



IULTCS CONGRESS 2019

**“BENIGN BY DESIGN”
LEATHER — THE FUTURE THROUGH
SCIENCE AND TECHNOLOGY**

**JUNE 25–28, 2019
DRESDEN – GERMANY**

International Congress Centre Dresden

SCIENTIFIC PROGRAMME*

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**Please note, the scientific programme might
be subject to change.*

DAY 1

JUNE 25 — TUESDAY

10:00 a.m. — 12:00 a.m.

Seminar 3/4

IUE MEETING

12:00 a.m. — 1:00 p.m.

Seminar 5/6

AICLST MEETING

1:00 p.m. — 2:00 p.m.

Seminar 3/4

IUR MEETING

2:00 p.m. — 3:00 p.m.

Seminar 5/6

IUT MEETING

3:00 p.m. — 5:00 p.m.

Seminar 3/4

IULTCS EC MEETING

4:00 p.m. — 8:00 p.m.

Foyer

START REGISTRATION

6:00 p.m. — 8:10 p.m.

Hall 1/2

IULTCS OPENING CEREMONY

6:00 p.m. Doors open

6:30 p.m. Start Opening Ceremony

8:15 p.m. — 10:00 p.m.

Terrace Level with Foyer

WELCOMING RECEPTION

DAY 2

JUNE 26 — WEDNESDAY

8:00 a.m. — 9:00 a.m.

Foyer — Hall 1/2

REGISTRATION — DOORS OPEN

9:00 a.m. — 9:15 a.m.

Hall 1/2

GREETINGS

9:15 a.m. — 10:00 a.m.

Hall 1/2

HEIDEMANN LECTURE

9:15 a.m. As tough as leather: Macro to nano scale perspectives of collagen stability (#48) [K. L. Goh](#)

10:00 a.m. — 10:30 a.m.

Exhibition Hall

COFFEE BREAK

10:30 a.m. — 11:30 a.m.

Hall 1/2

SESSION 1

10:30 a.m. Fine hair on American bovine leathers (#108) [L. A. Zugno](#) / [A. Rhein](#)

10:45 a.m. Biotechnology for environmentally-friendly leather production (#297) [J. Y. Liu](#) / [G. Holmes](#)

11:00 a.m. The Hunt for Red Microba: Identifying the microbial agents in “red heat” contamination of salt-cured bovine hide (#300) [S. Grace](#) / [M. Ahn](#) / [M. L. Patchett](#) / [C. E. Norris](#)

11:15 a.m. Structure and tanning properties of dialdehyde carboxymethyl cellulose: Effect of degree of substitution (#94) [Y. Yi](#) / [W. Ding](#) / [C. Huang](#) / [Y.-N. Wang](#) / [B. Shi](#)

11:30 a.m. Investigation on Reducing Chromium Quantity in Chromium Containing Wastes of Leather Industry Using Oyster Mushroom (*Pleurotus ostreatus*) (#289) [E. E. E. Bayramoglu](#) / [A. Özcelik](#) / [M. Çetin](#) / [E. Eren](#)

11:45 a.m. — 1:00 p.m.

Restaurant — Exhibition Hall

LUNCH BREAK**POSTER SESSION 1 (INDEX)**

1:00 p.m. — 1:20 p.m.

Hall 1/2

KEY NOTE

1:00 p.m. **Sulfide unhairing: rethinking the received wisdom (#228)**
 W. R. Wise / A. D. Ballantyne / A. D. Covington

1:20 p.m. — 2:20 p.m.

Hall 1/2

SESSION 2

1:20 p.m. **Modern unhairing technologies for effective control of H₂S release from Beamhouse operations (#55)**
 J. Fennen / C. Gabagnou / D. Herta

1:35 p.m. **A Novel Preservation-cum-Unhairing Process for Sustainable Leather Manufacturing: An Unconventional Approach in Leather Making (#245)** R. R. Jonnalagadda / S. Murali / A. Rathinam / T. Palanisamy

1:50 p.m. **Unhairing and Fiber bundle-opening of Cowhides using KCl and LiBr/[AMIm]Cl Assisted Neutral Protease for Leather Making (#223)** H. Liu / Q. Zhang / Y. Zhang / X. Li / K. Tang / J. Liu / X. Zheng / Y. Pei

2:05 p.m. **Adsorptive removal of sulfate, phosphate and chloride by Mg-Al and Zn-Al Layered Double Hydroxides from aqueous solutions (#241)** M. Maia / O. Perez-Lopez / M. Gutterres

2:20 p.m. — 2:45 p.m.

