2019 AOCS Annual Meeting & Expo

May 5–8 America's Center Convention Complex | St. Louis, Missouri, USA

Processing (PRO) Interest Area
Tentative Technical Program

As of February 12, 2019

This presentation list is not final and is subject to change.

The presenter is the first author, or the author indicted with an asterisk (*).

Monday Afternoon

BIO 1.2a/PRO 1a: Advances in Enzyme Processing Technologies
Chairs: Long Zou, Bunge Oils, USA; and Leslie Kleiner, Roquette Americas Inc., USA

Enzyme Assisted Chemical Refining of Vegetable Oils. Sambasivarao P. Javvadi*, Sandeep Chaudhary, Melkita P. Sequeira, and Archana P. Ashok, *Shirdi Sai Nutraceuticals Pvt. Ltd., India*

Kinetic Modelling of Enzymatic Saccharification of Soy Molasses. Ashwin Sancheti*, and Lu-Kwang Ju, *University of Akron, USA*

New Enzymatic Process Improves the Yield in Alkaline Refining of Vegetable Oils. Hans Christian Holm[1], and Per Munk Nielsen*, *Novozymes A/S, Denmark*

Unique Phospholipase Degumming Enzyme. Michael E. Spampinato*, *DSM Inc., USA*

LOQ 1b / PRO 1b: Effect of Processing on Lipid Oxidation in Oils and Oats and Lipid-containing Foods
Chairs: Sean Liu, USDA, ARS, USA; and S.P.J. Namal Senanayake, Camlin Fine Sciences, USA

Effects of Modified Phosphatidylcholine on physical and oxidative stability of omega-3 delivery 70% oil-in-water emulsions. Betül Yesiltas*[1], Ann-Dorit Moltke Sørensen[2], Pedro J. Garcia-Moreno[2], Sampson Anankanbil[3], Zheng Guo[4], and Charlotte Jacobsen[2], *[1]National Food Institute, Technical University of Denmark, Denmark; [2]Technical University of Denmark, Denmark; [3]Dept. of Engineering, Aarhus University, Denmark; [4]Aarhus University, Denmark*

Effect of Maillard Reaction Conditions on Physicochemical Properties and Oxidative Stability of Microencapsulated Chia Oil. Vanesa Y. Ixtaina[1], Bernd W.K Diehl[2], Claudia N. Copado[1], and Mabel Tomás*[1], *[1]CIDCA (CONICET-UNLP), Argentina; [2]Spectral Service AG, Germany*

Impact of Ratios of Polyunsaturated and Saturated Fatty Acids on Oxidation Kinetics in Oil/Water Emulsions. Raffaella Inchingolo[1], D. Julian J. McClements[2], Eric A. Decker[2], and Mitchell D. Culler*[2], *[1]University of Massachusetts, USA; [2]University of Massachusetts Amherst, USA*

Effective Prevention of Oxidative Deterioration of Fish Oil by the Combination of Amine-compounds and General Antioxidants. Mariko Uemura[1], Masashi Hosokawa[1], Kazuo

Miyashita*[1], Ai Iwashima-Suzuki[2], and Hiroaki Kubouchi[2], *[1]Hokkaido University, Japan; [2]Megmilk Snow Brand Co. Ltd., Japan*

Tuesday Morning

PRO 2: Expert Insights in Seed and Oil Processing Technologies
Chairs: Gijs Calliauw, Desmet Ballestra Group, Belgium; and William Younggreen, Alfa Laval Inc., USA

Deodorizer Energy Use – How Low Can We Go? Alan R. Paine*, Desmet Ballestra, Belgium

A Typical Day in an Edible Oil Refinery plant: From Problems over Challenges to Solutions. Raffaele Baldini*, Alfa Laval, Denmark

An Experts' Insight in the Separation-Technology for Degumming and Neutralization Processes. Birger Horns*, GEA Group, Germany

Reducing Wastewater in a Solvent Extraction Plant. Matthew Ducharme*, Crown Iron Works, USA

White Flake Desolventization, Feedback from the Field and New Applications such as Palm Kernel and Citrus Fiber. Richard W. Ozer*, Crown Iron Works, USA

Tuesday Afternoon

PRO 3: Processing of Oils and Fats in China and the US
Chairs: Xuebing Xu, Wilmar Global Research and Development Center, China; and Michael Boyer, AWTMS, USA

Trends of the Enzyme-assisted Aqueous Extraction of Soybean Oil and Protein in China. Xiaonan Sui*, and Lianzhou Jiang, *Northeast Agricultural University, China*

Processing of Rice Bran Oil in China. Yuan–Rong Jiang*, *Wilmar Biotechnology R&D Center (Shanghai) Co., Ltd., China*

Processing of Flavored Rapeseed Oil in China. Manyi Wang*, Xiangyu Wang, Fei Guo, Fengyan Wang, and Ju Hui, *COFCO Nurition & Health Research Institute, China;*

Antioxidant Activities of Natural Antioxidants in Rice Bran Oils during Oil Refining Processing. Ruijie Liu*[1], Lisha Zhang[2], Ruru Liu[2], Ming Chang[1], Qingzhe Jin[1], and Xingguo Wang[1], *[1]Jiangnan University, China; [2]Jiangnan university, China*

Recent Progress in Converting Grain-based Feedstock into Bioethanol, Oils, and Protein Co-products. Keshun Liu*, *USDA, ARS, USA*

BIO 3.1 / IOP 3 / PRO 3.1: Biofuels
Chairs: Frank Dumeignil, Lille University, France; Xiaofei P. Ye, University of Tennessee, USA; and Megan Hums, USDA, ARS, ERRC, USA

