

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 Competitiveness 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	Other Parallel Oral Sessions
16 h 40	Break
17 h 10	<i>Reaction engineering, kinetics and methods (1)</i>
17 h 10	444 Solubility and crystallization kinetics of calcium lactate in aqueous systems. Liang B., Kubantseva N., Hartel R.W.
17 h 30	519 Residence time distribution, heat transfer coefficients, velocity and temperature profiles of banana puree in a tubular heat exchanger. Ditchfield C., Tadini C.C., Singh R.K., Toledo R.T.
17 h 50	975 Use of an enzymatic kinetic based model for predicting shelf-life of map apple slices. Rocculi P., Del Nobile M.A., Romani S., Dalla rosa M.
18 h 10	854 The kinetics of phase transitions of tripalmitin in refined corn oil. Gallegos-Infante J.A., Rocha-Guzmán N.E., González-Laredo R.F., Morfin-Magaña S.E.
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** ***Poster session: Technology***
- 71
 Effect of two peeling techniques on the composition of fresh-cut oranges.
 Senesi E., Calabretto A., Di Cesare L.F., Lo Scalzo R.
- 73
 Virtual food and its role in cognitive sensory judgment in relation to food intake process and preference of consumer.
 Chun J.K., Shin S.W.
- 103
 Technical equipment of the third millenium.
 Filatov V.V., Elkin N.V., Andreeva A.A.
- 187
 Microbial profile of water and ice employed in the frozen fisheries factories.
 Navarro P., Elguezabal L., Daly M., Jreige M.E., Moya E
- 253
 Physical, chemical and sensory comparison among Annonas fruit (atemoya, pinha and graviola).
 Lima A.S., Ramos A.L.D., Marcellini P.S., Batista R.A., Oliveira F.S.C.
- 289
 Characterization of lactose adsorption by organophylic clay by thermal analysis.
 Morais L.C., Dweck J., Büchler P.M.
- 337
 Food production under diversification frame.
 Pérez O., Rodríguez P., Lombardi G., Pérez de Alejo H., Hernández A.
- 384
 Influence of blending on the composition of malvasia istriana wine .
 Kovačević Ganić K., Banović M., Komes D., Gajdoš Kljusurić J.
- 439
 Monitoring and surveillance of food and drink process parameters.
 Hatti M.
- 440
 Conditionnement du débitmètre à organe déprimogène.
 Hatti M.
- 553
 Biological evaluation of mechanicly debonning chicken meat protein quality.
 Mizubuti I.Y., Negrão C.C., Morita M.C., Colli C., Ida E.I., Shimokomaki M.
- 625
 Energy consumptions in different mini dairy plants.
 Carrara M., Comparetti A., Finoli C., Orlando S.
- 662
 Minerals in milk- matching the physical properties to the technological requirements.
 Tsioulpas A.K., Lewis M.J., Grandison A.S.
- 690
 Wine-making wastes: cellulose and hemicelluloses recovery by mild methods.
 Spigno G., Pizzorno T., De Faveri D.M.

705

Physiological responses of Honey Dew Melons to 1-Methylcyclopropene treatments.
Nicolais V., Maturi T., Langella A., Barbieri G., Masi P., Serek M.

894

Study of the physical-chemical characterization of the fruits of “Jaqueira” (Artocarpus Integrifolia, L.)
(Pulp and pits of the jaca fruit).

Gaspareto O.C.P., Gertrudes E., Silva L.S., Silva D.J., Oliveira E.L., Magalhães M.M.A., Medeiros M.F.D.

934

News technologies development for course of planning in community nutrition.

García-Segovia P., Martínez-Monzó J., Meneu T.

958

New and improved meat sauces and jams.

Atanázio C., Legrant J., Lemos C., Marques L., Ricardo F., Rosa C., Silva C., Titto B., Zink J., Guerra M.M.

09 h 30***Reaction engineering, kinetics and methods (2)*****09 h 30**

257

Correlation of non-linear model parameters and pH on pectinesterase thermal inactivation
in minimally pasteurized orange juice.

Tadini C.C., Tribess T.B., Silva Jr P.A.

09 h 50

265

Kinetic modelling of polyphenol oxidase from banana macho (Musa paradisiaca).

Cantú-Lozano D., Martínez-Rojas K., Hernández-Telésforo L.C., Cruz-Rivera B.

10.h 10

888

Acid-hydrolysis kinetics of pectin with soy protein to obtain emulsifier.

