Program Outline

THURSDAY, NOVEMBER 12th, 2015		
07:30	Registration desk open	
08:30-10:00	**Advances in research and applications of nonthermal technologies for food processing and preservation I** *(Joint session with 29th EFFoST Conference)*	
10:00-10:30	*Coffee break*	
10:30-12:00	**Advances in research and applications of nonthermal technologies for food processing and preservation II** *(Joint session with 29th EFFoST Conference)*	
12:00-12:30	*Coffee break*	
12:30-13:10	**PLENARY SESSION 1** *(Joint session with 29th EFFoST Conference)*	
13:30-15:00	*Welcome drinks-Lunch break*	
15:00-17:10	**THEME 1:** High pressure applications in product development and shelf life extension	**THEME 2:** Cold plasma applications in product development and shelf life extension
18:15-23:00	***Cultural Event & Workshop Dinner***	

FRIDAY, NOVEMBER 13th, 2015			
08:00-09:00	**PLENARY SESSION 2**		
09:00-11:10	**THEME 3:** Nonthermal technologies applications in markets: The industry and equipment manufacturer 's perspective	**THEME 4:** Food safety and sustainability by application of nonthermal technologies	POSTER SESSION
11:10-11:50	*Coffee break*		
11:50-13:00	5 min presentations for selected posters	5 min presentations for selected posters	
13:00-14:20	*Lunch break*		
14:20-16:30	**THEME 5:** Other emerging technologies	**THEME 6:** Research and insights in pulsed electric field applications	
16:30-17:00	*Coffee break*		
17:00-18:00	**PLENARY SESSION 3**		
18:00-19:00	Sum up & Closing remarks Presentation of next Nonthermal Processing Workshop 2016 FAREWELL		

SATURDAY, NOVEMBER 14th, 2015	
09:30-12:30	Group tours to Greek meat producing industry using HP technology
12:30-15:30	Lunch in the seaside coast of Athens

Oral sessions program

THURSDAY, NOVEMBER 12th, 2015

07:30 **Registration desk opens**

08:30-10:00 **ADVANCES IN RESEARCH AND APPLICATIONS OF NONTHERMAL TECHNOLOGIES FOR FOOD PROCESSING AND PRESERVATION I**
Room: Macedonia Ballroom

Chairs *R. Buckow & B. Guamis Lopez*

08:30-09:00 **Plasma application in the context of other nonthermal food processing techniques: Similarities and uniqueness in process design**
O. Schlüter *(p.161)*
Leibniz Institute for Agricultural Engineering (ATB), Germany

09:00-09:15 **Effect of high pressure processing on quality attributes of aloe vera-litchi mixed beverage and process optimization** *(p.162)*
P. Srinivasa Rao, N. Swami Hulle, S. Chakraborty
Indian Institute of Technology, India

09:15-09:30 **Nonthermal processing technologies as elicitors to induce the biosynthesis and accumulation of nutraceuticals in plant foods** *(p.163)*
M.R. Cuéllar-Villarreal[1], M. Redondo-Gil[1], J. Welti-Chanes[1], L. Cisneros-Zevallos[2], D.A. Jacobo-Velázquez[1]
[1]Tecnológico de Monterrey, Mexico; [2]Texas A&M University, USA

09:30-09:45 **Physiological response of fruits processed by moderate-intensity pulsed electric fields** *(p.164)*
M. Vendrell-Pacheco, **O. Martin-Belloso**, R. Soliva-Fortuny, P. Elez-Martinez
University of Lleida, Spain

09:45-10:00 **Non-thermal plasma – An alternative technology for the decontamination of dry food surfaces** *(p.165)*
C. Hertwig, K. Reineke, O. Schlüter
Leibniz Institute for Agricultural Engineering (ATB), Germany

10:00-10:30 *Coffee break* *Room: Macedonia Hall*

10:30-12:00 ADVANCES IN RESEARCH AND APPLICATIONS OF NONTHERMAL TECHNOLOGIES FOR FOOD PROCESSING AND PRESERVATION II
Room: Macedonia Ballroom

