# **JOURNAL OF COSMETIC SCIENCE**

The Official Journal of the Society of Cosmetic Chemists



SOCIETY OF COSMETIC CHEMISTS

Purchased for the exclusive use of nofirst nolast (unknown)
From: SCC Media Library & Resource Center (library.scconline.org)

WWW.SCCONLINE.ORG/JOURNAL



The 100% Bio-Based ECO Range is the widest range of 100% renewable surfactants on the market with over 50 different personal care ingredient codes. By using an alternative route to EO with bioethanol from biomass sources, it significantly increases the bio-based content of ethoxylated products and reduces reliance on fossil fuels.

This range of ingredients meets consumer demands for performance, while being 100% renewable and 100% bio-based. Moreover, the ingredients are manufactured with renewable energy and have a lower carbon footprint than petro-based options.

#### Join us on this sustainability journey

Learn more about the 100% Bio-based ECO Range of surfactants.

Visit us at: www.crodapersonalcare.com

North America marketing-usa@croda.com Europe, Middle East & Africa pc-europe@croda.com

- 100% renewable
- 100% bio-based<sup>1</sup>
- Vegan & Cruelty-Free Suitable<sup>2</sup>

ECO Range

- Low levels of 1,4-Dioxane
- Reduces reliance on fossil fuel feedstocks
- Manufactured with renewable energy
- Performance identical to petro-based options
- Lower carbon footprint than petrobased versions
- USDA Certified Biobased Product<sup>3</sup>
- RSPO Supply Chain Certified via Mass Balance<sup>4</sup>

(1) Calculated using USDA BioPreferred Method for determining bio-based content and validated, or being validated, by carbon 14 testing (ASTM D6886) (2) May be suitable for vegan and/or cruelty-free claims. If you are interested in making a vegan and/or cruelty-free claim, please request our Vegan Suitability statement far Animal Testing statement for specifics on this product and compare to the certification(s) you are seeking to meet (3) USDA BioPreferred® is a registered trademark of the U.S. Department of Agriculture (4) Products containing palm oil derivatives.

Latin America marketinglatam@croda.com Asia Pacific pc-asia@croda.com





## Journal of Cosmetic Science

The Official Journal of the Society of Cosmetic Chemists

**Editor-in-Chief:** Paolo Giacomoni, PhD, Consultant to the Skin Care Industry

Senior Associate Editor: Trefor Evans, PhD, TRI-Princeton | Hair Expert

**Associate Technical Editor:** K.P. Ananthapadmanabhan, PhD, College of Pharmacy,

University of Cincinnati | Skin Expert



**President:** Liz Streland, Croda, Inc.

**Vice President:** Michelle Hines, PhD, Mary Kay, Inc.

Vice President-Elect: Mark Chandler, ACT Solutions Corporation

Yulia Park, PhD, Amway Corporation **Secretary:** 

Treasurer: Karen Chun, Symrise, Inc.

**Executive Director/CEO:** Erica L. O'Grady, CAE, Society of Cosmetic Chemists HQ



© Copyright 2021 by the Society of Cosmetic Chemists. Permission is granted to readers and nonprofit libraries acting for them for fair use of the material contained in this Journal. Permission is further granted to quote from this Journal in scientific works with the customary acknowledgment of the source. Consent from EACH OF THE ORIGINAL AUTHORS along with notification to the Society of Cosmetic Chemists is required to reprint a figure, table or other excerpt. The republication, systematic or multiple reproduction of any material in this Journal (including abstracts) is permitted under written license from the Society of Cosmetic Chemists. The Society of Cosmetic Chemists may also require that permission must be obtained from EACH OF THE AUTHORS. Address inquiries to the Editor.

SUBSCRIPTION: JOURNAL OF COSMETIC SCIENCE, the Official Journal of the Society of Cosmetic Chemists, is published six times per year with January/February, March/April, May/June, July/August, September/October, November/December issues. Yearly subscription price is \$250.00 for 1-10 users, \$350 for 11-50 users, \$490 for 51-100 users and \$686 for 100+ users. JOURNAL OF COSMETIC SCIENCE, the Official Journal of the Society of Cosmetic Chemists, is a registered trademark of the Society of Cosmetic Chemists

POSTMASTER, MEMBERS AND SUBSCRIBERS: Send address changes to The Society of Cosmetic Chemists, 14 Wall Street, Suite 1620, New York,

RESPONSIBILITY FOR STATEMENTS PUBLISHED: The Society of Cosmetic

Purchasettefor the exclusive asteophori pse from ast (tarknown)

after the date of the issue, or if loss was due to failure to give notice of

responsibility for statements or opinions advanced by contributors to this

Missing issues will not be supplied if claims are received more than 60 days change of address. The JCS cannot accept responsibility for foreign delivery when its records indicate shipment was made.

EDITORS AND PUBLISHERS: Abstracts or digests of articles not exceeding 400 words may be published, duly credited to the author and JOURNAL OF COSMETIC SCIENCE, the Official Journal of the Society of Cosmetic Chemists. AUTHORS: When using illustrations or quotations taken from copyrighted publications, authors must get written permission from the copyright holder to reproduce the same.

PAGE CHANGES: The authors of a manuscript will no longer be assessed a page or color photograph charge for printed manuscripts. Any material set into type but ordered deleted from the publication at the page proof stage must also be paid for by the author. These changes will be invoiced to the senior author at the time of publication.