Yoshii H., Furuta T., Linko P., Takahashi T., Maeda H.

10 h 30

889

A kinetic model describing heterogeneous phenomena in foods or food processing.

Adachi S., Matsuno R.

10 h 50**Break****11 h 20****Other Parallel Oral Sessions****11 h 20*****Poster session: Enzyme processing of food***

42

Enzymatic texturization of plant proteins using microbial transglutaminase .

Schäfer C., Dube M., Neidhart S., Carle R.

60

Vacuum impregnation of fruit with a firming enzyme (pectinmethylesterase):
methodology for visualising enzyme transfer into fruit tissues.

Guillemin A., Guillon F., Degraeve P., Devaux M.F., Lahaye M., Saurel R.

154

Amino acid composition of an enzymatic fish protein hydrolysate from Gold carp
(Carassius auratus) by-products.

Estrada-Corona P., Gallardo F., Favela-Torres E., Huerta-Ochoa S., Prado-Barragán L.A.

156

Effect of pH on the hydrolysis of mero muscle (Epinephelus morio) with Flavorzyme® .

Hernández-Rodríguez B., Huerta-Ochoa S., Vernon-Carter E.J., Prado-Barragán L.A.

424

Effect of pectolytic enzyme and heat treatments on antioxidant characteristics of blueberry juice.

Rizzolo A., Torreggiani D., Lo Scalzo R., Vergani L., Nani R.C.

648

Molecular cloning and characterization of thermostable α -glucanotransferase and maltogenic amylase and their applications for production of isomaltooligosacchrides.

Park J.H., Yang S.J., Lee M.H., Byeon S.B., Kim T.J., Kim Y.W., Moon T.W., Park K.H.

905

Enzymatic syntheses of acyl ascorbates and their application as antioxidants.

Watanabe Y., Fang X., Kuwabara K., Matsuno R., Adachi S.

11 h 20

Poster session: Fermentation

246

An alternative process for the production of an additive for the food industry: Chitosan.

Streit F., Koch F., Trossini T.G., Laranjeira M.C.M, Ninow J.L.

442

Improving the cassava starch sour fermentation process.

Marcon M.J.A., Vieira M.A., Costa L.A. da, Amante E.R.

559

Solid state production of single cell protein by *Rhizopus microsporus* var. *oligosporus* using apple processing waste.

Albuquerque P.M., Koch F., Trossini T.G., Esposito E., Ninow J.L.

834

Fermentation as a tool for technological improvement of cereal raw materials.

Douge M., Teissier P., Nonus M., Barbeau J.Y.

843

Internal transport of moisture and acetic acid content of cocoa beans during the fermentation process.

García-Alamilla P., García-Alvarado M.A., Barel M., Berthomieu G.

955

Astaxanthin production in green alga *Haematococcus pluvialis*.

Yazdani M., Farahi Ashtiani S., Rahmati Ishka M.

11 h 20

Poster session: Reaction engineering, kinetics and methods

82

Oxidation processes of oleic acid esters of ethylene glycol and glycerol.

Minemoto Y., Adachi S., Kometani T.

119

Modelling of degradation kinetics of some quality characteristics in dried onions during storage.

Kaymak-Ertekin F., Gedik A.

152

Gallic acid biodegradation by lactic acid bacteria.

Contreras-Domínguez M., Prado-Barragán L.A., Gaime-Perraud I., Saucedo-Castañeda G.

231

Growth modelling of *P. digitatum* under variable stress conditions.

Jreige M.E., Elguezabal L.

282

Vitamin C and color degradation of freeze dried camu-camu (*Myrciaria dubia* (HBK) Mc Vaugh) pulp during storage.

Arévalo R.P., Silva M.A., Kieckbusch T.G.

314

Growth and metabolic characteristics of immobilized salt-tolerant yeast.

Mori A.S., Tanaka T.

421

Caramel's precursors nature influence in sugar industry.

Hernández Verde A., Mersad A., Decloux M.

449

Uncertainty in thermal process calculations due to variability in non-first order kinetic parameters.

Geedipalli S., Datta A.K.

737

Photocatalytic destruction of phenols of olive mill wastewaters.
Provost E., Ayari B.

887

Kinetic analysis of autoxidative docosahexaenoate triglycelide in the presence of rosemary extract with oxygen sensor.
Furuta T., Georges C., Mizoguchi S., Soottitantawat A., Yoshii H., Linko P.

