

Monday 8 March

- 08 h 00** Welcome / Poster installation / Registration
- 09 h 00** **Opening Ceremony**
- 10 h 30** **Break**
- 11 h 00** **Plenary lecture**
The importance of Engineering for Competitvity in the Food Industry.
 Prof. Werner Bauer, Nestlé S.A., Executive Vice President, Technical, Production and R&D, Vevey, Switzerland
- 11 h 45** **Plenary lecture**
Designing Food Processing Systems for Long-Duration Space Explorations.
 Prof. R. Paul Singh - University Davis, USA
- 12 h 30** **Lunch**
- 14 h 00** **Plenary lecture**
Emerging Technologies: Challenges and Opportunities.
 Prof. D. Knorr, Berlin University of Technology, Germany
- 15 h 00** ***High pressure: Subzero temperature processing and engineering aspects***
- 15 h 00** 22
 High pressure processing of smoked salmon at low or freezing temperatures: inactivation of *Pseudomonas fluorescens*, *Micrococcus luteus* and *Listeria innocua*.
 Picart L., Dumay E., Guiraud J.P., Cheftel J.C.
- 15 h 20** 405
 Numerical analysis of process non-uniformity in high hydrostatic pressure processing.
 Hartmann C., Delgado A.
- 15 h 40** 537
 High pressure injection a new technology for tenderizing and flavoring food.
 Hansena C.L., Watts E.
- 16 h 00** 587
 Mathematical modelling of pressure-supported freezing processes through metastable states of water and ice.
 Urrutia Benet G., Schlüter O., Knorr D.
- 16 h 20** 642
 Effect of high pressure treatments on the properties of food packaging materials.
 López-Rubio A., Hernández-Muñoz P., Almenar E., Lagarón J.M., Catala R., Gavara R., Pascall M.A.
- 16 h 40** **Break**
- 17 h 10** ***High pressure: Microbial inactivation***
- 17 h 10** 416
 Decrease of counts of *Staphylococcus aureus* CECT 4013 in model cheeses after high hydrostatic pressure treatment.
 López-Pedemonte T.J., Roig-Sagués A.X., Hernández M., De Lamo S., Capellas M., Guamis B.
- 17 h 30** 684
 Cross-adaptive stress response of pressure pre-treatment on probiotic bacteria: Characterization and importance for production processes.
 Ananta E., Knorr D.
- 17 h 50** 726
 Very short treatment times for high pressure processing: a new concept.
 Ardía A., Heinz V., Knorr D.

18 h 10

872

Effects of sporulation temperature, demineralization, and remineralization on resistance of *Bacillus subtilis* spores to hydrostatic pressure.

Igura N., Kamimura Y., Islam M.S., Shimoda M., Hayakawa I.

