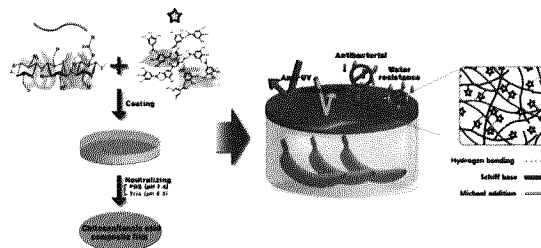


CONTENTS

108249

**Multifunctional chitosan/tannic acid composite films with improved anti-UV, antioxidant, and antimicrobial properties for active food packaging**

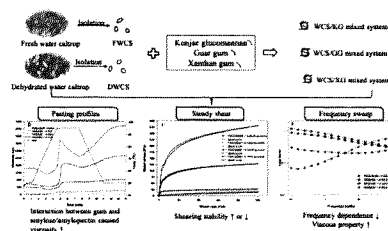
Su Jin Lee, Min A. Gwak, Kiramage Chathuranga, Jong Soo Lee, Jaseung Koo and Won Ho Park



108245

**Pasting and rheological properties of water caltrop starch as affected by the addition of konjac glucomannan, guar gum and xanthan gum**

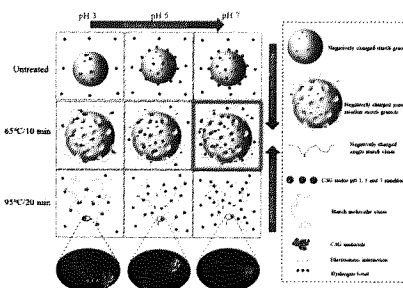
Yu-Chieh Lan and Lih-Shiuh Lai



108234

**The influence mechanism of pH and hydrothermal processing on the interaction between cyanidin-3-O-glucoside and starch**

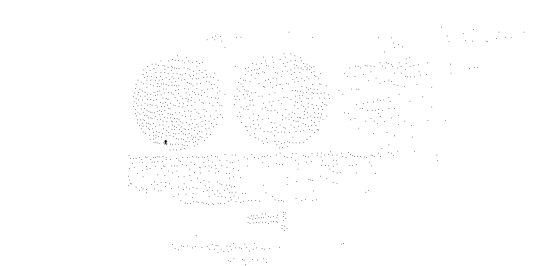
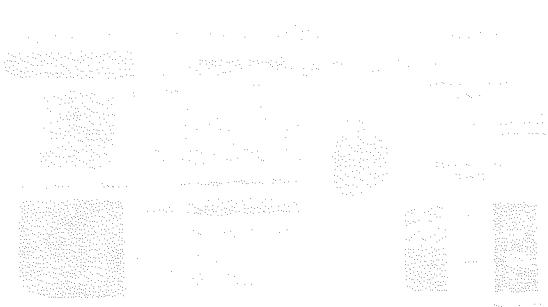
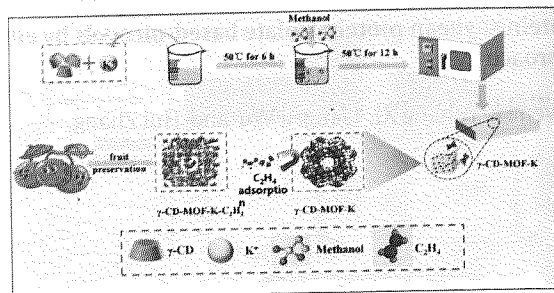
Yuwan Li, Tongtong Yu, Zhiying Wang, Qin Li, Lei Rao, Liang Zhao, Yongtao Wang and Xiaojun Liao



108294

**Synthesis of  $\gamma$ -cyclodextrin metal-organic framework as ethylene absorber for improving postharvest quality of kiwi fruit**

Suqing Li, Xinxin Hu, Shuyao Chen, Xiao Wang, Hengshuai Shang, Yuan Zhou, Jianwu Dai, Lan Xiao, Wen Qin and Yaowen Liu



Abstract: Ethylene is a natural plant hormone that plays a key role in the ripening and senescence of fruits. Excessive ethylene production leads to premature ripening and decay of kiwi fruit.  $\gamma$ -cyclodextrin metal-organic framework ( $\gamma$ -CD-MOF-K) was synthesized and used as an ethylene adsorbent to improve the postharvest quality of kiwi fruit. The synthesis of  $\gamma$ -CD-MOF-K was confirmed by FTIR, SEM, TEM, and EDS. The adsorption and desorption of ethylene by  $\gamma$ -CD-MOF-K were studied. The results showed that  $\gamma$ -CD-MOF-K had a high adsorption capacity for ethylene and could be reused after desorption. The application of  $\gamma$ -CD-MOF-K significantly reduced the ethylene production rate, weight loss, and firmness of kiwi fruit, and increased the total soluble solids content, indicating that  $\gamma$ -CD-MOF-K could effectively improve the postharvest quality of kiwi fruit.

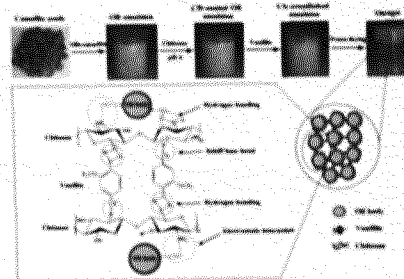
Introduction: Kiwi fruit is a popular fruit with high nutritional value and medicinal properties. However, kiwi fruit is highly perishable and prone to decay and spoilage during storage and transport. Ethylene is a natural plant hormone that plays a key role in the ripening and senescence of fruits. Excessive ethylene production leads to premature ripening and decay of kiwi fruit. Therefore, it is necessary to find an effective method to reduce ethylene production and improve the postharvest quality of kiwi fruit. Cyclodextrin (CD) is a natural cyclic oligosaccharide with a hydrophobic cavity and hydrophilic exterior. It has been widely used as a host molecule for the synthesis of metal-organic frameworks (MOFs). MOFs are a class of porous crystalline materials with high surface area and tunable pore size. They have been used as adsorbents for various gases and liquids. In this study,  $\gamma$ -CD-MOF-K was synthesized and used as an ethylene adsorbent to improve the postharvest quality of kiwi fruit.