MANUSCRIPTS: Manuscripts should be prepared in accordance with "Information for Authors," which can be found at the end of this issue.

Periodicals postage paid at New York, New York and additional mailing offices.

Publication office: 14 Wall Street, Suite 1620, New York, NY 10005 (212) 668-1500, Fax: (212) 668-1504. Email: journal@scconline.org

From: SCC Media Library & Resource Center (library.scconline.org)



# Take your passion for cosmetics and personal care to new heights.

At the University of Cincinnati, our approach to cosmetic science is for inventors and explorers. For those ready to make an impact in one of the fastest growing and increasingly science-driven fields. Our innovative programs help prepare students today to gain knowledge that will help them develop as industry leaders for tomorrow.

**ONLINE PROGRAM OPTIONS:** 

## **Master of Science**

in Cosmetic Science

## **Graduate Certificate**

in Cosmetic Science

**LEARN MORE AT** 

ONLINE.UC.EDU/PROGRAMS/PHARMACY/

From: SCC Media Library & Resource Center (library.seconline.org)





## Journal of Cosmetic Science

The Official Journal of the Society of Cosmetic Chemists Volume 72 No. 6 | November/December 2021

## ORIGINAL ARTICLES

Clinical Study on Anti-Acne Performance of Cosmetic Skincare Products Liping Du, Ping Ma, Ying Zhou, Xinfen Cai, Lingyan Shen, Gang Huo | pp. 568

Ethanolic Extracts of Ageratum houstonium, Bupleurum falcatum, and Schisandra chinensis Inhibit Interleukin-4-Induced Expression of Itching Factors in HaCaT Keratinocytes

Hyoung Seok Shin, Sung Shin Ahn, Hyunjin Yeo, You Jeong Jeong, Soon Young Shin | pp. 580

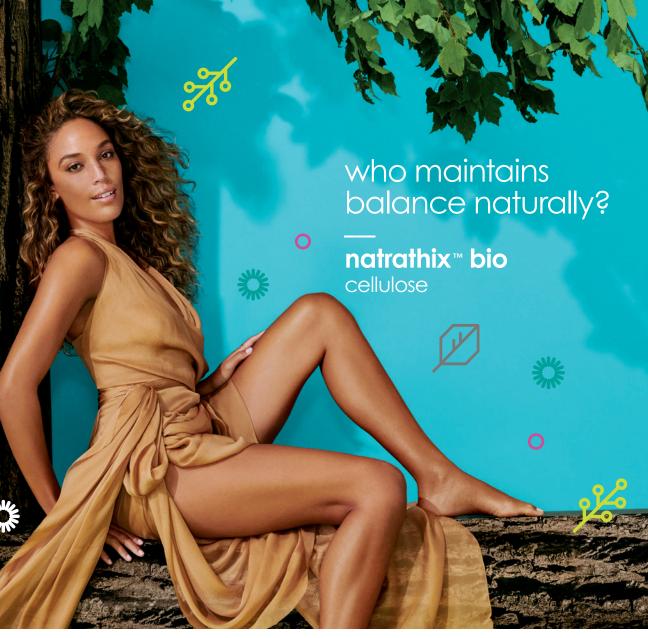
Fatigue Strength of Panelist Hair and Correlation With Hair Damage Measures
Jennifer M. Marsh, Tim J. Felts, Shane Whitaker, Chris Cowans, Amanda Ritter, Tian Chen,
Husen Kang | pp. 600

Efficacy, Tolerability, and Acceptability of a Skin Repair Product Containing Active Extracts of *Centella asiatica* 

Elena Gonzalez-Guerra, Francesca Pajuelo Lorenzo | pp. 611

Liniment of Nafthalan Oil: Multifunctional Component for Cosmetic Compositions Yulia A. Shigabieva, Svetlana A. Bogdanova, Andrey A. Knyazev | pp. 623

Purchased for the exclusive use of nofirst nolast (unknown) From: SCC Media Library & Resource Center (library.scconline.org)



Introducing Ashland natrathix™ bio cellulose, a nature-derived, non-GMO, and biodegradable breakthrough thickener with suspension capabilities that maintains emulsion stability of skin and sun care creams, lotions and gels with a pleasant skin feel.

For more information and to request a sample, visit ashland.com/natrathix

This globally approved ingredient is COSMOS\* validated.



ashland.26m / efficacy usability allure integrity profitability™



® Registered trademark, Ashland or its subsidiaries, registered in various countries ™ Trademark, Ashland or its subsidiaries, registered in various countries. \*third-party registered ©2021, Ashland PHC21-122







Accepted speakers shall receive one (1) complimentary daily access registration to the Annual Meeting for their use the day of their presentation. A full access registration upgrade for speakers is available at a discount if they wish to attend the entire meeting. Additional registrations may be purchased at the then-current rate.

All scientists, academicians, policy makers and other stakeholders in the cosmetic and personal care community are invited to submit an abstract of original work, lab demonstration or case study for consideration as a podium lecturer.

#### **ABSTRACT SUBMISSION DEADLINE:**

## **APRIL 4, 2022**

We are seeking abstracts covering the following topics:

Claims / Regulations	Indie Beauty
Diversity in Beauty	Looking to the Future / Biotech
Fragrance and Sensory	Makeup & Sunscreen
Functional Skincare	Sustainability
Hair & Scalp	

For more information, visit the SCC website at www.scconline.org/SCC76