

# Monday 23 September 2019

0730-1730	Registration   Foyer, Level 1
0730-1915	Exhibition   Foyer, Level 1
0830-0915	Opening Ceremony
Room	Meeting Room 105 & 106, Level 1
0915-1025	Plenary Session
Room	Meeting Room 105 & 106, Level 1
1025-1100	Morning Tea   Foyer, Level 1
1100-1230	Concurrent Sessions
	Concurrent 1F
Session	Short oral 1 <b>Advances in food process engineering</b>
Room	Meeting Room 101, Level 1
Chair	George Chen
	Effect of pre-heat treatment of skim milk on reverse osmosis membrane filtration performance and storage stability of concentrated milks <b>Morten Vormsborg Christiansen</b>
	Physical, textural, and microstructural properties of extruded puffed products affected by inclusion of high biological value proteins <b>Ingrid Contardo</b>
	Megasonic-assisted aqueous extraction of canola oil from canola cake <b>Fouad Gaber</b>
	Screening of mixed surfactants based reverse micellar system for Lactoperoxidase extraction from whey <b>Shwetha Karanth</b>
	Novel natural emulsifiers derived from biomass-based by-products: case of argan ( <i>Argania spinosa</i> ) nut shell powder <b>Mitsutoshi Nakajima</b>
	The formation and stability of carbon dioxide nanobubbles designed for potential applications in food processing <b>Khanh Kim Thi Phan</b>
	ElectroHydroDynamic enhancement of heat and mass transfer in food process: a review <b>Olivier Rouaud</b>
	Impact of pH and ionic strength on temperature dependent diffusion of micellar bound casein monomers into the serum phase during microfiltration <b>Simon Schiffer</b>
	On the length-dependent milk protein deposit layer in hollow fiber membranes <b>Roland Schopf</b>
	Increased inactivation of bacterial endospores by ohmic heating <b>Felix Schottroff</b>
	Technical-scale extraction of bovine $\alpha$ S-, $\beta$ - and $\kappa$ -casein using decanter technology <b>Thomas Schubert</b>
	Influence of food microstructure on thermal inactivation dynamics of <i>Listeria monocytogenes</i> in the SHAKA reciprocal agitated retort <b>Jan Van Impe</b>
	Production of dried apple snacks incorporated with <i>Bacillus coagulans</i> <b>Fabiano Fernandes</b>
	The science of making mayonnaise on an industrial scale <b>Fredrik Innings</b>
	High-pressure nitrogen injection prior to spray drying improves the solubility of milk protein concentrate powders <b>Noel McCarthy</b>
	Effects of salt and lipids on heating parameters for the achievement of sterility in a microwave food processing system <b>Roger Stanley</b>
1230-1345	Lunch   Foyer, Level 1
1345-1515	Concurrent Sessions
	Concurrent 2F
Session	Short oral 2 <b>Engineering properties of food and packaging</b>
Room	Meeting Room 101, Level 1
Chair	Antonio Derossi
	Characterising the textural properties of beef boluses using instrumental techniques through oral processing <b>Esther Onguta</b>
	Dielectric properties of mango pulp ( <i>Mangifera indica</i> L.) and mango nectar for microwave heating at 915 and 2450 MHz <b>Tiago Augusto Bulhões Bezerra Cavalcante</b>
	Confined compression as an analytical tool to quantify juice release kinetics from meat and meat analogues <b>Steven Cornet</b>
	New insight on the use of statistical correlation functions to describe structural complexity of food and to estimate their essential properties <b>Antonio Derossi</b>
	Effect of fat globule size on whippability of dairy creams <b>Pramesh Dhungana</b>
	Production of functionalized low viscosity gelatin: thermo-mechanical and rheological properties <b>Javier Enrione</b>
	A new route to develop renewable non-isocyanate polyurethanes for food packaging applications <b>Mehran Ghasemlou</b>
	The fluid mechanics of mayonnaise mixers - the effect of stator slot width <b>Fredrik Innings</b>
	Effect of native fat globule size on foaming properties of milk <b>Minh Thao Ho</b>
	Vibrations as a cause of texture defects during yogurt manufacturing <b>Adrian Körzendörfer</b>
	Analysis of vertical compression of corrugated fiberboard tubes using digital image correlation <b>Celia Kueh</b>
	Elucidating the role of lecithin in the wettability of agglomerated cocoa beverage powders <b>Edgar Chavez Montes</b>
	NIR spectroscopy and chemometrics for detection of starch, gum and annatto in paprika powder <b>Douglas Fernandes Barbin</b>
	Synthesis and characterisation of silver nanoparticles with antimicrobial properties <b>Sholeem Griffin</b>
	Physicochemical changes during ageing of spray dried infant milk formula powders <b>A K M Masum</b>
	Controlling starch digestion through formulation <b>Serafim Bakalis</b>
1515-1545	Afternoon Tea   Foyer, Level 1
1715-1915	Welcome Reception   Exhibition, Foyer, Level 1

