Posters

Monday, November 9, 2026, 3:00 pm-3:50 pm. Kona Ballroom

Student Poster Competition Semi-Finalists

Abstract #	Poster #	Title	Authors
667	**1**	Enhancing the Quality of Soy Protein Ingredients using Supercritical Carbon Dioxide Technology	Sumanjot Kaur and Ali Ubeyitogullari; University of Arkansas,
714	**2**	Jamming-Induced Protein Gelation	Giang Vu, Beatriz Lederman Valente, Jan Ilvasky, Osvaldo Campanella; Ohio State University, University of Campinas, Brazil , Argonne National Laboratory, IL
817	**3**	Development and Functional Evaluation of Glycogen-Like Particle-Added Scaffolds for Post-Harvest Metabolic Regulation in Cultivated Meat	Yeonjoo Maeng, Euijung Han and Jin-Kyu Rhee; Ewha Womans University, Republic of Korea
908	**4**	Characterization of Mealworm (Tenebrio molitor) Proteins obtained by Alkaline and Enzyme-assisted Extraction Methods	Kaira Sidhwa, Molly Chang, Zhujun Gao, Fernanda Santos, Deepti Salvi; North Carolina State University
917	**5**	Effects of Palm Oil Powder and Feed Moisture Content on the Textural and Physical Properties of High-Moisture Meat Analogue Containing Undaria pinnatifida	Cindytia Selvina Bernas, Shinta Maharani, Jarvis Tay, Jenshinn Lin; National Pingtung University of Science and Technology, Taiwan, Kasetsart University, Thailand, Nanyang Polytechnic, Singapore
945	**6**	Role of lipid phase structuring in tailoring the microstructural and rheological properties of yeast protein-based emulsion gels toward cream cheese analogs	Abigail Zaehler, Yu Wang, Kacie K. H. Y. Ho, Zhi-Yan Du, Zhi Yang; - University of Hawaii
633	**53**	Geometry-Aware Digital Twin Framework for Multiphysics Transport in Drying of Porous Food Materials with Data Assimilation	Saeed Nazari and Amir Malvandi, University of Illinois Urbana-Champaign
868	**54**	Simultaneous Real-Time Measurement of Particle Size and Moisture Content Using SWIR Imaging	Md Abdullah Al Mukit, Amir Malvandi; University of Illinois Urbana - Champaign
898	**55**	Toward Predictive Design of Plant-Based Meat Analogs: A Physics-Informed Model Linking Extrusion Settings to Texture	Kartik Verma1, Hrithik Shetty, Bhavesh Patel, Mrinal Kumar, and Osvaldo H. Campanella; The Ohio State University
902	**56**	Physics-Based and Artificial Intelligence Modeling of Texture Development in High Moisture Extruded Plant-Based Meat Analogs	Hrithik Shetty, Kartik Verma, Bhavesh Patel, Matt Papic, Mrinal Kumar, Osvaldo Campanella; The Ohio State University University
780	**85**	A Time-Shift Method for Improved Microbial Survival Modeling During Thermal Processing with Come-Up Time	Bing Li, Si Zhu, Guibing Chen; Center for Excellence in Post-Harvest Technologies, North Carolina A&T State University
854	**86**	UV-C Treatment for Reducing Botrytis Spoilage in Blueberries: From Chamber to Conveyor	Makayla Bellino, Joy Waite-Cusic, Qingyang Wang;Department of Food Science and Technology, Oregon State University
647	**87**	Development of a Novel ThermoElectric-based Single-Stream Heat Exchanger t Improve Energy Efficiency in Liquid Food Pasteurization	Sahar Saadat, Mark Morgan, Gong Gu, Hao Gan, Jiajia Chen; University of Tennessee
839	**88**	Pulsed electric field processing differentially impacted gastric softening and mas transfer in apple and carrot	Weiyi Sun, Anabella Soledad Giacomozzi, Jose V. Garcia-Perez, and Gail M. Bornhorst; University of California, Davis, Universitat Politècnica de València, Spain
874	**89**	Cost and environmental trade-offs of soybean processing for fuel, protein and feed production	Millena Cruz , Minliang Yang, North Carolina State University, Raleigh

