

THE

# Journal

OF THE AMERICAN  
LEATHER CHEMISTS ASSOCIATION



## 114th Annual Convention

to be held at the  
Eaglewood Resort & Spa  
Itasca, IL  
June 19-22, 2018

For more information go to  
[leatherchemists.org/  
annual\\_convention.asp](http://leatherchemists.org/annual_convention.asp)

ISSN: 0002-9726

August 2017

Vol. CXII, No. 8

JALCA 112(8), 259-283, 2017

### Contents

<b>Recent Findings in Acetaldehyde Emission from Leather</b> .....	259
by J. Ammenn, B. Wegner and B. Dannheim	
<b>A Non-destructive Evaluation of Fluffiness of Leather</b> .....	263
by M. Muthukrishnan, S. Jaimohan, M. D. Naresh, R. Ramesh, R. Aravindhana and N. Chandrababu	
<b>Sodium Chloride Substitute for Lower Salt Goat Skin Preservation: A Novel Approach</b> .....	270
by A. Hashe, N. Arman, H. Sheikh and M. Islam	
<b>Studies on the Physico-chemical Behavior of Synthetic Tanning Agents in Non-aqueous Medium</b> .....	277
by G. Jayakumar, M. Javid, A. Raja, D. Aruna and J. Raghava Rao	
<b>Lifelines</b> .....	283
 <b>Editor Note</b> – The proceedings of the ALCA 113th Annual Convention, Pinehurst Resort, NC, will be published in the September 2017 issue of JALCA.	

### Communications for Journal Publication

Manuscripts, Technical Notes and Trade News Releases should contact  
**MR. ROBERT F. WHITE**, *Journal Editor*, 1314 50th Street, Suite 103, Lubbock, TX 79412, USA.  
E-mail: [jalcaeditor@prodigy.net](mailto:jalcaeditor@prodigy.net) Mobile phone: (616) 540-2469  
Contributors should consult the Journal Publication Policy at  
[http://www.leatherchemists.org/journal\\_publication\\_policy.asp](http://www.leatherchemists.org/journal_publication_policy.asp)

# JOURNAL OF THE AMERICAN LEATHER CHEMISTS ASSOCIATION

*Proceedings, Reports, Notices, and News*  
of the  
AMERICAN LEATHER CHEMISTS ASSOCIATION

---

## OFFICERS

DAVID PETERS, *President*  
DLP Advisors  
8206 Santa Rosa Court  
Sarasota, FL 34243

MIKE BLEY, *Vice-President*  
Eagle Ottawa – Lear  
2930 Auburn Road  
Rochester Hills, MI 48309

---

## COUNCIL

Shawn Brown  
Quaker Color  
201 S. Hellertown  
Quakertown, PA 18951

Joseph Hoelfer  
The Dow Chemical Company  
400 Arcola Rd.  
Collegeville, PA 19426

John Rodden  
Union Specialties, Inc.  
3 Malcolm Hoyt Dr.  
Newburyport, MA 01950

Jose Luis Gallegos  
Elementis LTP  
546 S. Water St.  
Milwaukee, WI 53204

Jeffrey D. Miller  
GST AutoLeather, Inc.  
31601 Industrial Road  
Livonia, MI 48150

Katie Thudium  
Eagle Ottawa – Lear  
2930 Auburn Road  
Rochester Hills, MI 48309

---

## EDITORIAL BOARD

Dr. Meral Birbir  
Department of Biology  
Marmara University  
Istanbul, Turkey

Elton Hurlow  
Buckman International  
Memphis, Tennessee

John Moore  
Retired  
Petaluma, California

George Stockman  
Retired  
Clemson, SC

Chris Black  
Consultant  
St. Joseph, Missouri

Prasad V. Inaganti  
Wickett and Craig of America  
Curwensville, Pennsylvania

Dr. Edwin H. Nungesser  
Dow Chemical Company  
Spring House, Pennsylvania

Maryann M. Taylor  
Eastern Regional  
Research Center  
U.S. Department of Agriculture  
Wyndmoor, Pennsylvania

Dr. Eleanor M. Brown  
Eastern Regional  
Research Center  
U.S. Department of Agriculture  
Wyndmoor, Pennsylvania

Steve Lange  
Leather Research Laboratory  
University of Cincinnati  
Cincinnati, Ohio

Dr. J. Raghava Rao  
Central Leather  
Research Institute  
Chennai, India

Dr. Palanisamy  
Thanikaivelan  
Central Leather  
Research Institute  
Chennai, India.