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

Other Parallel Oral Sessions

15 h 00

Poster session: Education in food process engineering

219

Internet-assisted remote laboratory experiment: heat and mass balance across an air dryer.
Palou E., López-Magaña D., Guerrero-Ojeda L.G., Carrillo-Ayala J., Ramírez M., López-Malo A., Welter-Chanes J., Singh R.P.

360

Food industry problem solving web based environment.
Balsa-Canto E., Banga J.R., Scheerlinck N., Nicolai B.M., Oñate E.

460

A low-cost, shared laboratory experiment in food engineering to teach process control.
Courtois F., Sawka R., Moussa S.

622

ISEKI-Food - Integrating safety and environmental knowledge into food studies towards european sustainable development – a Socrates TN.
Silva C.L.M., Morim A.S., Fernandes H.M., Noronha M.R.

15 h 00

Poster session: Engineering, measurements and properties

65

Determination of surface tension properties of wheat endosperms, flours and glutes.
Cuq B., Blancher G., Morel M.H., Gastaldi E.

133

Influence of fluid concentration on the elevation of boiling point of passion fruit juice.
Gabas A.L., Telis V.R.N., Bernardi M., Telis-Romero J.

135

Influence of fluid concentration on freezing point depression and thermal conductivity of frozen coffee extract.
Gabas A.L., Telis V.R.N., Mizutani L.G., Telis-Romero J.

202

Sorption isotherms of cassava (*Manihot esculenta* Crantz) slices.
Andrés A., Betoret N., Alexandre B.B., Martínez L., Fito P.

234

Food flavour evaluation through brain signals using digital signal processing.
Pereira L.R., Costa E., Souto S

244

Phenolic compounds and aroma profile in fresh fruit and low sugar jam of red currant .
Levaj B., Dragovic-Uzelac V., Bursac D., Delonga K., Komes D., Kovačević Ganić K.

- 302
Effect of boiling temperature and maltitol syrup in the water activity of diet fondant.
Queiroz M.B., Rozário C.H.R., Jardim D.C.P., Silva L.B.
- 311
Dielectric properties of vacuum-impregnated apple (var. Granny Smith).
Romero J.B., De Los Reyes R., Betoret N., Barrera C., De Los Reyes E., Fito P.
- 335
Role of wettability in wheat gluten plasticization mechanisms.
Pommet M., Morel M.H., Redl A., Guilbert S.
- 432
Synergistic effects of anti-browning agents on the color and texture of apple cubes.
Zuo L., Lee E.J., Lee J.H.
- 682
Physical properties of starch based films.
Rodríguez M., Osés J., Maté J.I.
- 738
Sorption isotherms and isohalic isotherms of sardine (*Sardinella Aurita*).
Bellagha S., Sahli A., Glenza A., Kechaou N.
- 750
Vapor-solid equilibrium of ethanol-water mixtures in food-related solids.
Carrin M.E., Ratti C., Crapiste G.H.
- 866
Study of calcium diffusivity through apple tissue.
Barrera C., Betoret N., Fito P.
- 879
Moisture adsorption isotherms of oatmeal biscuits.
McKee D.J., McMinn W.A.M., Magee T.R.A.
- 900
Applicability of DSC to monitorise apples preservation.
Falcão-Rodrigues M.M., Leitão E., Beirão-da-Costa M.L., Moldão-Martins M.
- 921
Food compatibility of artificial and plastics casings.
Fava P., Puglisi M.L., Iotti M.
- 932
Distance learning: measuring shape change and thermal expansivity in chocolate.
Pinschower K., Fryer P.J., Handy B.S., Polgreen M.A., Wells M.A.
- 963
General Isotherm to predict protein matrix-NaCl-Water relationships in cheese.
Chenoll C., Argüelles A., Sanz J., Fito P.
- 979
Evaluation of the conditions of cultivation in the profile of fatty acids
of cyanobacteria *Aphanothece microscopica* Nägeli.
Queiroz M.I., Zepka L.Q., Jacob-Lopes E.
- 982
Chemical analysis of some Cameroon traditionally process complementary foods.
Kana-Sop M.M., Teugwa M.C., Amvam-Zollo P.H.
- 987
Relationship between color at maturity and capsaicinoids in chili.
Dejcomrone P., Singh G., Srinives P..

