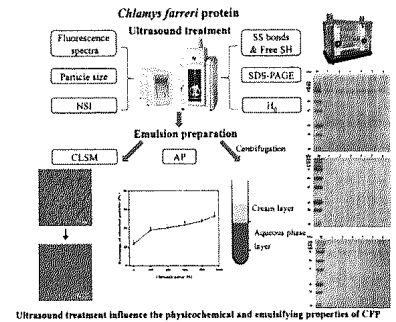


707-714

### Effects of ultrasound treatment on the physicochemical and emulsifying properties of proteins from scallops (*Chlamys farreri*)

Di Wu, Chao Wu, Wuchao Ma, Zhenyu Wang, Cuiping Yu, Ming Du

School of Food Science and Technology, National Engineering Research Center of Seafood, Dalian Polytechnic University, Dalian, China



715-725

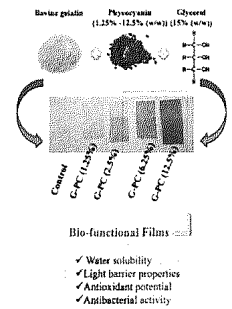
### Biofunctional gelatin-based films incorporated with food grade phycocyanin extracted from the Saharian cyanobacterium *Arthrospira* sp.

Imene Chentir<sup>a,b</sup>, Hela Kchaou<sup>b</sup>, Marwa Hamdi<sup>b</sup>, Mourad Jridi<sup>b</sup>, Suming Li<sup>c</sup>, Amel Doumandji<sup>a</sup>, Moncef Nasri<sup>b</sup>

<sup>a</sup>Laboratory of Plants Production Biotechnology, Department of Biotechnology, Nature and Life Sciences Faculty, Blida 1 University, Algeria

<sup>b</sup>Enzyme Engineering and Microbiology Laboratory, National School of Engineering of Sfax (ENIS), Sfax, Tunisia

<sup>c</sup>European Institute of Membranes, UMR 5635, Montpellier II University, France



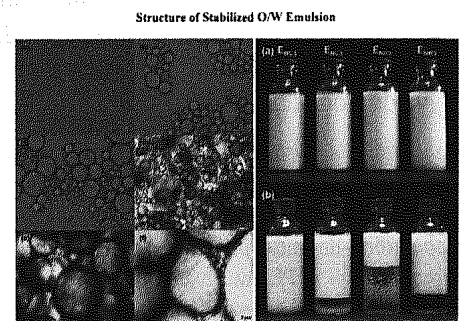
726-734

### Insights of the ability of gelatinized fractions from non-chemical modified corn, rice, wheat, and waxy corn starches to stabilize O/W emulsions

D. Gómez-Luría<sup>a</sup>, E.J. Vernon-Carter<sup>a</sup>, J. Alvarez-Ramirez<sup>a</sup>, F. Cruz-Sosa<sup>b</sup>

<sup>a</sup>Departamento de Ingeniería de Procesos e Hidráulica. Universidad Autónoma Metropolitana-Iztapalapa. Apartado Postal 55-534, México City, 09340, Mexico

<sup>b</sup>Departamento de Biotecnología. Universidad Autónoma Metropolitana-Iztapalapa. Apartado Postal 55-535, México City, 09340, Mexico



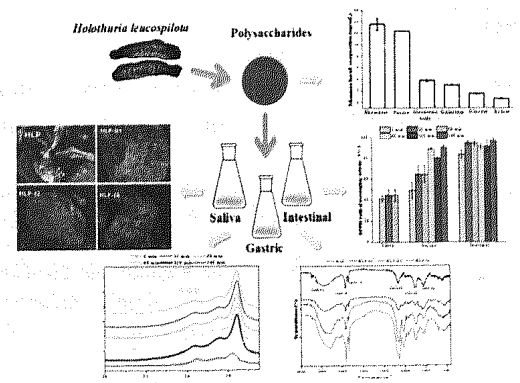
735-741

### Effect of simulated gastrointestinal digestion *in vitro* on the antioxidant activity, molecular weight and microstructure of polysaccharides from a tropical sea cucumber (*Holothuria leucospilota*)