## Tuesday 24 September 2019

0730-1730	Registration   Foyer, Level 1
0830-1700	Exhibition   Foyer, Level 1
0900-1015	Plenary Session
Room	Meeting Room 105 & 106, Level 1
1015-1050	Morning Tea   Foyer, Level 1
1050-1220	Concurrent Sessions
	Concurrent 4F
Session	Short oral 3 Food engineering for nutrition and health
Room	Meeting Room 101, Level 1
Chair	Zamantha Escobedo-Avellaneda
	Cell disruption improves in vitro bioaccessibility of $\omega$ 3-LC-PUFA and carotenoids in the microalga nannochloropsis <b>Tom Bernaerts</b>
	Liposome based delivery of $\alpha$ -linolenic acid and $\alpha$ -lipoic acid through food system <b>Jeyan Moses</b>
	Hydration kinetics and nutrient loss with increased temperature for two popular seed bean ( <i>phaseolus vulgaris</i> ) varieties <b>Lavaraj Devkota</b>
	Role of bacterial cellulose fibrils on the retrogradation of starches with different amylose content <b>Javier Enrione</b>
	Engineering plan protein-based yoghurt products for nutrition and health <b>Stephan Drusch</b>
	Systematic study on the extraction of phycoerythrin from <i>Gracilaria gracilis</i> for natural food colorants <b>Maria Manuel Gil</b>
	From food to medicine: use of functionalized polyclonal antibodies from cow's milk for the treatment of bacterial infections <b>Hans-Jürgen Heidebrecht</b>
	Effects of the degree maturity and the drying process on the composition of the aroma components in Japanese pepper ( <i>Zanthoxylum piperitum</i> DC) <b>Moegi Horibe</b>
	Beer and beer-based beverage containing lignans <b>Milan Houska</b>
	Seaweed and sweet potato: key ingredients for promoting a healthier diet in processed foods <b>Susana Mendes</b>
	Effect of xanthan gum on rheological property and bioaccessibility of $\beta$ -carotene loaded filled hydrogel <b>Shinjae Park</b>
	Obtaining and characterization of mango peel powder, as a functional ingredient and dual additive added in natural yogurt <b>Maria Fernanda Redondo Julio</b>
	In vitro fecal fermentation of high pressure processed fruit peels dietary fibers <b>Viridiana Tejada-Ortigoza</b>
	Protein digestibility of <i>Arthrospira maxima</i> evaluated in a dynamic simulated human digestion model <b>Nicolás Troncoso-León</b>
	Hypoallergenic and low protein ready-to-feed (RTF) infant formula by high pressure pasteurization: A novel product <b>Md Abdul Wazed</b>
	Development of functional powders for improved digestion of dairy products <b>Qianyu Ye</b>
	Extrusion processing modifies the microstructure and in vitro digestibility of broken rice <b>Wenhan Yang</b>
1220-1335	Lunch   Level 1, Foyer
1335-1505	Concurrent Sessions
	Concurrent 5F
Session	Short oral 4 Food process systems engineering and modelling
Room	Meeting Room 101, Level 1
Chair	Serafim Bakalis
	Selection and breakage functions of foods during human mastication <b>Muhammad How</b>
	Integrating text mining and network analysis for ethnomedicinal profile of Bambara groundnut in Mpumalanga province, South Africa <b>Victoria Jideani</b>
	Techno-economic analysis of the enzymatic production of dairy oligosaccharides for nutritional supplements <b>Masih Karimi Alavijeh</b>
	Modeling and simulation of temperature and lethality distributions in a unit for continuous flow pasteurization of mango puree <b>Tamires Kawahara Oishi</b>
	Reduced order phase-field models for crystallisation <b>Estefania Lopez-Quiroga</b>
	A framework for multi-objective optimization of small-scale food processes <b>Martial Madoumier</b>
	An overview of thermal inactivation kinetic parameters determination <b>Nikolaos Stoforos</b>
	Calculation of thermodynamic activities of components of concentrated milk and honey <b>Ken Morison</b>
	A Finite Element Modelling (FEM) and ultra-fast X-Ray tomography study of soft cereal foods damage during chewing <b>Guy Della Valle</b>
	Modeling of phenolic acid diffusion in rice kernels during boiling in spearmint aqueous extracts of various concentrations <b>Vaios Karathanos</b>
	A new fractional differential model for anomalous heat and mass transfer during food drying <b>Azharul Karim</b>
	Modeling of fluid flow, starch digestion, and glucose absorption in the human small intestine <b>Mukund Karwe</b>
	Modelling trade-offs in nutrition-sensitive processing of common beans <b>Michael Ngadi</b>
	Mathematical modeling of momentum transfer for effect of mixing in screw-drive systems <b>Fabrizio Sarghini</b>
	Modelling the effect of surface washing treatment on inactivation of spoilage bacteria and shelf life extension of fresh fish <b>Petros Taoukis</b>
	3D simulation of oxidation reactions in real deep-fryers: interactions with anisothermal oil flow and design <b>Olivier Vitrac</b>
	Mathematical modeling of thawing in a staggered through-field electrode radio frequency system: a case study for frozen tuna for process efficiency <b>Feruh Erdogan</b>

