

Poster Programme

Monday 28th November 2016

Poster Session 1 (Posters with numbers- P1.01, P1.02 etc)
14:30-15:00 & 17:00-17:30

Tuesday 29th November 2016

Poster Session 1
08:00-08:30 & 10:00-10:30

Tuesday 29th November 2016

Poster Session 2 (Posters with numbers – P2.01, P2.02 etc)
14:30-15:00 & 16:30-17:00

Wednesday 30th November 2016

Poster Session 2
08:00-08:30, 10:00-10:30 & 15:00-15:30

[P1.01]	Industrial rapeseed processing focused on feed products H.B. Frandsen ¹ , J.C. Sørensen ¹ , S.K. Jensen ² , H. Maribo ³ , F. Schmidt ⁴ , K.E. Markedal ^{*1} , H. Sørensen ¹ , ¹ University of Copenhagen, Denmark, ² Aarhus University DK-8830 Tjele, Denmark, ³ Danish Pig Production, Denmark, ⁴ Evilec ApS, Denmark
[P1.02]	Influence of different processes of storage on stilbenoid levels in cv. pinot noir grape canes G.S. De Bona*, S. Vincenzi, <i>University of Padova, Italy</i>
[P1.03]	Effects of Arbuscular mycorrhizal fungi and phosphorus fertilization on the antioxidant activity of Stevia rebaudiana C. Bender ^{*1,2} , B. Passera ³ , S. Tavarini ³ , L. Angelini ³ , H.H. Weidlich ¹ , ¹ Institut Kurz GmbH, Germany, ² Istituto Kurz Italia Srl, Italy, ³ DiSAAA-a Università di Pisa, Italy
[P1.04]	Consumer Perception Towards the Differences Between Organic and Conventional Products N. Munteanu*, V. Stoleru, S. Rihan, G. Teliban, A. Istrate, <i>University of Agricultural Sciences and Veterinary Medicine Iasi, Romania</i>
[P1.05]	Natural and artificial sweeteners in stirred yoghurt N.A. Miele*, E.K. Cabisidan, R. Di Monaco, P. Masi, S. Cavella, <i>University of Naples, Italy</i>
[P1.06]	Hungarian consumers' preference regarding pork – Results of a conjoint analysis V. Szűcs ^{*1} , E. Szabó ¹ , ¹ Hungarian Chamber of Agriculture, Hungary, ² National Agricultural Research and Innovation Centre – Food Science Research Institute, Hungary
[P1.07]	The application of methyl-jasmonate as a way to modulate the aroma volatile compounds in climacteric and non-climacteric fruits I.L. Massaretto, H. Magalhães, C.P. Fernandes, E. Purgatto*, <i>University of Sao Paulo - School of Pharmaceutical Sciences - Dept. of Food Sciences and Experimental Nutrition/NAPAN - FoRC - Food Research Center, Brazil</i>
[P1.08]	Auxin and ethylene interplay regulating tomato ripening B.L. Gomes*, V.C.B. Bonato, L. Freschi, E. Purgatto, <i>University of São Paulo, Brazil</i>
[P1.09]	Red beet in rainbow trout (<i>Oncorhynchus mykiss</i>) diets: Impact on the quality of fresh product J. Pinedo ^{*1} , A.M. Larrán ¹ , C. Tomás ¹ , A. Tomás-Vidal ² , M. Jover-Cerdá ² , M.A. Sanz Calvo ¹ , A.B. Martín-Diana ¹ , ¹ Agro-Technological Institute of Castilla y León, Spain, ² Polytechnic University of Valencia, Spain
[P1.10]	Sensory analysis of verjus: an acidic ingredient obtained from unripe grape berries A. Dupas de Matos*, S. Vincenzi, A. Curioni, <i>University of Padua, Italy</i>
[P1.13]	Influence of refrigerated storage, packaging and maturity stage on the antioxidant capacity and phenolic content in Broccoli (<i>Brassica oleracea</i>, L.) E. Valero-Cases*, J.J. Pastor, M.J. Frutos, <i>Miguel Hernández University, Spain</i>
[P1.14]	Effect of chilling temperatures on quality and nutritional indicators of fresh organic strawberries M.E. Popa, E.E. Tanase*, A. Stan, V.I. Popa, L. Badulescu, A.C. Mitelut, M. Draghici, <i>University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania</i>
[P1.15]	Gelation properties of underutilised shellfish, limpet (<i>Patella Vulgata</i>) in a mixed binary formulation of whey protein isolate (Bipro) and tapioca starch. M. Rambli*, F. Badii, M. Youss, N.K. Howell, <i>University of Surrey, UK</i>
[P1.16]	Breakup of food-grade O/W emulsion droplets by microchannel homogenization Y.R. Zhang ^{*1,2} , I. Kobayashi ² , M.A. Neves ^{1,2} , K. Uemura ² , M. Nakajima ^{1,2} , ¹ University of Tsukuba, Japan, ² Food Research Institute, Japan
[P1.17]	Effects of the presence of Tween20 in designed emulsion on in-vitro digestion of emulsified lipids W. Liu*, T. Foster, <i>University of Nottingham, UK</i>
[P1.18]	Effect of high NaCl concentration on properties and stability of whey protein stabilized oil-in-water emulsions containing anionic hydrocolloid J. Sriprabhom*, M. Suphantharika, <i>Mahidol University, Thailand</i>