Topic: Food Materials, Alternative Proteins & Nutrition

578	**7**	Innovative Bioprocess Approaches for Functionalization of Plant-Based Ingredients for Food Applications	Zhongqin Shi and Belal Hasan, California State Polytechnic University
596	**8**	Gut-Bone Axis Modulation by Lactiplantibacillus plantarum GXS77 From Enhanced Intestinal Calcium Absorption to Skeletal Health	Jinwen Tang, School of food science and engineering South China University Of Technology
607	**9**	Beyond Protein Quantity: Sex- and Age-Specific Digestion Models for Future Food Engineering	Mashiah, L., Refael, G., Shani Levi, C. and Lesmes, U. Technion, Haifa, Israel
843	**10**	Influence of Drum-Dryer Temperature on Functional and Pasting Properties of Breadfruit Flour Compared to Dehydrator Drying	Peishih Liang, S. Gutierrez, D. Olson; USDA-ARS U.S. Pacific Basin Agricultural Research Center, HI, USDA-ARS Western Regional Research Center, Albany, CA
614	**11**	Exploring low moisture extrudates as a substrate for solid state fermentation to develop a novel chickpea tempeh with enhanced functionalities	Gunjan Kulkarni, Sudeeptha Vasanthy Mohan, Hang Xiao , University of Massachusetts Amherst, The Ohio State University
	12		
623	**13**	Quality characteristics of low-calorie madeleines prepared with tartaric acid-treated resistant starch	Jae Young Hwang and Chang Joo Lee, Department of Food Science and Biotechnology, Wonkwang University, Iksan, Jeonbuk, 54538, Republic of Korea
628	**14**	Differential effects of betanin and vulgaxanthin I on the antioxidant capacity of r plasma	Tomasz Sawicki, Monika Jabłońska, Małgorzata Starowicz; University of Warmia and Mazury, Polish Academy of Sciences
631	**15**	Consumers Preferences for Sensory Characteristics and Nutritional Values of Goat Meat	M. Ibrahim, F. Hollis, J. Lee, B. Cornish, and N. Pattanaik., B. Onyango, Fort Valley State University, Missouri State University
637	**16**	Modification of β-Lactoglobulin by genetically engineered microbial laccase	Shih-Hsuan Chen, Chih-Yun Lee, Lu-Sheng Hsieh, Chuan-Liang Hsu*; Department of Food Science, Tunghai University, Taichung City, 40704, Taiwan
644	**17**	Exploring the influence of pea protein hydrogel structure on in vitro protein digestion	Anahí Bonilla-Rodríguez, Laura Salvia-Trujillo, Olga Martín Belloso, Anahí Bonilla-Rodríguez, Laura Salvia-Trujillo, Olga Martín Belloso, University of Lleida, Spain
664	**18**	α-Amylase and α-Glucosidase Inhibition by Nine Tea and Herbal Leaf Extracts: Solvent-Dependent Selectivity Verified by HPSEC	Sungmo Ahn, Seokwon Lim, Ji Yeon Kim, Young-Jun Kim, Sung Keun Jung, JaeHwan Lee, Choongjin Ban, Chang Joo Lee, YOU YOUNG LEE, Gachon University, Republic of Korea
676	**19**	Engineering a 3D-printed core–shell hydrogel system for probiotic protection during digestion and storage	Que-Anh Truong-Le, Sun-Ok Lee, Ali Ubeyitogullari, University of Arkansas
684	**20**	Optimization of severity index—dependent gelation behavior of subcritical water—treated bioactive hydrolysates from green plum seeds (Prunus mume Siebold & Zucc.) in protein matrices using machine learning	Jong Won Lee and Geun-Pyo Hong; Department of Food Science & Biotechnology an Carbohydrate Bioproduct Research Center, Sejong University, Seoul, 05006, Republic of Korea.
716	**21**	Encapsulation of camu-camu by freeze-drying: influence of wall material blends on physicochemical properties, bioactive protection, and stability	Rodriguez-Cortina, A, Porras A., Nerio, L.S., Hernández-Carrión, M., Universidad de los Andes, Bogotá , Colombia, Universidad de la Amazonia, Colombia.
724	**22**	Valorizing Rice Flour into Neurospora crassa Mycoprotein via Enzymatic Liquefaction	Olumide Olubiyo; Sun Ferreira, University of Arkansas- Division of Agriculture
727	**23**	Non-isothermal oxidation kinetics of pecan oil containing selected antioxidants using differential scanning calorimetry.	Nana Tweneboah Nkansah and Sergio I. Martinez-Monteagudo; New Mexico State University
728	**24**	Modulating linear and nonlinear viscoelasticity of whey protein isolate gels using yeast protein particles: Implications for dysphagia foods	Nanqing Bian, Zhi Yang; Department of Human Nutrition, Food and Animal Sciences, University of Hawai‘i at Mānoa
737	**25**	Effect of Dairy Protein Source and Homogenization Pressure on Foaming Behavior	Olatunde John Ojo, Nana Tweneboah, Muhammad Azeem Ur Rehman Alvi, and Sergio I. Martinez-Monteagudo; New Mexic State University

741	**26**	Development of Alginate Oligosaccharide/Pectin/Bacterial Cellulose Hydrogel Microcapsules for Encapsulation and Immobilization of Probiotics for Potential Oral Delivery	Muyao Du, Zhenlei Xiao, Yangchao Luo; University of Connecticut
744	**27**	Engineering Self-Oxygenating Scaffolds for Scalable Volumetric Cultivated Mea Production	Sangbae Park; Seoul National University
748	**28**	Influence of Psyllium Husk on the Rheological and Functional Properties of Mea Batters	Milena Conte, Shirley Clyde Rupert Brandao, Kartik Verma, Beatriz Lederman Valent Benjamin M. Bohrer; The Ohio State University
754	**29**	High-Pressure Processing of Hydrolyzed Sesame Protein: Gelation for Next-Generation Protein-Rich Foods	Beatriz Lederman Valente, Giang Vu, Osvaldo H. Campanella, Marcelo Cristianini, School of Food Engineering, University of Campinas, Brazil.
757	**30**	Dynamic textural evolution of surimi gels during simulated mastication using a biomimetic texture analysis system	Yong-Shin Kim, Hyeon Woo Park; Department of Food and Biotechnology, Korea University, Sejong 30019, Rep. of Korea
760	**31**	Mapping processing-induced deformation through oscillatory rheological descriptors in ice cream	Muhammad Azeem Ur Rehman Alvi, Andrea G. Soler-Sanchez, Joy Ikedichi Agbawodike, Rahila Naseer, Samy Belteton, and Sergio I. Martinez-Monteagudo; New Mexico State University
761	**32**	Sequence-controlled ion assembly regulates Na^+/K^+ availability in gellan gum-basedNaCl–KCl particles for enhanced saltiness and reduced KCl-associated bitterness	Yeon Gyeong Kim , Mi-Jung Choi, Konkuk University, Seoul, Republic of Korea
766	**33**	High Speed Multi-Material 3D Food Printing System for Scalable Production of Plant-Based Meat Analogs	Sangbae Park , Rack-Woo Kim; Seoul National University, Republic of Korea
787	**34**	Linking Thermal Processing and Matrix Composition to Probiotic Spore Surviva and Functionality in Inulin-Enriched Fermented Milk	Rahul Damodar Kamath and Dharmendra K Mishra; Purdue University
788	**35**	High pressure homogenization and moderate heating to form pea protein-polysaccharide adducts for applications in high protein and fiber yogurt-like acid gels	Sanjana Sawant and Dr. Audrey Girard; Department of Food Science, University of Wisconsin - Madison, Madison, WI, 53706, USA
789	**36**	Interfacial Engineering of Aspergillus oryzae Biofilm–Oleogel Hybrid Composites via Plant Protein–Based Adhesion for Structured Food Systems	Begum Koysuren, Mursalin Sajib, Andrew J. Gravelle, Nitin Nitin; University of California, Davis-Department of Biological and Agricultural Engineering
816	**37**	Replacing Pea Protein with Canola Protein Concentrate Produced by Reactive Extrusion for Meat Analog Application	Jeff Chow (1), Nur Kus (2), Sunandita Ghosh (1), Qing Jin (2), Da Chen (1) (1) Purdue University, (2) University of Maine;
841	**38**	Effects of Formulation Moisture, Extrusion Screw Speed, and Storage Temperature on the Shelf-Life Stability of High-Moisture Extruded Pea Protein Meat Analogs	Yalan Wu, Huiru Tan, Zirui Xiong, Saehah Yi and Juzhong Tan;Department of Anima and Food Sciences, University of Delaware
852	**39**	Physicochemical, Nutritional, and Volatile Profiles of Dark Chocolate Bars with Moringa oleifera as a Partial Cocoa Powder Substitute	Yiwen Cheng, Hui Ru Tan, and Tan, Juzhong; Department of Animal and Food Science, University of Delaware
861	**40**	Innovative Processing Strategies for Sustainable Production of Cowpea Protein Ingredients	**Ahmed Redwan Haque**, Samira Feyzi; Department of Food Science, University of Arkansas, Fayetteville, Arkansas, 72704, USA
862	**41**	Salt-Assisted Alkaline Processing to Improve Protein Recovery from Cowpea (Vigna unguiculata)	Ahmed Redwan Haque, **Samira Feyzi;** Department of Food Science, University of Arkansas, Fayetteville, Arkansas, 72704, USA