Chairs *M. Hendrickx & J. Wan*

10:30-11:00 **Considerations in validation of new food processing technologies for regulatory acceptance and industrial applications**
J. Wan[1], N. Anderson[2] *(p.166)*
[1]Institute for Food Safety and Health, Illinois Institute of Technology, USA; [2]Center for Food Safety and Applied Nutrition, Food and Drug Administration, USA

11:00-11:15 **Utilization of pulsed light for enzyme inactivation and conformational structure change of whey protein** *(p.167)*
A.B. Siddique[1], **G. Ferrari**[1,2], G. Pataro[1], P. Maresca[2]
[1]University of Salerno, Italy; [2]ProdAl S.c.ar.l., Italy

11:15-11:30 **Impact of high pressure/temperature treatment on structure modification and functional sensory properties of frankfurters batter** *(p.168)*
F. Tintchev[1,2,3], U. Bindrich[1], S. Toepfl[1], U. Strijowski[1], V. Heinz[1], D. Knorr[2]
[1]German Institute of Food Technology, Germany; [2]TU Berlin, Germany; [3]McAirlaid´s Vliesstoffe GmbH, Germany

11:30-11:45 **A novel nonthermal process for the concentration of liquid food ingredients** *(p.169)*
F. Gascons Viladomat, G. Pickett, C. Grosdemange, **A. Leblanc**
EDERNA S.A.S., France

11:45-12:00 **Hyperbaric storage preservation at room temperature of two commercial ready-to-eat pre-cooked foods at room temperature using an industrial scale pressure equipment** *(p.170)*
S.A. Moreira[1], R.V. Duarte[1], P.A.R. Fernandes[1], S.P. Alves[2], R.J. Bessa[2], I. Delgadillo[1], J. Saraiva[1]
[1]University of Aveiro, Portugal; [2]University of Lisbon, Portugal

12:00-12:30 *Coffee break* *Room: Macedonia Hall*

12:30-13:10 PLENARY SESSION 1 *Room: Macedonia Ballroom*

Chairs *M. Dalla Rosa & H. De Vries*

12:30-12:50 **Beyond fire and ice-consideration of nanoscale science and nanotechnology-enabled non-thermal processes to improve food safety** *(p.49)*
H. Chen
International Academy of Food Science and Technology (IAFoST) Fellow, USA

12:50-13:10 **IUFoST Global Food Safety Curricula Initiative**
G. Campbell-Platt
IUFoST, UK

13:30-15:00 *Welcome drinks-Lunch break* *Room: Horizon*

15:00-17:10 THEME 1: HIGH PRESSURE APPLICATIONS IN PRODUCT DEVELOPMENT AND SHELF LIFE EXTENSION
Room: Macedonia A

Chairs *C. Doona & M. Walker*

15:00-15:20 **Global adoption of HPP and pathway to product innovations**
M. Walker *(p.54)*
PepsiCo, USA

15:20-15:40 **Mathematical models for the Inactivation of *Listeria monocytogenes* and bacterial spore activation, germination, and inactivation by high pressure processing** *(p.55)*
C. J. Doona[1], F. E. Feeherry[1], K. Kustin[2]
[1]US Army– Natick Soldier RD&E Center, Warfighter Directorate, Natick, MA USA; [2]Department of Chemistry, Brandeis University, Waltham, MA USA

15:40-15:55 **Examining the effect of high pressure processing on the allergenic potential of the major allergen in peach (Pru p 3)** *(p.56)*
M. Lavilla[1], J. Orcajo[1], A. Díaz[2], P. Gamboa[3]
[1]AZTI, Spain; [2]Centre for Plant Biotechnology and Genomic, Spain; [3]Basurto Hospital, Spain

15:55-16:10 **High hydrostatic pressure assisted enzymatic hydrolysis of whey protein** *(p.57)*
V. Ambrosi[1], S. De Maria[2], **P. Maresca**[3], G. Polenta[1], G. Ferrari[2,3], C. González[1,4]
[1]Instituto Tecnología de Alimentos, Argentina; [2]University of Salerno, Italy; [3]ProdAl Scarl, Italy; [4]Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina

16:10-16:25 **Effects of high pressure crystallization on physical properties and microstructure of fat blends** *(p.58)*
M. Zulkurnain, F. Maleky, V.M. Balasubramaniam
The Ohio State University, USA