[P1.19]	Study of potential deterioration of soy flour with different percentages of protein for use in sausages A.E. Bezerra ² , W.J.F. Lemos Junior ^{*1} , S.M. Fonseca ² , C.A. Guerra ⁴ , A.F. Guerra ^{2,3} , ¹ Università degli Studi di Padova, Italy, ² Federal Center of Technological Education Celso Suckow da Fonseca, Brazil, ³ Rural Federal University of Rio de Janeiro, Brazil, ⁴ Guerra e Castro Consultancy Ltda, Brazil
[P1.20]	Multiple emulsions rich in unsaturated fatty acids with gallic acid encapsulated in the internal aqueous phase and quercetin in the external aqueous phase M.F. Torres, A. Silva-Weiss, F.A. Osorio, F. Oyarzún, P. Robert, B. Giménez*, Universidad de Santiago de Chile, Chile
[P1.21]	Physical properties of flavonol-containing liposomes and their release from edible coatings based on cellulose derivatives A. Silva-Weiss*, B. Giménez, F.A. Osorio, A. Quintriqueo, O. Venegas, Department of Food Science and Technology, Universidad de Santiago de Chile, Chile
[P1.22]	Tiger nut dried pasta: Cooking quality, physico-chemical properties and consumer acceptance M.F. Martín-Esparza, A. Albors*, M.D. Raigon, M.D. García-Martínez, R. Hernández, Universitat Politècnica de València, Spain
[P1.23]	Physical properties of rockfish gelatin and nano-clay composite films S. Beak*, H. Kim, K.B. Song, Chungnam National University, Republic of Korea
[P1.24]	Optimization of a low fat and high resistant starch biscuit formulation M.E. Moriano*, C. Cappa, C. Alamprese, University of Milano, Italy
[P1.25]	Sunflower oil organogels and natural sucrose alternatives: new ingredients for healthier artisanal ice creams C. Alamprese*, M.E. Moriano, University of Milan, Italy
[P1.26]	Influence of different emulsifier stabilized emulsion on <i>in vitro</i> gastrointestinal digestion of lipids J. Borreani ¹ , I. Hernando ¹ , T. Sanz ² , A. Salvador ² , A. Quiles ^{*1} , ¹ UPV, Spain, ² IATA-CSIC, Spain
[P1.27]	Effects of drying methods on total phenolic contents and antioxidant capacity of the pomelo (<i>Citrus grandis</i> (L.) Osbeck) peels A.B. NurFarhana, S. Rosnah*, I. Amin, A.K.S. Nor Nadiah, Universiti Putra Malaysia, Malaysia
[P1.28]	Identification of volatile aroma compounds driving consumer liking of soy sauces manufactured by different processing method J. Jeong, K-G. Lee*, J. Cha, M-K. Kim, Dongguk University, Republic of Korea
[P1.29]	Phytochemical and sensory quality of <i>Passiflora setacea</i> pulp processed with seeds M.V. Carvalho*, L.L.O. Pineli, I.C. Celestino, I. Freitas, M. Sodr�, A.M. Costa, University of Brasilia, Brazil
[P1.30]	Adding of honey in fermented milk to protect <i>Lactobacillus rhamnosus</i> and <i>Lactobacillus paracasei</i> to gastrointestinal conditions A.F. Guerra ^{2,3} , W.J.F. Lemos Junior ^{*1} , D.O. Souza ³ , R.H. Luchese ³ , ¹ Università degli Studi di Padova, Italy, ² Federal Center of Technological Education Celso Suckow da Fonseca, Brazil, ³ Rural Federal University of Rio de Janeiro, Brazil
[P1.31]	Assessment of growth of yeast <i>Saccharomyces boulardii</i> on different ethanol concentrations, pH and temperature B.P. Paula ¹ , W.J.F. Lemos Junior ^{*2} , A.F. Guerra ^{1,3} , K.S. Pereira ⁴ , M.A.Z. Coelho ⁴ , ¹ Federal Center of Technological Education Celso Suckow da Fonseca, Brazil, ² Università degli Studi di Padova, Italy, ³ Rural Federal University of Rio de Janeiro, Brazil, ⁴ Federal University of Rio de Janeiro, Brazil
[P1.32]	Comparison of thermal stability of super high oleic and high oleic sunflower oil added with α-tocopherol acetate during prolonged and discontinuous frying process I. Montefusco, F. Pizzolongo, N. Manzo, A. Romano*, P. Masi, R. Romano, University of Naples Federico II, Italy
[P1.33]	Whey proteins role to evaluate buffalo cream genuineness destined to butter-making process N. Manzo, F. Pizzolongo, I. Montefusco, A. Romano*, P. Masi, R. Romano, University of Naples Federico II, Italy
[P1.34]	Analysis of color changes of egg based on thermal protein denaturation Y. Llave ^{*1} , S. Fukuda ¹ , M. Fukuoka ¹ , N. Shibata-Ishiwatari ² , N. Sakai ¹ , ¹ Tokyo University of Marine Science and Technology, Japan, ² Gifu University, Japan
[P1.35]	Interfacial and foaming properties of five commercial dairy products and two types of proteose-peptone fractions D. Ripoll�s ¹ , R.F. Petrut ² , J.A. Parr�n ¹ , M. Calvo ¹ , M.D. P�rez ¹ , L. S�nchez ^{*1} , C. Blecker ² , ¹ University of Zaragoza, Spain, ² University of Li�ge, Belgium
[P1.36]	Rheological properties of edible coating forming suspensions incorporated with rutin-containing liposomes J.E. Lopez, F.A. Osorio, B. Gim�nez, A. Silva-Weiss*, Universidad de Santiago de Chile., Chile
[P1.37]	Effects of sweeteners on anthocyanins and turbidity of sour cherry nectars during storage K. Ertan ¹ , M. Turkyilmaz ^{*2} , M. Ozkan ³ , ¹ Mehmet Akif Ersoy University, Turkey, ² Ankara University, Turkey, ³ Ankara University, Turkey
[P1.38]	Effects of organic acids, sugars and amino acids on browning of dried apricots containing SO₂ at different concentrations during storage F. Hamzaoglu, M. Altindag, A. Salur, M. Turkyilmaz, M. Ozkan*, Ankara University, Turkey