867	**42**	Tailoring Wheat Gluten Matrices for Meat Analogs: Influence of Matrix Composition and Cold Shearing on Deformation Capacity	Mariana Angonese1, João Borges Laurindo2, Pedro Luiz Manique Barreto3, and Bruno Augusto Mattar Carciofi1., University of California Davis, Federal University of Santa Catarina
873	**43**	Marine-Derived Fibrous Scaffolds Fabricated by Slime Webbing for Cultivated Seafood Applications	Sangeun Park, Euijung Han, Nam Keun Lee and Jin-Kyu Rhee, Ewha Womans University, Seoul 03760, Republic of Korea
879	**44**	Specific Mechanical Energy as a Measure of Degree of Processing for Modulating In Vitro Digestive Outcomes in Extruded Foods	Dhruv Ghevariya, Zhujun Gao, Deepti Salvi, North Carolina State University, Raleigh, North Carolina, 27695, USA
887	**45**	Towards Ethical Industrial Slaughter of Yellow Mealworm (Tenebrio molitor) Larvae: A Statistical Approach to Optimizing Hot Water Immersion Processing	Flavia S. Almeida, Mariangeles P. Zacarias, Meghan Barrett, Bruno A.M. Carciofi, University of California Davis, Indiana University
888	**46**	Plant-Based Meat Analogue: The Role of Formulation, Die Length, and Die Temperature on Product Quality and Energy Efficiency	Po Shou, Pan, Jenshinn, Lin; Department of Food Science, National Pingtung University of Science and Technology, Neipu, Pingtung, Taiwan, ROC
897	**47**	Characterizing nanoscale origins of fibrous texture in high-moisture extruded texturized pea protein and chicken breast meat using X-ray scattering	Sahil Nain, Brian A. Collins, Girish M. Ganjyal; School of Food Science, Washington State University, Pullman, WA 99164, United States
904	**48**	Beyond Browning: Unravelling Acrylamide Formation Kinetics in Plant-Based Burgers	C. Arinzechukwu, J. Tang, A. Francavilla, I.J. Joye, M.G. Corradini; Department of Food Science, University of Guelph, Guelph, ON, N1G 2W1, Canada
	49		
934	**50**	Determine the Impact of processing conditions on protein gel physiochemical characteristics and bioactive components concentration in yogurts	Peter Krell and Professor Dr. Ningjian Liang, University of Idaho
938	**51**	Interplay between protein concentration and oleogel structuring in modulating th microstructure and whipping performance of faba bean protein-stabilized oleogel emulsions	Gopal Kumar Kundu and Zhi Yang; Department of Human Nutrition, Food and Anima Sciences, University of Hawaii at Manoa, Honolulu, Hawaii, 96822, USA
958	**52**	Encapsulation of Spirulina Platensis by spray drying using composite wall materials to improve functional properties and enable targeted release	Yaren Yurdagul, Oguz Kaan Ozturk' ,University of Illinois Urbana-Champaign

Topic: Modeling, AI, Sensing & Engineering Education

591	**57**	Measuring Student Learning Gains with Take-Home Puncture-Resistance Kits for Packaging Materials: Development, Validation, and Pre/Post Quiz Evidence	Yao Olive Li(1), Megan Wong(1), Tiffany Nguyen(1); Shyam Sablani(2); California State Polytechnic University-Pomona; (2) Washington State University
601	**58**	Engineering the Narrative: A High-Impact Course Framework for AI-Integrated Scientific Communication in Higher Education	Fernanda Santos and Paige Luck, Department of Food, Bioprocessing and Nutrition Sciences, NC State University, Raleigh, North Carolina, 27695, US
602	**59**	Finite-Element Modeling of Non-Isothermal Pulse-Protein Melt Flow in a Twin-Screw Extruder	Sophia Seffrood,Wan-Yuan Kuo, Girish Ganjyal, Dilpreet Bajwa; Montana State University, Bozeman, MT
665	**60**	Toward Fast and Optimal Robotic Pick-and-Place Operations in Meat and Seafood Kebab Production	Yi Jing, Wenbo Liu; Coastal Research and Extension Center, Mississippi State University, Pascagoula, MS 39567
671	**61**	Characterizing hydration kinetics in food foulants using hyperspectral imaging	Zhenyu Jason Zhang, Matthew C. Moore, Ian McRobbie, Nick Dixon, Peter J. Fryer; University of Birmingham & Innospec Ltd
682	**62**	Development and Validation of a Scaled-Down Autonomous Mobile Robot (AMR) Navigation Testbed for Ceiling-Mounted Global Vision Control in Smart Food Processing	Jooho Lee[1], Youngjin Kim[1], Jieun Jeong[1], Jihyun Byun[1], Seongju Woo[1], Minji Choi[1], Wookwon Lee[1], Jinyoung Park[1], Sangoh Kim[1]*; Dankook University