Yiqiong Yuan<sup>a</sup>, Chuan Li<sup>a</sup>, Qianwen Zheng<sup>a</sup>, Jixiang Wu<sup>a</sup>, Kexue Zhu<sup>b</sup>, Xuanri Shen<sup>a</sup>, Jun Cao<sup>a</sup>

<sup>a</sup>Engineering Research Centre of Utilization of Tropical Polysaccharide Resources of MOE and Key Laboratory of Marine Food Processing of Haikou, Hainan University, Haikou, 570228, China

<sup>b</sup>Spice and Beverage Research Institute, Chinese Academy of Tropical Agricultural Sciences, Wanning, Hainan, 571533, China



742-748

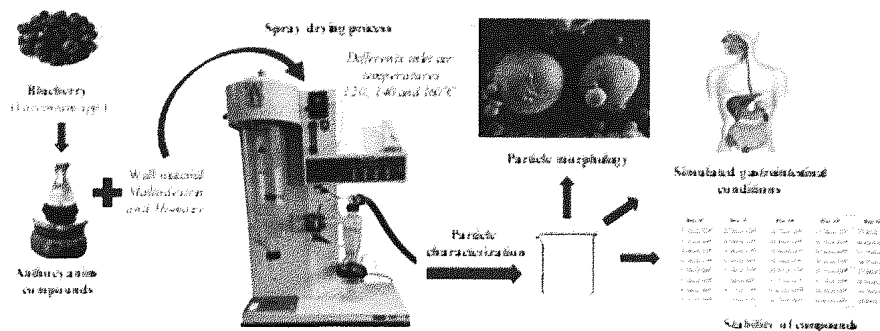
### Microencapsulation of anthocyanin compounds extracted from blueberry (*Vaccinium* spp.) by spray drying: Characterization, stability and simulated gastrointestinal conditions

Jéssica Righi da Rosa<sup>a</sup>, Graciele Lorenzoni Nunes<sup>a</sup>, Mariana Heldt Motta<sup>b</sup>, Juciane Prois Fortes<sup>a</sup>, Grazielle Castagna Cezimbra Weis<sup>a</sup>, Luisa Helena Rychecki Hecktheuer<sup>a</sup>, Edson Irineu Muller<sup>c</sup>, Cristiano Ragagnin de Menezes<sup>a</sup>, Claudia Severo da Rosa<sup>a</sup>

<sup>a</sup>Department of Food Science and Technology, Federal University of Santa Maria, Santa Maria, Brazil

<sup>b</sup>Department of Pharmacy, Federal University of Santa Maria, Santa Maria, Brazil

<sup>c</sup>Department of Chemistry, Federal University of Santa Maria, Santa Maria, Brazil



749-757

### Hydrophobin-stabilized nanoemulsion produced by a low-energy emulsification process: A promising carrier for nutraceuticals

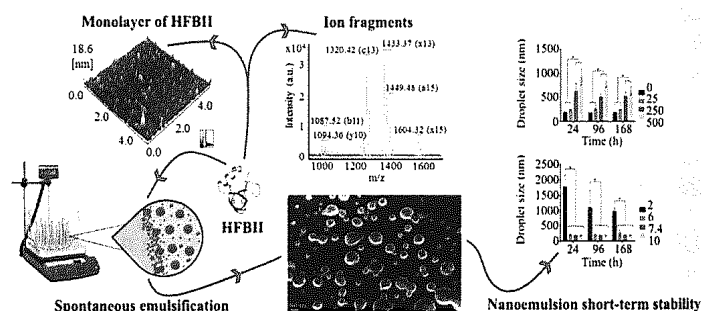
Christian Melo Oliveira<sup>a</sup>, Francisco Humberto Xavier-Jr<sup>b</sup>, Andreza Rochelle do Vale Moraes<sup>a</sup>, Iasmim Lopes Lima<sup>b</sup>, Roberto Afonso Silva<sup>b</sup>, Andre Ezequiel Gomes Nascimento<sup>c</sup>, Nathalia Kelly Araújo<sup>d</sup>, Mariane Cajuba de Britto Lira Nogueira<sup>b</sup>, Arnobio Antonio Silva-Jr<sup>d</sup>, Matheus de Freitas Fernandes Pedrosa<sup>d</sup>, Eryvaldo Socrates Tabosa Egito<sup>a</sup>