[P1.39]	The influence of locust bean gum fractions on native and ball mill modified agar gel extracted from seaweed X. Zhai*, T. Foster, <i>University of Nottingham, UK</i>
[P1.40]	Assessment physico-chemical properties of bacterial nanocellulose intended for food formulations improvement E. Rocchi*, D. Romano, C. Malegori, L. Piazza, <i>Università degli Studi di Milano, Italy</i>
[P1.41]	Influence of chocolate type-based coating on the physico-chemical properties of minimally processing fruit during shelf-life V. Glicerina ¹ , U. Tylewicz ² , S. Romani ^{*1,2} , M. Dalla Rosa ^{1,2} , ¹ <i>Interdepartmental Centre for Agri-Food Industrial Research, Italy</i> , ² <i>University of Bologna, Italy</i>
[P1.42]	Effect of different combinations of fermented pomegranate and grape juices with control juices on the physicochemical composition, microbial survival and consumer acceptance E. Valero-Cases*, M.J. Frutos, <i>Miguel Hernández University, Spain</i>
[P1.43]	Extended shelf life and techno-functional properties of a dietary supplement based on liquid egg white and freshly squeezed juices A. Tóth ^{*1} , C. Németh ² , R. Juhász ¹ , F. Horváth ¹ , L. Friedrich ¹ , ¹ <i>Szent István University, Hungary</i> , ² <i>Capriovus Ltd, Hungary</i>
[P1.44]	Physico-chemical properties of β-glucan enriched dehydrated apple slices U. Tylewicz ^{*1} , C. Mannozi ¹ , S. Tappi ¹ , J. Harasym ² , S. Romani ¹ , P. Rocculi ¹ , M. Dalla Rosa ¹ , ¹ <i>University of Bologna, Italy</i> , ² <i>Wroclaw University of Economics, Poland</i>
[P1.46]	Formation of Inclusion-Complex Powder of Allyl Sulfide in Cyclodextrin by Spray Drying T.V.A. Nguyen ^{*2,3} , H. Yoshii ^{1,2} , ¹ <i>Kagawa University, Japan</i> , ² <i>Ehime University, Japan</i> , ³ <i>Hue University of Agriculture and Forestry, Viet Nam</i>
[P1.47]	Effects of sodium caseinate content and oil-droplet diameter on stability of encapsulated emulsified squalene oil by spray drying A. Abd Ghani ^{*1,2} , K. Matsumura ³ , H. Shiga ⁴ , S. Adachi ⁵ , H. Yoshii ^{1,3} , ¹ <i>UGAS Ehime University, Japan</i> , ² <i>Universiti Sultan Zainal Abidin, Malaysia</i> , ³ <i>Kagawa University, Japan</i> , ⁴ <i>Kyoto Gakuen University, Japan</i> , ⁵ <i>Kyoto University, Japan</i>
[P1.48]	Extraction and microencapsulation of polyphenols obtained from different herbal extracts B.N. Estevinho ^{*1} , L. Horciu ^{1,2} , A. Blaga ² , F. Rocha ¹ , ¹ <i>Faculdade de Engenharia da Universidade do Porto, Portugal</i> , ² <i>"Gheorghe Asachi" Technical University of Iasi, Romania</i>
[P1.49]	Impact Of The Drying Temperature On The Hydration Of Whey Protein Beads And The Release Of Riboflavin B. Suybeng*, J.C. Jacquier, <i>University College of Dublin, Ireland</i>