683	**63**	Machine Learning for Predictive and Inverse Design of Rheological Properties in Yeast Protein–Xanthan Food Systems	Zhi Yang; University of Hawaii at Manoa
687	**64**	Wide Field Hyperspectral Imaging for Detection, Classification, and Quantification of Microbial Contamination on Food Contact Surfaces	Rishabh Goyal and Kang Huang; Department of Biological Systems Engineering Washington State University, Pullman, WA, 99164, USA
699	**65**	Development of Three-Dimensional Simulation Model for Electron-Beam Pre-Sterilization of Food-Grade PET Containers	Jaekyun Kwak, Junhwi So, Yanggu Kang, Jongeon Lee, and Seung Hyun Lee, Chungnam National University, Daejeon, Korea
700	**66**	Development of the Integrated CFD Model for Evaluating the Thermal Response of Dairy Cows in Barn Environments	Yang Gu Kang, Chungnam National University
742	**67**	Toward triaging food and coating combinations to qualify non-BPA can coatings using optical profilometry and self-supervised machine learning	Stiphany T. Tieu, Muhammad N. Akbar, Luke A. Wolfe, Gregory R. Ziegler; The Pennsylvania State University
781	**68**	An AI-Assisted Engineering Framework for Evidence-Based Food Processing Condition Recommendation	Bing Li, Si Zhu, Guibing Chen; Center for Excellence in Post-Harvest Technologies, North Carolina A&T State University
785	**69**	Food Physics and Modeling for Engineers: Learning Material You Can Use Today	A. Datta, Cornell University
786	**70**	Machine Learning Prediction of Ice Nucleation Timing and Supercooling Stabili in Whole Fish Treated with Oscillating Magnetic Fields	SeungHoon Baek, Dongyoung Lee, Soojin Jun; Department of Human Nutrition, Food and Animal Sciences, University of Hawaii at Manoa, Honolulu, HI, 96822, USA
790	**71**	Starch magnetic nanozymes for biogenic amine colorimetric detection in wine	Sang-Mook You; Kyungpook National Univeristy
793	**72**	Early detection of salinity stress in sweet basil using time-series RGB Imaging and CNN-LSTM	Sang Mok Cha, Hyeon Woo Park; Department of Food and Biotechnology, Korea University, Sejong 30019, Rep. of Korea
797	**73**	Portable multimodal sensing platform integrating bioimpedance and VIS-NIR spectroscopy for non-destructive assessment of food and agricultural materials	Jiwon Yang, Daesik Son, and Soo Chung, Seoul National University, Seoul, Republic of Korea
813	**74**	Multi-Frequency Bioelectrical Impedance Analysis for Non-Destructive Evaluation of Meat Quality During Storage	Thomas H Terrill, Aftab Siddique, Aaron Kingler, Phaneendra Batchu; Fort Valley State University
827	**75**	NIR Imaging with Deep Learning for Real-Time Moisture Prediction During Microwave Vacuum Drying	Jinhong Yu, Diane Makvic, Viral Shukla, Chang Chen;Department of Food Science, Cornell University
853	**76**	Machine Learning Prediction of Papaya Quality Characteristics using Vision Transformers	Jacob Umeno and Dr. Soojin Jun; University of Hawaii Manoa graduate student
857	**77**	Using Computer-Aided Design Instructional Tools and 3-D Printing to Improve Spatial Visualization Skills of Biological Engineering Students	Gail M. Bornhorst, Bruno A. M. Carciofi, Weiyi Sun; Department of Biological and Agricultural Engineering, University of California Davis, Davis, CA, 95616, USA
869	**78**	Interpretable and Accelerated Colorimetric Biosensor Readout toward Food Analysis Using RGB Thresholds	Jihae Lee and Youngsang You Department of Food Engineering, Dankook University, Cheonan 31116, Republic of Korea
809	**79**	An Artificial Intelligence-Supported Roleplay Learning Strategy in Food Engineering Education to Train Future Food Scientists	Jiajia Chen, Jennifer Richards, Vermont Dia, Ploy Wong, Sahar Saadat; University of Tennessee, Knoxville
892	**80**	Inverse estimation of effective moisture diffusivity in apple slices hot-air drying process control	Anmol Kaur Gill, Kirk D. Dolan, Sanghyup Jeong; Michigan State University
	81		

927	**82**	Use of Machine learning to avoid spoilage in the fresh produce industry	Janhawi Patil and Deepti Salvi; Green Hope High School, North Carolina State University
956	**83**	A Simplified Temperature Prediction Model for Frozen Foods during Post-Delivery Storage in Insulated Packaging	SangYoon Lee, Jong Won Lee, Yoonhee Kang, Geun-Pyo Hong, Sejong University, Seoul, Korea
959	**84**	Non-destructive simultaneous classification of species, roast level, and geographic origin of single coffee beans using NIR hyperspectral imaging and an explainable multi-task 1D-CNN	Runyu Zheng, Mohammed Kamruzzaman, University of Illinois at Urbana-Champaign

