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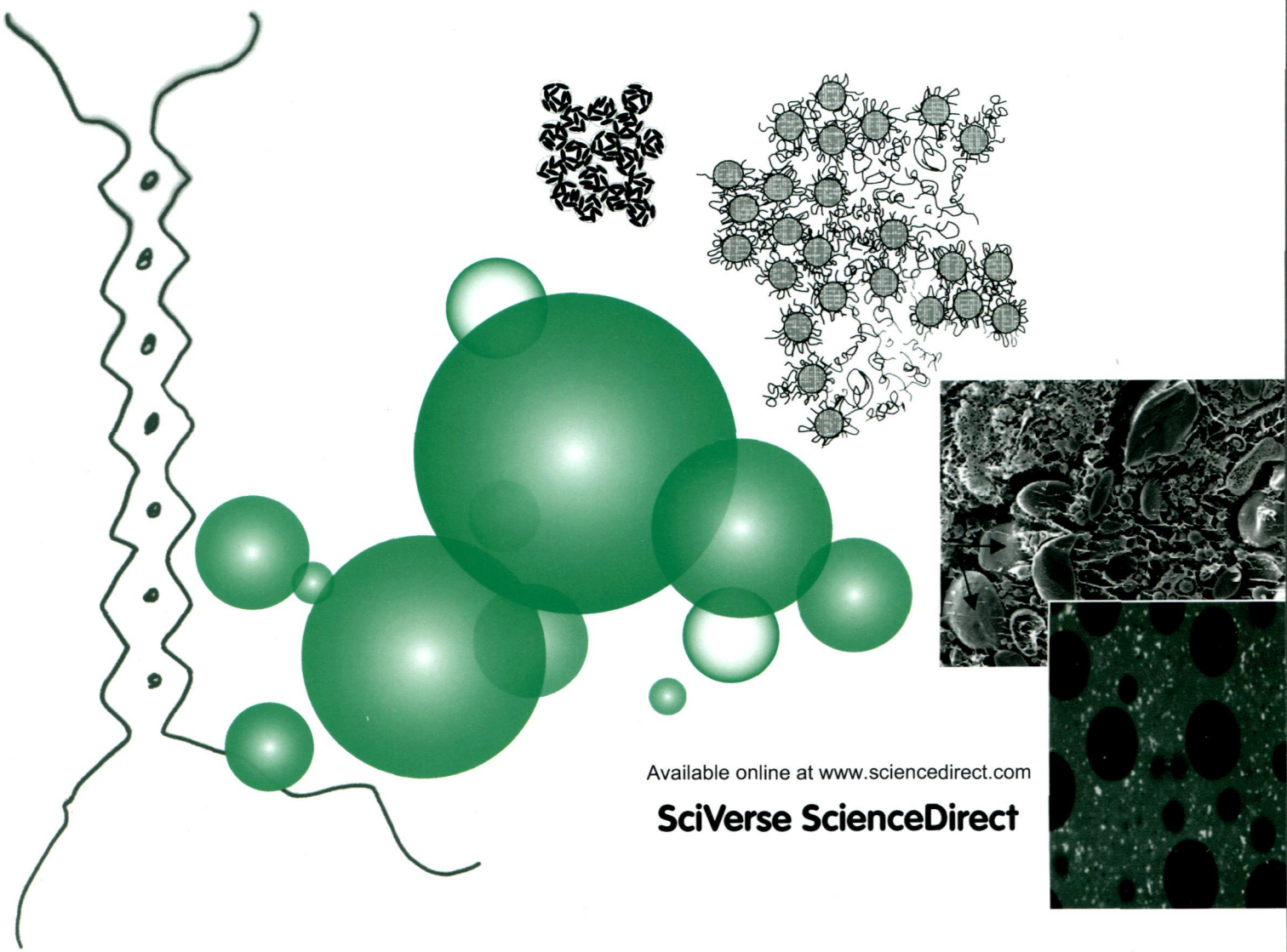
Food Hydrocolloids