[P1.50]	Influence of pH on the formation of complex coacervates between gelatin and carboxymethylcellulose E.S. Gulão ¹ , K.S. Alencar ¹ , W.J.F. Lemos Junior ^{*2} , P.V. Finotelli ¹ , E.E. Garcia-Rojas ³ , M.M. Rocha-Leão ¹ , ¹ <i>Federal University of Rio de Janeiro, Brazil</i> , ² <i>Università degli Studi di Padova, Italy</i> , ³ <i>Fluminense Federal University, Brazil</i>
[P1.51]	Potential of high pressure homogenization for the production of microencapsulated functional strains for dairy products F. Patrignani ¹ , D.I. Serrazanetti ¹ , L. Siroli ¹ , P. Burns ² , G. Vinderola ² , J.A. Reinheimer ² , R. Lanciotti ^{*1} , ¹ <i>University of Bologna DISTAL, Italy</i> , ² <i>Universidad del Litoral, Santa Fe, Argentina</i>
[P1.52]	Fabrication of nanoliposomes enriched with polyphenols from olive pomace: a green and efficient approach A.A. Casazza, B. Aliakbarian*, P. Perego, <i>University of Genoa, Italy</i>
[P1.53]	Microencapsulation of long-chain polyunsaturated fatty acids (LC-PUFAs) and its delivery into food products B. Wang*, S. Ghasemi Fard, M. Cheng, G.S. Elliott, <i>Nu-Mega Ingredients Pty Ltd., Australia</i>
[P1.54]	Characterization of interfacial properties of Gum Acacia thin films C. Aphibanthammakit ^{*1} , C. Sanchez ³ , M. Nigen ² , P. Chaliel ³ , ¹ <i>Montpellier SupAgro, France</i> , ² <i>INRA, France</i> , ³ <i>University of Montpellier, France</i>
[P1.56]	Development and characterization of calcium induced heat stable whey protein micro-particles C. Errity*, M. Gulzar, J.C. Jacquier, <i>University College Dublin, Ireland</i>
[P1.57]	Nano-liposomal encapsulation of bioactive peptide fraction from rainbow trout skin gelatin S.F. Hosseini*, L. Ramezanzadeh, M. Nikkhah, <i>Tarbiat Modares University, Iran</i>
[P1.58]	New health ingredients: encapsulated proanthocyanidins A. Romano*, P. Masi, E. Pucci, V. Oliviero, P. Ferranti, <i>University of Naples FEDERICO II, Italy</i>
[P1.59]	Human Intervention Study to Assess Pharmacokinetics of Microencapsulated Vitamin-B2 A.M. Reilly*, E.R. Gibney, J.C. Jacquier, <i>University College Dublin, Ireland</i>
[P1.60]	Immune enhancing activity of germinated soybeans fermented with probiotics H.J. Park ^{*1} , D.K. Park ² , ¹ <i>Gachon University, Republic of Korea</i> , ² <i>Cell Activation Research Institute, Republic of Korea</i>
[P1.61]	In vitro bioaccessibility of individual carotenoids of tomato fruit as affected by the application of pulsed electric fields S. González-Casado*, O. Martín-Belloso, P. Elez-Martínez, R. Soliva-Fortuny, <i>Agrotecnio Center, University of Lleida, Spain</i>

