



Message from the Chair

Dear Colleague,

The S&D leadership would like to thank everyone who participated in the 2022 AOCS Annual Meeting & Expo. The sentiment I heard over and over, especially at our cocktail hour, was that it was just so good to see everyone, to laugh in person, and to collaborate. As we roll out information about the [2023 meeting](#), I cannot wait to feel that energy again.

With the [program](#) once again being designed and organized by Sanja Natali, I know we have some interesting new topics you will hear about in the coming weeks. We are lucky enough to once again have Hongwei Shen as S&D Treasurer. Together, along with the rest of the leadership team who have generously continued their roles (Rob, Michael, Sukhwan, Julian), I expect we will continue to grow and evolve to maintain ourselves as the home for all things cleaning, surfactants, and performance additives.

We are working on a lot of other exciting things I cannot share with you yet, including new topics, symposiums, and value-added classes. Next year, we will be in the clean, thin air of Denver, Colorado. Please make sure you are there for all the activities, and the absolute best technical program for our ever-changing industry. I will send out some invites for early next year for a virtual meeting of all the members, to ensure we can all stay in contact, and discuss the new industry matters, meet some new people, and have a few laughs.

Keith R. Genco
S&D Division Chair

Division officers

Chair

Keith Genco
Arkema, Inc., USA
keith.genco@arkema.com

Vice Chair

Sanja Natali
ExxonMobil, USA
sanja.natali@exxonmobil.com

Secretary-Treasurer

Hongwei Shen
Colgate-Palmolive, USA
hongwei_shen@colpal.com

Leadership Team Members

Awards

Kathy Stanton kstanton@cleaninginstitute.org

Education

Edgar Acosta edgarjaz@hotmail.com

Membership

Sukhwan Soontravanich Sukhwan.Soontravanich@ecolab.com

Networking

Yunshen Chen Ychen19@dow.com

Newsletter Editor	Rob Zehr	robert.zehr@churchdwight.com
Newsletter Editor	Michael Tate	mtate@dow.com
Posters	Julian Barnes	julian.j.barnes@shell.com

Renew your AOCs membership



Thank you for being a part of the AOCs community! AOCs will continue to be your resource for learning about new technologies and creating collaborations. As an AOCs member, you have access to [member benefits](#) such as AOCs journals, INFORM magazine, and discounts to AOCs meetings and educational courses to help you on your professional journey.

[Renew your 2023 membership today.](#)

Submit your research for the 2023 AOCs Annual Meeting & Expo



The [call for papers](#) for the [2023 AOCs Annual Meeting & Expo](#) is officially open!

The surfactants and detergents program organizer, Sanja Natali, has been working with session chairs to create an impactful lineup of [sessions](#) that could feature your research. Take a look at a few highlights:

Personal Care

This session focuses on sustainability in personal care, including new raw materials, technologies, and formulations that have low environmental impact and high consumer acceptability in the personal care industry.

Session chairs: Hongwei Shen, Manager of Technology, Colgate-Palmolive Company, USA; and Tony O'Lenick, President, SurfaTech Corporation, USA

Surfactants in agricultural applications

This session highlights the role that surfactants play in the stability and efficacy of agricultural formulations. The talks focus on the dispersion of active ingredients, emulsion stability, wetting and penetration of plants and soil, novel adjuvant technologies, and sustainability.

Session chairs: Rick Theiner, Applied Technology Manager, Evonik Industries, USA; and Amir Ghayour, Formulation and Application Technology Lead, Syngenta, Canada

New trends in cleaning

This technical session includes new trends in both chemistries and technologies for household and I&I cleaning influenced by the growing awareness of sustainability, the impact of cleaning on human health and hygiene, and the demand for effective and efficient cleaning.

Session chair: Sukhwan Soontravanich, Staff Scientist, Ecolab, USA

Surfactants in oil and gas

This session focuses on fundamental applications of surfactants in oil and gas applications. We welcome abstract submissions across a range of applications, including enhanced oil recovery and wetting alteration, and stability of emulsions during petroleum upgrading, among others, that develop a fundamental understanding of how surfactants work in these applications.

Session chairs: Dan Miller, Research Scientist, The Dow Chemical Company, USA; and Dorianne Castillo, R&D Eng. Manager, Baker Hughes, USA

Submit your abstract

Expand your knowledge on plant-based lipids in personal care with the AOCS Continuing Education Program



Beyond triglycerides: Applications for unique plant-based lipids in personal care

Learn from returning instructor Benjamin Schwartz, Senior Personal Care Application Specialist at AAK USA Inc., with '[Beyond triglycerides: Applications for unique plant-based lipids in personal care](#)' — a new AOCS Continuing Education Program course that focuses on using the unsaponifiable (non-triglyceride) fraction of plant oils and fats in personal care product development to meet evolving consumer expectations.

[Get on-demand access.](#)

Stay informed with *INFORM* magazine

Switching to sustainable surfactants

The July/August issue of *INFORM* contains an interesting article that discusses the ongoing movement from petroleum-based surfactants to more sustainable bio-based surfactants in the personal care industry. The consumer trend toward more sustainable products is widespread and will be felt across many surfactant-related industries above and beyond personal care products. The article discusses the use of a range of materials from microbially derived surfactants, biobased surfactants derived from synthesis of natural materials, to finally biobased conventional surfactants that are synthesized partially from natural feedstocks.