Materials and Methods:  $\gamma$ -CD-MOF-K was synthesized by the solvothermal method. The synthesis process was as follows:  $\gamma$ -CD (1.0 g), K<sup>+</sup> ions (0.1 g), and methanol (10 mL) were mixed and reacted at 50°C for 6 h, then at 50°C for 12 h, and finally dried to form  $\gamma$ -CD-MOF-K. The synthesis of  $\gamma$ -CD-MOF-K was confirmed by FTIR, SEM, TEM, and EDS. The adsorption and desorption of ethylene by  $\gamma$ -CD-MOF-K were studied. The adsorption isotherms and kinetic curves of ethylene on  $\gamma$ -CD-MOF-K were determined. The effect of  $\gamma$ -CD-MOF-K on the postharvest quality of kiwi fruit was evaluated by measuring ethylene production rate, weight loss, firmness, and total soluble solids content.

108247

**Preparation, characterization and digestive mechanism of plant-derived oil bodies-based oleogels structured by chitosan and vanillin**

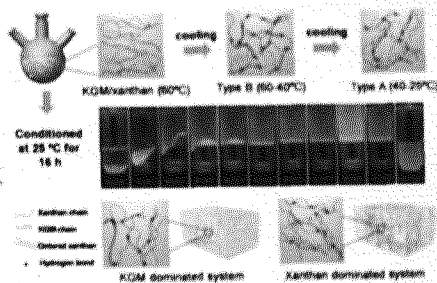
Shahzad Farooq, Muhammad Ijaz Ahmad, Yipeng Zhang, Meiyu Chen and Hui Zhang



108232

**New evidence on synergistic binding effect of konjac glucomannan and xanthan with high pyruvate group content by atomic force microscopy**

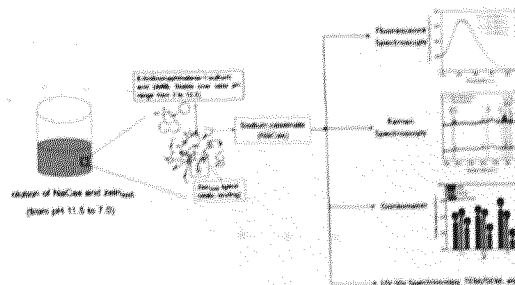
Dongling Qiao, Man Luo, Yishen Li, Fatang Jiang and Binjia Zhang



108225

**Conformational changes to zein and its binding interactions with sodium caseinate during the pH-driven self-assembly using multi-spectroscopic and hydrostatic methods**

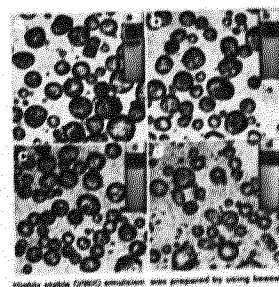
Lei Wang, Devin Rose, Keting Li, Xingyi Chen and Laping He



108219

**Construction of stable O/W/O multiple emulsions using beeswax to control the melting point of the continuous oil phase**

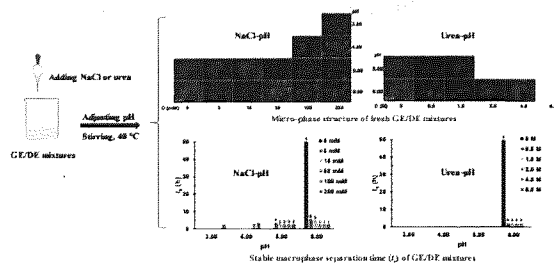
Chunxiang Zhang, Yuxing Gao, Yilan Wu, Zhiliang Zheng, Yunxiao Xie, Yan Li, Bin Li, Ying Pei and Shilin Liu



108287

The combined effects of NaCl-pH and urea-pH on the phase separation of type-A gelatin and dextran

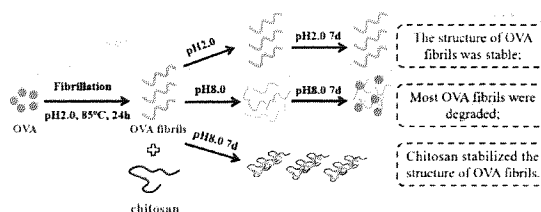
Qi Wang, Bo Cui, Li Guo, Zhao Li, Qingqing Chai, Na Wang, Die Dong, Katsuyoshi Nishinari and Meng Zhao



108286

Chitosan can improve the storage stability of ovalbumin fibrils at pH higher than isoelectric point

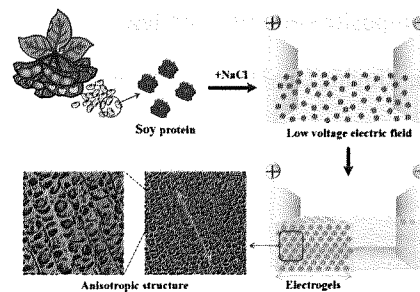
Ya-Ru Wang, Qin Yang, Ya-Nan Du and Han-Qing Chen



108297

Electric field-driven fabrication of anisotropic hydrogels from plant proteins: Microstructure, gel performance and formation mechanism

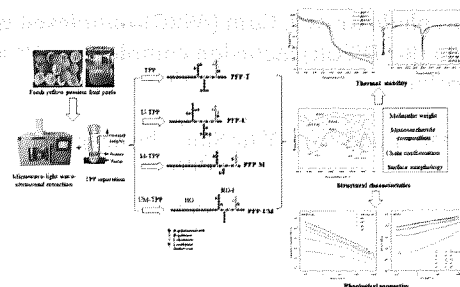
Mengmeng Cao, Li Liao, Xingcai Zhang, Xing Chen, Shengfeng Peng, Liqiang Zou, Ruihong Liang and Wei Liu



108301

Physicochemical, structural, and rheological characteristics of pectic polysaccharides from fresh passion fruit (*Passiflora edulis f. flavicarpa* L.) peel

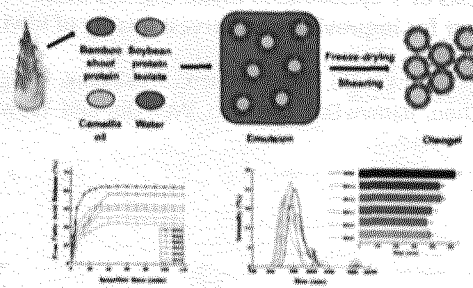
Lichao Zhao, Luobang Wu, Longqing Li, Jie Zhu, Xu Chen, Shuyan Zhang, Lin Li and Jing-Kun Yan