<sup>a</sup>Laboratório de Sistemas Dispersos, Departamento de Farmácia, Universidade Federal do Rio Grande do Norte - UFRN, Rua General Gustavo Cordeiro de Faria, 59012-570, Natal, RN, Brazil

<sup>b</sup>Laboratório de Imunopatologia Keizo Asami (LIKA), Universidade Federal de Pernambuco - UFPE, Av. Professor Moraes Rego, 50670-900, Recife, PE, Brazil

<sup>c</sup>Núcleo de Ensino e Pesquisa em Petróleo e Gás II, Departamento de Engenharia Química - UFRN, Av. Senador Salgado Filho, 59072-970, Natal, RN, Brazil

<sup>d</sup>Laboratório de Tecnologia e Biotecnologia Farmacêutica, Departamento de Farmácia - UFRN, Rua General Gustavo Cordeiro de Faria, 59012-570, Natal, RN, Brazil



758-764

### Preparation and characterization of soy protein films reinforced with cellulose nanofibers obtained from soybean by-products

Agustín González<sup>a,b</sup>, Gabriela Gastelú<sup>a,c</sup>, Gabriela N. Barrera<sup>d,e</sup>, Pablo D. Ribotta<sup>d,e</sup>, Cecilia I. Álvarez Igarzabal<sup>a,b</sup>

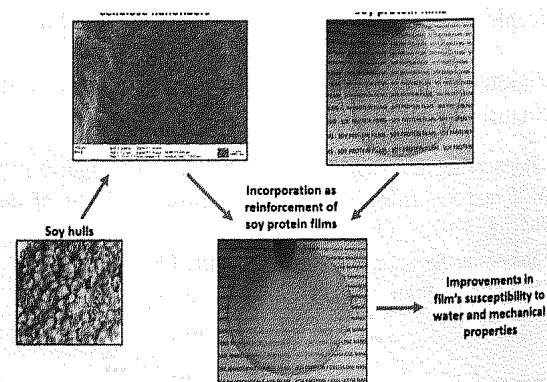
<sup>a</sup>Universidad Nacional de Córdoba, Facultad de Ciencias Químicas, Departamento de Química Orgánica, Córdoba, Argentina

<sup>b</sup>Instituto de Investigación y Desarrollo en Ingeniería de Procesos y Química Aplicada (IPQA-CONICET), Córdoba, Argentina

<sup>c</sup>Instituto de Investigaciones en Fisico-química de Córdoba (INFIQC-CONICET), Córdoba, Argentina

<sup>d</sup>Universidad Nacional de Córdoba, Facultad de Ciencias Exactas, Físicas y Naturales, Córdoba, Argentina

<sup>e</sup>Instituto de Ciencia y Tecnología de Los Alimentos Córdoba (ICYTAC-CONICET), Córdoba, Argentina

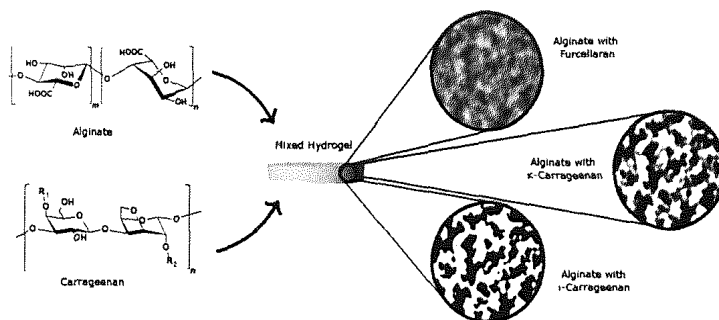


765-772

### Modelling of phase separation of alginate-carrageenan gels based on rheology

Florian Wurm, Tung Pham, Thomas Bechtold

Research Institute of Textile Chemistry and Textile Physics of the University Innsbruck, Rundfunkplatz 4, 6850, Dornbirn, Austria

