

Table of Contents..... i
 Industrial Application Briefs..... iii
 Editorial..... iv

Influence of the Colloidal Structure of Dairy Gels on Milk Fat Fusion Behavior: Quantification of the Liquid Fat Content by *In Situ* Quantitative Proton Nuclear Magnetic Resonance Spectroscopy (isq ¹H NMR)—*Romain Bouteille, Jeanne Perez, Farid Khifer, Delphine Jouan-Rimbaud-Bouveresse, Bruno Lecanu, and Hervé This*..... E535

R: CONCISE REVIEWS/HYPOTHESES IN FOOD SCIENCE

Microbial Contamination in Sprouts: How Effective Is Seed Disinfection Treatment?—*Hongliu Ding, Tong-Jen Fu, and Michelle A. Smith*.....R495

Antioxidant Extraction from Mustard (*Brassica juncea*) Seed Meal Using High-Intensity Ultrasound—*Jeremiah Dubie, Aaron Stancik, Matthew Morra, and Caleb Nindo*..... E542

C: FOOD CHEMISTRY

Enzymatic Properties of β -1,3-Glucanase from *Streptomyces* sp Mo.—*Masahiro Kurakake, Yuuki Yamanouchi, Kouta Kinohara, and Shingo Moriyama*.....C502

Effect of Lipid Physical State of Palm Derivatives on β -Carotene Bleaching—*Sonia Calligaris, Lara Manzocco, Sara Da Pieve, Giannichele Arrighetti, and Maria Cristina Nicoli*..... E549

Accelerated Aging against Conventional Storage: Effects on the Volatile Composition of Chardonnay White Wines—*María Jesús Cejudo-Bastante, Isidro Hermosín-Gutiérrez, and María Soledad Pérez-Coello*.....C507

M: FOOD MICROBIOLOGY AND SAFETY

Antimicrobial Effects of Allyl Isothiocyanate and Modified Atmosphere on *Pseudomonas Aeruginosa* in Fresh Catfish Fillet under Abuse Temperatures—*Yu-Hsin Pang, Shiuwshuh Sheen, Siyuan Zhou, Linshu Liu, and Kit L. Yam*..... M555

Effect of *In Vitro* Digestion on Free α -Dicarbonyl Compounds in Balsamic Vinegars—*Adele Papetti, Dora Mascherpa, Giorgio Marrubini, and Gabriella Gazzani*.....C514

Antimicrobial Activity and Hydrophobicity of Edible Whey Protein Isolate Films Formulated with Nisin and/or Glucose Oxidase—*María M. Murillo-Martínez, Salvador R. Tello-Solís, Miguel A. García-Sánchez, and Edith Ponce-Alquicira*..... M560

E: FOOD ENGINEERING AND PHYSICAL PROPERTIES

Properties and Water Sorption Characteristics of Spaghetti Prepared Using Various Dies—*Masashi Yoshino, Takenobu Ogawa, and Shuji Adachi*..... E520

Effect of Immobilization and Salt Concentration on the Growth Dynamics of *Escherichia coli* K12 and *Salmonella* Typhimurium—*Kathleen Boons, Eva Van Derlinden, Laurence Mertens, Vicky Peeters, and Jan F. Van Impe*..... M567

Development and Characterization of an Edible Composite Film Based on Chitosan and Virgin Coconut Oil with Improved Moisture Sorption Properties—*P.K. Binsi, C.N. Ravishankar, and T.K. Srinivasa Gopal*..... E526

Characterization of Soybean Protein Hydrolysates able to Promote the Proliferation of *Streptococcus Thermophilus* ST—*Zhao Hongfei, Bai Fengling, Zhou Fang, Piotr Walczak, Jiang Xiangning, and Zhang Bolin*..... M575

April online and print cover: Cross-section segments of spaghetti prepared using the dies made of Teflon, polycarbonate, aluminum, and bronze (magnification 100X), in “Properties and Water Sorption Characteristics of Spaghetti Prepared Using Various Dies” by Masashi Yoshino, Takenobu Ogawa, and Shuji Adachi; p E523.

