2019 AOCS Annual Meeting & Expo
May 5–8 America's Center Convention Complex | St. Louis, Missouri, USA

Surfactants and Detergents (S&D) 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

S&D 1a: Fabric Care
Chair: Yvon Durant, Itaconix, USA

Study on Change in Clothing Texture of Clothes Bought by Depending on Drying Method. Hiroyuki Masui[1], Aiko Tai*[1], Shota Okeda[1], Tsuyoshi Terabayashi[1], Ai Tanaka[1], and Yoichiro Kohno[2], *[1]Lion Corporation, Japan; [2]LION Corporation, Japan*

Formulating High Performance Odor Neutralizing Carpet Cleaners. Gregory Smith*[1], Scott Jaynes[1], and Anita Augustyniak[2], *[1]Croda, Inc., USA; [2]Itaconix, USA*

Deliver In-Wash Laundry Care with Minimal Greying - Smart Cationic Sensorial Enabler. Yunshen Chen*, Randara Pulukkody, Emmett Partain, John Hayes, Peilin Yang, Michael Clark, Sharon Vuong, Daniel Miller, Asghar Peera, and Mariann Clark, *Dow Chemical Company, USA*

Elucidation of Softening Mechanism in Rinse Cycle Fabric Softeners. Takako Igarashi*[1], Masato Hoshi[1], Kouichi Nakamura[2], Takeshi Kaharu[2], and Ken-ichiro Murata[3], *[1]Kao Corporation, Japan; [2]Material Science Research Laboratory, Japan; [3]Institute of Low temperature Science, Hokkaido University, Japan*

S&D 1b: Trends in Clothing/Trends in Machines
Chairs: Erika Szekeres, Method, USA; and Hongwei Shen, Colgate Palmolive Co., USA

Dishwashing Appliance Trends' Impact on Detergent Formulation. Monica Ochoa Ruiz*, *Home and Personal Care / DuPont, The Netherlands*

Impact of ADW Machine Design on Formulations and Raw Materials. Jim W. Gordon*[1], and Bo Jiang[2], *[1]Itaconix, USA; [2]Itaconix, USA*

Principles and Applications of PhabrOmeter - Comparison with Other Existing Instruments. Ning Pan*, *University of California Davis, USA*

Sustainable Fabric Protection using Bio-Polymers. Gregory Smith*[1], Sue Burn[2], Scott Jaynes[1], and Xin Chen[1], *[1]Croda, Inc., USA; [2]Croda International PLC, United Kingdom*

S&D 1.1: Analytical and Performance Determination
Chairs: Robert Nolles, Cosun Biobased Products, USA; and Eric Theiner, Evonik Corporation, USA

The Interaction of Hydrophobe-Terminated Nonionic Surfactants with Silica. Eric P. Wasserman*, Kebede Beshah, Sara Klamo, Junsi Gu, Fang Yuan, and Robert Campbell, *The Dow Chemical Company, USA*

Effect of Alkyl Chain Distribution, Branching and Oligomer Distribution on Hard Surface Cleaning Performance. George A. Smith*[1], and Ollie James[2], *[1]Sasol North America, USA; [2]Sasol Performance Chemicals, USA*

Comparing Industry Soiled Stains to Freshly Soiled Stains in Laundry Detergent Evaluations. Tod Losey*, *Sterling Laboratories, USA*

MACH 5+, the Next Generation of Image Analysis for Measuring Cleaning Performance. Caspar van Leeuwen*[1], and Björn Hotting[2], *[1]Center For Testmaterials BV, Netherlands; [2]Colour Consult BV, Netherlands*

Employing Image Analysis to HLD-NAC Salt Scans. Eric Theiner*, and J. R. Bennett, *Evonik Corporation, USA*

Wettability Determination using High-Speed centrifuge, NMR, and Micro-CT. Sarmad Khan [1], Syed S. Hussain[2], Muhammad Sha Kamal*[1], Xianmin Zhou[1], and Syed S. Hussain[2], *[1]KFUPM, Saudi Arabia; [2]King Fahd University of Petroleum and Minerals, Saudi Arabia*

Limiting Variance: Exploring Primary Cleaning Evaluations for Hard Surface Cleaners. Kevin M. Salmon*, *BASF Corporation, USA*

Branched Alcohols Contribution to Surfactants Characteristic Curvature and Other HLD-NAC Parameters. Sanja Natali*, *ExxonMobil Chemical, USA*