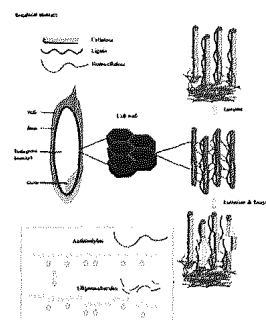


773-782

### Modification of rice bran dietary fiber concentrates using enzyme and extrusion cooking

Tem Thi Dang, Thava Vasanthan

Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, T6G 2P5, Canada



783-791

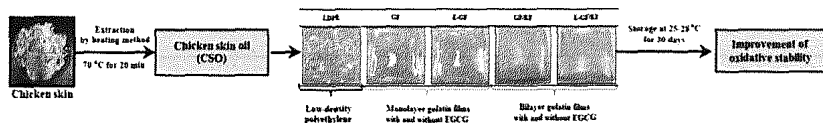
### Fish gelatin monolayer and bilayer films incorporated with epigallocatechin gallate: Properties and their use as pouches for storage of chicken skin oil

Krisana Nilswan<sup>a</sup>, Soottawat Benjakul<sup>a</sup>, Thummanoon Prodpran<sup>b</sup>, Koro de la Caba<sup>c</sup>

<sup>a</sup>Department of Food Technology, Faculty of Agro-Industry, Prince of Songkla University, Songkhla, Thailand

<sup>b</sup>Department of Material Product Technology, Faculty of Agro-Industry, Prince of Songkla University, Songkhla, Thailand

<sup>c</sup>Chemical and Environmental Engineering Department, Engineering College of Gipuzkoa, University of the Basque Country (UPV/EHU), Donostia-San Sebastián, Spain



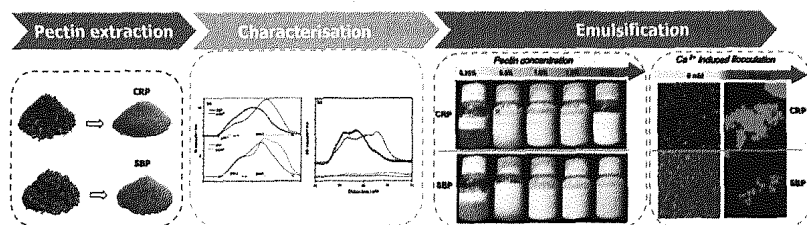
792-801

### Chicory root pulp pectin as an emulsifier as compared to sugar beet pectin. Part 1: Influence of structure, concentration, counterion concentration

Fang Pi<sup>a</sup>, Zhanpeng Liu<sup>a</sup>, Xiaobing Guo<sup>a</sup>, Xiaoming Guo<sup>a,b</sup>, Hecheng Meng<sup>a</sup>

<sup>a</sup>School of Food Sciences and Engineering, South China University of Technology, Guangzhou, 510640, China

<sup>b</sup>Guangdong Province Key Laboratory for Green Processing of Natural Products and Product Safety, Guangzhou, 510640, China



Graphic abstract

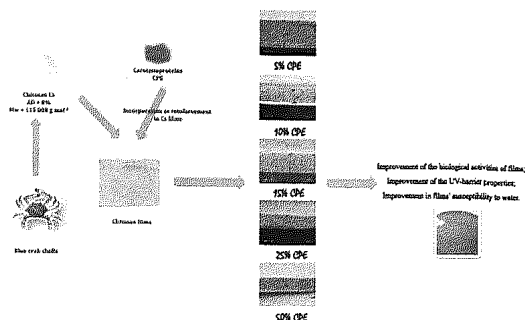
802–812

### Bioactive composite films with chitosan and carotenoproteins extract from blue crab shells: Biological potential and structural, thermal, and mechanical characterization

Marwa Hamdi<sup>a</sup>, Rim Nasri<sup>a</sup>, Suming Li<sup>b</sup>, Moncef Nasri<sup>a</sup>