[P1.62]	Changes in antioxidant activity and bioaccessibility of anthocyanin and phenolics in processed murta berries K.S. Ah-Hen ^{*1} , O. García ¹ , R. Lemus-Mondaca ² , L. Gómez-Pérez ² , O. Muñoz Fariña ¹ , ¹ Universidad Austral de Chile, Chile, ² Universidad de La Serena, Chile
[P1.63]	Heat treatment increases the bioaccessibility of good quality <i>Palmaria palmata</i> proteins in an <i>in vitro</i> gastrointestinal digestion model H.K. Maehre*, G.K. Edvinsen, I-J. Jensen, K-E. Eilertsen, E.O. Elvevoll, <i>UIT The Arctic University of Norway, Norway</i>
[P1.64]	An intervention study on the effect of matcha tea on mood and cognitive performance C. Dietz*, M. Dekker, B. Piqueras-Fiszman, <i>Wageningen University, The Netherlands</i>
[P1.65]	Effect of <i>in vitro</i> gastrointestinal digestion on the content of bioactive constituents of milk and soya beverages formulated with cactus pear fruit (<i>Opuntia</i> spp.) T. García-Cayuela ¹ , A. Gómez-Maqueo ¹ , J. Welti-Chanes ¹ , M.P. Cano ^{*1,2} , ¹ Centro de Biotecnología FEMSA, Mexico, ² Instituto de Investigación en Ciencias de la Alimentación (CIAL) (CSIC-UAM), Spain
[P1.66]	Enhancement of the antioxidant properties of ewe fermented milk enriched with red beet (<i>Beta Vulgaris</i>, variety Cardeal) N. Garcia-Gonzalez ^{*1} , C. Asensio-Vegas ² , D. Rico ¹ , A.B. Martin-Diana ¹ , ¹ Agro Technological Institute of Castilla and Leon (ITACyL), Spain, ² Agro Technological Institute, Spain
[P1.67]	Antioxidant activity of red ginseng residue protein film incorporated with hibiscus extract H. Kim*, S. Beak, K.B. Song, <i>Chungnam National University, Republic of Korea</i>
[P1.68]	Effect of transglutaminase treatment on <i>in vitro</i> starch digestibility of Grass pea seed (<i>Lathyrus sativus</i>) flour C.V.L. Giosafatto, A. Romano*, P. Masi, L. Mariniello, <i>University of Naples FEDERICO II, Italy</i>
[P1.69]	Assessment of bioactive compounds in edible and waste parts of cantaloupe melon E. Garcia, J.F. Fundo, F.A. Miller, C.L.M. Silva*, T.R.S. Brandão, <i>Escola Superior de Biotecnologia, Universidade Católica Portuguesa, Portugal</i>
[P1.70]	Evaluation of antioxidant properties of cow's milk yogurt and ewe's milk yogurt N. Garcia-Gonzalez ^{*1} , C. Asensio-Vegas ² , B. Olmedilla-Alonso ³ , D. Rico ¹ , A.B. Martin-Diana ¹ , ¹ Agro Technological Institute of Castilla and Leon (ITACyL) Ctra, Spain, ² Agro Technological Institute, Spain, ³ Institute of Food Science, Technology and Nutrition, Spain
