

XIIIth International Conference of Food Physicists



The XIII. International Conference of Food Physicists (23-25 Oct. 2018) was organized by the Akdeniz University, Faculty of Engineering, Department of Food Engineering, Antalya, Turkey. Hotel Porto Bello at the seaside was the congress venue. Scientists and experts of 80 presentations represented 20 countries from all around the world. The conference topics were:

- Physical aspects of agronomy
- Chemistry, physical chemistry and food analysis
- Non-destructive analysis
- Rheology
- Unit operations and technology
- Quality control, quality assurance, food safety
- Health aspects
- Environmental physics

There were 8 concurrent sessions. András S. Szabó delivered a keynote presentation with the title of "Is food physics the science of the XXI century?". The co-author of this presentation was Péter László, the founder of the Food Physics foundation. Besides 37 oral presentations, 38 posters were presented.

The XIII. International Conference of Food Physicists was really fruitful, useful and interesting. Participants from Europe and Asia enjoyed both active discussions and the beautiful location. The professional community is looking forward to the forthcoming conference.

After these three thought provoking days the organizers closed the event as a successful meeting and decided that the next conference of this series will be held in Romania, IASI in 2020. We hope that all the participants and their colleagues will join to us and we will have another beautiful conference, concerning the topics of our lovely science, food physics.

Ahmet Kucukcetin Ayhan Topuz Andras S. Szabo



SCIENTIFIC COMMITTEE

Ahmet Kucukcetin (Akdeniz University, Turkey)
Andras S. Szabo (Corvinus University, Hungary)
Behic Mert (Middle East Technological University, Turkey)
Ferruh Erdogan (Ankara University, Turkey)
Gerhard Schleining (University of Natural Resources and Life Sciences, Austria)
Gyula Vatai (Szent István University, Hungary)
Halil Mecit Oztop (Middle East Technological University, Turkey)
Hao Feng (University of Illinois, USA)
Jörg Hinrichs (University of Hohenheim, Germany)
Maria Marudova (Plovdiv University, Bulgaria)
Mustafa Kemal Uslu (Akdeniz University, Turkey)
Péter Sipos (University of Debrecen, Hungary)
Qixin Zhong (University of Tennessee, USA)
Seid Mahdi Jafari (Gorgan University, Iran)
Semih Otles (Ege University, Turkey)
Sevcan Unluturk (Izmir Institute of Technology, Turkey)
Vincenzo Fogliano (Wageningen University, Holland)
Vural Gokmen (Hacettepe University, Turkey)
Zeynep Atamer (University of Hohenheim, Germany)

ORAL PRESENTATIONS

- Is food physics the science of the XXI century?
- Texture as flavor driver? - An example of “food soft matter science”
- Time-resolved fluorescence and fluorescence quenching in model food emulsion stabilized by β -lactoglobulin
- Characteristics of pumpkin seed oil powder microencapsulated by freeze-drying

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- Effect of hydro colloids and dietary fibers on different quality attributes of cheddar cheese
- Computer vision-based colour analysis: an online tool to monitor food quality and safety during processing
- Beef colour evolution from pigment concentration profiles during oxygenation
- Perspectives of non-destructive spectroscopic techniques to detect quality & safety of food
- Metagenomics and high-throughput sequencing methods: applications in food microbiology
- Physical properties of semi-refined carrageenan-potato protein gels
- Gel strength estimation for gelatin-cmc hydrogels using small amplitude oscillatory rheometry
- Rheological properties balangu seed gum/sodium caseinate stabilized emulsions and oleogels
- Durability of mycelium based food packaging materials under conditions mimicking the potential extremes
- Mathematical modeling of temperature distribution and velocity profile in toroidal cans during thermal processing with horizontal-axial rotation
- The effect of different drying processes on the drying characteristics, physical and powder properties of red pepper pulp
- The impact of ultrasound pre-treatment and oven-drying on the quality of dried pears
- SESSION 6 Quality Control & Food Safety
- Color measurement: an unbiased method for food quality control?
- Binding analysis between monomeric β -casein and hydrophobic ligands investigated by surface plasmon resonance and fluorescence spectroscopy
- Characterisation of monoglyceride-based cubosomes under the influence of flavonoids
- Assurance of poultry meat quality and safety by exploring potential of organic acids