16:25-16:40 **Evaluation of quality changes of beetroot juice during refrigerated storage after high hydrostatic pressure (HHP) and supercritical carbon dioxide (SCCD) processing** *(p.59)*
B. Sokołowska[1,2], Ł. Woźniak[1], S. Skąpska[1], **I. Porębska**[1], J. Nasiłowska[1], S.J. Rzoska[2]
[1]Institute of Agricultural and Food Biotechnology, Poland; [2]Institute of High Pressure Physic of Polish Academy of Sciences, Poland

16:40-16:55 **High pressure processing of melon juice-milk beverage: Bioactives and antioxidant capacity** *(p.60)*
J. Du, M.D.A. Saldaña
University of Alberta, Canada

16:55-17:10 **Enzyme inactivation in fruit-based beverages during thermal assisted high-pressure processing** *(p.61)*
Srinivasa Rao Pavuluri, Nishant R Swami Hulle, Lakshmi E Jayachandran, A.S. Raj, S. Pandraju, S. Chakraborty, N. Kaushik, N.K. Singh
Indian Institute of Technology, Kharagpur, India

15:00-17:10 THEME 2: COLD PLASMA APPLICATIONS IN PRODUCT DEVELOPMENT AND SHELF LIFE EXTENSION
Room: Macedonia B

Chairs *O. Shluter & K. Krishnamurthy*

15:00-15:20 **Cold plasma processing for food safety: Challenges and opportunities** *(p.87)*
K. Krishnamurthy[1], N. Anderson[2]
[1]Illinois Institute of Technology, USA; [2]Food and Drug Administration, USA

15:20-15:40 **Plasma-protein interactions in solid and liquid model protein matrices** *(p.88)*
S. Bußler[1], H.M. Rawel[2], O. Schlüter[1]
[1]Leibniz Institute for Agricultural Engineering (ATB), Germany; [2]University of Potsdam, Germany

15:40-15:55 **In-package cold plasma for food safety and preservation** *(p.89)*
P. Bourke[1], K. Keener[2], P.J. Cullen[3]
[1]Dublin Institute of Technology, Ireland; [2]Purdue University, USA; [3]University of New South Wales, Australia

15:55-16:10 **Role of food intrinsic factors in cold atmospheric plasma inactivation of *S. Typhimurium* and *L. monocytogenes*** *(p.90)*
C. Smet[1,2], E. Noriega[1,2], I. Matsoukas[1], F. Rosier[1], J.L. Walsh[3], V.P. Valdramidis[4], J.F. Van Impe[1,2]
[1]KU Leuven, Belgium; [2]CPMF², Flemish Cluster Predictive Microbiology in Foods, Belgium; [3]University of Liverpool, United Kingdom; [4]University of Malta, Malta

16:10-16:25 **Cooking quality and physicochemical properties of cold plasma processed brown rice** *(p.91)*
R. Thirumdas, R. Deshmukh, U. Annapure
Institute of Chemical Technology, India

16:25-16:40 **Overview of experimental evaluation of innovative non-thermal plasma treatment of biotic and abiotic matter** *(p.92)*
V. Jovicic[1,2], A. Zbogar-Rasic[1], F. Groß[1], I. Jung[1], J. Seok[1,3], Y. Kim[1,3], A. Delgado[1,2,3]
[1]Friedrich-Alexander University (FAU), Germany; [2]Erlangen Graduate School in Advanced Optical Technologies (SAOT), Germany; [3]FAU Campus Busan, South Korea

16:40-16:55 **Impact of cold atmospheric plasma on germination of buckwheat**
J. Harasym *(p.93)*
Wroclaw University of Economics, Poland

16:55-17:10 **Nonthermal inactivation of *Salmonella Enteritidis* PT30 on the surface of unpeeled almonds by cold plasma** *(p.94)*
C. Hertwig[1], A. Leslie[2], K. Reineke[1], N. Meneses[3], O. Schlüter[1]
[1]Leibniz Institute for Agricultural Engineering, Germany; [2]Technische Universität Berlin, Germany; [3]Buehler AG, Switzerland