18 h 30

End of the Day

Tuesday 9 March

- 08 h 30** **Plenary lecture**
Food Process Engineering for the purpose of tailored microstructure, rheology and related product characteristics
 Prof. Dr.-Ing. Erich J. Windhab - Swiss Federal Institute of Technology, Zurich, Switzerland
- 09 h 20** **Presentation of ISFE**
G. Barbosa Canovas
- 09 h 30** **Other Parallel Oral Sessions**
- 09 h 30** ***Poster Session: High pressure***
- 83
 A new chamber for the in situ observation of size, shape and structure of microscopic particles, cell-materials and microorganisms under high pressure (HPDS-Zelle).
 Hartmann M., Sommer K.
- 84
 Improvement of pressure-inactivation effect with rapid decompression procedure.
 Noma S., Shimoda M., Hayakawa I.
- 148
 Inactivation kinetics of a plant sulfhydryl proteases by temperature and high pressure.
 Katsaros G., Katapodis P., Bakalis S., Taoukis P.
- 175
 Developing fruit juice packaging following a consumer orientation .
 Abadio F.D.B., Deliza R., Silva C.H.O., Rosenthal A., Castillo C.
- 347
 Adaptive high hydrostatic pressure treatment - a technique for minimal processing of food.
 Baars A., Pereyra N., Delgado A., Margosch D., Ehrmann M., Vogel R., Czerny M., Schieberle P., Meußdörffer F.
- 489
 Stability of health related components in fruit and vegetables during thermal and high hydrostatic pressure treatment: a case study of folates.
 Arroqui C., Indrawati H., Messagie I., Van Loey A., Hendrickx M.
- 490
 Combined effect of temperature and high pressure on the physico-chemical properties of egg white.
 Van der plancken I., Hendrickx M.
- 540
 Texture and sanitary quality improvement of vegetables, freezing with high pressure processing.
 Demazeau G., Largeteau A., Le Bail A., El Moueffak A.H., Baccaunaud M., Chourot J.M., Martin M.
- 542
 Effect of a mild HP/PEF treatment on the ability of *Pediococcus pentosaceus* to survive to acute stresses.
 Dubuc C., Papillon J., Baliarda A., Le Marrec C.
- 586
 Critical process parameters of pressure-supported thawing of plant tissue.
 Schlüter O., Urrutia Benet G., Knorr D.
- 588
 Potential of moderate high hydrostatic pressure to control fish parasites (*Anisakis simplex*) and specific microorganisms.
 Schlüter O., Meyer C., Boguslawski S., Schubring R., Knorr D.
- 615
 Texture characteristics of high-pressure-treated cheeses made from ewe's milk.
 Juan B., Buffa M., Ferragut V., Guamis B., Trujillo T.

675

Review of hungarian laboratory scale studies on some microbiological and physicochemical effects of high pressure processing of foods.

Farkas J.

683

High pressure treatment of bacteria – Monitoring pressure-induced changes in metabolic activities using flow cytometer.

Ananta E., Heinz V., Knorr D.

687

Influence of temperature and high pressure on rate and mode of pectin deesterification by *Aspergillus pectinmethylesterase*.

Duvetter T., Van Loey A., Verlent I., Smout C., Ly Nguyen B., Beldman G., Schols H., Hendrickx M.

698

High pressure as a “mild“ technology: an overview.

Butz P., Fernández García A., Tauscher B.

715

Effect of mild-heat and high-pressure processing on pectin methylesterase: a kinetic study.

Ly nguyen B., Van Loey A., Smout C., Verlent I., Duvetter T., Hendrickx M.

719

Textural and structural quality of pressure-shift-frozen agar gel as affected by trehalose.

Fuchigami M., Teramoto A.

724

Study of fruit juices treated by new preservation techniques.

Cserhalmi Z., Mészáros L., Sass-Kiss Á., Tóth-Markus M.

776

Inactivation of *Listeria innocua* and *E. coli* at high pressures and subzero temperatures with consideration of the phase transitions of water.

Luscher C., Fröhling A., Balasa A., Knorr D.

789

Effect of a combined high pressure and temperature treatment on the stability and conversion rate of β -amylase and glucoamylase.

Buckow R., Heinz V., Knorr D.

803

Impact of high hydrostatic pressure treatment on starches of different botanical origin.

Bauer B.A., Wiehle T., Stute R., Knorr D.

875

Effect of high hydrostatic pressure on *Yersinia enterocolitica* strains in model cheese.

De Lamo S., Roig A.X., Capellas M., Hernández M., López T., Guamis B.

941

Behaviour of high pressure treated fruit preparations during storage.

Russ W., Fischer S., Szöllösi D., Meyer-Pittroff R.

968

Numerical simulation of heta transfer during high pressure processing of food.

Ghani A.G.A., Farid M.M., Richards P.J.

10 h 50**Break****11 h 20*****High pressure: Oils, fats and emulsions*****11 h 20**

46

A novel margarine producing process using high pressure.

Nosho Y., Hashimoto S., Kato M., Suzuki K.

11 h 50

468

Influence of nonionic emulsifiers on the particle size distribution and stability of beta-carotene nanodispersion prepared by high pressure homogenizer.