[P1.71]	Antioxidant properties and phenolic compounds of extracts of passiflora plants: exploring biodiversity for food nutrition I.L. Gadioli ^{*1} , R.M. Gonçalves ¹ , L.L.O. Pineli ¹ , A.M. Costa ² , ¹ University of Brasilia, Brazil, ² Embrapa Cerrados, Brazil
[P1.72]	Nutritional composition and antioxidants of baru pulp (<i>Dipteryx alata</i> vog.) from three different locations of Brazilian savanna I.L. Gadioli*, L.L.O. Pineli, <i>University of Brasilia, Brazil</i>
[P1.73]	Vacuum drying application on native maqui berry (<i>Aristotelia chilensis</i>) as a functional food I. Quispe-Fuentes*, V. Vasquez, N. Cardenas, A. Vega-Galvez, <i>Universidad de La Serena, Chile</i>
[P1.74]	Dairy dessert for weight management: microstructure and texture J. Borreani, E. Llorca*, A. Quiles, I. Hernando, <i>Universitat Politècnica de Valencia, Spain</i>
[P1.75]	Industrial thermal processed meat stew have similar nutritional values as homemade cooked J.T. Rosnes*, D. Skipnes, I.S. Grini, <i>Nofima, Norway</i>
[P1.76]	Characterization of antioxidant bioactive constituents in two Spanish cactus pear fruit varieties (<i>Opuntia ficus-indica</i> spp.) T. García-Cayuela ¹ , A. Gómez-Maqueo ¹ , J. Welti-Chanes ¹ , M.P. Cano ^{*1,2} , ¹ Centro de Biotecnología FEMSA, Mexico, ² Instituto de Investigación en Ciencias de la Alimentación (CIAL) (CSIC-UAM), Spain
[P1.77]	Probiotic Karish Cheese Has Protective Effect Against Non-Alcoholic Fatty Liver Disease in Rat Model F.M.F. Elshagabee, <i>Cairo University, Egypt</i>
[P1.78]	Glutamine as ammonia donor in catabolism of sinalbin and biosynthesis of the biogenic amine 4-hydroxybenzylamine J.C. Sørensen, H.B. Frandsen, P.R.M. Møller, S. Sørensen, K.E. Markedal*, H. Sørensen, <i>University of Copenhagen, Denmark</i>
[P1.79]	Determination of structure related antioxidant capacity of canola and hemp extracts in relation to accelerated solvent extraction - development of novel HPLC method of quantification H.M.A.R. Nandasiri ^{*1,2} , P. Eck ¹ , U. Thiyam-Hollander ^{1,2} , ¹ University of Manitoba, Canada, ² Richardson Centre for Functional Foods & Nutraceuticals, Canada
[P1.80]	Design of a local enteral food in Cameroun with appropriate flowing properties for enteral tube feeding C. Maka Taga ^{*1} , C. Mouquet-Rivier ² , Y. Jiokap Nono ¹ , C. Icard-Vernière ² , H. Desmorieux ³ , C. Kapseu ¹ , ¹ Ngaoundere University, Cameroon, ² IRD Montpellier, France, ³ Claude Bernard University of Lyon I, France
[P1.81]	Effect of Local Processing Techniques On The Nutrients And Anti-Nutrients Content Of Bitter Cassava (<i>Manihot Esculenta</i> Crantz) J.S. Alakali ¹ , A.R. Ismaila ^{*1,2} , T.G. Atume ¹ , ¹ University of Agriculture, Nigeria, ² Federal University Dutsinma, Nigeria