1505-1535	Afternoon Tea   Foyer, Level 1
1535-1705	Concurrent Sessions
	Concurrent 6F
Session	Short oral 5 Novel food processing technologies
Room	Meeting Room 101, Level 1
Chair	Cristina Silva
	Kinetic modelling on colour development during frying of pulsed electric fields (PEF) pre-treated potatoes <b>Setya Budi Muhammad Abduh</b>
	Enhancing clean-in-place efficiency through microbubble pre-rinsing <b>Monique Mi Song Chung</b>
	Butylparaben improves the thermal inactivation rate of Escherichia coli O157:H7 in low-moisture foods <b>Rohan Tikekar</b>
	Sweet potato starch as a structural enhancer for 3D printing of surimi <b>Xiuping Dong</b>
	New potential of using pulsed electric fields to modify the thermal properties of flour fractions of oat <b>Sheba Mae Duque</b>
	How barrier discharge plasma affects ochratoxin A production of Aspergillus niger or Penicillium verrucosum on barley <b>Julia Durek</b>
	Feasibility of using pulsed electric fields as a pretreatment technique during edible films development <b>Stephen Giteru</b>
	Enhancement of anti-inflammatory and antioxidant activities of prickly pear fruits by high pressure applications: a phytochemical approach <b>Andrea Gómez Maqueo</b>
	Concentration-induced sodium alginate gel inhibits retrogradation of rice starch by in situ immobilization of starch molecular state <b>Qinlu Lin</b>
	Effect of starch modification in the whole white rice grains on physicochemical properties of two contrasting rice varieties <b>Malik Adil Nawaz</b>
	Enhancement of light utilization efficiency and vegetable seedling production on indoor farming racks using novel adjustable reflector <b>Junhui Huang</b>
	Study of continuous cake pre-baking in a rectangular channel using ohmic heating <b>Olivier Rouaud</b>
	High pressure assisted gelation of potato proteins: Mechanism of gelation, rheological and functional properties <b>Avi Shpigelman</b>
	Transcriptomic analysis reveals key genes related to antioxidant mechanisms of pitaya quality improving by trypsin during storage <b>Xin Li</b>

## Wednesday 25 September 2019

0800-1730	Registration   Foyer, Level 1
0800-1700	Exhibition   Foyer, Level 1
0830-1020	Plenary Session
Room	Meeting Room 105 & 106, Level 1
1020-1055	Morning Tea   Foyer, Level 1
1055-1225	Concurrent Sessions
	Concurrent 7F
Session	Short oral 6 Novel food processing technologies
Room	Meeting Room 101, Level 1
Chair	Antje Frohling
	Fingerprinting as a tool to assess merlot wines produced from PEF treated grapes <b>Biniam Kebede</b>
	Synergistic low intensity non-thermal food processing for enhanced microbial inactivation <b>Nitin Nitin</b>
	The application of pulsed electric fields (PEF) in volatile acidity control during wine making substitute for sulfur dioxide (SO <sub>2</sub> ) addition <b>Xin-An Zeng</b>
	The investigation of electro tolerance development of escherichia coli by RFEF in saline water <b>Adel Rezaeimotlagh</b>
	The synergistic effect of combining low and high radio frequency electric fields on microbial inactivation of Escherichia coli in saline water <b>Adel Rezaeimotlagh</b>
	Electric heating- assisted extraction of biocompounds from seaweeds <b>Cristina Rocha Vicente</b>
	Continuous pulsed electric field decontamination of liquid whey protein formulations - influence of process parameters and media properties on inactivation efficiency <b>Felix Schottroff</b>
	Energy requirements of equivalent HPP, PEF, ultrasound and thermal pasteurization processes <b>Filipa Silva</b>
	Electromagnetic fields assisted blanching - effect on the dielectric and physicochemical properties of cabbage <b>Yuchuan Wang</b>
	Understanding the mechanical performance of raw and cooked potato cells for the design of biomimetics <b>Ioanna Zafeiri</b>
	Pepper seed oil extraction by pressure-assisted, ultrasound-assisted and conventional solvent methods <b>Liang Zhao</b>
	High pressure processing improves quality and storage stability of sodium-reduced chicken sausages <b>Ying Zhou</b>
	High pressure processing applications in food industry and immunology - overview <b>Milan Houska</b>
	Pulsed-UV light treatment for inactivation of Salmonella on black peppercorn <b>Yen-Con Hung</b>
	High hydrodynamic pressure generated with electricity and detonation tenderises various beef, chicken and pork, but not turkey muscles <b>Robyn Warner</b>