16 h 50 **Break**

17 h 10 ***Measurements and properties***

17 h 10 732
Thermal analyses and combined techniques in food physical chemistry.
Schiraldi A.

17 h 30 743

- The thermal, physical and mechanical properties of complex particle charged foodstuffs.
Legrand A., Santer J., Fillaudeau L., Bournaud S., Berthou M., Leuliet J.C.
17 h 50 800
- The use of stochastic curve-fitting for the rapid determination of thermal conductivity.
Pham Q.T., Yip C.K.
18 h 10 873
- Sorption isotherms of “Pyrus communis cv. Conference” pear tissue and cuticle
in the high relative humidity range
Nguyen T.A., Verboven P., Daudin J.D., Nicolai B.M.
18 h 30 962
- General isotherm to predict protein matrix-NaCl-Water relationships in fish products.
Chenoll C., Argüelles A., Sanz J., Fito P.
- 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** ***Engineering of fat, oils and lipids***
- 09 h 30** 126
 An investigation into mechanical factors that cause milk fat globule membrane damage during processing.
 Downey M.C., Trinh K.T., McCarthy O.J., Fee C., Prankerd C.
- 09 h 50** 577
 Microstructural, thermal and crystallization characteristics of olive oil – monoglyceride mixtures.
 Ojijo N.K.O., Kesselman E., Shuster V., Eichler S., Neeman I., Eger S., Shimoni E.
- 10 h 10** 727
 Temperature dependence of lipid oxidation rate as affected by the physical state.
 Calligaris S., Manzocco L., Nicoli M.C.
- 10 h 30** 796
 Determination of the effect of palm-shell discolouring process on its mechanical resistance.
 Casas Forero N., González Vargas A.L., Zumaeta N.
- 10 h 50** **Break**
- 11 h 20** ***Poster session: Engineering of fat, oils and lipids***
- 109
 Enhanced degumming of soyabean oil and its influences on degummed oil and lecithin .
 Eshratbadi P., Davoodirad M., Naeimiyan M., Hassani nejad S.G., Sarrafzadeh M.H.
- 596
 Study of chicken fat dry fractionation.
 Arnaud E., Pina M., Collignan A.
- 714
 Comparative study of water content two non-conventional oil seeds (Canarium schweinfurthii and Butyrospermum parkii) on physicochemical properties of oils extracted.
 Kapseu C., Tchankou Leudeu B.C., Tchiegang C., Fomethe A., Parmentier M.
- 799
 Fat bloom in chocolate: Introduction and mechanism. Highlight of bloom mechanism due to unstable crystallization.
 Lonchamp P., Hartel R.W.
- 11 h 20** ***Impact of operations on nutritional properties of food (2)***
- 11 h 20** 467
 Stability of emulsions containing lycopene and their application in food systems.
 Ribeiro H.S., Schubert H.
- 11 h 40** 572
 Tailoring resistant starch polymorphs for optimized prebiotic effect.
 Shimoni E.
- 12 h 00** 826
 Influence of coffee processing on ochratoxin A presence in green, roasting and brew coffee.
 Suárez-Quiroz M., González-Rios O., Barel M., Guyot B., Schorr-Galindo S., Guiraud J.P.
- 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

15 h 00

Poster session: Impact of operations on nutritional properties of food

11

Comparison of some properties of the different types of pestil. A traditional product.
Cagindi O., Otlés S.

91

Strategies for reducing the cost of nutrient supplement addition to fermentations for producing lactic acid from whey permeate .
Fitzpatrick J.J., Murphy C., Scully K., Pauli T.

115

Physicochemical and rheological characterization of a yogurt with added calcium and low level of fat.
Aguirre-Contreras S., Sosa-Morales M.E., Vélez-Ruiz J.F.

207

Hydroxymethylfurfural (HMF) concentration in polyfloral honey as affected by temperature.
Visquert M., Escriche I., Andrés A., Fito P.

237

Optimization of blends of flours to produce foods for children with under nourishment - acute diarrhea.
Daly M., Diaz B., Daly K.

351

Deacidification of palm oil by liquid-liquid extraction - Effect on tocopherols.
Gonçalves C.B., Filho P.A.P., Meirelles A.J.A.

371

Purple wheat - Functional properties and processing aspects.
Berghofer E., Kreilmayer I., Roggenhofer M., Mar A.

450

Effect of fortification of yogurt with fiber and calcium on the rheological and physicochemical behavior.
Aportela-Palacios A., Sosa-Morales M.E., Vélez-Ruiz J.F.