Tan C.P., Nakajima M.

12 h 10

567

Application of high pressure on oil dressed vegetable foods.

Giuliani R., Derossi A., De Pilli T., Colelli G., Severini C.

- 12 h 30** **Lunch**
- 14 h 00** **Plenary lecture**
Computers and processes engineering in food manufacturing : promises, challenges and realities. A subjective point of view
P. Escure, P. Cornillon, A. Genovesi, A. Pajonk - Danone Vitapole, Palaiseau, France
- 15 h 00** ***High pressure: Fruit and vegetable products***
- 15 h 00** 150
Kinetics of pasteurised and high pressure processed Navel orange juice: nutritional parameters and shelf life.
Polydera A.C., Stoforos N.G., Taoukis P.
- 15 h 20** 176
Effect of preheating, high pressure pre-treatments and/or calcium pre-treatments on thermal texture degradation kinetics of carrots.
Smout C., Sila D.N., Vu T.S., Verlent I., Duvetter T., Ly Nguyen B., Van Loey A., Hendrickx M.
- 15 h 40** 614
High pressure-processed mango nectar.
Welti-Chanes J., Martínez M., Bermúdez-Aguirre D., Guerrero-Beltrán J.A., Barbosa-Cánovas G.V., López-Malo A., Palou E.
- 16 h 10** 718
Quality attributes of high pressure processed pears.
Gamage T.V., Hocking A., Begum M., Stewart C.M., Vu T., Ng S., Sellahewa J., Versteeg C.
- 16 h 30** 847
Stabilization of vegetables by high pressure (HP) processing.
Ballestra P., Cruz C., Verret C., Largeteau A., Demazeau G., El Moueffak A.
- 16 h 50** **Break**
- 17 h 10** ***High pressure: Effects on proteins and enzymes***
- 17 h 10** 300
Effect of high pressure treatments on structural properties of low density lipoprotein of hen egg yolk.
Puppo M.C., Chapleau N., Speroni F., Lambellerie-Anton M. de, Añón M.C., Anton M.
- 17 h 30** 699
High hydrostatic pressure treatment reduces the infectivity of prion proteins.
Fernández García A., Heindl P., Tauber N., Butz P., Voigt H., Büttner M., Pfaff E., Tauscher B.
- 17 h 50** 763
Effect of combined temperature-pressure treatments on tomato pectinmethylesterase or polygalacturonase catalysed conversion reactions.
Verlent I., Van Loey A., Smout S., Duvetter T., Ly Nguyen B., Hendrickx M.
- 18 h 10** 895
Effects of high-pressure treatment of milk on yoghurt properties.
Agustina S., Gorczyca E.M., Stockmann R., Sherkat F.
- 18 h 30** 915
The effect of dextran sulfate on the pressure/temperature induced β -lactoglobulin molten globule.
Aouzelleg A., Bull L.A.
- 18 h 50** End of the day
- 21 h 00** **Concert for Voices and Organ**