Tuesday, November 10, 2026, 3:00 pm-4:00 pm. Kona Ballroom

Topic: Food Safety & Microbial Control

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610	**91**	Decontamination of Foods and Processing Surfaces by Pulsed Ultraviolet Light: An Update	Ali Demirci, Pennsylvania State University
624	**92**	OSMOTIC STRESS ENHANCES ANTIBIOTIC RESISTANCE AND BIOFILM FORMATION OF LISTERIA MONOCYTOGENES IN DAIRY PROCESSING ENVIRONMENTS	Wioleta Chajęcka-Wierzchowska, Patryk Wiśniewski, Patryk Adamski, Anna Zadernowska, Faculty of Food Science, University of Warmia and Mazury in Olsztyn, Poland
625	**93**	Whole-Genome Sequencing Reveals Foodborne Staphylococcus epidermidis as a Reservoir of Antimicrobial Resistance and Mobile Genetic Elements	Wioleta Chajęcka-Wierzchowska, Anna Zadernowska, Zuzanna Byczkowska-Roztkowska, Joanna Gajewska, Faculty of Food Science, University of Warmia and Mazury in Olsztyn, Plac Cieszyński 1, 10-726 Olsztyn, Poland
626	**94**	INFLUENCE OF OSMOTIC AND HIGH HYDROSTATIC PRESSURE STRESS ON VIRULENCE FACTOR EXPRESSION IN ENTEROCOCCI ISOLATED FROM FOOD	Anna Zadernowska, Wioleta Chajęcka-Wierzchowska, Patryk Wisniewski; Department of Food Microbiology, Meat Technology and Chemistry, Faculty of Food Science, University of Warmia and Mazury
627	**95**	Biofilm Survival of Listeria monocytogenes after High-Pressure Processing: Implications for Food Safety	Anna Zadernowska, Wioleta Chajęcka-Wierzchowska, Patryk Wiśniewski, Patryk Adamski, Arkadiusz Zakrzewski; Department of Food Microbiology, Meat Technology and Chemistry, Faculty of Food Science, University of Warmia and Mazury
661	**96**	Design and Evaluation of a Hydrodynamic Vortex Nanobubble Reactor Coupled with Cold Plasma for Biofilm Control	Prithviraj V, Adityasukumar Pasagadi, Shivani Sonkar, Negar Ravash, Michael Gänzle Xianqin Yang M S Roopesh, University of Alberta, Lacombe Research and Development Centre, Canada
677	**97**	Development of an Atmospheric Cold Plasma-Based Post-Harvest Process for OTA Mitigation in Liberica Coffee	Mridula Senthil, Varshetha S. G., and Janie McClurkin Moore, Texas A&M University
704	**98**	Engineering a Charge-Reversal Delivery System for Precision Antimicrobial Release to Enhance Microbial Safety of Dairy Foods	Ruojie Zhang* Hangxin Zhu, Zipei Zhang, Azlin Mustapha
720	**99**	Synergistic pasteurization and sanitation using food-grade antimicrobials and mi physical stress (one will be presented by co-author)	Shyam K Singh, and Nitin Nitin; Department of Food Science and Technology, University of California Davis
722	**100**	Health impacts of dietary polystyrene nanoplastics: absorption,tissue accumulation, and chronic immune and metabolic effects in mice	Eunjung Lee, Fermentation Convergence Research Group, Korea Food Research Institute, Wanju, Jeollabuk-do, 55365, Republic of Korea
723	**101**	Comprehensive Kinetic Modeling of Aflatoxin B1 Photodegradation under UV Irradiation for Process Design and Optimization	Shirley Clyde Rupert Brandao, Milena Conte, Shreya Madhav Nuguri, Kartik Verma, Giang Vu, Ahmed E. Yousef, Osvaldo Campanella; The Ohio State University

735	**102**	A Predictive Risk-Based Framework for Adaptive Environmental Monitoring in Low-Moisture Food Facilities	Arshpreet Kaur Khattra, Tashfain Ahmed, Bradley Marks, Sanghyup Jeong;Michigan State University
765	**103**	Comparative Evaluation of Light Sources for Bacterial Inactivation: Process Efficiency and Cellular Damage Responses	Hye-Jae Choi and Myong-Soo Chung; Ewha Womans University
768	**104**	Investigation of Food Removal by Dissolution through Hydrodynamic Removal using Microscale Modelling	Antoni Zingas, Thomas Hubbard, Ian McRobbie, Zhenyu Jason Zhang, Amin Rahmat; University of Birmingham, Edgbaston, Innospec Ltd., Ellesmere Port, CH65 4EY
774	**105**	Thermal Inactivation Kinetics of Listeria monocytogenes in Low-Acid Canned Pâté-Style Pet Food	Madhuparna Deb, Snehasis Chakraborty, and Kaliramesh Siliveru; Kansas State University
775	**106**	Beyond Thermal Inactivation: Electroporation-Driven Microbial Reduction During Ohmic Heating of Soy Milk	Ezgi Son, Ferruh Erdogdu, Angela De Vivo, Fabrizio Sarghini, Kulu, Selcuk University, Ankara University, Turkiye, University of Naples Federico II, Italy
783	**107**	Atmospheric Cold Plasma for E. coli and Salmonella Inactivation in Chickpea Grains	Harshavardhan Reddy Settipalli, Snehasis Chakraborty, Kaliramesh Siliveru; Kansas State University
803	**108**	Effect of discharge voltage on pilot-scale IPL inactivation of Bacillus subtilis vegetative cells and endospores under equivalent fluence conditions	Subin Lee, Hye-Jae Choi, So-Jung Park, Myong-Soo Chung; Ewha Womans University
806	**109**	Wavelength-Dependent Mechanisms of LED-Induced Microbial Inactivation	Ji-Yoon Lee, Hye-Yeon Kim, Na-Kyung Kim, and Myong-Soo Chung;Ji-Yoon Lee, Hye-Yeon Kim, Na-Kyung Kim, and Myong-Soo Chung, Ewha Womans University, Korea
807	**110**	Action Spectrum of LED Inactivation of Escherichia coli and Effects of Pulsed Irradiation at 305 nm	So-Jung Park, Hye-Jae Choi, Subin Lee, and Myong-Soo Chung; Department of Food Science and Biotechnology, Ewha Womans University, Korea
811	**111**	Effects of Thermal and LED Treatments on Microbial Reduction in Fruit Juices	Na-Kyung Kim*, Ji-Yoon Lee, Hye-Yeon Kim and Myong-Soo Chung; Department of Food Science and Biotechnology, Ewha Womans University
818	**112**	Comparison of inactivation and damage mechanisms in Shigella sonnei at variou LED wavelengths	Hye-Yeon Kim, Ji-Yoon Lee, Na-Kyung Kim, Myong-Soo Chung; Department of Food Science and Biotechnology, Ewha Womans University, Seoul, Republic of Korea
822	**113**	Synergistic inactivation of Clostridium sporogenes PA 3679 spores by pressure-assisted thermal processing and cationic antimicrobials in a low-acid food matrix	Liz Astorga-Oquendo, Ahmed E. Yousef, V.M Balasubramaniam;The Ohio State University and The University of Georgia
829	**114**	Ultrasound-assisted cleaning of simulated dairy fouling on stainless-steel surfaces	Wesley Rainey and Qiao Ding; Oregon State University
833	**115**	Aflatoxin Degradation in Corn Using Atmospheric Cold Plasma Treatment	Berta Guadalupe del Cid Alvarez, Snehasis, Kansas State University, Chakraborty, Carlos Campabadal, and Kaliramesh Siliveru;
847	**116**	Surrogate and spoilage bacteria inactivation in kale juice by Pulsed Electric Field (PEF)	Xavier Hospitala, Jaqueline O. de Moraes, Ana G. Massiac, Flavia S. Almeida, Bruno A. M. Carciofi and Luxin Wang; Complutense University of Madrid, Spain, University of California, Federal University of Santa Catarina
849	**117**	Development of light-activated zein-based coating for food-contact surfaces in food processing environment	Haknyeong Hong, Shyam K Singh, Yoonbin Kim, Nitin Nitin;Department of Food Science and Technology, University of California Davis, CA, 95616, USA
856	**118**	Effects of High-Moisture Extrusion and Storage Conditions on the Microbial Stability of Pea Protein-Based Meat Analogs	Saehah Yi, Zirui Xiong, Hui Ru Tan, and Juzhong Tan; Department of Animal and Food Sciences, University of Delaware, College of Agriculture and Natural Resources, Newark, DE, 19716, USA