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Food Hydrocolloids

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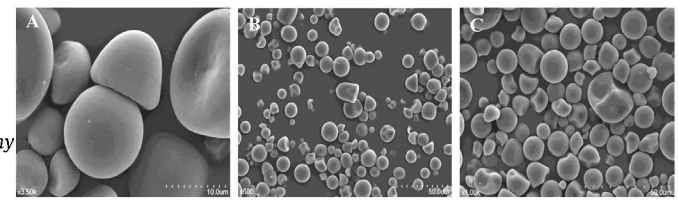
Graphical abstracts

Food Hydrocolloids **2013**, 33, 169–177

Physicochemical characterization of sweet potato starches popularly used in Chinese starch industry

Oluwaseyi Kemi Abegunde, Tai-Hua Mu*, Jing-Wang Chen, Fu-Ming Deng

Key Laboratory of Agro-Products Processing, Ministry of Agriculture, Institute of Agro-Products Processing Science and Technology, Chinese Academy of Agricultural Sciences, Beijing 100193, PR China



Scanning electron micrographs of various sweet potato starch granules showing diversity in shapes and sizes. Figures in parentheses denote the degree of magnification. A, Shi 5 (×3500); B, Xushu 28 (×600) C, Xushu 27 (×1000).

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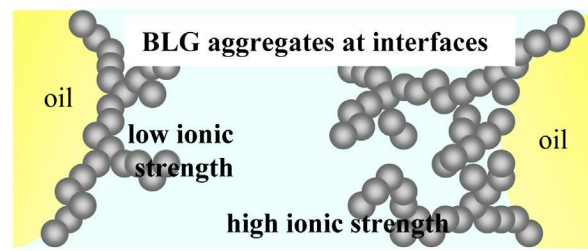
Disappearance of intermolecular beta-sheets upon adsorption of beta-lactoglobulin aggregates at the oil–water interfaces of emulsions

Michel Audebrand, Marie-Hélène Ropers, Alain Riaublanc*

INRA, UR1268 Biopolymères Interactions Assemblages, F-44316 Nantes, France



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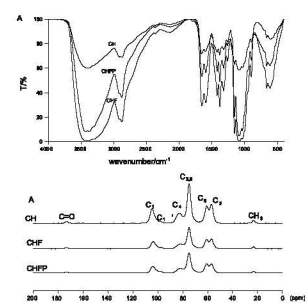
Preparation and structural analysis of chitosan films with and without sorbitol

Mei Liu, Yibin Zhou*, Yang Zhang, Chen Yu, Shengnan Cao

School of Tea and Food Technology, Anhui Agricultural University, 130 Chang Jiang West Road, Hefei 230036, China



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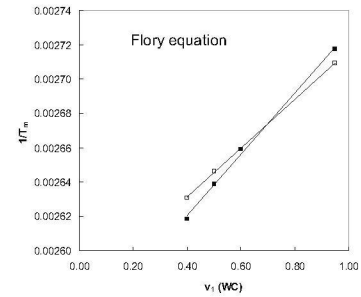
Effect of water and guar gum content on thermal properties of chestnut flour and its starch

M.D. Torres[a], R. Moreira[a,*], F. Chenlo[a], M.H. Morel[b]

[a]*Departamento de Enxeñaría Química, Universidade de Santiago de Compostela, Rúa Lope Gómez de Marzoa s/n, Santiago de Compostela 15782, Spain*
[b]*Laboratory of Cereal Technology and Agropolymers, ENSA.M–INRA, 2 place Viala, 34060 Montpellier Cedex 1, France*



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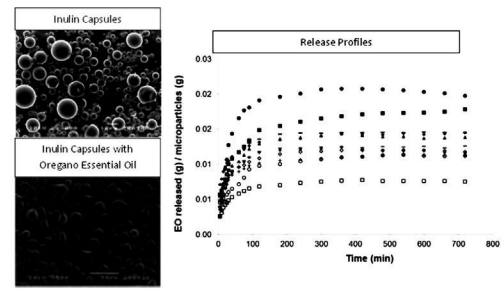
Inulin potential for encapsulation and controlled delivery of *Oregano* essential oil