108310

**Preparation, characterization and *in vitro* digestion of bamboo shoot protein/soybean protein isolate based-oleogels by emulsion-templated approach**

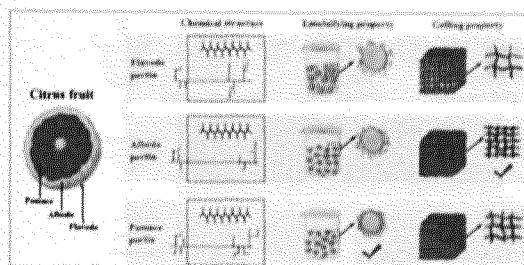
Jiawen Li, Yuhang Xi, Liangru Wu and Hui Zhang



108308

**The structure-function relationships of pectins separated from three citrus parts: Flavedo, albedo, and pomace**

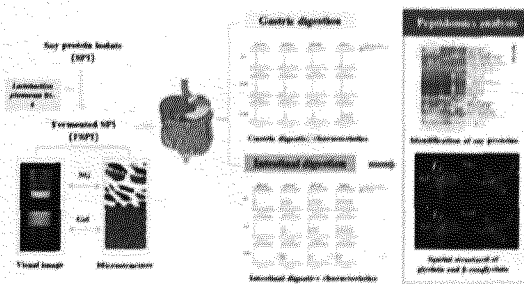
Lin Zhang, Jiefen Cui, Shaojie Zhao, Dan Liu, Cheng Zhao and Jinkai Zheng



108309

**Assessment of dynamic digestion fate of soy protein gel induced by lactic acid bacteria: A protein digestomics research**

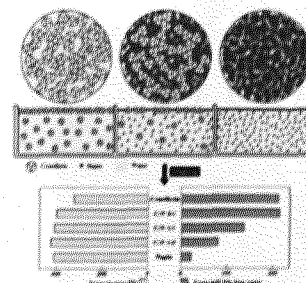
Yaqiong Wang, Wenjing Sun, Yi Zhang, Wei Li, Qiuqin Zhang and Xin Rui



108300

**Cruciferin versus napin – Air-water interface and foam stabilizing properties of rapeseed storage proteins**

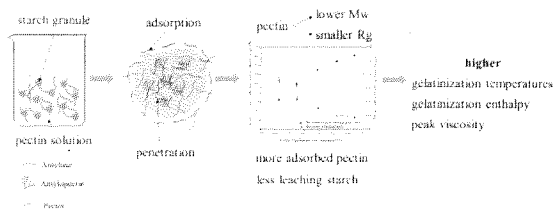
Penghui Shen, Jack Yang, Constantinos V. Nikiforidis, Helene C.M. Mocking-Bode and Leonard M.C. Sagis



108288

**The interaction of pectin with wheat starch and its influence on gelatinization and rheology**

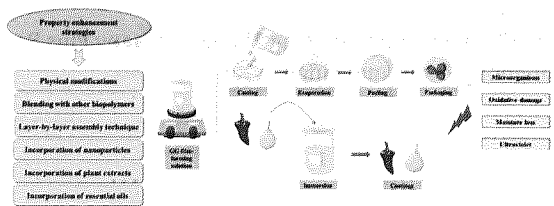
Ruiyun Chen, Peter A. Williams, Deng Chong, Shunjing Luo, Jun Chen and Chengmei Liu



108278

**Recent advances in guar gum-based films or coatings: Diverse property enhancement strategies and applications in foods**

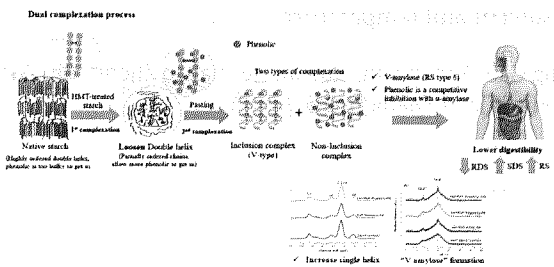
Haitao Jiang, Wanli Zhang, Luyao Chen, Jian Liu, Jiankang Cao and Weibo Jiang



108280

**Dual complexation using heat moisture treatment and pre-gelatinization to enhance Starch-Phenolic complex and control digestibility**

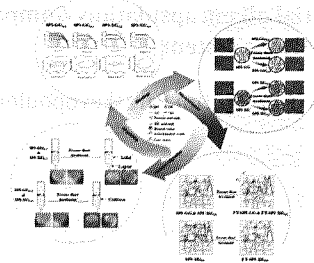
Patarawadee Sudlapa and Prisana Suwannaporn



108293

**Improving freeze-thaw stability and 3D printing performance of soy protein isolate emulsion gel inks by guar & xanthan gums**

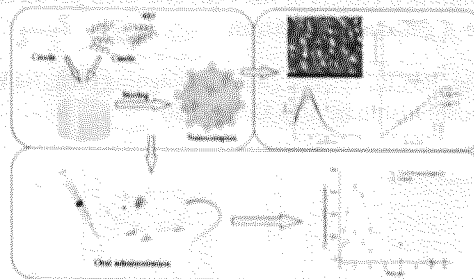
Jie Yu, Dong Li, Li-jun Wang and Yong Wang



108279

**Fabrication of casein-crocin nanocomplexes: Interaction mechanism, impact on stability and bioavailability of crocin**

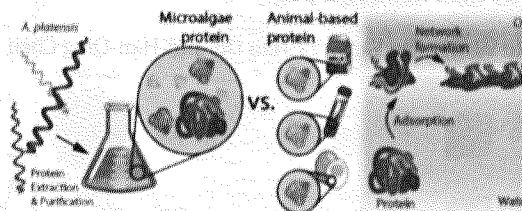
Haowei Fan, Guiming Fu, Silin Feng, Xinchao He, Wenqin Cai and Yin Wan



108290

***Arthrospira platensis* protein isolate for stabilization of fluid interfaces: Effect of physicochemical conditions and comparison to animal-based proteins**

Pascal Bertsch, Lukas Böcker, Ann-Sophie Palm, Jotam Bergfreund, Peter Fischer and Alexander Mathys