18:15-23:00 Cultural Event & Workshop Dinner

FRIDAY, NOVEMBER 13th, 2015

08:00-09:00 PLENARY SESSION 2 *Room: Macedonia A*

Chairs *G.V. Barbosa-Canovas & M. Hendrickx*

08:00-08:25 **Electric field processing: At the interface between thermal and nonthermal** *(p.50)*
S.K. Sastry, M. Shynkaryk, T. Pyatkovskyy, C. Samaranayake, A.E. Yousef
The Ohio State University, USA

08:25-08:50 **High hydrostatic pressure - From recent past to future**
D. Knorr *(p.51)*
TU Berlin, Germany

08:50-09:00 Life Achievement Award

09:05-11:15 THEME 3: NONTHERMAL TECHNOLOGIES APPLICATIONS IN MARKETS: THE INDUSTRY AND EQUIPMENT MANUFACTURER'S PERSPECTIVE
Room: Macedonia A

Chairs *J. Wan & V.M. Balasubramaniam*

09:05-09:25 **Process engineering characterization of high pressure homogenization - From laboratory to industrial scale** *(p.100)*
V.M. Balasubramaniam, S.I. Martinez-Monteagudo, B. Yan
The Ohio State University, USA

09:25-19:45 **Developing nonthermal technologies for dry food applications**
N. Meneses *(p.101)*
Buehler AG, Switzerland

09:45-10:00 **Latest developments in high pressure processing: Commercial products & equipment** *(p.102)*
D. Wilches
Hiperbaric S.A., Spain

10:00-10:15 **High pressure processing of ready to eat (RTE) meat and poultry**
E. Raghubeer *(p.103)*
Avure Technologies Inc., USA

10:15-10:30 **Efficient integration of HPP into production lines**
T. Richter *(p.104)*
MULTIVAC, Germany

10:30-10:45 **Removing barriers to commercialization of PEF systems and processes** *(p.105)*
M. Kempkes, R. Simpson, I. Roth
Diversified Technologies Inc., USA

10:45-11:00 **Influence of PEF (Pulsed Electric Fields) on sweet potato processing** *(p.106)*
R. Ostermeier[1], C. Siemer[1], S. Toepfl
[1]Elea Vertriebs- und Vermarktungsgesellschaft mbH, Germany; [2]German Institute of Food Technologies, Germany

11:00-11:15 **Cold atmospheric plasma: A feasibility study** *(p.107)*
D. Bayliss[1], M. Bennington[1], L. Staniforth[1], L. Everis[1], J. Walsh[2], C. Leadley[1]
[1]Campden BRI, UK; [2]University of Liverpool, UK

09:00-11:10 THEME 4: FOOD SAFETY AND SUSTAINABILITY BY APPLICATION OF NONTHERMAL TECHNOLOGIES
Macedonia B

Chairs *R. Buckow & C. Rauh*

09:05-09:25 **The potential role of nonthermal technologies in sustainable food manufacture**
R. Buckow *(p.108)*
CSIRO Food and Nutrition Flagship, Australia

09:25-19:45 **High hydrostatic pressure – A non-thermal preservation technology?** *(p.109)*
M. Gänzle
University of Alberta, Canada

09:45-10:00 **Non-thermal processes in food science and technology: Examples to improve process sustainability and to design tailor-made processes** *(p.110)*
C. Rauh
TU Berlin, Germany

10:00-10:15 **Influence of the high pressure high temperature process on the formation of food processing contaminants and the inactivation of selected spores in real food systems** *(p.111)*

R. Sevenich[1], F. Bark[1], E. Kleinstueck[1], C. Crews[2], C. Pye[2], J. Hradecky[3], M. Lavilla[4], I. Maranon[4], D. Knorr[1]
[1]Technische Universität Berlin, Germany; [2]The Food and Environment Research Agency, York, UK; [3]Institute of Chemical Technology, Prague, Czech Republic; [4]AZTI Tecnalia, Spain

10:15-10:30 **Inactivation of spores on surfaces using nitrogen cold atmospheric plasma gas** *(p.112)*
M.N. Nierop Groot, T. Dongmin Kim, A. Warda, T. Abee, H. Mastwijk
Wageningen University, The Netherlands