[P2.01]	Effect of types of crushing and electrical heat treatment on production of fruity vegetable juice S. Kanafusa*, C. Takahashi, I. Kobayashi, K. Uemura, <i>NARO, Japan</i>
[P2.02]	Optimizing heat treatment of meat products using low cooking temperatures L. Nersting, <i>Danish Meat Research Institute, Denmark</i>
[P2.03]	Effect of convective and freeze-drying processes on Galega kale quality L. Tasin ^{1,2} , I.N. Ramos ¹ , S.M. Oliveira ¹ , T.R.S. Brandão ¹ , C.L.M. Silva ¹ , ¹ <i>Universidade Católica Portuguesa, Portugal</i> , ² <i>Università di Bologna, Italy</i>
[P2.04]	In-situ investigation of nucleation and bubble growth behaviour during starch extrusion V. Ulrich*, S. Liebl, M. Richter, C. Rauh, <i>Technische Universität Berlin, Germany</i>
[P2.05]	Optimised processing of faba bean (<i>Vicia faba</i> L.) for food protein ingredients I.L. Petersen*, K.E. Markedal, S. Sørensen, J.C. Sørensen, <i>University of Copenhagen, Denmark</i>
[P2.06]	Combined heating and homogenization of dispersions by application of a novel direct steam injection nozzle design F. Schottroff ¹ , C. Windinger ¹ , J. Maklad ² , H. Jaeger ¹ , ¹ <i>University of Natural Resources and Life Sciences (BOKU), Austria</i> , ² <i>Maklad innovative Fluid- und Systemtechnik GmbH, Austria</i>
[P2.07]	Purification and concentration of aqueous <i>Syzygium cumini</i> (L.) seed extract using integrated membrane process U. Balyan, B. Sarkar*, <i>GGs Indraprastha University, India</i>
[P2.08]	Effect of different freezing methods on the physico-chemical characteristics of organic strawberries U. Tylewicz*, C. Mannozi, S. Tappi, N. Dellarosa, P. Rocculi, M. Dalla Rosa, S. Romani, <i>University of Bologna, Italy</i>
[P2.09]	Effect of mash enzyme and heat treatments on the cellular antioxidant activity of blackcurrant (<i>Ribes nigrum</i>), raspberry (<i>Rubus idaeus</i>) and blueberry (<i>Vaccinium myrtillus</i>) juices C. Bender ^{1,3} , K.V. Killermann ² , D. Rehmann ² , H.H. Weidlich ¹ , ¹ <i>Institut Kurz GmbH, Germany</i> , ² <i>Institut für Lebensmitteltechnologie, Germany</i> , ³ <i>Istituto Kurz Italia S.R.L, Italy</i>
[P2.10]	Ohmic thawing of frozen tuna at a high frequency – Analysis of electrical conductivity Y. Llave*, L. Liu, M. Fukuoka, N. Sakai, <i>Tokyo University of Marine Science and Technology, Japan</i>
[P2.11]	Modeling of ohmic heating patterns of sour cherry juice using computational fluid dynamics codes N. Zamindar ¹ , N. Niknafs ² , G. Asadi ² , ¹ <i>Isfahan (Khorasgan) Branch Islamic Azad University, Iran</i> , ² <i>Science and Research Branch, Islamic Azad University, Iran</i>
[P2.13]	Design and development of fresh-cut fruit products minimally processed by osmosis and high pressure or air drying for increased shelf life K. Panteleakou, E. Dermesonlouoglou, G. Katsaros, P. Taoukis*, <i>National Technical University of Athens, School of Chemical Engineering, Greece</i>
[P2.14]	Exploitation of proteins from waste stream of potato starch production J.M. Schmidt ¹ , M.G. Poulsen ² , H. Damgaard ³ , M. Hammershøj ¹ , L.B. Larsen ¹ , ¹ <i>Aarhus University, Denmark</i> , ² <i>KMC, Denmark</i> , ³ <i>AKV Langholt, Denmark</i>
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[P1.32]