451

Effect of calcium on functionality of Mozzarella cheese made from skim milk.
Muthukumarappan K., Nitinkumar J., Rajiv D.

486

Extrusion and nutritional evaluation of bean-corn flour.
Delgado E., Vences-Montaña M.I., Hernández-Rodríguez J.V., Rocha N., Gallegos-Infante J.A.

513

Hygroscopicity and ascorbic acid degradation of lemon juice co-crystallized with sucrose.
Astolfi-Filho Z., Salles A.C., Telis V.R.N.

573

Enzymatic and microbial digestion of A and B type III resistant starch crystal polymorphs.
Wolf H., Shimoni E.

613

Functional fruits obtained by vacuum impregnation process.
Tapia M.S., García R., Schulz E., Bermúdez-Aguirre D., López-Malo A., Palou E., Welti-Chanes J.

646

New formulas of a meat product for celiac patients.
Delgado M., Mendez O.

728

Effect of temperature and water activity on carotenoid oxidation rate.
Manzocco L., Calligaris S., Nicoli M.C.

783

Impact of fatty acid formulation on the margarine pastry properties.
Sfayhi D., Bornaz S.

884

Recovery of some components lost during osmotic dehydration of pineapple.
Peiró R., Ayala S., Camacho M.M., Martínez-Navarrete N.

- 907
Vitamin fortified rice grain.
Kyritsi A., Tzia C., Karathanos V.T.
- 15 h 00** ***Engineering***
- 15 h 00** 286
Energy conservation in the food industry using process integration methodologies and case study.
Fritzon A., Berntsson T., Vamling L.
- 15 h 20** 363
Quality in food processing design: an user oriented approach including a new creativity method.
Giroux F., Totobesola-Barbier M., Marouzé C.
- 15 h 40** 589
Apparent moisture and salt diffusivities in gelatin gels: effect of gel composition and applied process.
Boudhrioua N., Bonazzi C., Daudin J.D.
- 16 h 00** 833
Use of a coloured tracer to follow the thermal treatment in a scraped surface heat exchanger.
Mabit J., Fayolle F., Legrand J.
- 16 h 20** 942
The wastes of the food industry – Specified according to accumulation masses, substances of content and ways of reuse –
Russ W.
- 16 h 40** **Break**
- 17 h 20** ***NMR and MRI applications***
- 17 h 20** 765
Measurement of temperature and other heat induced changes by Magnetic Resonance Imaging (MRI).
Nott K.P., Hall L.D.
- 17 h 40** 815
Correlation of microbial response in model food systems with physico-chemical and mobility (NMR molecular and structural) descriptors of the media.
Vittadini E., Lavoie J.P., Pham X., Chinachoti P.
- 18 h 00** 920
1H NMR diffusometry study of water in whey protein gels and solutions.
Marianne F., Colsenet R., Le Garff C., Cambert M.
- 18 h 20** 964
Effect of heat treatment on water permeability of yeast cell as measured by Pulsed field gradient NMR.
Lee C.H., Hong Y.S., Suh K.J., Yoon S.W., Volkov V.I.
- 18 h 40** End of the day
- 19 h 00** **Gala Dinner**

Thursday 11 March

- 08 h 30** **Plenary lecture**
Food Engineering and Processing in Southern Africa - A Double Agenda
Andrew Murray, Consulting Food Processes and Projects Engineer, South Africa
- 09 h 30** ***Impact of operations on nutritional properties of food (1)***
- 09 h 30** 206
Effect of different cooking techniques on the quality of pork ham.
Cheng Q., Sun D.W.
- 09 h 50** 226
Calcium content and bioavailability in apple tissue through impregnation process.
González-Fesler M., Salvatori D., Weisstaub A., Portela M.L., Alzamora S.M.
- 10 h 10** 68
Formulation of phytosterols in emulsions for increased dose response in functional food.
Engel R., Schubert H.
- 10 h 30** 488
A procedure to develop mineral enriched fruits. Analysis of calcium and iron content
by EDX-Ray microanalysis.
Betoret N., Martínez-Monzó J., Fito P.
- 10 h 50** **Break**
- 11 h 25** **Concluding remarks**
H. Schubert, professor, University Karlsruhe
Scientif president of the conference
- 12 h 30** **Lunch**
- 14 h 00** **Laboratories and Industrials Visites (Technical Tours)**