Sara Beirão-da-Costa[a,b,c,*], Cláudia Duarte[a], Ana I. Bourbon[b], Ana C. Pinheiro[b], M. Isabel N. Januário[a], António A. Vicente[b], M. Luísa Beirão da Costa[a], Ivonne Delgadillo[c]

[a]*CEER – Biosystems Engineering, Instituto Superior de Agronomia, Technical University of Lisbon, Tapada da Ajuda, 1349-017 Lisboa, Portugal*



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Introduction of primary antioxidant activity to chitosan for application as a multifunctional food packaging material

Stephanie B. Schreiber[a], Joseph J. Bozell[b], Douglas G. Hayes[c], Svetlana Zivanovic[a,*]

[a]*Department of Food Science and Technology, 2510 River Drive, University of Tennessee, Knoxville, TN 37996, United States*
[b]*Center for Renewable Carbon, 2506 Jacob Drive, University of Tennessee, Knoxville, TN 37996, United States*
[c]*Biosystem Engineering, 2506 E.J. Chapman Drive, University of Tennessee, Knoxville, TN 37996, United States*

Ground peanuts packaged in chitosan (left) and grafted GA-chitosan (right) pouches

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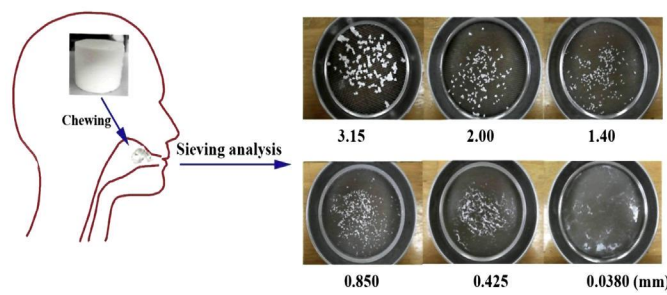
The breakdown properties of heat-set whey protein emulsion gels in the human mouth

Qing Guo[a], Aiqian Ye[a,*], Mita Lad[a], Douglas Dalgleish[b], Harjinder Singh[a]

[a]*Riddet Institute, Massey University, Private Bag 11 222, Palmerston North 4442, New Zealand*
[b]*Department of Food Science, University of Guelph, Canada*



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Effect of relative humidity on the store stability of spray-dried beta-carotene nanoemulsions

Rong Liang[a,b], Qingrong Huang[c], Jianguo Ma[a], Charles F. Shoemaker[b,**], Fang Zhong[a,*]

[a]*Key Laboratory of Food Colloids and Biotechnology, Ministry of Education, School of Food Science and Technology, Jiangnan University, Wuxi 214122, PR China*
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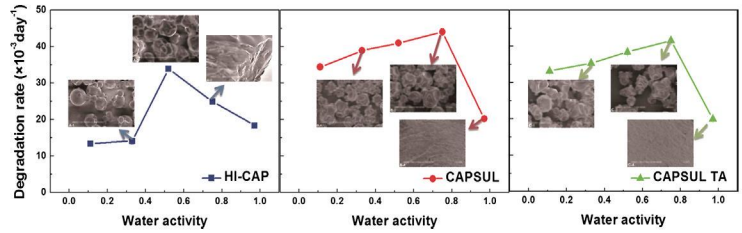
[c]*Department of Food Science, Rutgers University, 65 Dudley Road, New Brunswick, NJ 08901, USA*



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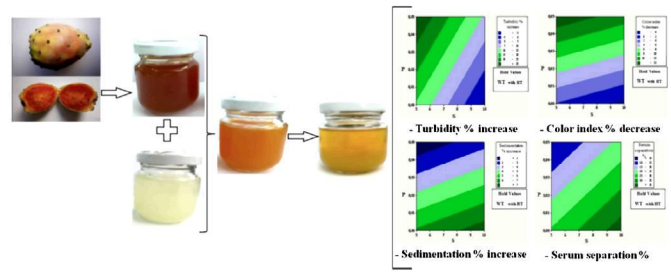
A physical stability study of whey-based prickly pear beverages