108295

**Interfacial adsorption behavior and interaction mechanism in saponin-protein composite systems: A review**

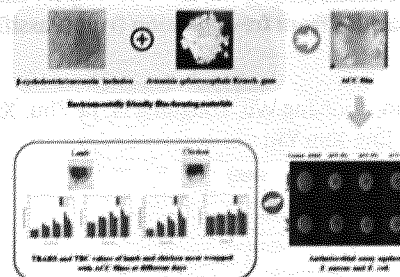
Yingyan Li, Xiuying Liu, He Liu and Lijie Zhu



108296

**Characterization of a novel bioactive film based on *Artemisia sphaerocephala* Krasch. Gum (ASKG) complexed with  $\beta$ -cyclodextrin/curcumin ( $\beta$ -CD/CUR) inclusion complex and its application in meat preservation**

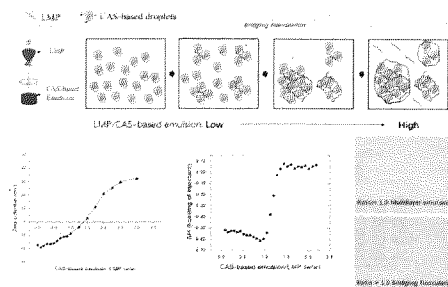
Sohail Khan, Han Wang, Ying Shu, Zhisheng Zhang and Tieqiang Liang



108275

**The formation mechanism of multilayer emulsions studied by isothermal titration calorimetry and dynamic light scattering**

Wei Liao, Emilie Dumas, Abdelhamid Elaissari and Adem Gharsallaoui

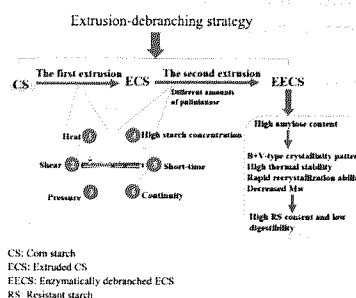


108276

**Development and characterization of resistant starch produced by an extrusion-debranching strategy with a high starch concentration**

Qing Liu, Jiani Shi, Zhengyu Jin and Aiquan Jiao

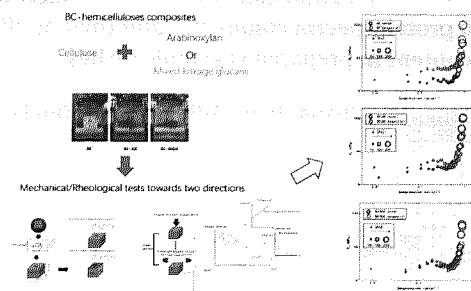
CS: Corn starch ECS: Extruded CS ECSRS: Enzymatically debranched ECSRS: Resistant starch.



108283

**Hemicellulose-bacterial cellulose ribbon interactions affect the anisotropic mechanical behaviour of bacterial cellulose hydrogels**

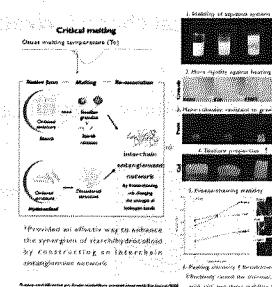
Si-Qian Chen, Patricia Lopez-Sanchez, Deirdre Mikkelsen, Marta Martinez-Sanz, Zhaofeng Li, Shuyan Zhang, Elliot P. Gilbert, Lin Li and Michael J. Gidley



108259

**Enhancement of starch-hydrocolloid synergism via the construction of an interchain entanglement**

Chen Zhang, Zhi-Juan Wang, Ke-Xing Wan, Shi-Yi Wang, Ling-Zhi Zhang, Qiao-Quan Liu and Jian-Ya Qian

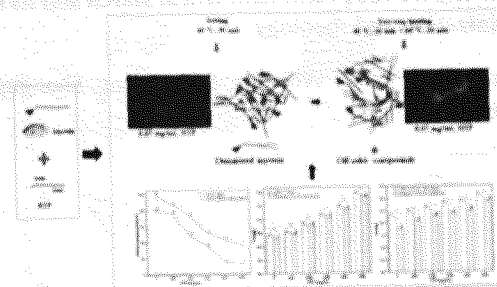




108282

**Interactions of heat-induced myosin with hsian-tso polysaccharide to affect the fishy odor adsorption capacity**

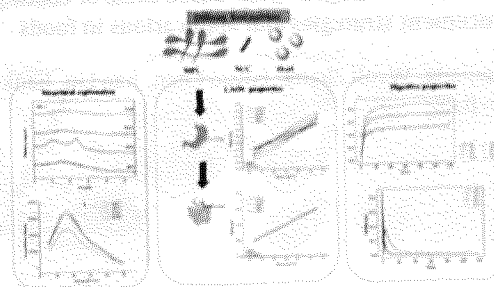
Gang You, Gaigai Niu, Xinyi Zhou, Kean Gao and Xiaoling Liu



108281

**A structural explanation for protein digestibility changes in different food matrices**

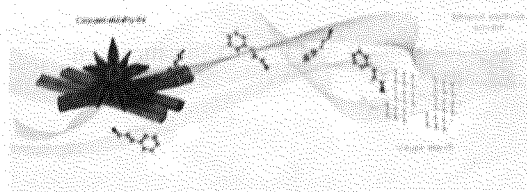
Jiahui Chen, Qianni Gao, Xing Zhang, Anthony Pius Bassey, Xianming Zeng, Guanghong Zhou and Xinglian Xu



108285

**Molecular encapsulation of cinnamaldehyde in V-type starch: The role of solvent and temperature**

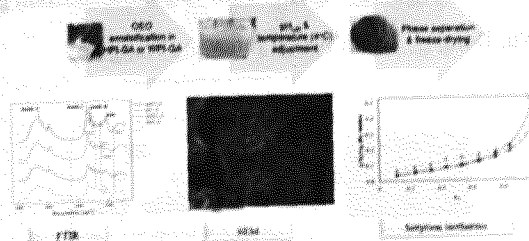
Qing Gao, Yanan Sun, Ruolan He, Jiabao Zheng, Bin Zhang, Chin Ping Tan, Xiong Fu and Qiang Huang



108284

**Hemp protein isolate – gum Arabic complex coacervates as a means for oregano essential oil encapsulation. Comparison with whey protein isolate – gum Arabic system**