<sup>a</sup>Laboratory of Enzyme Engineering and Microbiology, University of Sfax, National Engineering School of Sfax, B.P. 1173, 3038, Sfax, Tunisia

<sup>b</sup>European Institute of Films, UMR CNRS 5635, University of Montpellier, Place Eugene Bataillon, 34095, Montpellier Cedex 5, France



813–820

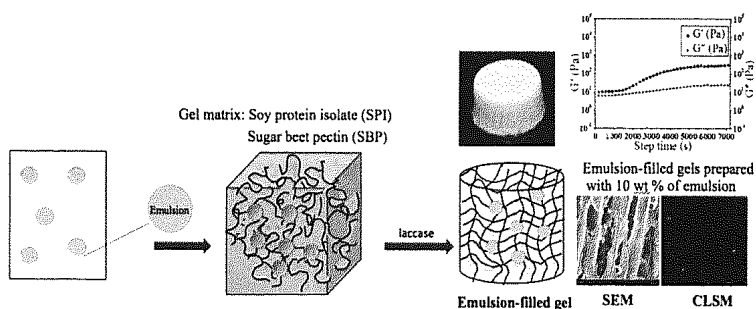
### Investigation of the mechanical, rheological and microstructural properties of sugar beet pectin /soy protein isolate-based emulsion-filled gels

Liping Feng<sup>a</sup>, Xin Jia<sup>a</sup>, Qiaomei Zhu<sup>b</sup>, Yan Liu<sup>a</sup>, Jinlong Li<sup>c</sup>, Lijun Yin<sup>c</sup>

<sup>a</sup>Beijing Advanced Innovation Centre for Food Nutrition and Human Health, College of Food Science and Nutritional Engineering, China Agricultural University, Beijing 100083, China

<sup>b</sup>Key Laboratory of Food Nutrition and Safety, Tianjin University of Science & Technology, Ministry of Education, Tianjin 300457, China

<sup>c</sup>Beijing Advanced Innovation Center for Food Nutrition and Human Health, Beijing Technology and Business University, Beijing 100048, China



821–828

### Modulating the *in vitro* digestibility and predicted glycemic index of rice starch gels by complexation with gallic acid

Chengdeng Chi<sup>a,b,c</sup>, Xiaoxi Li<sup>a,b,c</sup>, Yiping Zhang<sup>a,b,c</sup>, Ling Chen<sup>a,b,c</sup>, Fengwei Xie<sup>d,e</sup>, Lin Li<sup>a,b,c</sup>, Guanghui Bai<sup>f</sup>

<sup>a</sup>School of Food Science and Engineering, South China University of Technology, Guangzhou, 510640, China

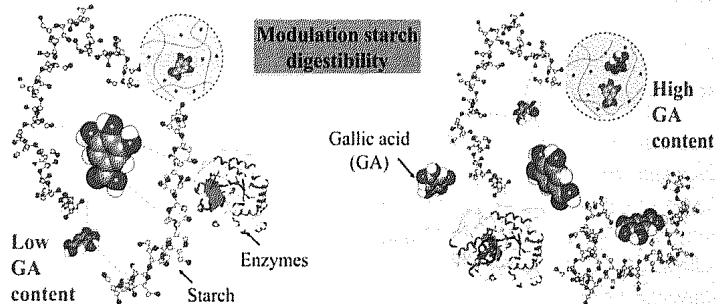
<sup>b</sup>Ministry of Education Engineering Research Center of Starch and Protein Processing, Guangzhou, 510640, China

<sup>c</sup>Guangdong Province Key Laboratory for Green Processing of Natural Products and Product Safety, Guangzhou, 510640, China

<sup>d</sup>Institute of Advanced Study, University of Warwick, Coventry, CV4 7HS, United Kingdom

<sup>e</sup>International Institute for Nanocomposites Manufacturing (IINM), WMG, University of Warwick, Coventry, CV4 7AL, United Kingdom

