

THE

Journal

OF THE AMERICAN
LEATHER CHEMISTS ASSOCIATION



Join our
Online Leather
Discussion
Forum at

[www.leatherchemists.org/
networking.as](http://www.leatherchemists.org/networking.as)

ISSN: 0002-9726

July 2013

Vol. CVIII, No. 7

JALCA 108(7), 250-288, 2013

CONTENTS

Utilization of Tannery Solid Waste: Dry Strength Additive for Papermaking	250
<i>by YAOHUI YOU, YUNHANG ZENG, YISHAN LIU, BI SHI AND XUEPIN LIAO</i>	
Ferrous-gluconic Acid Compound Tanning: A Cleaner Chrome-free Tanning System	257
<i>by YANG MAO, YI JIE, SHAN ZHI-HUA AND CHEN HUI</i>	
Effects of Atmospheric Pressure Plasma Treatments on Various Properties of Leathers	266
<i>by S. ACIKEL, A. ASLAN, L. OKSUZ AND T. AKTAN</i>	
Ultrasound-assisted Process Intensification in Leather Making: Diffusion Rate Enhancement in Retanning Process	277
<i>by V. SIVAKUMAR, P. ANUSHA, R. NARAYAN AND M. SHRAVYA</i>	
Lifelines	288

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

Mobile phone: (616) 540-2469

Contributors should consult the Journal Publication Policy at
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

STEVEN GILBERG, *President*
Tanmach Limited
780 Hardwick Road, PO Box 546
Bolton, Ontario L7E 5T4
Canada

STEVE LANGE, *Vice-President*
GST AutoLeather, Inc.
31601 Industrial Road
Livonia, MI 48150

SARAH DRAYNA, *Vice-President Elect*
LANXESS Corporation
6150 S. Conservancy Dr.
New Berlin, WI 53151

COUNCIL

Goetz Hagen
Tannin Corporation
4331 Chesapeake Dr.
Charlotte, NC 28216

Andy Porter
Prime Leather Finishes Co.
1002 Hickory Street
Pewaukee, WI 53072

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

Cheng-Kung Liu
USDA-ERRC
600 E. Mermaid Lane
Wyndmoor, PA 19038

Andreas W. Rhein
S. B. Foot Tanning Co.
805 Bench Street
Red Wing, MN 55066

Susan Steele
Buckman USA
1256 N. McLean Blvd.
Memphis, TN 38108

EDITORIAL BOARD

Chris Black
Consultant

Dr. Anton Ela'mma
Retired

Dr. Edwin H. Nungesser
Dow Chemical Company

Dr. Kenneth A. Boni
Retired

Prasad V. Inaganti
Wickett and Craig of America

Dr. Mila Aldema Ramos
Eastern Regional Research Center
U.S. Department of Agriculture

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

Dr. Graham Lampard
Leather, UK

George Stockman
Buckman Laboratories, Inc.

Dr. Nick Cory
Leather Research Laboratory
University of Cincinnati

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

Brandon Yoemans
S. B. Foot Tanning Co.

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. TANCOS, W. E. DOOLEY, J. M. CONSTANTIN, L. K. BARBER, J. J. TANCOS, 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. HURLLOW, M. M. TAYLOR, J. F. LEVY, D. T. DIDATO, R. HAMMOND, D. G. MORRISON, W. N. MULLINIX, D. C. SHELLY, W. N. MARMER, S. S. YANEK, D. LeBLANC, C.G. KEYSER, A.W. RHEIN

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.

Website: www.leatherchemists.org E-mail: ALCA@leatherchemists.org

COPYRIGHT 2013. THE AMERICAN LEATHER CHEMISTS ASSOCIATION