872	**119**	Microbial decontamination of brewer's spent grain using in situ plasma-activated water	Il Ryeong Kwon and Sea C. Min; Seoul Women's University, Seoul, Nowon-gu, Seoul 01797, Republic of Korea
885	**120**	Degradation of Aflatoxin B1 in Aqueous Solution by Surface Dielectric Barrier Discharge Cold Plasma	Sneha Chhabra, Zhujun Gao, Rishipal Bansode, Deepti Salvi, North Carolina State University, North Carolina Agricultural and Technical State University
901	**121**	Evaluating Powdered Food Matrix Interference on the Inactivation Efficacy of Surface Dielectric Barrier Discharge (SDBD) Cold Plasma Against Salmonella Typhimurium	Marco Gonzalez Miranda, Zhujun (Abby) Gao, Aaron Mazzeo, Katharina Stapelmann, Deepti Salvi; NC State University
910	**122**	Continuous Plasma Nanobubble (PNB) Treatment for Salmonella and Listeria Inactivation and Quality Preservation in Fresh Produce	Fariha Chowdhury Meem, Kalmia E. Kniel, and Juzhong Tan; Department of Animal and Food Sciences, University of Delaware, Newark, Delaware, 19713, USA
922	**123**	Continuous Dean-Flow UV-C Pasteurization of Whole Bovine Milk	Bishal Barman, Nirmal Thirunavookarasu, Jestin Bose, Ankit Patras, Joy Waite-Cusic, David C. Dallas; Oregon State University, Corvallis, Oregon
925	**124**	Temperature dynamics predict Salmonella survival kinetics in chili pepper during microwave drying	Natoavina T. Faliarizao, Teresa M. Bergholz, Kirk D. Dolan;Michigan State University
933	**125**	Aqueous chlorine dioxide tempering of wheat kernels: Evaluation of STEC E.coli inactivation kinetics, enzyme activity, flour functionality, and baking properties	Suhan Bheemaiah Balyatanda, Snehasis Chakraborty, Shivaprasad Doddabematti Prakash, Berta Del Cid Alvare, Kaliramesh Siliveru*, Kansas State University
940	**126**	Pulse Light Treatment of Pinto Bean Grains to Improve Food Safety and Functional Performance	Dhanashree Gaidhani, Snehasis Chakraborty, Kaliramesh Siliveru' ;Kansas State University
942	**127**	Use of UV-C and acidic water tempering as a hurdle approach for mitigating pathogenic E. coli contamination in hard red winter (HRW) wheat grains	Jared Rivera, Shivaprasad Doddabematti Prakash, Kaliramesh Siliveru;Department of Grain and Food Science Kansas State University, Manhattan, KS, 66502, USA

Topic: Food Processing Technologies (Thermal, Nonthermal & Drying)

629	**128**	Effect of technological processes on orotic acid content in milk and dairy products	Tomasz Sawicki, Monika Jabłońska, Marika Bielecka, Katarzyna Przybyłowicz; University of Warmia and Mazury,Poland
636	**129**	Radio frequency thawing of frozen eggs: industrial scale design and effects on th quality	D. Ulu, C. Tasci, E. Coşkun, O. Altin, R. Ezen, S. M. Soyumert, F. Marra, Ferruh Erdogdu; Ankara University, Breeding Enterprises Industry Turkey, University of Salerno, Italy
652	**130**	Effects of Intense Pulsed Light and Clove Essential Oil Treatments on the Qualit and Oxidative Stability of Pecan Kernels	Vera Arthur, Saida Afrin, Rabin Gyawali, Ajit Mahapatra, and Jung Hoon Lee*;Agricultural Research Station, Fort Valley State University, 1005 State University Drive, Fort Valley, GA 31030
690	**131**	Study on the Design of Rice Cooker Utilizing the Radiant Heat of Thin Film Graphene	LEE JONGEON; Chungnam National University, Republic of Korea
733	**132**	Optimization of Vitamins B6, B9, and B12 Production in Mazzaella splendens Fermentation	Anubhav Pratap-Singh[1]* and Sana Bayrami[1] [1]Food, Nutrition and Health Program, Faculty of Land and Food Systems, The University of British Columbia, Vancouver, BC V6T 1Z4, Canada
736	**133**	Cold Plasma-Induced Molecular Modifications of Guar Gum Enhance Its Engineering Properties	Rudro Deb Sardar, Sofia Katherine Sierra, Amit Morey; Department of Poultry Science, Auburn University, Auburn, Alabama, 36849, USA