Observation of Injured *E. coli* Population Resulting from the Application of High-Pressure Throttling Treatments—*Silvia De Lamo-Castellví, Romeo Toledo, and Joseph F. Frank*..... M582

Safety Assessment and Probiotic Evaluation of *Enterococcus Faecium* YF5 Isolated from Sourdough—*Qianglai Tan, Hengyi Xu, Zoraida P. Aguilar, Shanshan Peng, Suqin Dong, Baogui Wang, Ping Li, Tingtao Chen, Feng Xu, and Hua Wei*..... M587

Prevalence, Antimicrobial Resistance, and Virulence Characteristics of *mecA*-Encoding Coagulase-Negative Staphylococci Isolated from Soft Cheese in Brazil—*Cláudia Oliveira Fontes, Vânia Lúcia Silva, Mayara Rodrigues Brandão de Paiva, Rafaela Alvim Garcia, Juliana Alves Resende, Alessandra Barbosa Ferreira-Machado, and Cláudio Galuppo Diniz* M594

Comparison of Mathematical Models of Lactic Acid Bacteria Growth in Vacuum-Packaged Raw Beef Stored at Different Temperatures—*M. Y. Li, X. M. Sun, G. M. Zhao, X. Q. Huang, J. W. Zhang, W. Tian, and Q. H. Zhang*..... M600

S: SENSORY AND FOOD QUALITY

Determining the Primary Drivers of Liking to Predict Consumers' Acceptance of Fresh Nectarines and Peaches—*Claudia Delgado, Gayle M. Crisosto, Hildegard Heymann, and Carlos H. Crisosto* S605

Effect of Psychrotrophic Growth on the Milk Fat Fraction at Different Temperatures of Storage—*Thiago Braga Izidoro, Juliano Gonçalves Pereira, Vanessa Mendonça Soares, and José Paes de Almeida Nogueira Pinto*..... S615

Effect of Cover Brine Type on the Quality of Meat from Herring Marinades—*Mariusz Szymczak, Barbara Szymczak, Anna Koronkiewicz, Katarzyna Felisiak, and Mateusz Bednarek*..... S619

N: NANOSCALE FOOD SCIENCE, ENGINEERING, AND TECHNOLOGY

Antimicrobial Efficacy of Poly (DL-lactide-co-glycolide) (PLGA) Nanoparticles with Entrapped Cinnamon Bark Extract against *Listeria monocytogenes* and *Salmonella typhimurium*—*Laura E. Hill, T. Matthew Taylor, and Carmen Gomes* N626

H: HEALTH, NUTRITION, AND FOOD

Evaluating and Predicting the Oxidative Stability of Vegetable Oils with Different Fatty Acid Compositions—*Hongyan Li, Ya-wei Fan, Jing Li, Liang Tang, Jiang-ning Hu, and Ze-yuan Deng*..... H633

T: TOXICOLOGY AND CHEMICAL FOOD SAFETY

All India Survey for Analyses of Colors in Sweets and Savories: Exposure Risk in Indian Population—*Sumita Dixit, Subhash K. Khanna, and Mukul Das*..... T642

Safety Evaluation of Excessive Ingestion of Mozuku Fucoidan in Human—*Sunao Abe, Kimiko Hiramatsu, Osamu Ichikawa, Hitoshi Kawamoto, Takeshi Kasagi, Yasunari Miki, Takayuki Kimura, and Tadasu Ikeda* T648

Table of Contents.....	i	Seasonal Variation in Proximate Composition and Fatty Acid Profile of Grey Triggerfish (<i>Balistes capricus</i>) Captured Along the Coast of Portugal—Tiago Simões, João Carvalho, Ana Sousa, Marco F.L. Lemos, Maria M. Gil, Rui Pedrosa, and Carla Tecelão.....	C691
Industrial Application Briefs.....	iii		
Editorial.....	v		

C: FOOD CHEMISTRY

Profiling the Ginsenosides of Three Ginseng Products by LC-Q-T of/MS—Chu Chu, Shaojing Xu, Xingnuo Li, Jizhong Yan, and Li Liu.....	C653	Impact of Processing Parameters on the Phenolic Profile of Wines Produced from Hybrid Red Grapes Maréchal Foch, Corot noir, and Marquette—David C. Manns, Céline T.M. Coquard Lenerz, and Anna Katharine Mansfield.....	C696
---	------	---	------