10:30-10:45 **Determination of the efficacy of ultrasound combined with essential oils on the decontamination of *Salmonella* inoculated lettuce leaves** *(p.113)*
D. Millan-Sango[1], E. Garroni[1], C. Farrugia[1], J.F.M. Van Impe[2], V.P. Valdramidis[1]
[1]University of Malta, Malta; [2]KU Leuven, Belgium

10:45-11:00 **Application of ultraviolet C light emitting diode for inactivation of *Salmonella* on eggshell surface** *(p.114)*
S. Koseki, M. Hasegawa, S. Kawamura, *Hokkaido University, Japan*

11:00-11:15 **Construction of non-toxigenic mutants of nonproteolytic *Clostridium botulinum* type E for research and food challenge studies** *(p.115)*
C. Clauwers[1], K. Vanoirbeek[1], L. Delbrassinne[2], C.W. Michiels[1]
[1]KU Leuven, Belgium; [2]Scientific Institute of Public Health (WIV-ISP), Belgium

11:15-11:50 *Coffee break* *Room: Macedonia Hall*

11:50-13:00	**5 min presentations for selected posters_1** *Room: Macedonia A*	**5 min presentations for selected posters_2** *Room: Macedonia B*
	P14. Understanding the behaviour of bioactive compounds and myrosinase of seedlings from Brussels sprouts under high pressure treatments. *F.J. Barba, J.Wang, H.B. Frandsen, S. Sørensen, K. Olsen, J.C. Sørensen, V. Orlien*	**P02.** Study on PEF pre-treatment of fresh octopus (Octopus *vulgaris*). *N. Dellarosa, S. Tappi, C. Mannozzi, U. Tylewicz, F. Balestra, P. Rocculi, L. Ragni, M. Dalla Rosa, S. Romani*

P17. Effect of HP-treated starter cultures on the quality characteristics of cheese in brine. *M. Giannoglou, Z. Karra, E. Platakou, G. Katsaros, G. Moatsou, P. Taoukis*

P22. Reducing salt content on marinated beef by using high pressure processing. *I. Rodrigues, M.A. Trindade, F.R. Caramit, K. Candogan, G.V. Barbosa-Cánovas*

P26. Quality comparison of carrot juices processed by high pressure processing and high temperature short time. *Y. Zhang, X. Liao*

P30. Effect of high pressure processing on shelf life and quality of salmon, cod and mackerel. *T.M. Rode, M.B. Hovda*

P32. The effect of pressure-assisted ultra-high temperature sterilization (PAUHTS) on the inactivation of bacterial spores. *P. Wang, D. Liang, L. Zhang, X. Hu, X. Liao, F. Chen*

P33. Comparative effect of microwave or steam cooking on the physicochemical characteristics of marinated chicken using high pressure treatment. *M.C. Cruz-Romero, P.-M. Hadbi, G. Duffy, J.P. Kerry*

P03. Effect of pulsed electric field on structure of egg white protein. *Jian-Ya Qian, Li-Jiao Ma, Jing Tang, Wei Jiang, Wei Chen*

P06. Effect of supercritical carbon dioxide (SCCD) on the microbiological quality of dried spices. *S. Skąpska, B. Sokołowska, E. Waldon, I.Porębska*

P07. Atmospheric pressure dielectric barrier (DB) plasma source for high efficiency and large area oxidation of organic matter. *P. Dimitrakellis, A. Zeniou, E. Gogolides*

P10. Inactivation of *Salmonella enterica* serotype Typhimurium LT21 by combining cold gas-phase plasma and natural antimicrobial. *V. Stulić, T. Vukušić, Z. Herceg*

P38. Radio frequency heating for food safety and preservation - State of the art. *E.E. Tănase, A.C. Miteluț, M.E. Popa, G.A. Ștefănoiu, M. Drăghici*

P41. Pulsed light to preserve fiordilatte cheese. *V. Lacivita, L. Padalino, A. Conte, L. Manzocco, C. Nicoli, V.A. Zambrini, M.A. Del Nobile*

P46. Electrospinning of caseinates to create protective fibrous mats. *P. M. Tomasula, L.M. Bonnaillie , A. Porto, L.S. Liu*