743	**134**	Effects of Oscillating Magnetic Field-Assisted Supercooling on the Physicochemical Stability and Bioaccessibility of β-Carotene-Loaded Solid Lipid Nanoparticles	Heejin So, Kacie Ho, and Soojin Jun; Department of Human Nutrition, Food and Animal Sciences, University of Hawai'i at Mānoa, Honolulu, Hawaii, 96822, United states
747	**135**	Pulsed Electric Field Inactivation of Lacticaseibacillus rhamnosus for Enhanced Preservation of Cellular Functionality	Ye-Won Kwon, Se-Ho Jeong, Se-Won Cheon, and Dong-Un Lee;Chung-Ang University
749	**136**	Fractionation of Antioxidant Peptides from Chlorella vulgaris Protein Hydrolysates using Electrodialysis	Juan A. Velasquez, Jen-Yi Huang, The Ohio State University
752	**137**	Effect of e-beam on foaming properties of dairy ingredients	Katrina Santers, Kumar Mallikarjunan and Suresh Pillai; University of Minnesota
796	**138**	Influence of agitation rate on the bioprocessing of lupin flour with Aspergillus oryzae	Carla Lafuente-Molina, Monica Eced, Albert Ribas-Agustí, Ricard Bou, Jose Benedito, Jose V. Garcia-Perez; Universitat Politècnica de València, Finca Camps i Armet, Spain
802	**139**	A Novel Green Technology for Producing Bioactive Compounds with Enhanced Bioavailability	Elif Peker and Ozan Ciftci, Purdue University
823	**140**	Low-Moisture Extrusion of Nutrient-Dense Small Lima Bean-Based Snacks: Effects of Protein Fortification and Incorporation Methods on Physicochemical and Nutritional Properties	Linhui Zhou, Juzhong Tan; University of Delaware
830	**141**	Process Kinetics, Volatile Composition, and Nutrient Retention during UV-A Light Dehydration of Foods	Sajad Karami, Luis Bastarrachea; Department of Nutrition, Dietetics and Food Science Utah State University, 8700 Old Main Hill, Logan, UT 84322, USA
838	**142**	Pin-to-Plate Non-Thermal Plasma Modification of Orange and Grapefruit Peel Fibers for Gut Microbiome Applications	Jenna Moffett, Rongge Zou, Juzhong Tan; Department of Animal and Food Sciences, University of Delaware
844	**143**	Protein Interactions Impact Quality of UHT and Retort Processed Ready-to-Drink Coffee Lattes	S. Lau, S. Jhita, J. Bruneel, T. X. U. Phan, L. Senger, A. Prakash; Chapman University
850	**144**	Non-Contact Capacitive Coupling Electrode Field (CCEF) Design, Modeling, and Application on Seafood-Based Supercooling	Socheatha Chea Tork, Dongyoung Lee, Soojin Jun; University of Hawai'i at Manoa
851	**145**	Influence of Non-thermal Assisted and Hybrid Drying Technologies on Drying Performance and Quality Attributes of Fruits and Vegetables	Zimeng Peng, Dr. Qingyang Wang and Dr. Minliang Yang;North Carolina State University and Oregon State University
855	**146**	Exploring Innovative Non-Contact Capacitively Coupled Electric Fields for Ice Nucleation Control in Supercooled Packaged Foods	Dongyoung Lee, Socheatha Chea Tork and Soojin Jun; Department of Human Nutrition, Food and Animal Sciences, University of Hawaii at Manoa
865	**147**	Surface Dielectric Barrier Discharge Cold Plasma Pretreatment of Postharvest Produce: Effects on Drying Kinetics and Quality	Justin Gilleland, Prawal Agarwal, Karl Stevenson, Prandeep Balkhandia, Devon Jensen, Yue Xiao, Jooyeoun Jung, Yanyun Zhao, Qingyang Wang; Oregon State University, Advanced Cooling Technologies, Inc., PA, University of Alabama
890	**148**	Laser Photobiomodulation of Beet Sprouts: Integrated Nutritional, Metabolomic, Physicochemical, and Powder-Functionality Responses	Hanieh Sadeghi, Gulcin Yildiz, Suganya Jeyaprakash, and Hao Feng, North Carolina A&T State University, Igdir University, Turkey
896	**149**	Frying Kinetics of Chin-chin: Linking Moisture Loss, Morphological and Colour Changes to Acrylamide Formation	C. Arinzechukwu, S. Regetti Marquez, K. Petker, I.J. Joye, M.G. Corradini,Department of Food Science, University of Guelph, Guelph, ON, N1G 2W1, Canada
899	**150**	Ultrasonic Compression Induced Structural and Compositional Changes in Cornmeal Nutrition Bars	Jamaka Thomas, Ally Lewis, Luis Rodriguez-Saona, Gönül Kaletunç; Ohio State University

764	**151**	Effects of Oscillating Magnetic Field-Assisted Supercooling on the Viability and Quality of Bovine Embryos	Junhwi So; Department of Smart Agriculture Systems, Chungnam National University, Daejeon, 34134, Korea
912	**152**	Scale-up and Purification-Process Optimization of Polylactose	Jawadul Misir; Kumar Mallikarjunan; Food Engineering Lab; Dept. of Food Science and Nutrition; University of Minnesota Twin Cities
929	**153**	Filament Extension Atomization Enabled Spray Dryers as a Platform to Produce Novel Products and Ingredients	David M. Johnson, Ben Boggs Aditya Sangli, Greg Anderson, Anish Thukral, Bill Docker-Mazur, Alfonso Martinez; SRI
947	**154**	Cultivation-Based Postharvest Processing of Wild-Simulated Ginseng through Individualized Management	Yooan Kim, Kyo Suh; Seoul National University, Korea
954	**155**	Technifying Solar Drying of Coconut: Preliminary Links between Drying Performance and Oil Quality	Lina Cardona, Luis J. Cruz-Reina, Fabrice Vaillant, Jader Rodríguez.; Corporación Colombiana de Investigación Agropecuaria – AGROSAVIA