An Innovative Lipid Extraction Process from Spent Coffee Grounds. Mingming Lu*[1], Yang Liu, and Gerhard Knothe[2], *[1]Univ of Cincinnati, USA; [2]USDA, ARS, NCAUR, USA*

Modulating the Solubility of Saturated Monoglycerides (SMG) and Glycerol (GLY) in Blended Biodiesel Fuels. Richard W. Heiden*[1], and Martin Mittelbach[2], *[1]R.W. Heiden Associates, LLC, USA; [2]Institute of Chemistry, University of Graz, Austria*

Co-production of Acrylic Acid in a Typical Biodiesel Plant: A Techno-Economic Assessment. Xiaofei P. Ye*, *University of Tennessee, USA*

The Use of Controlled Flow Cavitation to Improve the Performance of Degumming, Refining and Biodiesel Operations. Darren J. Litle*, *Arisdyne Systems, Inc., USA*

Wednesday Morning

PRO 4a: New Technologies for Oil Processing
Chairs: Mohamed Abid, Solex Thermal Science Inc., Canada; and Mehmet Tulkbek, AGT Food and Ingredients, Inc., Canada

Bleaching Optimization through Use of Cellulose Adsorbents. Donald F. Hearl*, *J. Rettenmaier USA LP, USA*

New Concept in Shallow Bed Extractors. Anibal Alv Demarco*, *Desmet Ballestra, Argentina*

IOP 4 / PRO 4.1: Biorefinery Technology and Catalysis
Chairs: Helen Ngo Lew, USDA, ARS, ERRC, USA; and Kris Knudson, Crown Iron Works Co., USA

An Efficient Catalytic Approach to the Synthesis of Wax Esters from Fatty Acid Methyl Esters. Duc Hanh Nguyen[1], Guillaume Raffa[1], Yohan Morin[1], Simon Desset[1], Frédéric Capet[1], Véronique Nardello-Rataj[1], Franck Dumeignil*[2], and Régis Gauvin[1], *[1]UCCS, France; [2]Université de Lille, France*

A New Material for Reducing Glycidyl Esters in Edible Oil. Chelsea L. Grimes*, and Cristian Libanati, *W.R. Grace, USA*

Effect of Thermal Treatment on Feeding Value of Expeller Soybean Meal in Hexane-free Soybean Processing. Michal Kaválek*[1], and Vladimír Plachý[2], *[1]Farmet a.s., Czech Republic; [2]czech, Czech Republic*

Challenges in converting various fats and oils into a high yield of renewable jet fuel. Asbjørn S. Andersson*, *Haldor Topsoe A/S, Denmark*

Renewable Diesel from Waste Lipids: Challenges and Conversion Impacts. David Schwalje*[1], Larissa Perotta[2], and Michael Zhao[3], *[1]Axens NA, USA; [2]Axens, France; [3]Axens, USA*

Maximizing Heat Recovery in Soybean Processing. Mohamed Abid*, *Solex Thermal Science Inc., Canada*

Posters will be available for viewing from 10:00 a.m. on Monday, May 6 through 1:00 p.m. Wednesday, May 8, 2019.

PRO-P: Processing Poster Session
Chair: Alan Paine, Desmet Ballestra, Belgium

Effects of Moisture and Heat Pretreatments on the Quality of Crude Corn Germ Oil. Liyou Zheng*[1], Jianhua Huang[2], Xingguo Wang[3], and Qingzhe Jin[3], *[1]State Key Laboratory of Food Science and Technology Synergetic Innovation Center of Food Safety and Nutrition School of Food Science and Technology , China; [2]School of Food Science and Technology, Jiangnan University , China; [3]Jiangnan University, China*

Flavor Generation, Characteristics and Stability of Roasted Sunflower Oil. Xiaojun Liu*[1], Shengmin Zhou [2], and Yuan Rong Jiang[3], *[1]Wilmar Biotechnology Research & Development Center (Shanghai) Co., Ltd., China; [2]Wilmar (Shanghai) Biotechnology Research & Development Center Co., Ltd, China; [3]Wilmar Biotechnology R&D Center (Shanghai) Co., Ltd., China*

Study on Rice Bran Nutrition Extractions by Combined Enzymatic Approaches. Guang Zhang*, Mingshou Lyu, Yan-Guo Shi, and Zhihui Sun, *Harbin University of Commerce, China*

Concentration of Carotenoids from Tomato using Supercritical Carbon Dioxide. Shinhae Hwang*[1], Heejin Kim[2], Aree Lee[3], and In-Hwan Kim[3], *[1]Korea University, South Korea; [2]Dept. of Public Health Sciences, Graduate School, Korea University, Republic of Korea; [3]Korea University, Republic of Korea*

The Reduction of 3-MCPDs and GEs in Palm Oil Using Acidified and Non-Acidified Bleaching Earths. Victor Vega*, and Frank Filippini, *Oil Dri Corporation of America, USA*

Factors Affecting Cottonseed Hull Strength. Michael K. Dowd*[1], Roji Manandhar[2], and Christopher D. Delhom[2], *[1]SRRC-ARS-USDA, USA; [2]Southern Regional Research Center, ARS, USDA*

Wednesday Afternoon

AOCS Member + Volunteers Appreciation Luncheon
12:30–2 p.m.
Complimentary with all meeting registration types.

"Meet Me in St. Louis" Afternoon Excursion
3–7 p.m.
Departs from the Marriott Grand
Optional event. Ticket purchase is required.