Kadir Donmez  
Leather Research Laboratory  
University of Cincinnati  
Cincinnati, Ohio

Xue-Pin Liao  
National Engineering Laboratories  
Sichuan University  
Chengdu, China

Andreas W. Rhein  
Tyson Foods, Inc.  
Dakota Dunes, South Dakota

Brandon Yoemans  
S. B. Foot Tanning Co.  
Red Wing, Minnesota

Dr. Anton Ela'mma  
Retired  
Perkiomenville, Pennsylvania

Dr. Cheng-Kung Liu  
Eastern Regional  
Research Center  
U.S. Department of Agriculture  
Wyndmoor, Pennsylvania

Dr. Bi Shi  
National Key Laboratories  
Sichuan University  
Chengdu, China

---

## PAST PRESIDENTS

G. A. KERR, W. H. TEAS, H. C. REED, J. H. YOCUM, F. H. SMALL, H. T. WILSON, J. H. RUSSELL, F. P. VEITCH, W. K. ALSOP, L. E. LEVI, C. R. OBERFELL, R. W. GRIFFITH, C. C. SMOOT, III, J. S. ROGERS, LLOYD BALDERSON, J. A. WILSON, R. W. FREY, G. D. McLAUGHLIN, FRED O'FLAHERTY, A. C. ORTHMANN, H. B. MERRILL, V. J. MLEJNEK, J. H. HIGHBERGER, DEAN WILLIAMS, T. F. OBERLANDER, A. H. WINHEIM, R. M. KOPPENHOEFER, H. G. TURLEY, E. S. FLINN, E. B. THORSTENSEN, M. MAESER, R. G. HENRICH, R. STUBBINGS, D. MEO, Jr., R. M. LOLLAR, B. A. GROTA, M. H. BATTLES, J. NAGHSKI, T. C. THORSTENSEN, J. J. TANCOSU, W. E. DOOLEY, J. M. CONSTANTIN, L. K. BARBER, J. J. TANCOSU, W. C. PRENTISS, S. H. FEAIRHELLER, M. SIEGLER, F. H. RUTLAND, D. G. BAILEY, R. A. LAUNDER, B. D. MILLER, G. W. HANSON, D. G. MORRISON, R. F. WHITE, E. L. HURLOW, M. M. TAYLOR, J. F. LEVY, D. T. DIDATO, R. HAMMOND, D. G. MORRISON, W. N. MULLINX, D. C. SHELLY, W. N. MARMER, S. S. YANEK, D. LeBLANC, C. G. KEYSER, A. W. RHEIN, S. GILBERG, S. LANGE, S. DRAYNA

THE JOURNAL OF THE AMERICAN LEATHER CHEMISTS ASSOCIATION (USPS #019-334) is published monthly by The American Leather Chemists Association, 1314 50th Street, Suite 103, Lubbock, Texas 79412. Telephone (806)744-1798 Fax (806)744-1785. Single copy price: \$8.50 members, \$17.00 non-member. Subscriptions: \$175 for hard copy plus postage and handling of \$60 for domestic subscribers and \$70 for foreign subscribers; \$175 for ezine only; and \$195 for hard copy and ezine plus postage and handling of \$60 for domestic subscribers and \$70 for foreign subscribers.

Periodical Postage paid at Lubbock, Texas and additional mailing offices. Postmaster send change of addresses to The American Leather Chemists Association, 1314 50th Street, Suite 103, Lubbock, Texas 79412.