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- Innovative thermal processing – effects of physical properties
- Preliminary studies regarding nutritional performance of quinoa crop as leaf vegetables
- A review on textural profile analysis of meat and meat products
- The effect of thermosonication on some quality parameters of watermelon juice
- Application of cold membrane filtration at pilot scale to fractionate dairybased functional ingredients from skim milk
- Neuroactive molecules production by fermenting bacteria and health
- Enrichment of d-pinitol in carob pod extract
- Recycling waste from the food industry for construction industry
- Determination of Milk Proteins in Dairy Products by Analytical Methods
- Effect of solvent polarity on the eicosapentaenoic acid (EPA) content of algal (*N. oculata*) oil
- Interfacial behavior of casein-inulin interactions at the oil and water interfaces
- Effect of fluidized bed drying on the fatty acid content of giant red shrimp (*Aristaeomorpha foliacea*) byproducts
- Regulation of AhR-XRE and Nrf2-ARE signaling pathways by dietary phytochemicals Determination of some physicochemical, microbiological and sensorial properties of the concentrated acidophilus milk produced from cow's milk and goat's milk
- with different production methods
- Drying Kinetics and Color Properties of Lemon Balm (*Melissa officinalis*) Leaves Dried by Convective Hot Air Drying
- Extraction optimization of sunflower head pectin and determination some gel properties of the pectin
- Comparing the rheological properties of emulsion and oleogel based on gum Tragacanth and sodium caseinate

POSTER PRESENTATIONS

- Increase of the stability and the functionality of commercial lactic acid bacteria starters by co microencapsulation with buckwheat flour and oat bran
- Extraction and highlighting the protein fractions from black rice flour by gel electrophoresis (SDS-PAGE)
- The effects of potassium lactate used in pastırma production on protein oxidation and some other qualitative properties
- Some physicochemical properties of turkish coffee fortified with apricot kernel powder
- Effect of osmotic drying on physicochemical aspects of dehydrofrozen sliced red pepper (*Capsicum annuum* L.)
- The presence of bisphenol A (BPA) in milk and dairy products
- The low-lactose yoghurt
- The usage of centrifuge technique in concentrated yoghurt production
- The effects of different microencapsulation methods on the viability of *Lactobacillus acidophilus* in gastrointestinal media
- Physicochemical properties some physicochemical properties of commercial protein isolates
- Effects of edible coatings before drying on some properties of dried banana
- The effect of different drying processes on the powder properties of red beet puree powders
- Drying characteristics and kinetics of lovastatin degradation of oyster mushroom (*Pleurotus ostreatus*) slices
- Improving quality and shelf-life of poultry meat through application of protein-based edible coatings
- Probing the hepatoprotective effect of camel milk on arsenic induced liver damage
- Evaluating the effectiveness of flaxseed fortified functional yoghurt against type-2 diabetes
- Non-destructive analysis of edible oil oxidation

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- Protection of microbial development through freezing technology
- Re-structured meat products
- Effect of starter cultures and addition of buffalo milk on chemical and sensory characteristics of camel milk cheese
- Mathematical modeling of infrared heating for process design
- Combination of hyperspectral imaging with complementary data mining methods for identification of microorganisms
- Antioxidant activity of glucosyl-hesperidin solutions
- Coconut proteins: alternative source of protein for retention of phenolics
- Migration of phthalate esters to seafood in PVC containers
- Interfacial rheology of gelatin with whey and skim milk powder
- The effect of ultrasound pretreatment on color properties of raisins
- Rheological properties of mellorine produced with mono-diglycerides from rendering waste oil
- Interfacial rheological properties of mono-diglycerides produced from rendering waste oil in oil/water interface
- Mechanical properties of furcellaran and furcellaran/bovine serum albumin composite films
- Performances of tomato crop under organic fertilizer
- Adsorption isotherms and isosteric heat (qst) of the flours from three edible insects: *Rhynchophorus phoenicis*, *Imbrasia truncata* and *Imbrasia epimethea*
- Effect of the pH on the topography and nanomechanics of whey protein microgel particles investigated by atomic force microscopy
- Characteristics and microbiological properties of the cakes produced by using sourdough
- The effect of stevia and isomalt on the quality of cakes as a sugar substitute
- Effect of packaging materials in composition and sensory characteristics of Romanian Telemea Cheese
- Effect of storage on textural properties of different strawberry cultivars