Effect of Sequestering Intrinsic Iron on the Electron Paramagnetic Resonance Signals in Powdered Soy Proteins—William L. Boatright and M. Shah Jahan.....	C660	Phenolics, Aroma Profile, and <i>In Vitro</i> Antioxidant Activity of Italian Dessert Passito Wine from Saracena (Italy)—Monica R. Loizzo, Marco Bonesi, Giuseppe Di Lecce, Emanuele Boselli, Rosa Tundis, Alessandro Pugliese, Francesco Menichini, and Natale Giuseppe Frega.....	C703
---	------	---	------

Comparison between Supercritical CO ₂ Extraction and Hydrodistillation for Two Species of Eucalyptus: Yield, Chemical Composition, and Antioxidant Activity—Najia Herzi, Jalloul Bouajila, Séverine Camy, Sylvie Cazaux, Mehrez Romdhane, and Jean Stéphane Condoret.....	C667		
--	------	--	--

Nutritional Profile and Productivity of Bilberry (<i>Vaccinium myrtillus</i> L.) in Different Habitats of a Protected Area of the Eastern Italian Alps—Barizza Elisabetta, Guzzo Flavia, Fanton Paolo, Lucchini Giorgio, Sacchi G. Attilio, Lo Schiavo Fiorella, and Nascimbene Juri.....	C673	Microencapsulation of Essential Oil for Insect Repellent in Food Packaging System—Seong Kyun Chung, Ji Yeon Seo, Jung Hoon Lim, Hyung Hwan Park, Myeong Jai Yea, and Hyun Jin Park.....	E709
--	------	---	------

Antioxidant Activity of Various Solvent Fractions from Edible Brown Alga, <i>Eisenia bicyclis</i> and Its Active Compounds—Tae-Hyung Kwon, Tae-Wan Kim, Choong-Gon Kim, and Nyun-Ho Park.....	C679		
---	------	--	--

Green Tea Formulations with Vitamin C and Xylitol on Enhanced Intestinal Transport of Green Tea Catechins—Jae-Hwan Chung, Sol Kim, Sang-Jun Lee, Jin-Oh Chung, Yu-Jin Oh, and Soon-Mi Shim.....	C685	Efficacies of Garlic and <i>L. sakei</i> in Wine-Based Marinades for Controlling <i>Listeria monocytogenes</i> and <i>Salmonella</i> spp. in Chouriço de Vinho, a Dry Sausage Made from Wine-Marinated Pork—María Belén Linares, María Dolores Garrido, Conceição Martins, and Luis Patarata.....	M719
---	------	---	------

E: FOOD ENGINEERING AND PHYSICAL PROPERTIES

M: FOOD MICROBIOLOGY AND SAFETY

May Online Cover: SEM image of thyme oil microcapsules, showing rough microcapsule surface due to this emulsifier's weak hydrophobic properties at the emulsification process temperature. Other emulsifiers were tested, with greater success. From "Microencapsulation of Essential Oil for Insect Repellent in Food Packaging System" by Seong Kyun Chung, Ji Yeon Seo, Jung Hoon Lim, Hyung Hwan Park, Myeong Jai Yea, and Hyun Jin Park; p E711.

Antimicrobial Effects of Vapor Phase Thymol, Modified Atmosphere, and Their Combination against *Salmonella* spp. on Raw Shrimp—*Siyuan Zhou, Shiowshuh Sheen, Yu-Hsin Pang, LinShu Liu, and Kit L. Yam* M725

Antifungal Effect of *Allium tuberosum*, *Cinnamomum cassia*, and *Pogostemon cablin* Essential Oils and Their Components Against Population of *Aspergillus* Species—*Dragana Kocevski, Muying Du, Jianquan Kan, Chengjun Jing, Ines Laćanin, and Hrvoje Pavlović* M731

Determination of Enterotoxigenic and Methicillin Resistant *Staphylococcus aureus* in Ice Cream—*Ali Gücükoğlu, Özgür Çadirci, Göknur Terzi, T. Onur Kevenk, and Mustafa Alişarli* M738

Selection of Yeasts as Starter Cultures for Table Olives—*Antonio Bevilacqua, Luciano Beneduce, Milena Sinigaglia, and Maria Rosaria Corbo* M742

Improvement of Karmali Agar by Addition of Polymyxin B for the Detection of *Campylobacter jejuni* and *C. coli* in Whole-Chicken Carcass Rinse—*Jung-Whan Chon, Hyunsook Kim, Jin-Hyeok Yim, Kwang-Young Song, Jin-San Moon, Young-Jo Kim, and Kun-Ho Seo* M752