Tuesday Morning

S&D 2a: Trends in I & I Cleaning
Chairs: Michael Tate, The Dow Chemical Company, USA; and Juan Goncalves, Diversey, Inc., USA

C20+ Alkoxylates in Industrial Applications. Ollie James*[1], and George A. Smith[2], *[1]Sasol Performance Chemicals, USA; [2]Sasol North America, USA*

Globally Harmonized System (GHS) Trend for I&I Cleaners: Surfactants to Help Minimize GHS Pictograms and Classification. Ron A. Masters*, Lela Jovanovich, Tracy Strilich, Luke Jancich, and Sangeeta Ganguly-Mink, *Stepan Company, USA*

Ability of Terpene-Based Microemulsions to Remove Asphaltene Residue from Solid Surfaces. Eleazar Mendoza[1], Alyssa Perrard[2], Helen W. Hernandez*[2], Wesley Ehlert[2], and Siwar Trabelsi[2], *[1]Texas A&M University, USA; [2]Flotek Chemistry, USA*

Effect of Reservoir Parameters and Surfactant Structures on Surfactant – Rock Adsorption in Various Rock Types. Daniel F. Wilson*[1], Laurie A. Poindexter[1], Carla Morgan[2], and Thu Nguyen[3],

[1]Sasol North America, USA; [2]Sasol Performance Chemicals, USA; [3]Sasol Performance Chemicals, USA

Rapid Identification of Surfactants to Improve Rheological Compatibility and Cleaning of Oil-Based Drilling Muds. Carol Mohler*[1], Thiago Alonso[2], Robert Sammler[2], Valeriy Ginzburg[2], Stephanie Hughes[2], Brian Nickless[2], Anatoly Medvedev[3], and Yan Gao[3], *[1]The Dow Chemical Company, USA; [2]Dow Chemical Company, USA; [3]Schlumberger, USA*

Shiny and Spotless Dishes with Phosphate-free Formulations. Yves Kensicher*[1], and Alexandra L. Foguth[2], *[1]Coatex SAS, France; [2]Arkema, USA*

S&D 2b: Disinfectants and Preservatives

Chairs: Andrew Guttentag, Church and Dwight, USA; and Nancy Falk, Clorox, USA

Functional Secondary Benefits of Fragrances and Flavors in Consumer Products. Charles C. Steward*, *Takasago International Corp. (USA), USA*

Polymer-micelle Complexes for Enhanced Adsorption and Antimicrobial Activity. David Scheuing*, and Nancy Falk, *Clorox, USA*

Antimicrobial Efficacy of Oxygen-Based Bleach Systems. Sam Adamy*, *Church & Dwight Co. Inc., USA*

A Brief Overview of the Continuum of Care: The Cleaning Touchpoints. Doe Kley*, *The Clorox Company, USA*

S&D 2.1: General Surfactants I

Chairs: Michael Miguez, Shell Global Solutions, Inc., USA; and Ann Lee, Novozymes North America, Inc., USA

Cleaning Efficiency of soap Spent Bleaching clay and Palm Fatty acid Distillate. Daniel Pioch[1], and Teerasak Punvichai*[2], *[1]CIRAD, UR 114 Biowooeb, TA-B 114/16, France; [2]Prince of Songkla University, Thailand*

Secondary Alcohol Ethoxylate - Process and Applications Revisited. David Li*, *Jiangsu Secol Chemical Company, China*

Surfactant EOR Formulations for High Temperature/High Salinity Reserviors. Thu Nguyen*[1], Carla Morgan[2], and Jorge M. Fernandez[3], *[1]Sasol Performance Chemicals, USA; [2]Sasol Performance Chemicals, USA; [3]Sasol North America, USA*

Microemulsions as Robust Electrolyte Solutions for Electrochemistry? Douglas G. Hayes*[1], Jing Peng[2], Thomas A. Zawodzinski[2], Gabriel A. Goenaga[2], and Mark Dadmun[2], *[1]University of Tennessee, USA; [2]University of Tennessee, USA*

Impact of Number of Ethylene Oxide Groups on the Surface and Thermal Properties of Betaine-based Polyoxyethylene Surfactants for Enhanced Oil Recovery. Syed S. Hussain*[1], and Muhammad Sha Kamal[2], *[1]King Fahd University of Petroleum and Minerals, Saudi Arabia; [2]KFUPM, Saudi Arabia*