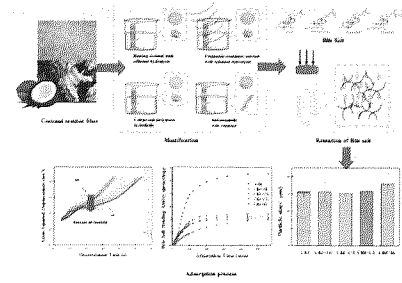
Fotini Plati and Adamantini Paraskevopoulou



108221

**Modification of coconut residue fiber and its bile salt adsorption mechanism: Action mode of insoluble dietary fibers probed by microrheology**

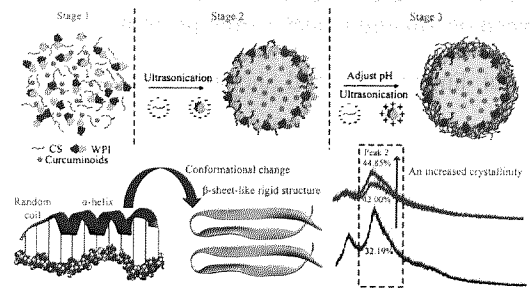
Yaoyao Tan, Shuxian Li, Sixin Liu and Congfa Li



108263

**Conformational changes and the formation of new bonds achieving robust nanoemulsions by electrostatic interactions between whey protein isolate and chondroitin sulfate**

Yuxiao Wang, Mo Li, Xin Wen, Haiteng Tao, Kunli Wang, Rao Fu, Hongxun Tao, Fuying Wang, Nan Chen and Yuanying Ni

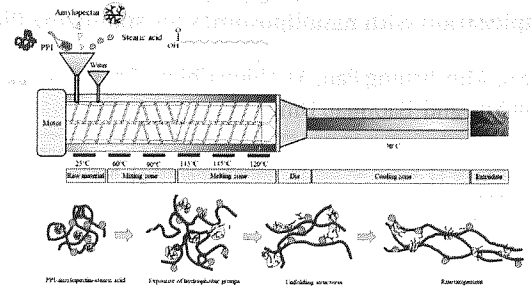


108254

**Mechanism of high-moisture extruded protein fibrous structure formation based on the interactions among pea protein, amylopectin, and stearic acid**

Qiongling Chen, Jinchuang Zhang, Haodong Liu, Tongqing Li and Qiang Wang

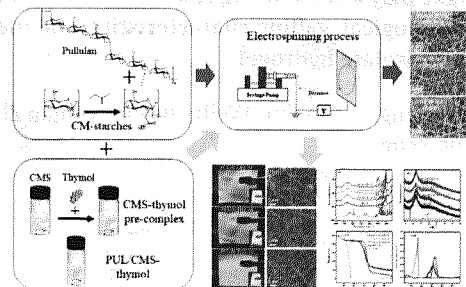
Mechanism of high-moisture extruded protein fibrous structure formation based on the interactions among pea protein, amylopectin, and stearic acid.



108250

**Effect of amylose content on the preparation for carboxymethyl starch/pullulan electrospun nanofibers and their properties as encapsulants of thymol**

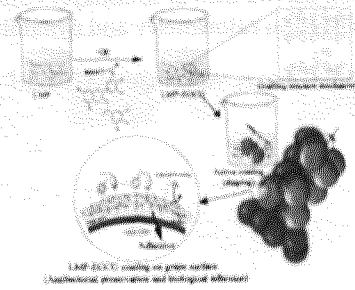
Qian Liang and Qunyu Gao



108255

**Bioadhesive and antibacterial edible coating of EGCG-grafted pectin for improving the quality of grapes during storage**

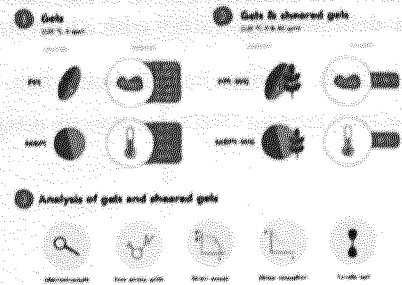
Xin Huang, Min Hong, Li Wang, Qingran Meng, Qinfei Ke and Xingran Kou



108261

**Mechanical and rheological effects of transglutaminase treatment on dense plant protein blends**

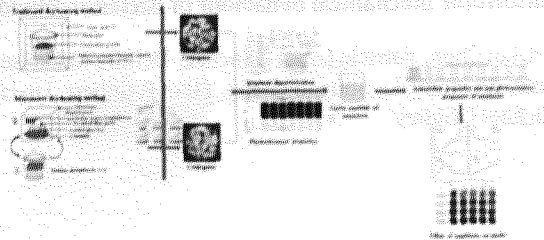
Miek Schlangen, Marieke A. Ribberink, Somayeh Taghian Dinani, Leonard M.C. Sagis and Atze Jan van der Goot



108277

**Garlic essential oil emulsions stabilized by microwave dry-heating induced protein-pectin conjugates and their application in controlling nitrite content in prepared vegetable dishes**

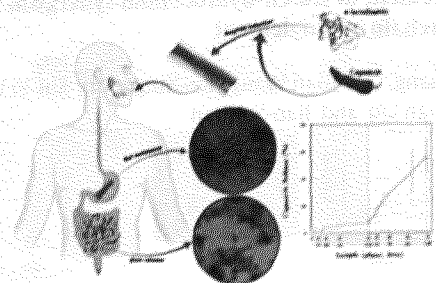
Xiuxiu Teng, Min Zhang, Benu Adhikari and Kun Liu



108248

**Alpha-lactalbumin amyloid-like fibrils for intestinal delivery: Formation, physicochemical characterization, and digestive fate of capsaicin-loaded fibrils**

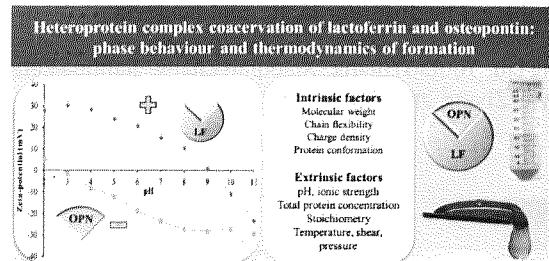
Alon Romano, Yizhaq Engelberg, Meytal Landau and Uri Lesmes