P50. Influence of high power ultrasound on selected moulds, yeasts and *Alicyclobacillus acidoterrestris* in cranberry juice and nectar. *A. Režek Jambrak, M. Šimunek, S. Evačić, J. Frece, K.*

Markov, T. Vukušić, Z. Herceg

P53. Non-thermal technologies for *Alicyclobacillus acidoterrestris* inactivation in apple juice. *A. Tremarin, T.R.S. Brandão, C.L.M. Silva*

13:00-14:20 *Lunch break* *Room: Horizon*

14:20-16:30 **THEME 5: OTHER EMERGING TECHNOLOGIES**
Room: Macedonia A

Chairs *L. Ahrne & C. Moraru*

14:20-14:40 **Effect of high pressure carbon dioxide processing on bacterial spores**
X. Liao *(p.118)*
China Agricultural University, China

14:40-15:00 **Advances in light based technologies for food safety: Pulsed Light, UV and LED treatments**
C. Moraru *(p.119)*
Cornell University, USA

15:00-15:15 **Potential of supercritical CO_2 for extraction of bioactive compounds from side streams** *(p.121)*
L. Eliasson[1], G. Gustinelli[1,2], **L. Ahrné**[1,2]
[1]SP Technical Research Institute of Sweden, Sweden; [2]Chalmers University of Technology, Sweden

15:15-15:30 **Low and high frequency ultrasound processing of foods** *(p.122)*
K. Knoerzer, H. Sabarez, N. Shiferaw Terefe, P. Juliano
CSIRO Food and Nutrition Flagship, Australia

15:30-15:45 **Ultraviolet light technology as a novel nonthermal milk and dairy products** *(p.123)*
T. Koutchma
Guelph Food Research Center, Canada

15:45-16:00 **Combined pressure and temperature reduces immunoreactivity of black tiger shrimp (*Penaeus Monodon*) major allergen** *(p.124)*
B. Nayak, A.O. Lasekan
University of Maine, USA

16:00-16:15 **Sterilization of beverages and other pumpable fluids by means of ultra-high pressure homogenization and complementary technologies** *(p.125)*
B. Guamis
Universitat Autonoma de Barcelona, Spain

16:15-16:30 **Ultra high-pressure homogenization – Insights into the effect of UHPH on structure of pectin** *(p.126)*
A. Shpigelman[1], C. Kyomugasho[2], S. Christiaens[2], A.M. Van Loey[2], M.E. Hendrickx[2]
[1]Technion- Israel Institute of Technology, Israel; [2]KU Leuven, Belgium

14:20-16:30 THEME 6: RESEARCH AND INSIGHTS IN PULSED ELECTRIC FIELD APPLICATIONS
Room: Macedonia B

Chairs *O. Martin-Belloso & N. Lebovca*

14:20-14:40 **Pulsed electric fields for plant-based food processing: Current applications and future perspectives** *(p.148)*
O. Martin-Belloso, R. Soliva-Fortuny, P. Elez-Martínez
University of Lleida, Spain

14:40-15:00 **Pulsed electric energy assisted nonthermal extraction from foods and biomaterials** *(p.149)*
N. Lebovka[1,2], **E. Vorobiev**[1]
[1]Institute of Biocolloidal Chemistry named after F.D. Ovcharenko, Ukraine; [2]Université de Technologie de Compiègne, France

15:00-15:15 **Comparison of the effect of high pressure and pulsed electric fields technologies on the tomato endogenous enzymes** *(p.150)*
V. Andreou, G. Dimopoulos, G. Katsaros, P. Taoukis
National Technical University of Athens, Greece

15:15-15:30 **Properties and ripening characteristics of cheddar cheese manufactured from pulsed electric field treated milk** *(p.151)*
C. McAuley, J.F. Haro Maza, T. Singh, P. Watkins, R. Williams, **R. Buckow**
CSIRO Food and Nutrition Flagship, Australia

15:30-15:45 **Effect of pulsed electric fields on the antioxidant potential of apples stored at different temperatures** *(p.152)*
M. Vendrell-Pacheco, O. Martín-Belloso, **R. Soliva-Fortuny**, P. Elez-Martínez