Arwa Baccouche[a], Monia Ennouri[a,b,*], Imene Felfoul[a], Hamadi Attia[a]

[a]*Alimentary Analysis Unit, National Engineering School of Sfax, BPW 3038, Sfax, Tunisia*
[b]*Higher Institute of Applied Sciences & Technology of Mahdia, Sidi Messaoud, 5111 Mahdia, Tunisia*



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Synthesis, characterization and functional properties of galactosylated derivatives of chitosan through amide formation

Ana I. Ruiz Matute[a], Alejandra Cardelle-Cobas[b], Ana B. García-Bermejo[a], Antonia Montilla[a], Agustin Olano[a], Nieves Corzo[a,*]

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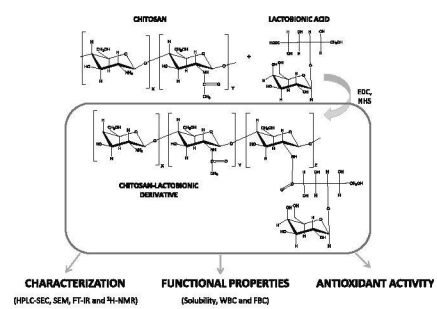
[b]*CBQF – Centro de Biotecnologia e Química Fina, Escola Superior de Biotecnologia, Centro Regional do Porto da Universidade Católica Portuguesa, Rua Dr. António Bernardino Almeida, 4200-072 Porto, Portugal*



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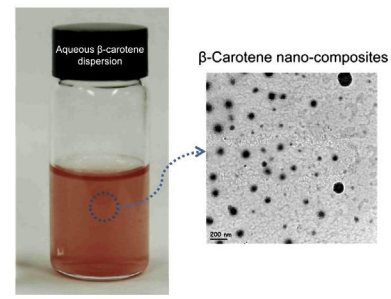
Preparation of aqueous dispersion of β-carotene nano-composites through complex formation with starch dextrin

Jong-Yea Kim, Tae-Rang Seo, Seung-Taik Lim*

School of Life Sciences and Biotechnology, Korea University, 5-1, Anam-dong, Sungbuk-ku, Seoul 136-701, Republic of Korea



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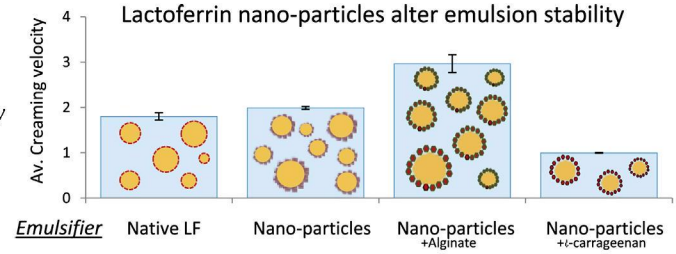
Emulsions stabilization by lactoferrin nano-particles under *in vitro* digestion conditions

G. Shimoni, C. Shani Levi, S. Levi Tal, U. Lesmes*

Laboratory of Chemistry of Foods and Bioactives, Department of Biotechnology and Food Engineering, Technion – Israel Institute of Technology, Haifa 32000, Israel



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Freezing–thawing effects on the properties of dialdehyde carboxymethyl cellulose crosslinked gelatin-MMT composite films

Jimin Guo[a], Xinying Li[b], Changdao Mu[a], Hanguang Zhang[a], Pan Qin[a], Defu Li[a,*]