Performance in Nondairy Drinks of Probiotic *L. casei* Strains Usually Employed in Dairy Products—*Mario Céspedes, Pamela Cárdenas, Martín Staffolani, María C. Ciappini, and Gabriel Vinderola* M756

Microbial Succession and Metabolite Changes during Long-Term Storage of Kimchi—*Sang Hyeon Jeong, Se Hee Lee, Ji Young Jung, Eun Jin Choi, and Che Ok Jeon* M763

S: SENSORY AND FOOD QUALITY

The Usefulness of Intermediate Products of Plum Processing for Alcoholic Fermentation and Chemical Composition of the Obtained Distillates—*Maria Balcerek, Katarzyna Pielech-Przybylska, Piotr Patelski, Ewelina Sapińska, and Mirosława Książępolska* S770

Inulin and Erythritol As Sucrose Replacers in Short-dough Cookies: Sensory, Fracture, and Acoustic Properties—*Laura Laguna, Cristina Primo-Martín, Ana Salvador, and Teresa Sanz* S777

H: HEALTH, NUTRITION, AND FOOD

Coenzyme Q10 Regulates Osteoclast and Osteoblast Differentiation—*Ho-Jin Moon, Wan-Kyu Ko, Min-Seo Jung, Jung Ho Kim, Won-Jun Lee, Kyoung-Sun Park, Ja-Kyung Heo, Jae Beum Bang, and Il Keun Kwon* H785

T: TOXICOLOGY AND CHEMICAL FOOD SAFETY

An Applicable Strategy for Improvement Recovery in Simultaneous Analysis of 20 Pesticides Residue in Tea—*Shahram Shoeibi, Maryam Amirahmadi, Hossein Rastegar, Roya Khosrokhavar, and Amin Mousavi Khaneghah* T792

Potential of Sawdust as a Green and Economical Sorbent for Simultaneous Preconcentration of Trace Amounts of Cadmium, Cobalt, and Lead from Water, Biological, Food, and Herbal Samples—*Mostafa Hossein Baki, Farzaneh Shemirani, and Rouhollah Khani* T797

Table of Contents.....	i	Layer by Layer Assembly of a Biocatalytic Packaging Film: Lactase covalently Bound to Low-Density Polyethylene— <i>Dana E. Wong, Joey N. Talbert, and Julie M. Goddard</i>	E853
Industrial Application Briefs.....	iii		
Editorial.....	v		

C: FOOD CHEMISTRY

Effect of Gelatin Addition on Properties of Pullulan Films— <i>Chao Zhang, Dandan Gao, Yue Ma, and Xiaoyan Zhao</i>	C805
---	------

Effects of Locust Bean Gum and Mono- and Diglyceride Concentrations on Particle Size and Melting Rates of Ice Cream— <i>S.L. Cropper, N.A. Kocaoglu-Vurma, B.W. Tharp, and W.J. Harper</i>	C811
--	------

Quality Change of Apple Slices Coated with <i>Aloe vera</i> Gel during Storage— <i>Hye-Yeon Song, Wan-Shin Jo, Nak-Bum Song, Sea C. Min, and Kyung Bin Song</i>	C817
---	------

Protein Oxidation at Different Salt Concentrations Affects the Cross-Linking and Gelation of Pork Myofibrillar Protein Catalyzed by Microbial Transglutaminase— <i>Chunqiang Li, Youling L. Xiong, and Jie Chen</i>	C823
---	------

Formation of Heterocyclic Amines in Salami and Ham Pizza Toppings During Baking of Frozen Pizza— <i>Monika Gibis and Jochen Weiss</i>	C832
---	------

$\delta^{18}\text{O}$ of Ethanol in Wine and Spirits for Authentication Purposes— <i>Matteo Perini and Federica Camin</i>	C839
---	------

E: FOOD ENGINEERING AND PHYSICAL PROPERTIES

Development of Novel Methods to Determine Crystalline Glucose Content of Honey Based on DSC, HPLC, and Viscosity Measurements, and Their Use to Examine the Setting Propensity of Honey— <i>Nasser A. Al-Habsi, Fred J. Davis, and Keshavan Niranjan</i>	E845
--	------

June Online Cover: Example of ham pizza used for chemical and sensory testing, which showed that baking time and cupping of meat toppings can affect concentrations of heterocyclic amines. From “Formation of Heterocyclic Amines in Salami and Ham Pizza Toppings during Baking of Frozen Pizza” by Monika Gibis and Jochen Weiss; p C832.