[Read the article.](#)

Formulation engineering 2.0

This article discusses how net-average curvature (NAC) concepts can be combined with transport equations to predict the performance of surfactant-oil-water (SOW) products and processes. Use of theoretical models to predict SOW behavior can accelerate research and development by narrowing down the formulation space that needs to be explored when developing cleaning products.

[Read the article.](#)



Journal of Surfactants and Detergents (JSD) articles

[Online access to JSD](#) is available to active and retired AOCIS members and includes access to current and back issues of *JSD*. Several interesting publications from the 24th volume of *JSD* are highlighted below.

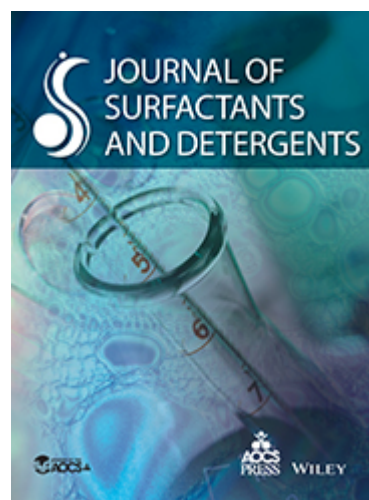
Isolation and identification of soil bacteria resistant to surfactants in washing detergents

Authors: Shin-ichi Miyoshi, Naomi Okubo, Satoko Mitsumori

The recent COVID-19 pandemic has raised the importance of hygiene in the eyes of the public and the consumer products industry. Surfactants play a well-known role in human hygiene by improving the removal and destruction of pathogens.

Researchers from Okayama University in Japan investigated the effects of linear alkyl benzene sulfonate and lauryl ethoxylated alcohols on the survival of many types of soil-borne microorganisms. Their findings show that various bacterial strains are affected differently by the two surfactants, highlighting the utility of using a mixed surfactant system in hygiene-related cleaning products.

[Read the article.](#)



Foam-based cleaning of surfaces contaminated with mixtures of oil and soot

Authors: Tamara Schad, Natalie Preisig, Wiebke Drenckhan, Cosima Stubenrauch,

Cleaning delicate surfaces can be difficult due to the potentially damaging effects of immersing an article into a liquid bath. Surface cleaning using a foam can be an efficient and sustainable method

of cleaning. The mechanisms of cleaning using foams vary from the more common mechanisms of wetting and emulsification observed in liquid cleaning solutions. Foam mechanisms include imbibition of fluids due to capillary action of the foam as well as “wiping” or the physical removal of soil by motion of bubbles. Researchers from the University of Stuttgart in Germany investigated the foam parameters that drive these cleaning mechanisms

[Read the article.](#)



[AOCS Webinars](#) are your opportunity to connect with researchers, industry experts, and thought-leaders from across the globe. Invest an hour of your day and be inspired. AOCS members have exclusive access to the [AOCS Member Webinar Library](#) to watch past webinars.

Past webinars of interest

Curly hair: Structure, properties, and care

Presenters: Ali N. Syed, PhD and Maliha Syed, PhD, Avlon Industries, Inc., Melrose Park, IL USA

This webinar was sponsored by the [Society of Cosmetic Chemists \(SCC\)](#).

In Part I of the presentation, the presenter reviewed unique structural features of curly hair fibers compared to that of straight hair. The impact of these structural differences on hair fiber properties, such as ellipticity, elasticity, porosity, etc. were also explored. The structure-property relationships will guide product formulation and care practices of curly hair.

Currently, subjective typing systems are used to describe the shape and curl pattern of hair fibers. In Part II of the presentation, an objective approach was presented that was developed to quantify the degree of curliness in hair fibers. This objective model was further correlated with physical properties, such as hair fiber elasticity and strength.

[Watch the recording.](#)

A new tool for consumer product development

Presenter: Hongwei Shen, PhD, Colgate-Palmolive Company, Manager of Technology, Global Technology - Cross Category Research & Innovation

Dr. Shen discussed how the use of Hydrophilic-Lipophilic-Difference (HLD) theory can be leveraged in the development of consumer products that need to stabilize and deliver a hydrophobic agent such as fragrances or flavors using surfactants. HLD theory can accelerate product development by helping to predict the stability of an experimental formulation reducing the amount of trial and error needed to develop a successful consumer product.

[Watch the recording.](#)

Exploring the formulations of personal care products using a digital chemistry strategy

Presenter: Jeffrey Sanders, Product Manager, Schrödinger

This webinar was co-sponsored by [Schrödinger](#).

Understanding how ingredients behave in products and “in action” will be necessary to drive not only new development but also end-to-end product tracing. To streamline this process, multi-scale physics simulations can be utilized to cut down product development timelines and costs, as well as optimize large-scale production by simulating digital twins. Beyond physics-based modeling, chemical information can be used to build machine-learned models with existing experimental or sensory data. This webinar shows you molecular modeling in action and explore how digital chemistry strategies are driving innovation in personal care product formulations.

[Watch the recording.](#)

Share your thoughts

The S&D Division leadership would greatly appreciate your input! Are there certain things you would like to see in the newsletter? Do you have an idea for a technical session? Is there a potential sponsor that you think would be a good fit for S&D? What ideas do you have to enhance the effectiveness of the Division? We want to hear from you! Contact [Newsletter Editor Rob Zehr](#) with your input.

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