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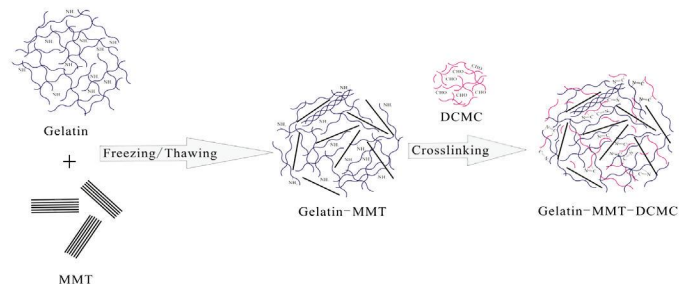
[b]*College of Chemistry and Environment Protection Engineering, Southwest University for Nationalities, Chengdu 610041, Sichuan, China*



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Nanostructure development during peroxidase catalysed cross-linking of α-lactalbumin

Yunus Saricay[a,*], Peter Wierenga[b], Renko de Vries[a]

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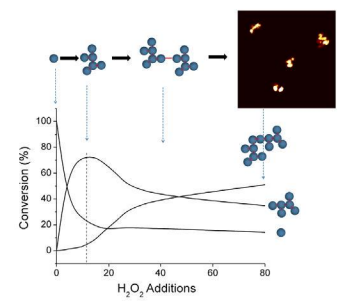
[b]*Laboratory of Food Chemistry, Wageningen University, P.O. Box 8129, 6700EV Wageningen, The Netherlands*



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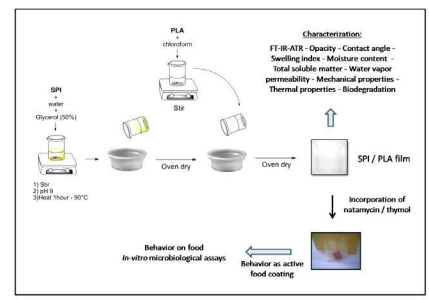
Soy protein – Poly (lactic acid) bilayer films as biodegradable material for active food packaging

Agustín González, Cecilia I. Alvarez Igarzabal*

Departamento de Química Orgánica, IMBIV-CONICET, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Haya de la Torre y Medina Allende, Edificio de Ciencias II, Ciudad Universitaria, 5000 Córdoba, Argentina



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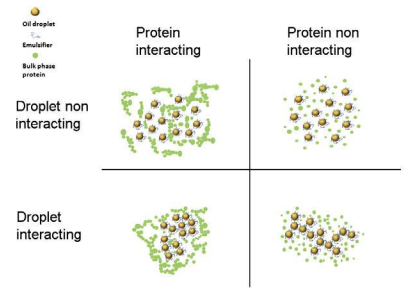
Structure and stability of heat-treated concentrated dairy-protein-stabilised oil-in-water emulsions: A stability map characterisation approach

Yichao Liang[a,b,*], Hasmukh Patel[c], Lara Matia-Merino[b], Aiqian Ye[d], Matt Golding[b,d]

[a]*Fonterra Research and Development Centre, Private Bag 11 029, Palmerston North 4442, New Zealand*
[b]*Institute of Food, Nutrition and Human Health, Massey University, Private Bag 11 222, Palmerston North, New Zealand*
[c]*Dairy Science Department, Box 2104, South Dakota State University, Brookings, SD, USA*
[d]*Riddet Institute, Massey University, Private Bag 11 222, Palmerston North, New Zealand*



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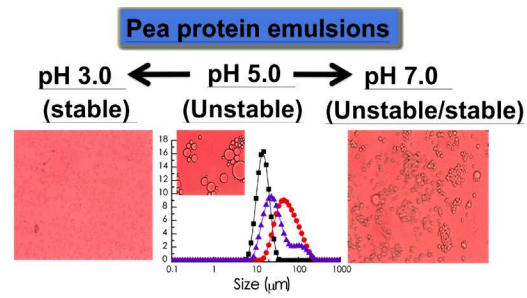
pH-dependent emulsifying properties of pea [*Pisum sativum* (L.)] proteins

Han-Ni Liang[a], Chuan-He Tang[a,b,*]

[a]*Department of Food Science and Technology, South China University of Technology, Guangzhou 510640, PR China*
[b]*State Key Laboratory of Pulp and Paper Engineering, South China University of Technology, Guangzhou 510640, PR China*