Topic: Sustainability, Valorization & Packaging

585	**156**	Opportunities and Challenges in fungal plastic bioconversion for mycoprotein and enzyme production	Suraj Kumar Panda and Sun Ferreira
642	**157**	Robust Fermentation of Variable Dairy Whey for Acetate Production Supporting Protein-Rich Microalgae Cultivation	Sunni Chen, Soleil Castelli Asano, Yangchao Luo; Department of Nutritional Sciences University of Connecticut, Storrs, CT, 06269, USA
660	**158**	Upcycled Coffee Oil and Eggshell Byproducts as Functional Additives for PHBV: Advancing Circular Economy Solutions in Sustainable Food Packaging Through Waste Valorization and Performance Enhancement	Rinky Ghosh and Yael Vodovotz; The Ohio State University, Department of Food Science and Technology, 2015 Fyffe Road, Columbus, OH, 43210, USA, *
680	**159**	Cosolvent -modified Supercritical-CO2 extraction of fish oil on marine waste	Anika Singh, Yigong Guo, kellly Nguyenn, David D. Kitts, Anubhav Pratap-Singh; University of British Columbia, BC Institute of Technology
691	**160**	3D-Printed soy protein–microalga films with potential for food packaging	Sorour Barekat , Buse Dogan , Sibel Uzuner , Ali Ubeyitogullari, University of Arkansas, Izmir Institute of Technology, Turkey
696	**161**	Generating high-value porous materials from fruit and vegetable waste	Niveditha Asaithambi and Ali Ubeyitogullari; University of Arkansas, Fayetteville, Arkansas, USA
718	**162**	Valorization of Tofu Press Water through Production and Recovery of Platform Fatty Acids	Shreya Riswadkar, Ibrahim Olanrewaju Bello, Joseph G. Usack, University of Georgia University of Georgia
726	**163**	The Impact of a “Move to −15°C” Sustainability Initiative on Ice Cream Quality	Stephanie Clark1,2, Johanna Gebbia3, Alejandro Schutte3, and Sergio I. Martinez-Monteagudo1,3,4; New Mexico State University
729	**164**	Design and Experimental Evaluation of a Biomass-Based Boiler for Sustainable Thermal Energy Supply in Rural Agroindustries	Fabian Velasquez, Edwin Villagran, John Espitia, Luis Cruz, Andres Sarmiento, Fabrice Vaillant, Jader Rodriguez1; Research, Corporación Colombiana de Investigación Agropecuaria (Agrosavia), Mosquera 250047, Colombia, Colombia
734	**165**	Comparing Phosphorus Sustainability of Plant-Based Protein Isolates Using Life Cycle Assessment	Madison Horgan, Khara Grieger, Treavor Boyer, Sarishma Bhandari, Minliang Yang; North Carolina State University
738	**166**	Integrated Recovery of Lipids and Cellulose Microfibers from Spent Coffee Grounds for Functional Hydrophobic Coatings in Fiber-Based Packaging	Cecilia Hernandez-Hosaka and Jooyeoun Jung;Oregon State University
740	**167**	Selection of Agri-Food Biowaste Fibers and Optimization of Delignification Conditions for Enhanced Drainage in 100% Non-Woody Molded Pulp Fruit Baskets	Xiaofang Bai, Yanyun Zhao, and Jooyeoun Jung;Oregon State University

753	**168**	Evaporative Self-Assembly of Birch Bark Extractive for Tuneable Topography and Wettability	Golshan Matinfar, Xanyar Mohammadi, Anubhav Pratap Singh, Orlando Rojas; Faculty of Land and Food Systems, Bioproducts Institute, The University of British Columbia, Vancouver, Canada
755	**169**	Plasma-Assisted Surface Engineering of Silica-Enriched Chitosan Films for Enhanced Moisture Barrier and Liquid Repellency	Xanyar Mohammadi, Anubhav Pratap-Singh; a- Food, Nutrition and Health, Faculty of Land and Food Systems, The University of British Columbia, Vancouver, BC, Canada
763	**170**	Novel Alternative Protein Products from Upcycled Agrifood Side-streams: A win-win approach for sustainability	Neta Segal, Shachar Heppner, Yara Kudsi, Bar Goren, Ravit Edelman and Professor Yoav D. Livney, Technion, Israel Institute of Technology, Haifa, 3200003, Israel
771	**171**	Engineering a fortified breakfast cereal: using grape pomace and protein powder to create a functional product	Diane Makovic, Dr. Chang Chen; Cornell University
821	**172**	Selective extraction of sorghum wax from bioethanol production side-stream using supercritical carbon dioxide: An alternative to carnauba wax for fruit coating	Nihan Pinar Camur(a) and Ali Ubeyitogullari(a,b); (a)Department of Food Science, University of Arkansas, Fayetteville, AR 72704, USA (b)Department of Biological and Agricultural Engineering, University of Arkansas, Fayetteville, AR 72701, USA
826	**173**	Pulse Electric Field-Assisted Valorization of Beet Cut-Offs for Enhanced Betalain Extraction and Co-Product Utilization	Viral Shukla, Olga I. Padilla-Zakour, Chang Chen; Department of Food Science, Cornell AgriTech, Geneva, NY, 14456, USA
875	**174**	Performance of bio-based polyurethane foams prepared with waste cooking oil-derived bio-polyol synthesized using cold plasma treatment as cushioning materials for strawberry packaging: a storage study	Ga Eun Myung and Sea C. Min; eoul Women's University, Seoul, Nowon-gu, Seoul 01797, Republic of Korea
891	**175**	Development of Non-O157 STEC-Specific Phage TP26lw Incorporated Gelatin/Nanochitosan-Based Antimicrobial Packaging	Koirala, Pankaj ; Liao, Yen-Te; Sablani, Shyam S. ; and Wu, Vivian C. H., Washington State University, Agricultural Research Service, California
894	**176**	Ultrasound-Induced Exposure of Hydrophobic Residues in Zein: An Additive-Free Approach to Hydrophobic Film Development	Parvej Hasan Jon, Sukanya Poddar and Md Mahfuzur Rahman; University of Arkansas
895	**177**	Intrinsic Antimicrobial Activity of Rice Bran Films through Argon Cold Plasma–Mediated Surface Functionalization: Mechanisms and Effects on Functional Properties	Saydul Md Safwa and Md Mahfuzur Rahman; University of Arkansas
905	**178**	Cradle-to-grave life-cycle assessment of sustainable packaging for dairy products	Ajinkya Arun Atkare, Mo Li, Neel Saha, Mohan Valluri, Minliang Yang; , North Carolina State University, Alamance Food Inc., Burlington, NC
909	**179**	Hybrid microwave–refractance window drying: a sustainable approach for valorizing citrus pomace	Ahmad Adeel Arshad, Kimon Sathya Pietro Antoniadis, Gianfranco Di Lorenzo, Ferruh Erdoğdu, Francesco Marra; University of Salerno, Fisciano, Italy, University School for Advanced Studies, Pavia, Italy; Ankara University, Ankara, Türkiye
935	**180**	Fermentation-Based Valorization of Opuntia ficus-indica Cladode Mucilage for Sustainable Ingredient Development	Armaghan Amanipour, Babak Pakbin, Stephen Talcott; Department of Food Science and Technology, Texas A&M University