<sup>f</sup>Hebei Hengshui Laobaigan Liquor Group Co., Ltd., Hengshui, 053000, China





829-836

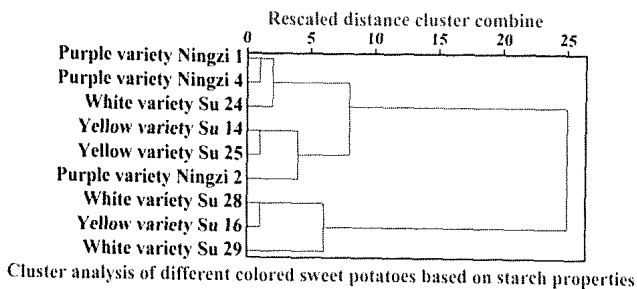
### Structural and functional properties of starches from root tubers of white, yellow, and purple sweet potatoes

Ke Guo<sup>a,b</sup>, Tianxiang Liu<sup>a,b</sup>, Ahui Xu<sup>a,b</sup>, Long Zhang<sup>a,b</sup>, Xiaofeng Bian<sup>c</sup>, Cunxu Wei<sup>a,b</sup>

<sup>a</sup>Key Laboratory of Crop Genetics and Physiology of Jiangsu Province / Key Laboratory of Plant Functional Genomics of the Ministry of Education, Yangzhou University, Yangzhou, 225009, China

<sup>b</sup>Co-Innovation Center for Modern Production Technology of Grain Crops of Jiangsu Province / Joint International Research Laboratory of Agriculture & Agri-Product Safety of the Ministry of Education, Yangzhou University, Yangzhou, 225009, China

<sup>c</sup>Institute of Food Crops, Jiangsu Academy of Agricultural Sciences, Nanjing, 210014, China



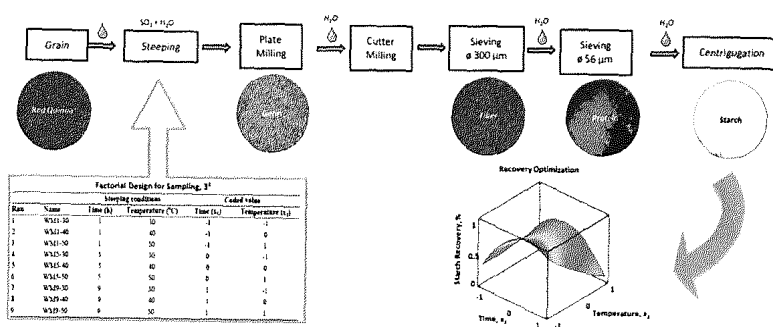
837-843

### Quinoa wet-milling: Effect of steeping conditions on starch recovery and quality

J. Ballester-Sánchez<sup>a</sup>, J.V. Gil<sup>a,b</sup>, M.T. Fernández-Espinar<sup>a</sup>, C.M. Haros<sup>a</sup>

<sup>a</sup>Instituto de Agroquímica y Tecnología de Alimentos (IATA-CSIC), Valencia, Spain

<sup>b</sup>Food Technology Area, Faculty of Pharmacy, University of Valencia, Burjassot, Valencia, Spain

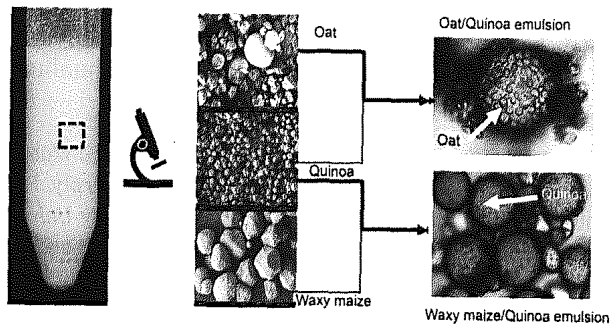


844-855

### Effects of starch granules differing in size and morphology from different botanical sources and their mixtures on the characteristics of Pickering emulsions

Hisfazilah Saari, Marilyn Rayner, Marie Wahlgren

Department of Food Technology, Engineering and Nutrition, Lund University, PO Box 124, SE-221 00, Lund, Sweden