1225-1340	Lunch   Level 1, Foyer
1340-1510	Concurrent Sessions
	Concurrent 8F
Session	Short oral 7 Food engineering properties, nutrition and packaging
Room	Meeting Room 101, Level 1
Chair	Avi Shpigelman
	A novel mechanistic understanding for the stabilization of emulsions and foams by native or aggregated whey proteins <b>Franziska Kurz</b>
	The use of rutin hydrate pickering particles to combat lipid oxidation in food emulsions <b>John Noon</b>
	Protein concentration and protein-hydrocolloid interactions on the tribo-rheometry behaviour of resulting protein solutions <b>Sangeeta Prakash</b>
	Airflow resistance characteristics of sliced sweet potato for CFD modeling of a novel solar-driven drier in Ethiopia <b>Petros Tegenaw</b>
	Production of concentrated brewer spent yeast protein hydrolysate with a low content of RNA <b>Gabriela Vollet Marson</b>
	Milk protein fractionation by crossflow microfiltration – how low-frequency pulsation can ease the fouling dilemma <b>Maria Weinberger</b>
	Cleaning walls by intermittent impinging jets <b>David Ian Wilson</b>
	Dynamic gauging for studying rapidly swelling or shrinking layers <b>Georgina Cuckston</b>
	Inspection of semi-solid food products for the presence of fungal contaminants using hyperspectral imaging <b>Sholeem Griffin</b>
	Effect of Surfactants and Oil-in-Water Emulsions on Reverse Osmosis Membrane Performance <b>Aymen Halleb</b>
	Shifting food engineering to food-packaging engineering <b>Olivier Vitrac</b>
	Analysis of physical and chemical digestion of starch-containing hydrogels using an in vitro gastrointestinal method <b>Zaitian Wang</b>
	Camel milk fouling and its comparison with bovine milk <b>Yizhe Zhang</b>
	Crystallization of glucose in model honey <b>Ken Morison</b>
	Hardness and Syneresis of Alginate-protein Composite Gels <b>Tezar Ramdhan</b>
	Manipulation of water droplet size in structuring novel water-in-oleogel system <b>Tuyen Truong</b>
	Phase behaviour of Bambara groundnut starch-soluble dietary fibre nanocomposite <b>Yvonne Maphosa</b>
	Development and implementation of antimicrobial food packaging material using nisin-based coating produced on commercial equipment <b>Kay Cooksey</b>
1510-1540	Afternoon Tea   Foyer, Level 1
1540-1710	Concurrent Sessions
	Concurrent 9F
Session	Short oral 8 Sustainability, security, and supply chains
Room	Meeting Room 101, Level 1
Chair	Rebecca Milczarek
	'TRANSFORM': an original program to train and support small food entrepreneurs in central and west Africa <b>Dominique Bounie</b>
	Effects of moisture contents on extruded meat alternatives made from Maillard-reacted beef bone hydrolysate and plant proteins <b>Jie Hong Chiang</b>
	Foresight study: influence of the new information and communications technology on the food value creation network <b>Katrin Mathmann</b>
	Technical review of shea butter processing methods and product utilization along the supply chains including potential for improved techniques <b>Adesoji Olaniyan</b>
	Status of rice food security of small farmer households under intermediate level of mechanization in Kampar region, Indonesia <b>Ujang Paman</b>
	Discrimination of fresh and frozen-thawed beef based on ultrasound imaging <b>Zongbao Sun</b>
	Approaches for food scientists to model gut microbiota dynamics <b>Viridiana Tejada-Ortigoza</b>
	Application of air nanobubble water for the improvement of microalgae culture <b>Jiangyu Zhu</b>
	Investigation of market failures in agriculture: case studies on intellectual property rights <b>Camille Aouinait</b>
	Impact of Smoking Methods on Flavor and Physicochemical Properties of Sliced Bacon <b>Baocai Xu</b>
	Key Components and Corresponding Bioactivities of Different Teas Processed from the Same Fresh Leaves <b>Heyuan Jiang</b>
	Extraction of proteins from <i>Tenebrio molitor</i> and <i>Grylodes sigillatus</i> and evaluation of their potential as future protein source <b>Martin Mondor</b>
	Brewer spent yeast protein hydrolysate as an emulsifying agent <b>Gabriela Vollet Marson</b>
	Pulsed electric field treatment of red wine: inactivation of <i>Brettanomyces</i> and potential hazard caused by metal ion dissolution <b>Sanelle van Wyk</b>
1900-2300	Gala Dinner   Aerial, 17 Dukes Walk, South Wharf