108216

**Heteroprotein complex coacervation of lactoferrin and osteopontin: Phase behaviour and thermodynamics of formation**

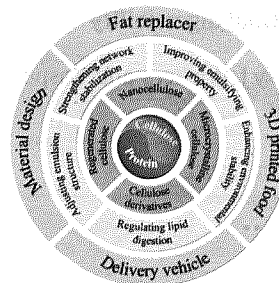
David A. Goulding, Lionel Bovetto, Jonathan O'Regan, Nora M. O'Brien and James A. O'Mahony



108260

**Recent advances in protein-based emulsions: The key role of cellulose**

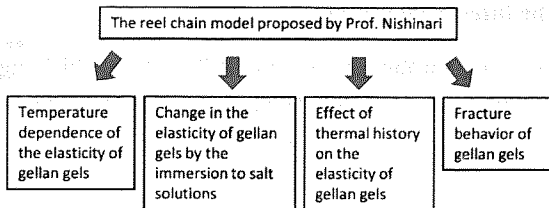
Hongjie Dai, Yuyuan Luo, Yue Huang, Liang Ma, Hai Chen, Yu Fu, Yong Yu, Hankun Zhu, Hongxia Wang and Yuhao Zhang



108256

**Study of polysaccharide gels at Prof. Nishinari's laboratory**

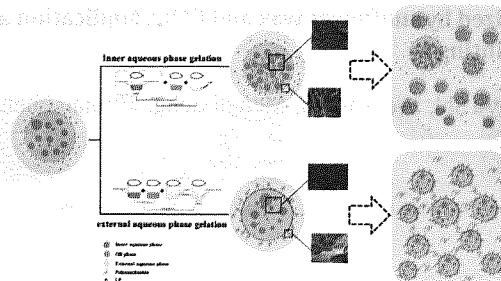
Yoko Nitta



108257

**Internal/external aqueous-phase gelation treatment of soybean lipophilic protein W/O/W emulsions: Improvement in microstructure, interfacial properties, physicochemical stability, and digestion characteristics**

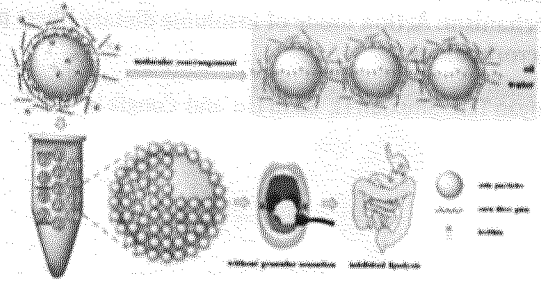
Lijia Li, Meng Zhang, Xumei Feng, Haodong Yang, Meili Shao, Yuyang Huang, Yang Li and Fei Teng



108211

**Incorporating surfactants within protein-polysaccharide hybrid particles for high internal phase emulsions (HIPEs): Toward plant-based mayonnaise**

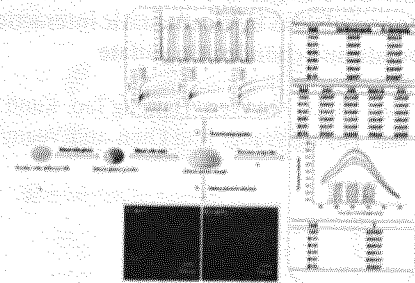
Jiaqi Su, Qianhan Ma, Yongjian Cai, Hao Li, Fang Yuan, Fazheng Ren, Pengjie Wang and Paul Van der Meeren



108272

**The effect of degree of esterification of pectin on the interaction between pectin and wheat gluten protein**

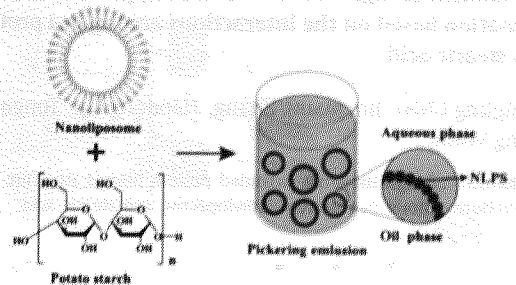
Yanli Cui, Jinfeng Chen and Shenggui Zhang



108271

**Improvement of emulsifying properties of potato starch via complexation with nanoliposomes for stabilizing Pickering emulsion**

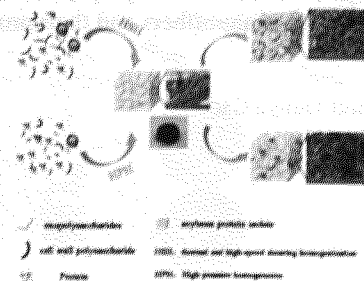
Tao Xu, Min-hsiung Pan, Yi-shiou Chiou, Zhenshun Li, Shudong Wei, Xiaoli Yin and Baomiao Ding



108244

**Microalgae play a structuring role in food: Effect of *spirulina platensis* on the rheological, gelling characteristics, and mechanical properties of soy protein isolate hydrogel**

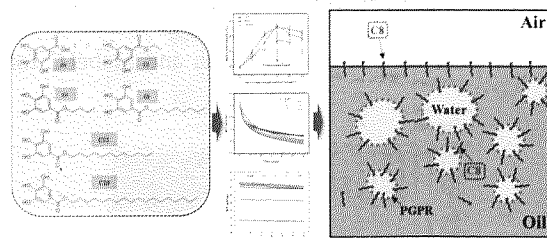
Mengwei Wang, Zihao Yin, Weihong Sun, Qufan Zhong, Yu Zhang and Mingyong Zeng



108227

**Effects of interface generation, droplet size and antioxidant partitioning on the oxidation rate and oxidative stability of water-in-oil emulsions: A comparison of coarse emulsions and nanoemulsions**

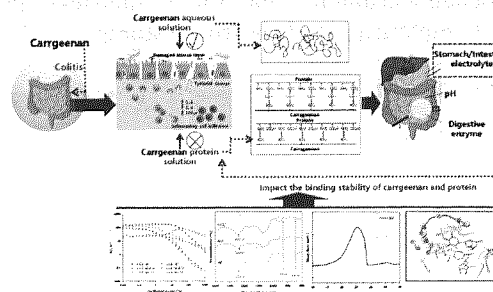
Mi Zhang, Liuping Fan, Yuanfa Liu and Jinwei Li