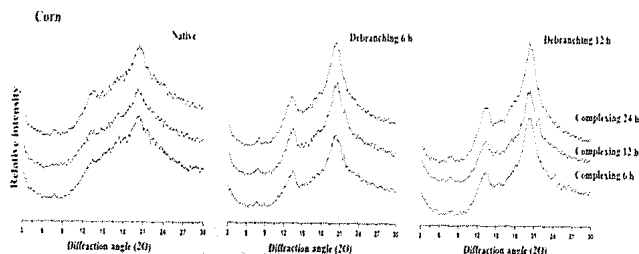
856-863

### Enzymatic debranching of starches from different botanical sources for complex formation with stearic acid

Chagam Koteswara Reddy<sup>a</sup>, Dong-Jin Lee<sup>a</sup>, Seung-Taik Lim<sup>a</sup>, Eun Young Park<sup>b</sup>

<sup>a</sup>Department of Biotechnology, College of Life Sciences and Biotechnology, Korea University, Seoul, 02841, South Korea

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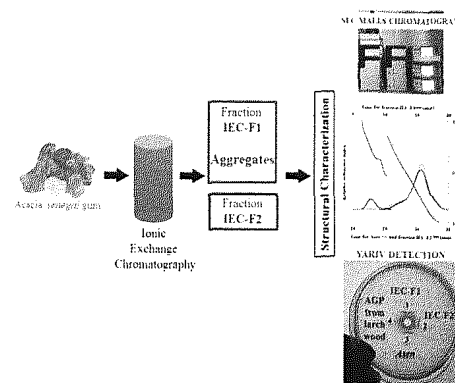
864-873

### Recovery, structure and physicochemical properties of an aggregate-rich fraction from *Acacia senegal* gum

Rafael Apolinar-Valiente<sup>a</sup>, Pascale Williams<sup>b</sup>, Michaël Nigen<sup>a</sup>,  
Veronica Mejia Tamayo<sup>a</sup>, Thierry Doco<sup>b</sup>, Christian Sanchez<sup>a</sup>

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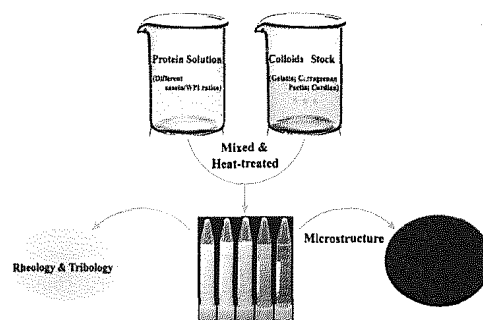


874-884

### Tribo-rheology characteristics and microstructure of a protein solution with varying casein to whey protein ratios and addition of hydrocolloids

Yang Zhu, Bhesh Bhandari, Sangeeta Prakash

School of Agriculture and Food Sciences, The University of Queensland, Brisbane, Australia



885-891

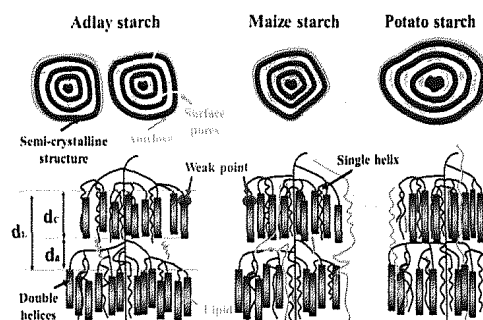
### Multi-scale structure, pasting and digestibility of adlay (*Coixlachryma-jobi* L.) seed starch

Jicheng Chen<sup>a,b</sup>, Yazhen Chen<sup>b</sup>, Huifang Ge<sup>b</sup>, Chunhua Wu<sup>b</sup>, Jie Pang<sup>b</sup>,  
Song Miao<sup>c,a,b</sup>

<sup>a</sup>China-Ireland International Cooperation Center for Food Material Science and Structure Design, Fujian Agriculture and Forestry University, Fuzhou, China