Hall 1/2

SPEED SCIENCE

2:20 p.m. **Constructive application of marine algae for collagen stabilization: Molecular insight on its interaction with leather protein (#232)** G. C. Jayakumar / A. Tamil Selvi / V. J. Sundar / S. V. Kanth

2:23 p.m. **Investigation on the release kinetics of chrome from finished chrome tanned leather (#138)** J. W. Long / Q. L. Peng / R. Wang / H. W. Zhang / B. Shi

2:26 p.m. **Preservation of Bovine Hide using Less Salt with Low Concentration of Antiseptic (#265)** M. I. Sarker / W. Long III / C.-K. Liu / N. Latona / G. Piazza

2:32 p.m. **A Novel Microspheres Composite Hydrogels Cross-linked by Methacrylated Gelatin Nanoparticles: Enhanced Mechanical Property and Biocompatibility (#45)**
 C. Wang / C. Mu / W. Lin

2:38 p.m. **Review of the scientific and technological literature of fungicides in tannery industry: reducing the use and increasing the efficiency of fungicides in the leather industry (#195)** Z. Biehl

2:41 p.m. **Analysis of the Functional Components of Acid Protease and Investigation of Bating Mechanism of Wet-blue (#36)**
 H. Li / S. Cao / Y. C. Li / D. Y. Zhu / C. H. Jiang / T. P. Yu

2:45 p.m. — 3:30 p.m.

Exhibition Hall

COFFEE BREAK**POSTER SESSION 2 (INDEX)**

3:30 p.m. — 3:50 p.m.

Hall 1/2

KEY NOTE

3:30 p.m. **Brazilian Leather Certification of Sustainability (#32)**
 A. Flores

3:50 p.m. — 5:05 p.m.

Hall 1/2

SESSION 3

3:50 p.m. **Biopolymers for a more sustainable leather (#154)**
 L. Taddei / F. Ugolini / G. P. Bonino / G. Giacomelli / C. Franceschi / M. Bertoldini / R. Sole / V. Beghetto

4:05 p.m. **Lignin-Modified Phenolic Syntan: A Contributor to Our Bio-Based Solutions (#129)** Y. Ma / P. Berends / M. Wijland / R. Rumnit / R. Pauli / R. Meulenbroek

DAY 2

JUNE 26 – WEDNESDAY

- 4:20 p.m. **Acrylic resins in wet white** (#147) [O. Ballus](#)
- 4:35 p.m. **Comparative Studies on Effect of cationic and anionic finishing agents on Surface Property of Finished Leather** (#243) [M. W. Wajino](#) / A. D. Dhathathreyan / S. V. K. V. Kanth
- 4:50 p.m. **High Exhaustion Sytem (HES) for leather process: Role of biocatalyst as an exhaustive aid for wet-end** (#235) [G. C. Jayakumar](#) / V. Karthik / A. D. Asan Fathima / A. Tamil Selvi / C. Muralidharan / S. V Kanth

7:00 p.m. – 0:00 midnight **Terrassenufer – Elbe River**

RIVER CRUISE NIGHT

- 7:00 p.m. Boarding
- 7:30 p.m. Departure
- 10:30 p.m. Arrival back in Dresden Terrasenufer

DAY 3

JUNE 27 – THURSDAY

8:00 a.m. – 9:00 a.m. **Foyer – Hall 1/2**

REGISTRATION – DOORS OPEN

Freiberg Leather Days Participants joining

9:00 a.m. – 10:15 a.m. **Seminar 1**

SESSION 4

- 9:00 a.m. **Ageing processes and characterization methods for historical bookbinding leather** (#23) [M. Anders](#) / K. Marcula / K. Schuhmann
- 9:15 a.m. **Towards a molecular level understanding of chrome tanning: Interplay between collagen structure and reactivity** (#2) [Y. Zhang](#) / J. Buchanan / G. Holmes / [S. Prabakar](#)

DAY 3

JUNE 27 – THURSDAY

- 9:30 a.m. **Denoising and Segmentation of MCT Slice Images of Leather Fiber** (#170) [Y. Hua](#) / J. Lu / H. Zhang / J. Cheng / W. Liang / T. Li
- 9:45 a.m. **Strong skin, not always thick: Comparative structural and molecular analysis of deer skin and cow hide** (#30) [R. Naffa](#) / C. Maidment / G. Holmes / G. Norris
- 10:00 a.m. **3D Image Based Structural Analysis of Leather for Macroscopic Structure-Property Simulation** (#226) [S. Dietrich](#) / H. Schulz / K. Hauch / K. Schladitz / M. Godehardt / J. Orlik / D. Neusius

9:00 a.m. – 10:15 a.m. **Hall 1/2**

ENGINEERING SESSION 1

- 9:00 a.m. **For the qualification of leather, you need a human! Is that really the case?** (#295) [M. Bruder](#)
- 9:15 a.m. **Automation in a tannery. TanWare® – discontinuous steps, continuous data** (#267) [L. Sauer](#)
- 9:30 a.m. **IRIS, in line system for colour quality control** (#311) [M. Oomens](#) / L. de Luca
- 9:45 a.m. **Steel meets leather – The influence of cutting parameters in the leather splitting process** (#259) [G. E. Hank](#)
- 10:00 a.m. **The New Cutting Edge – taking the shaving process to the next Level** (#310) [P. Kuchler](#) / J. Nijkamp