108240

**Rheological behavior and molecular dynamics simulation of κ-carrageenan/casein under simulated gastrointestinal electrolyte conditions**

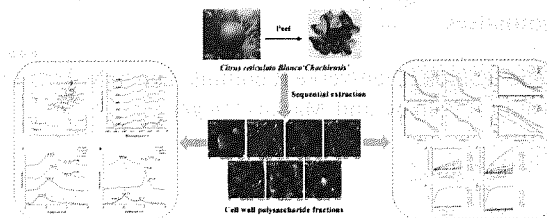
Juanjuan Guo, Siliang Zhu, Bohua Liu, Mingjing Zheng, Hongbin Chen and Jie Pang



108237

**Extraction, characterization, and antioxidant properties of cell wall polysaccharides from the pericarp of *Citrus Reticulata* cv. Chachiensis**

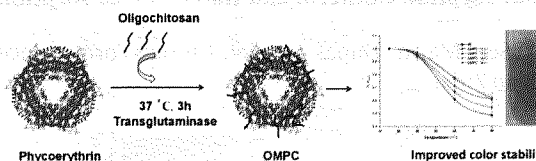
Zhongcan Peng, Shurong Tian, Hailing Li, Longping Zhu, Zhimin Zhao, Guodong Zheng, Qiyin Wen, Hongru Tian and Depo Yang



108241

**The structural characterization and color stabilization of the pigment protein-phycoerythrin glycosylated with oligochitosan**

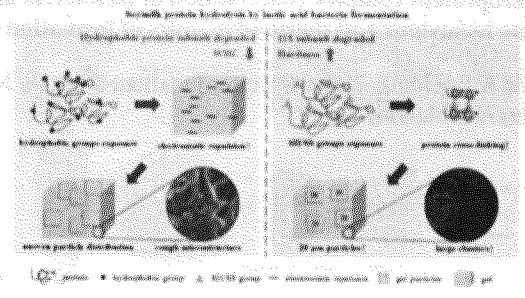
Yidan Zhang, Liqun Zhang, Jiangnan Hu, Zhiwei Wang, Demei Meng, He Li, Zhongkai Zhou and Rui Yang



108252

**Texture analysis and physicochemical characteristics of fermented soymilk gel by different lactic acid bacteria**

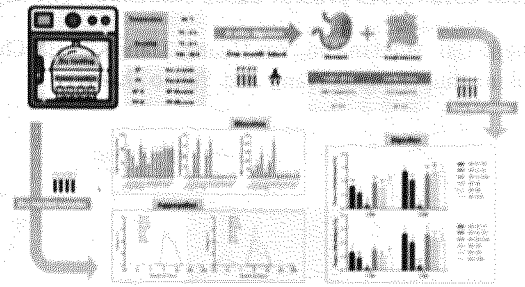
Liang Liu, Youtao Huang, Xiaoqian Zhang, Jianhua Zeng, Junzhe Zou, Lanwei Zhang and Pimin Gong



108251

**Glycation of soy and pea proteins influences infant gastric digestibility more than intestinal digestibility**

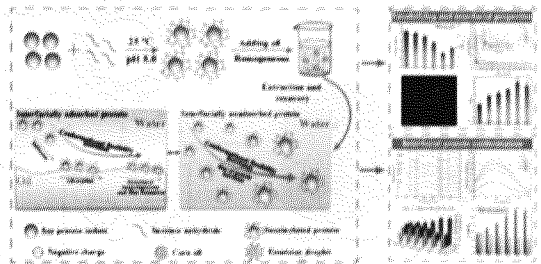
Jiaying Tang, Harry J. Wichers and Kasper A. Hettinga



108224

**Emulsifying properties and oil-water interface properties of succinylated soy protein isolate: Affected by conformational flexibility of the interfacial protein**

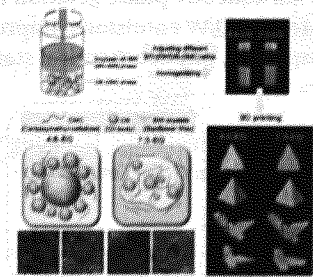
Ziteng Lian, Sai Yang, Lin Cheng, Peilong Liao, Shicheng Dai, Xiaohong Tong, Tian Tian, Huan Wang and Lianzhou Jiang



108262

**Oil body-based one-step multiple phases and hybrid emulsion gels stabilized by sunflower wax and CMC: Application and optimization in 3D printing**

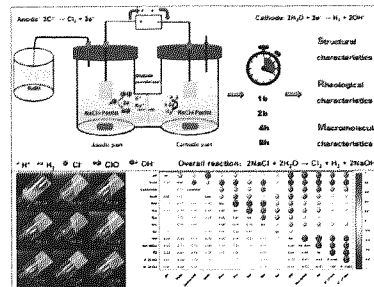
Zhangyu Shi, Wenyan Xu, Mengli Geng, Zhujian Chen and Zong Meng



108246

**Effect of electrochemistry modification on the macromolecular, structural, and rheological characteristics of citrus peel pectin**

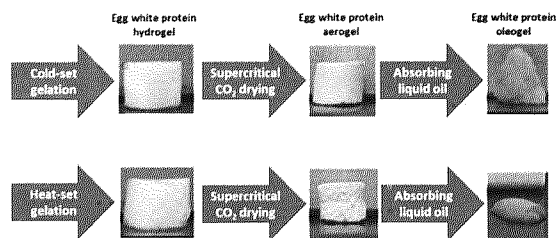
Zhanwei Yang, Shujuan Yu, Hualei Chen, Xiaobing Guo, Jingyuan Zhou and Hecheng Meng



108180

**Superlight macroporous aerogels produced from cold-set egg white protein hydrogels show superior oil structuring capacity**