Defoaming of Non-Aqueous Foams: Occurrence, Challenges and Silicon-free Defoamers. Ramesh Varadaraj*[1], Ollie James[2], and George A. Smith[3], *[1]Sasol Performance Chemicals, USA; [2]Sasol Performance Chemicals, USA; [3]Sasol North America, USA*

Solvents and Surfactants for Cleaning Applications in Oil and Gas. Jorge M. Fernandez, and Cornell Stanciu*, *Sasol North America, USA*

The Effect of Surface Roughness on Surfactant Adsorption at the Solid-Water Interface. Brian P. Grady*, *University of Oklahoma, USA*

Tuesday Afternoon

S&D 3: Trends in Household Cleaning
Chairs: Mark Sivik, P&G, USA; and Brian Sansoni, American Cleaning Institute, USA

Evolving trends and their influence on the design of Fabric, Air, and Home Care products. Mary B. Johnson*, *P&G Fabric and Air Care, USA*

Product Manufacturers Approach to Ingredient Transparency and Sustainability. Nancy Falk*, *Clorox, USA*

Appliance Manufacturers Trends and Approach to Sustainability. Brigitte Mader-Urschel*, *GE Appliances, USA*

Green Chemistry and Noncovalent Derivatization in Fabrics and Home Care Products. John C. Warner*, *Warner Babcock Institute for Green Chemistry, USA*

Biomaterials and the Circular Economy. Michael A. Saltzberg*, *DuPont Industrial Biosciences, USA*

S&D 3.1: General Surfactants II: Surfactant Synthesis and Fundamental Properties
Chairs: Gregory Smith, Croda, Inc., USA.; and Sanja Natali, ExxonMobil Chemical, USA

An Analytically Defined Fire-sppressing Foam Formulation for Evaluation of Fluorosurfactant Replacement. Katherine M. Hinnant[1], Spencer L. Giles[1], Arthur W. Snow*[1], John P. Farley[1], James W. Fleming[2], and Ramagopal Ananth[1], *[1]U.S. Naval Research Laboratory, USA; [2]NOVA Scientific Inc., USA*

Correlation Between Hydrophilic-Lipophilic Deviation (HLD) and Detergency of Different Oily Soils. Parichat Phaodee* and David A. Sabatini, *The University of Oklahoma, USA*

Characteristic Curvature of Various Commercial Laundry Formulations. Brian P. Grady*, *University of Oklahoma, USA*

Characteristic Curvature of Secondary Alcohol Ethoxylates and Emulsion Stability. Michael Tate*[1], Daniel Miller[2], Emily Bellairs[1], Bethany Karl[1], and Christopher J. Tucker[1], *[1]The Dow Chemical Company, USA; [2]Dow Chemical Company, USA*

The Effect of Surfactant Systems, Alcohol Types and Salinity on Cold Water Detergency of Triglyceride Semisolid Soil. Parichat Phaodee*[1], and David A. Sabatini[2], *[1]The University of Oklahoma, USA; [2]University of Oklahoma, USA*

Tuning Structuring in Aqueous Media via Surfactant-polymer Interactions. Paschalis Alexandridis*, and Marina Tsianou, *University of Buffalo, SUNY, USA*

On the Oil-like and Surfactant-like Characterization of Polar Oils. Edgar Acosta*, and Amir Ghayour, *University of Toronto, Canada*

Wednesday Morning

BIO 4.1 / S&D 4: Biosurfactants and Environmentally Friendly Ingredients
Chairs: Sujan Singh, Arkema, USA; and Douglas Hayes, University of Tennessee, USA

Comparative Antimicrobial Efficiency Among C18 and C22 Sophorolipid Congeners towards Select Gram+ Bacterial Strains. Richard D. Ashby*, and Daniel K.Y Solaiman, *USDA, ARS, ERRC, USA*

Fatty Acid, Methyl Ester and Vegetable Oil Ethoxylates. George A. Smith*, *Sasol North America, USA*

How Biosurfactants Can Enable Degreasing. J. R. Bennett, Eric Theiner*, and Stephanie Hackney, *Evonik Corporation, USA*