<sup>b</sup>College of Food Science, Fujian Agriculture and Forestry University, Fuzhou, China

<sup>c</sup>Teagasc Food Research Centre, Moorepark, Fermoy, Co. Cork, Ireland



892-900

### Effects of the gel size before ingestion and agarose molecular weight on the textural properties of a gel bolus

Hatsue Moritaka<sup>a,b</sup>, Kentaro Yamanaka<sup>a,c</sup>, Naoki Kobayashi<sup>d</sup>,  
Miki Ishihara<sup>e</sup>, Katsuyoshi Nishinari<sup>f</sup>

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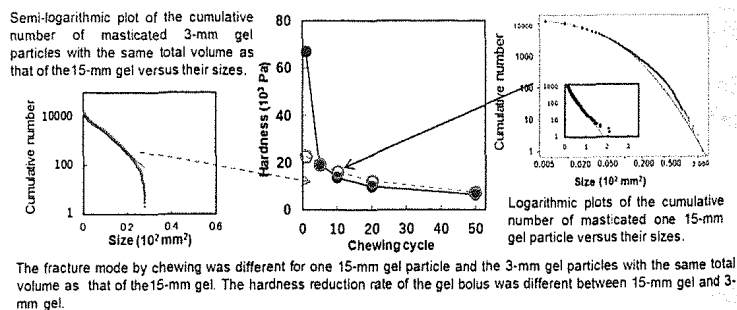
<sup>b</sup>Research Institute of Domestic Science, Tokyo Kasei University, 1-18-1 Kaga, Itabashi-ku, Tokyo 173-8602, Japan

<sup>c</sup>Faculty of Life and Environmental Sciences, Graduate School of Life Sciences, Showa Women's University, 1-7-57 Taishido, Setagaya-ku Tokyo 154-8533, Japan

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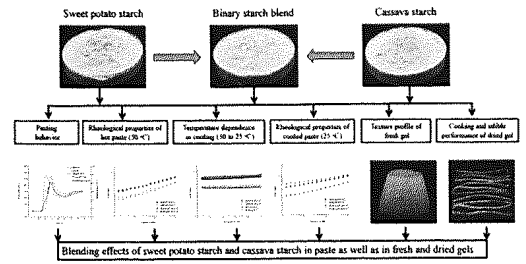
901-911

**Rheological and textural insights into the blending of sweet potato and cassava starches: In hot and cooled pastes as well as in fresh and dried gels**

Shuanghong Li<sup>a</sup>, Fayin Ye<sup>a</sup>, Yun Zhou<sup>a</sup>, Lin Lei<sup>a</sup>, Guohua Zhao<sup>a,b</sup>

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912-920

**Emulsifying properties of hemp proteins: Effect of isolation technique**

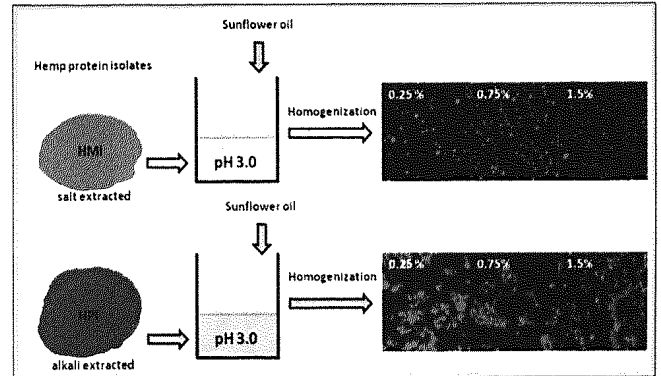
Tamara Dapčević-Hadnađev<sup>a</sup>, Manda Dizdar<sup>b</sup>, Milica Pojić<sup>a</sup>, Veljko Krstonošić<sup>c</sup>, Lisa M. Zychowski<sup>d</sup>, Miroslav Hadnađev<sup>a</sup>

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921-932

**Development study of pectin/Surelease® solid microparticles for the delivery of L-alanyl-L-glutamine dipeptide**

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