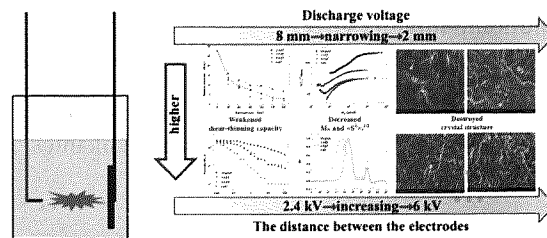
Farhad Alavi and Ozan N. Ciftci



108236

**Effect of solution pulsed plasma process on the degradation and physicochemical properties of pectin**

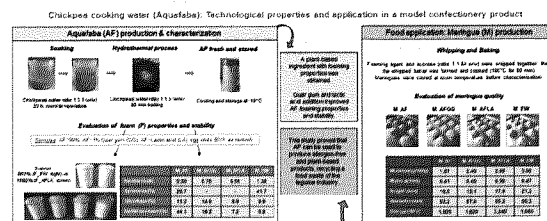
Wenze Hu, Pu Li, Dongxu Guo, Baiqing Zhang, Dongbing Tao, Jinfeng Li, Weitian Zhong, Hui Zang, Yufeng Xu and Fengming Ma



108231

**Chickpea cooking water (Aquafaba): Technological properties and application in a model confectionery product**

Deborah Tufaro and Carola Cappa

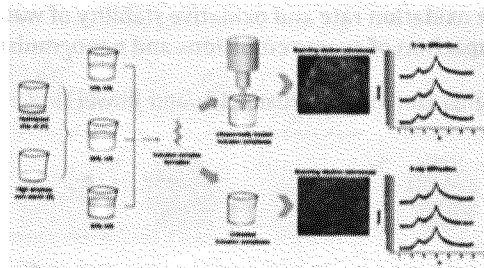




108222

**Effect of ligand concentration and ultrasonic treatment on inclusion complexes of high amylose corn starch with chia seed oil fatty acids**

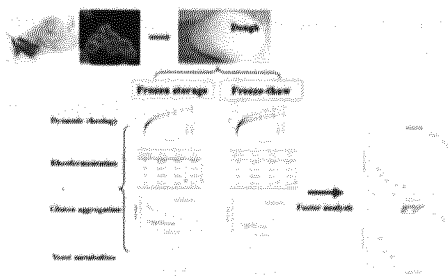
Andrea E. Di Marco, Vanesa Y. Ixtaina and Mabel C. Tomás



108253

**Physicochemical and fermentation properties of pre-fermented frozen dough: Comparative study of frozen storage and freeze-thaw cycles**

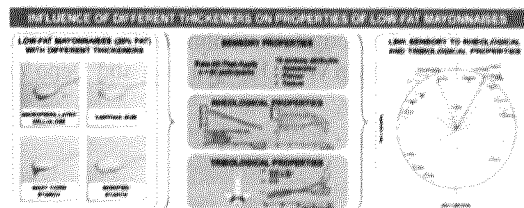
Lu Lu and Ke-Xue Zhu



108242

**Influence of thickeners (microfibrillated cellulose, starch, xanthan gum) on rheological, tribological and sensory properties of low-fat mayonnaises**

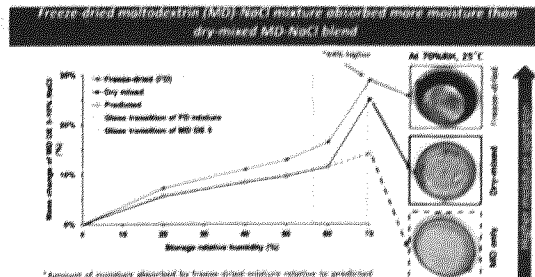
Annelies E. Blok, Dieuwerke P. Bolhuis, Luben N. Arnaudov, Krassimir P. Velikov and Markus Stieger



108238

**Physical stability of co-freeze-dried powders made from NaCl and maltodextrins – Impact of NaCl on glass transition temperature, water vapour sorption isotherm and water vapour sorption kinetics**

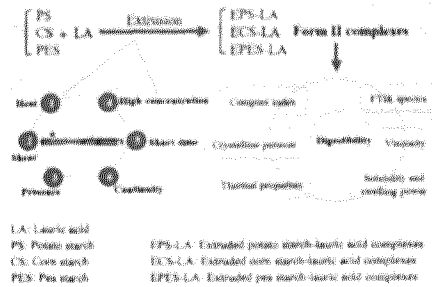
Xin Yi See, Marina Dupas-Langlet, Laurent Forny, Vincent Meunier and Weibiao Zhou



108239

### Structure, physicochemical properties and in vitro digestibility of extruded starch-lauric acid complexes with different amylose contents

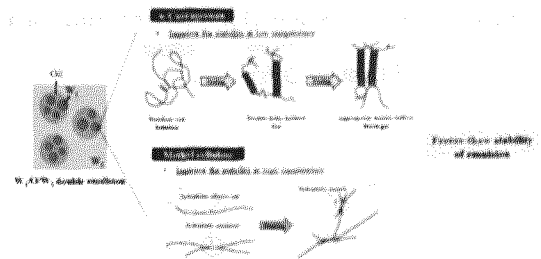
Qing Liu, Yihui Wang, Yueyue Yang, Xuepeng Yu, Lulian Xu, Aiquan Jiao and Zhengyu Jin



108243

### The rheological properties and stability of gelled emulsions applying to $\kappa$ -carrageenan and methyl cellulose as an animal fat replacement

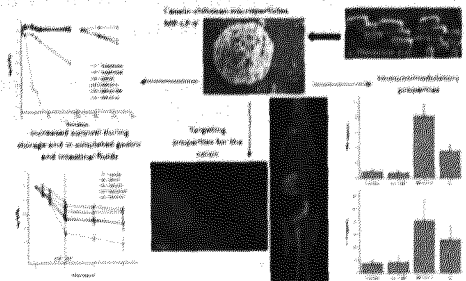
iseon Lee, Gihyun Wi and Mi-Jung Choi



08213

### Encapsulation of *Lactobacillus plantarum* in casein-chitosan nanoparticles facilitates the arrival to the colon and develops an immunomodulatory effect

Rebeca Peñalva, Ana Luisa Martínez-López, Carlos Gamazo, Carlos J. Gonzalez-Navarro, Carolina González-Ferrero, Raquel Virto-Resano, Ana Brotons-Canto, Ana Isabel Vitas, Maria Collantes, Ivan Peñuelas and Juan M. Irache



08228

### Storage stability of scallop (*Patinopecten yessoensis*) male gonad hydrolysates/ $\kappa$ -carrageenan composite hydrogels embed curcumin

Yan-Nan Yan, Xin-Yu Jiang, Lin Li, Wen Sun, Bin Lai and Hai-Tao Wu