University of Lleida, Spain

15:45-16:00 **Liquid-phase electrical discharge plasmas for inactivation of *Escherichia coli* and *Listeria monocytogenes*** *(p.153)*
T. Vukušić[1,2], Z. Herceg[1], S. Rogers[2], S. Mededovic Thagard[2]
[1]Faculty of Food Technology and Biotechnology, Croatia; [2]Clarkson University, USA

16:00-16:15 **Environmental assessment of alternative pasteurization technologies for fluid milk production using process simulation** *(p.154)*
P.M. Tomasula[1], L.M. Bonnaillie[1], W.C.F. Yee[2]
[1]United States Department of Agriculture, USA;
[2]USDA/ARS/Engineering and Scale-up, USA

16:15-16:30 **Effect of pulsed electric fields on metabolic heat production and respiration rate of apple tissue** *(p.155)*
N. Dellarosa, **S. Tappi**, L. Ragni, U. Tylewicz, P. Rocculi, M. Dalla Rosa
University of Bologna, Italy

16:30-17:00 *Coffee Break* *Room: Macedoni Hall*

17:00-18:00 **PLENARY SESSION 3** *Room: Macedonia A*

Chairs *D. Knorr & P. Taoukis*

17:00-17:30 **The microstructure of processed foods by nonthermal technologies** *(p.52)*
G.V. Barbosa-Canovas
Washington State University, USA

17:30-18:00 **High pressure based technologies for creating functional properties of plant based food systems**
M. Hendrickx, A. Panozzo, Z. Jamsazzadeh Kermani, T. Grauwet, A. Van Loey *(p.53)*
KU Leuven, Belgium

18:00-19:00 **Sum up & Closing remarks**
Presentation of next Nonthermal Processing Workshop 2016
FAREWELL
Room: Macedonia A

Poster sessions program

Friday 13th of November, 2015

09:00-18:00 *Room: Macedonia Hall*

P01 **Effect of diverse electrical strength of pulsed electric fields on potato starch acetylation and its characteristics** *(p.156)*

J. Hong, X.A. Zeng, **Z. Han**
South China University of Technology, China

P02 **Study on PEF pre-treatment of fresh octopus (*Octopus vulgaris*)** *(p.157)*

N. Dellarosa, **S. Tappi**, C. Mannozzi, U. Tylewicz, F. Balestra, P. Rocculi, L. Ragni, M. Dalla Rosa, S. Romani
University of Bologna, Italy

P03 **Effect of pulsed electric field on structure of egg white protein** *(p.158)*

Jian-Ya Qian[1,2], Li-Jiao Ma[1], Jing Tang[1], Wei Jiang[3], Wei Chen[4]
[1]School of Food Science & Engineering, Yangzhou University, China; [2]Jiangsu Province Key Laboratory of Dairy Biotechnology & Safety Control, China; [3]School of Hydraulic, Energy & Power Engineering, Yangzhou University, China; [4]School of Food Science and Technology, Jiangnan University, China

P04 **Electric field analysis of parallel plate and round edged electrodes for pulsed electric field (pef) applications in liquid food** *(p.159)*

R. Ramaswamy, R. Ramachandran
Department of Electrical and Electronics Engineering, BS Abdur Rahman University, India

P05 **Development of a continuous dense phase carbon dioxide treatment for the microbial stabilization of apple juice** *(p.127)*

M. Paciulli, M. Rinaldi, E. Chiavaro, V. Bernini, E. Neviani, G. Mucchetti
University of Parma, Italy

P06 **Effect of supercritical carbon dioxide (SCCD) on the microbiological quality of dried spices** *(p.128)*

S. Skąpska[1], B. Sokołowska[1,2], E. Waldon[1], **I.Porębska**[1]
[1]Wacław Dąbrowski Institute of Agricultural and Food Biotechnology, Poland; [2]Institute of High Pressure Physics of Polish Academy of Sciences, Poland

P14 **Understanding the behaviour of bioactive compounds and myrosinase of seedlings from Brussels sprouts under high pressure treatments** *(p.65)*

F.J. Barba, J.Wang, H.B. Frandsen, S. Sørensen, K. Olsen, J.C. Sørensen, V. Orlien
University of Copenhagen, Denmark

P15 **Effect of pressure assisted thermal sterilization (PATS) on *Bacillus subtilis* spore** *(p.116)*

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