Characterization of Extruded and Toasted Milk Protein Concentrates— <i>J.C. Banach, S. Clark, and B.P. Lamsal</i>	E861
---	------

M: FOOD MICROBIOLOGY AND SAFETY

Control of Postharvest Blue Mold of Nanfeng Mandarin by Application of Strain YS-1 <i>Paenibacillus brasiliensis</i> — <i>Qihong Tu, Jinyin Chen, and Juanhua Guo</i>	M868
---	------

Sweet Wine Production by Two Osmotolerant <i>Saccharomyces cerevisiae</i> Strains— <i>Teresa García-Martínez, Nieves López de Lerma, Juan Moreno, Rafael A. Peinado, M. Carmen Millán, and Juan C. Mauricio</i>	M874
---	------

Biofilm Formation of O157 and Non-O157 Shiga Toxin-Producing <i>Escherichia coli</i> and Multidrug-Resistant and Susceptible <i>Salmonella</i> Typhimurium and Newport and Their Inactivation by Sanitizers— <i>Aliyar Fouladkhah, Ifigenia Geornaras, and John N. Sofos</i>	M880
--	------

S: SENSORY AND FOOD QUALITY

Descriptive Analysis of Flavor Characteristics for Black Walnut Cultivars— <i>Ashley E. Miller and Delores H. Chambers</i>	S887
--	------

Quantitative and Qualitative Variation of Fat in Model Vanilla Custard Desserts: Effects on Sensory Properties and Consumer Acceptance— <i>Maja Tomaschunas, Ehrhard Köhn, Petra Bennwitz, Jörg Hinrichs, and Mechthild Busch-Stockfisch</i>	S894
--	------

- Quality Assessment of Commercially Processed Carbon Monoxide-Treated Tilapia Fillets—*Lori F. Pivarnik, Cameron Faustman, Surendranath P. Suman, Catherine Palmer, Nicole L. Richard, P. Christopher Ellis, and Michael DiLiberti*.....S902
- Preference Mapping of Frozen and Fresh Raspberries—*R.R. Villamor, C.H. Daniels, P.P. Moore, and C.F. Ross*S911
- Effect of Low-Dose Electron Beam Irradiation on Quality of Ground Beef Patties and Raw, Intact Carcass Muscle Pieces—*Devapriya Kundu and Richard Holley*S920

N: NANOSCALE FOOD SCIENCE, ENGINEERING, AND TECHNOLOGY

- Fabrication, Gastromucoadhesivity, Swelling, and Degradation of Zein-Chitosan Composite Ultrafine Fibers—*Saowakon Wongsasulak, Natthon Puttipaiboon, and Tipaporn Yoovidhya* N926

H: HEALTH, NUTRITION, AND FOOD

- Garlic Oil Suppressed the Hematological Disorders Induced by Chemotherapy and Radiotherapy in Tumor-Bearing Mice—*Tao Zeng, Yang Li, Cui-Li Zhang, Li-Hua Yu, Zhen-Ping Zhu, Xiu-Lan Zhao, and Ke-Qin Xie*H936
- Cranberries and Wild Blueberries Treated with Gastrointestinal Enzymes Positively Modify Glutathione Mechanisms in Caco-2 Cells *In Vitro*—*Jennifer E. Slemmer, Jessica M. Livingston-Thomas, Katherine T. Gottschall-Pass, and Marva I. Sweeney*H943
- Identification of Antimutagenic Properties of Anthocyanins and Other Polyphenols from Rose (*Rosa centifolia*) Petals and Tea—*Sanjeev Kumar, Satyendra Gautam, and Arun Sharma*.....H948

T: TOXICOLOGY AND CHEMICAL FOOD SAFETY

- Determination of Xylazine and 2,6-Xylidine in Animal Tissues by Liquid Chromatography—Tandem Mass Spectrometry—*Xiaochun Zheng, Xiaoxia Mi, Sicong Li, and Gang Chen*..... T955