Wednesday 10 March

- 08 h 30** **Plenary lecture**
Active packaging for food processing and preservation
 Prof. Nathalie Gontard, Montpellier University II, France
- 09 h 30** ***Electric and non thermal operations – Pulsed Electric field***
- 09 h 30** 520
 Drying of food pulps in a laboratory filter-press equipped for treatment by pulsed electric field .
 Khezami L., Jemai A.B., Capart R., Vorobiev E.
- 09 h 50** 632
 Kinetic model of solutes diffusion from apple tissue enhanced by pulsed electric field.
 El Belghiti K., Vorobiev E.
- 10 h 10** 797
 Clarification of palm oil press liquor using high intensity electric fields.
 Zumaeta N., Angudelo M., Castro N., González J.
- 10 h 30** 952
 Kinetic models for the inactivation of *Lactobacillus brevis* in orange juice processed
 by high intensity pulsed electric fields.
 Elez-Martínez P., Soliva-Fortuny R.C., Martín-Belloso O.
- 10 h 50** **Break**
- 11 h 20** ***Electric and non thermal operations***
- 11 h 20** 159
 Effects of an electrical treatment on the cutting properties of potatoes.
 Courel M., Bernadi E., Pain J.P.
- 11 h 40** 252
 Generating charged sprays of oil, emulsions and additives using single-stage,
 high- field electrostatic atomization.
 Abu-Ali J., Barringer S.A.
- 12 h 00** 546
 Pulsed magnetic field treatment modifies corynephage FAAU2 propagation on ‘*Arthrobacter aureus*’.
 Grattepanche F., Bourven I., Moreau J., Caubet R., Le Marrec C., Charlet de Sauvage R.
- 12 h 20** **Lunch**
- 14 h 00** **Plenary lecture**
Predictive microbiology of foods: past, present and future.
 Prof. Jan van Impe, University of Louvain, Belgium
- 15h 00** **Other Parallel Oral Sessions**
- 15h 00** ***Poster Session: Electric and non thermal operations***
- 61
 Application of high electric pulses using a chamber of continuous plasma
 to reduce pathogen recounts in whole milk of the department of Cesar.
 Gutiérrez de Piñeres C.A., David T.M., De La Hoz I.
- 137
 Pulsed electric fields in milk pasteurisation and the quality of derived cheeses.
 Ortega-Rivas E.
- 168
 Solubility of protein isolates obtained from gamma-irradiated soybeans.
 Souza A.S., Netto F.M.

245

Pasteurization of apple juice by pulsed ultraviolet light: Processing conditions and effects in the product characteristics.

Kasahara I., Kaiser S., Aguilar F., Marillanca M.

266

Modelling to deactivation by fields of electrical pulsation of polyphenol oxidase from banana macho (*Musa paradisiaca*).

Cantú-Lozano D., Martínez-Rojas K., Cruz-Rivera B.

283

Effect of ionizing radiation treatment on Brazilian honeys.

Sabato S.F., Cesar J.R.F., Reis R.G.

299

Weibull distribution of resistances to ultrasound of *Listeria monocytogenes* in orange juice.

Ferrante S., Guerrero S., Alzamora S.M.

414

Effects of electroplasmolysis treatment on molds in fresh tomato.

Yildiz H., Baysal T.

446

Natural yogurt made with milk treated by high intensity ultrasound.

Alatríste K., Díaz-Prutskij E., Moreno-Olivares L., López-Malo A., Palou E., Bermúdez-Aguirre D.

496

Recovery of inulin from Jerusalem Artichoke tubers: development a pressing method assisted by pulsed electric field.

Marchal L., Muravetchi V., Vorobiev E., Bonhoure J.P.

647

Inactivation of microorganisms in liquid foods using moderate electric field pulses (MEPF).

Lanoisellé J.-L., Nonus M., Vorobiev E., Arrayan R., Amarante P.N.S.

681

Combined moderate thermal and pulsed electric fields treatments of plant tissues.

Lebovka N.I., Praporscic I., Vorobiev E.

716

Optimization of pulsed electric field treatment efficiency for fruit juice pasteurization.

Toepfl S., Heinz V., Knorr D.

733

Enhancement of mass transfer in model and real food materials under alternating electric fields.

Samprovalaki K., Grammatika M., Fryer P.J.

807

Impact of gamma-irradiation pretreatment on dehydration, osmotic dehydration and rehydration.

Rastogi N.K.

896

Pulsed electric field treatment of milk affects the properties of cottage cheese gel.

Wust R., Pearce R., Ortega-Rivas E., Sherkat F.

951

Inactivation of *Staphylococcus aureus* by combining high intensity pulsed electric fields and nisin.

Sobrino-López A., Llanes-Porta F., Arántegui J., Martín-Belloso O.

16 h 40**Break****17h 20****Other Parallel Oral Sessions****18 h 40**

End of the day

19 h 00**Gala Dinner**