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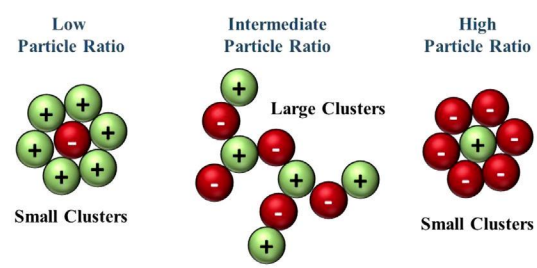
Modification of emulsion properties by heteroaggregation of oppositely charged starch-coated and protein-coated fat droplets

Yingyi Mao, David Julian McClements*

Department of Food Science, University of Massachusetts, Amherst, MA 01003, USA

Novel textural characteristics can be created in food products based on heteroaggregation of oppositely charged biopolymer-coated lipid droplets. This study focuses on the use of two food-grade emulsifiers (WPI and modified starch) to prepare these mixed emulsions.



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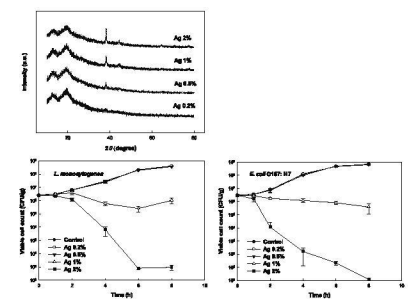
Preparation and characterization of agar/silver nanoparticles composite films with antimicrobial activity

J.W. Rhim[a,*], L.F. Wang[a], S.I. Hong[b]

[a]*Department of Food Engineering, Mokpo National University, 61 Dorimri, Chungkyemyon, Muangun, 534-729 Jeonnam, Republic of Korea*
[b]*Korea Food Research Institute, 516 Baekhyun-dong, Bundang-gu, Seongnam-si, 463-746 Gyeonggi-do, Republic of Korea*



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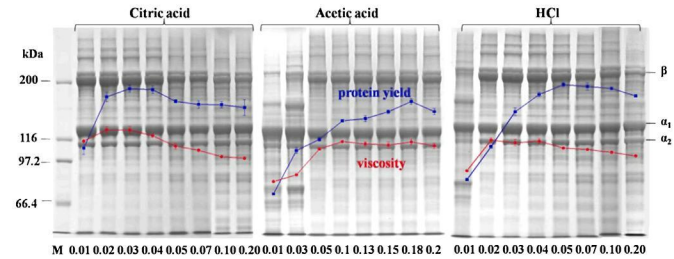
Characterization of tilapia (*Oreochromis niloticus*) skin gelatin extracted with alkaline and different acid pretreatments

Lihong Niu[a], Xin Zhou[b], Chuqiao Yuan[a], Yun Bai[a], Keqiang Lai[a], Fuxin Yang[a], Yiqun Huang[a,*]

[a]*College of Food Science and Technology, Shanghai Ocean University, Shanghai 201306, PR China*
[b]*College of Food Science and Technology, Hunan Agricultural University, Changsha 410128, Hunan, PR China*



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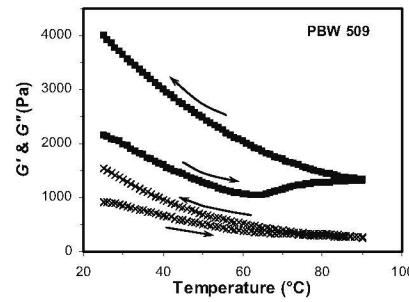
Relationship of polymeric proteins and empirical dough rheology with dynamic rheology of dough and gluten from different wheat varieties

Sandeep Singh, Narpinder Singh*

Department of Food Science and Technology, Guru Nanak Dev University, Amritsar 143005, India

Viscoelastic behavior of gluten measured during heating (25–90 °C) and cooling (90–25 °C) from a wheat variety. Storage modulus (G'; ■) and loss modulus (G''; ×).