Biodegradable Dispersants for Phosphate Free Automatic Dishwashing Detergents. Scott A. Backer*[1], Severine S. Ferrieux[2], Eric P. Wasserman[1], Paul P. Mercando[1], Randara Pulukkody[3], Anurima Singh[4], Lin Wang, Ken Laughlin[4], Steve Arturo[4], and Lu Bai[4], *[1]The Dow Chemical Company, USA; [2]The Dow Chemical Company, France; [3]Dow Chemical Company, USA; [4]Dow Chemical*

Microbial Glycolipid Biosurfactants: Understanding Self-assembly to Make Soft Functional Materials. Ghazi Ben Messaoud[1], Chris V. Stevens[2], Lisa Van Renterghem[3], Sophie LKW Roelants[4], Wim Soetaert[5], and Niki Baccile*[6], *[1]Sorbonne Université, France; [2]University of Ghent, Belgium; [3]Ghent University, Belgium; [4]Bio Base Europe Pilot Plant, Belgium; [5]Centre for Industrial Biotechnology and Biocatalysis (InBio.be), Ghent University, Belgium; [6]Chimie de la Matière Condensée de Paris, Université Pierre et Marie Curie, France*

Aspartic Acid-based Ampholytic Amphiphiles: Synthesis, Characterization, and pH-Dependent Properties at Air/Water and Oil/Water Interface. Weiwei Cheng[1], Sampson Anankanbil[2], Liu Guoqin[3], and Zheng Guo*[4], *[1]South China University of Technology, China; [2]Dept. of Engineering, Aarhus University, Denmark; [3]School of Food Science and Engineering, South China University of Technology, China; [4]Aarhus University, Denmark*

Biobased Surfactants: An Overview. Douglas G. Hayes*, *University of Tennessee, USA*

The Combined Effects of Soap and Sophorolipids in the Development of Mild Body Wash for Sensitive Skin. Glen Lelyn Quan*[1], Chie Matsubara[1], Yoshihiko Hirata[2], Satoshi Yoshida[1], Maiko Iwai[1], Shinji Hamaguchi[1], Etsuko Komiyama, and Shigaku Ikeda, *[1]Saraya Co., Ltd. , Japan; [2]Saraya, Japan*

Laundry Sustainability vs. Laundry Sanitization: The Tension and the Solutions. Nancy Falk*, *Clorox, USA*

Optimal Regulation of Oxygenation for Coordination of Rhamnolipid Productivities and Residual Fatty Acid Content in Fermentation of *Pseudomonas aeruginosa*. Qin Meng*, *Zhejiang University*

Greener and Milder Functionalized Sugar-Based Surfactants for Home Care and Industrial Applications. Robert J. Coots*, Dennis Abbeduto, and Andy Sun, *Colonial Chemical, USA*

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

S&D-P: Surfactants and Detergents Poster Session
Chair: Mike Wint, Amway Corporation, USA

Amide Types of Gemini Surfactants Derived from Diethyl Tartrate. Daisuke Ono*[1], Keisuke Yoshida, Yuki Morimoto, Shintaro Kawano[2], Hirofumi Sato[2], Motohiro Shizuma[2], and Araki Masuyama[3], *[1]Osaka Research Institute of Industrial Science and Technology, Japan; [2]Osaka Municipal Technical Research Institute, Japan; [3]Osaka Institute of Technology, Japan*

Assessment of Skin Mildness of Personal Care Cleansers. Brajesh Jha*[1], Aixing Fan[2], Hongwei Shen[2], Derek Kim[3], Irina Chernyshova[4], Ponisseril Somasundaran[3], and Parta Patra[3], *[1]Colgate Palmolive, US; [2]Colgate Palmolive Co., USA; [3]Department of Earth and Environmental Engineering, Columbia University, NY, USA*

Monoglyceride-stabilized Pickering Emulsions as Vehicles for Controlled Release. Malek El-Aooiti*, Auke de Vries, and Dérick Rousseau, *Ryerson University, Canada*

Nanoparticles Stabilized Foams for Enhanced Oil Recovery using Carboxylate-based Extended Surfactants. Pattamas Rattanaudom*[1], Ben Shiau[2], ampira Chareonsaeng[3], and Uthaiporn Suriyapraphadilok[4], *[1]PPC, chulalongkorn university, Thailand; [2]University of Oklahoma, USA; [3]The Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand, Thailand; [4]The Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand, Thailand*

DSC and 3D X-Ray Microscopy Study on Bar Soap Structures. Aradhana Das and Hongwei Shen*, *Colgate Palmolive Co., USA*

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.