Comparison of thermal stability of super high oleic and high oleic sunflower oil added with α -tocopherol acetate during prolonged and discontinuous frying process

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INTRODUCTION

Frying is one of the widespread cooking methods in the world. It gives to food special sensory characteristics, accompanied by a series of physical and chemical changes, which can lead to degradation of the oil. Nowadays, oils enriched in vitamins are spreading on the market.

The aim of this study was to evaluate thermal stability of high oleic sunflower oil with addition of α -tocopherol comparing to sunflower oil with an higher content of oleic acid.

METHODS

High oleic sunflower oil (78% in oleic acid - HOSO) was used as control sample. The same oil was added with α -tocopherol acetate (HOSO+E), then a super high oleic sunflower oil (85% in oleic acid - SHOSO) were used. These oils were subjected to a discontinuous thermo-oxidation (without food matrix) and frying process, heating oils 8h/die for 6 days with daily filling up. Sampling was carried out every 8h

and analysis of free fatty acids (FFA), peroxides value (PV), fatty acids (FA), total polar compounds (TPC) and tocopherol content by HPLC-UV were conducted.

RESULTS AND DISCUSSION

SHOSO showed the lowest FFA, PV, TPC and UFA/SFA ratio decreasing during thermo-oxidation and frying. Moreover, octanoic acid (C8:0), marker of heat treatment, was no detected until 48 h of thermo-oxidation and showed the lowest values during frying. Results are showed in fig 1.

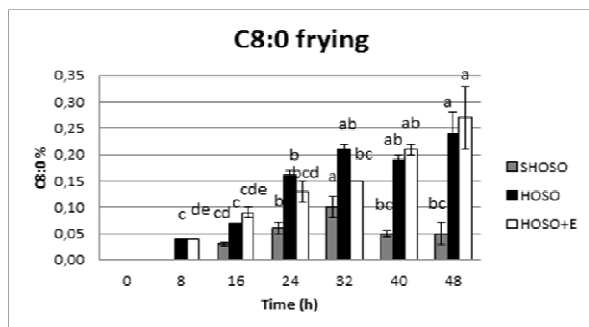


Fig1. C8:0 content of HOSO, HOSO+E and SHOSO during frying

a-e: Different letters correspond to statistically significant differences ($P \leq 0.05$) for the same oil.

Oil enriched with α -tocopherol reduced FFA during thermo-oxidation and frying process, while no significant difference was observed for the other tested parameters respect to control sample. SHOSO showed better frying performance, with lower TPC, C8:0 content and UFA/SFA ratio decreasing. Results suggest that degree of unsaturation may influence largely heat resistance of an oil respect to presence of α -tocopherol.