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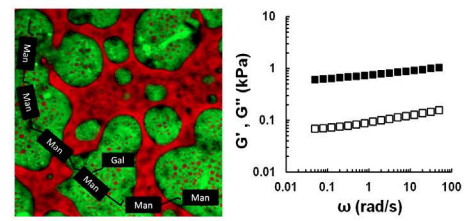
The influence of galactomannans with different amount of galactose side chains on the gelation of soy proteins at neutral pH

Sónia R. Monteiro[a], Sandra Rebelo[b], Odete A.B. da Cruz e Silva[b], José A. Lopes-da-Silva[a,*]

[a]*Departamento de Química e QOPNA, Universidade de Aveiro, 3810-193 Aveiro, Portugal*
[b]*Centro de Biologia Celular, Laboratório de Neurociências, SACS e Departamento de Biologia, Universidade de Aveiro, 3810-193 Aveiro, Portugal*



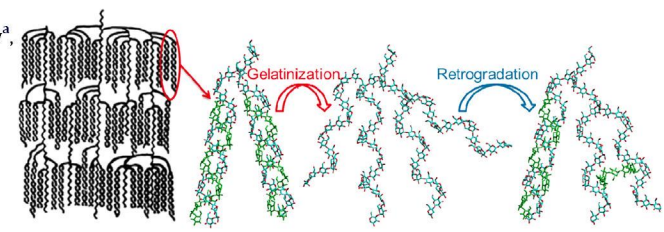
Food Hydrocolloids **2013**, 33, 361–367

Effect of spring dextrin on retrogradation of wheat and corn starch gels

Jin Xu[a,b], Xuerong Fan[b], Yawei Ning[a], Pei Wang[a], Zhengyu Jin[a], Huanhuan Lv[a], Baocai Xu[c], Xueming Xu[a,*]

[a]*State Key Laboratory of Food Science and Technology, School of Food Science and Technology, Jiangnan University, 1800 Lihu Ave, Wuxi 214122, PR China*

Schematic of proposed SD disturbing on starch retrogradation in excess water.



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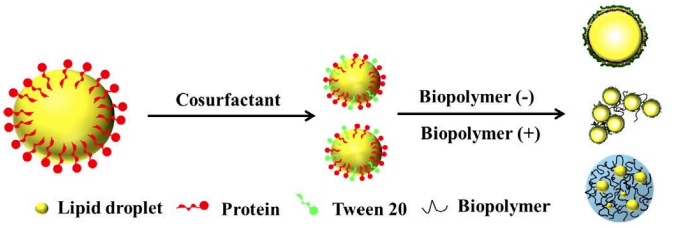
Influence of non-ionic surfactant on electrostatic complexation of protein-coated oil droplets and ionic biopolymers (alginate and chitosan)

Yan Li[a,b,*], David Julian McClements[a]

[a]*Biopolymers and Colloids Research Laboratory, Department of Food Science, University of Massachusetts, Amherst, MA 01003, USA*
[b]*College of Food Science and Technology, Huazhong Agricultural University, Wuhan 430070, China*



Schematic representation for lipid droplets with mixed surfactants and formation of electrostatic complexes.

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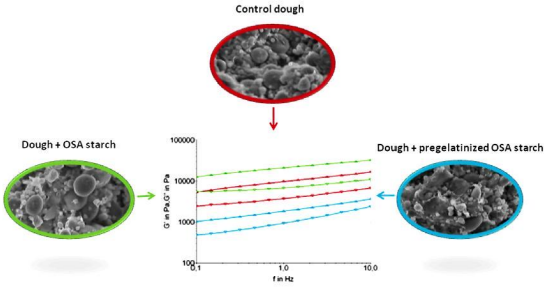
Influence of starch sodium octenyl succinate on rheological behaviour of wheat flour dough systems

Tamara Dapčević Hadnađev[a,*], Ivana Pajić-Lijaković[b], Miroslav Hadnađev[a], Jasna Mastilović[a], Aleksandra Torbica[a], Branko Bugarski[b]

[a]*University of Novi Sad, Institute of Food Technology, Bul. cara Lazara 1, 21000 Novi Sad, Serbia*
[b]*University of Belgrade, Faculty of Technology and Metallurgy, Karnegijeva 4, 11120 Belgrade, Serbia*



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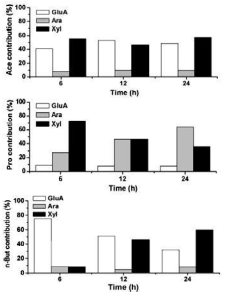
In vitro fermentation of polysaccharide from the seeds of *Plantago asiatica* L. by human fecal microbiota

Jie-Lun Hu, Shao-Ping Nie**, Chang Li, Ming-Yong Xie*

State Key Laboratory of Food Science and Technology, Nanchang University, 235 Nanjing East Road, Nanchang 330047, China

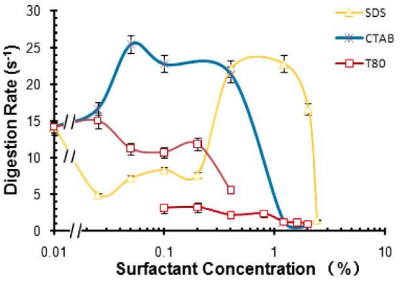


Food Hydrocolloids **2013**, 33, 393–401

Impact of surfactants on the lipase digestibility of gum arabic-stabilized O/W emulsions

Xiaolin Yao[a], Nana Wang[a], Yapeng Fang[a,*], Glyn O. Phillips[b,c], Fatang Jiang[a], Jianzhong Hu[a], Jiang Lu[a], Qiong Xu[a], Dazhi Tian[a]

[a]*Glyn O. Phillips Hydrocolloid Research Centre, School of Food and Pharmaceutical Engineering, Hubei University of Technology, Wuhan 430068, China*



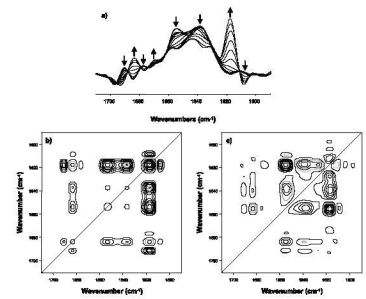
Effect of surfactant type and concentration on digestion rate of 10 wt.% GA stabilized emulsions during *in vitro* digestion by lipase. T80 exhibited the slow and fast digestion rates in the lag period.

Study of the denaturation/aggregation behaviour of whole porcine plasma and its protein fractions during heating under acidic pH by variable-temperature FTIR spectroscopy

Food Hydrocolloids **2013**, 33, 402–414

E. Saguer[a,*], P.A. Alvarez[b], J. Sedman[b], A.A. Ismail[b]

[a]*Institut de Tecnologia Agroalimentària (INTEA), University of Girona (UdG), 17071 Girona, Spain*



Deconvoluted infrared spectra in the amide I′ absorption region upon of plasma solution (6% w/v of protein in D_2O) from 30 to 90 °C at pH 4.5 (a) and the corresponding 2D IR synchronous (b) and asynchronous (c) maps.

Comparison of the gel-forming ability and gel properties of α-lactalbumin, lysozyme and myoglobin in the presence of β-lactoglobulin under high pressure

Food Hydrocolloids **2013**, 33, 415–424

Jin-Song He[a,b,*], Tai-Hua Mu[c], Xishan Guo[a], Songming Zhu[a], Bo-Na Mu[d], Norihiro Azuma[b], Choemon Kanno[b]

[a]*College of Biosystems Engineering and Food Science, Zhejiang University, Hangzhou 310058, China*
[b]*Department of Applied Biochemistry, Utsunomiya University, Utsunomiya 321-8505, Japan*
[c]*Institute of Agro-Food Science & Technology, Chinese Academy of Agricultural Sciences, Beijing 100094, China*
[d]*College of Life Science, Beijing Normal University, Beijing 100875, China*