10:15 a.m. – 11:05 a.m. **Exhibition Hall**

COFFEE BREAK

POSTER SESSION 3 (INDEX)

11:05 a.m. – 12:05 p.m. **Seminar 1**

SESSION 5

- 11:05 a.m. **Traceability of hides and skins: from field to leather** (#212) [T. Poncet](#) / C. Vigier

11:20 a.m. **False Positives II – Chlorophenols identification towards HPLC-DAD-MS analysis compared with ISO 17070:2015 technique (#236)** [G. A. Defeo](#) / M. Borgheresi / M. De Cicco / B. Carpignani

11:35 a.m. **Extraction of New Vegetable Tanning Agent from Coriaria nepalensis Bark and Its Application in Tanning (#145)** [L. Guo](#) / T. Qiang / Y. Ma / X. Wang

11:50 a.m. **Modelling charge across pH and the iso-electric point of bovine collagen during leather manufacture (#256)** [A. D. Ballantyne](#) / S. J. Davis

11:05 a.m. – 12:30 p.m.

Hall 1/2

ENGINEERING SESSION 2

11:05 a.m. **COLD MILLING: innovative temperature/humidity control on milling operation (#39)** [A. Peruzzi](#) / A. Galiotto

11:20 a.m. **Premium class leather quality – From tanning over embossing to perforating (#302)** [J. P. Hildebrand](#)

11:35 a.m. **Automatic Leather Species Identification using Machine Learning Techniques (#261)** [M. Jawahar](#) / S. V. Kanth / V. Rajangam / T. Selvi

11:50 a.m. **Personal Assistant vs basic sewing machine – The new generation of intelligent sewing systems (#306)** [M. Schäfer](#)

12:05 p.m. **Go Digital: Accelerate Industry 4.0 in the Leather Cutting Room (#254)** [H. Max-Lang](#)

12:05 p.m. – 12:30 p.m.

Seminar 1

SPEED SCIENCE

12:05 p.m. **Sound absorbing nanofibers from tannery solid waste: Trash to treasure (#255)** [S. Selvaraj](#) / R. R. Jonnalagadda / [N. N. Fathima](#)

12:08 p.m. **Does post tanning chemicals influence sewability of leathers: An approach towards re-instigating the post tanning process (#249)** [G. C. Jayakumar](#) / [K. Phebe Aaron](#) / A. Fathima / V. Swarna

12:11 p.m. **Chemical Safety and Occupational Safety and Health under the banner of REACH, CLP and National Occupational Safety and Health Legislation (#22)** [T. Martin](#)

12:14 p.m. **Use of different pre-treated chromium leather shavings to produce biogas in continuous scale (#244)** [C. S. Gomes](#) / J.-U. Repke / M. Meyer

12:17 p.m. **Keratin derived from tannery cattle hair waste used for the preparation of waterborne polyurethane (#113)** [J. Liu](#) / F. F. Zhang / Z. C. Liu / H. Li / X. S. Li

12:20 p.m. **Closed loop systems for liming and tanning hides and skins at large and cottage-scale (#57)** [R. P. Daniels](#)

12:30 p.m. – 1:35 p.m.

Restaurant – Exhibition Hall

LUNCH BREAK

POSTER SESSION 4 (INDEX)

1:35 p.m. – 1:55 p.m.

Hall 1/2

KEY NOTE

1:35 p.m. **Automotive leathers – evaluating the performance limits (part II) (#66)** [S. De Vecchi](#) / J. Christner / S. Summa / A. Rama / R. Ampuero / D. Rinaldi

1:55 p.m. – 2:55 p.m.

Hall 1/2

SESSION 6

1:55 p.m. **Investigation on VOC Content from Car Interior Finishing Systems and Its Influence on Leather Performances (#61)** [R. Pasquale](#) / D. Cisco / T. Pellegrini

2:10 p.m. **Development of sustainable Re-Tanning Agents from Fungal Degradation of Lignosulfonates (#77)** [J. Ammenn](#)

2:25 p.m. **Chrome tanning process and the leather properties under microwave irradiation (#92)** [J. Zhang](#) / J. Wu / W. Chen

2:40 p.m. **Study on the antibacterial properties of leathers tanned with natural tannins and their interactions with shoes inhabiting bacteria (#15)** [E. Poles](#) / A. Polissi / A. Battaglia / S. Giovando / M. Gotti

2:55 p.m. – 3:20 p.m.

Hall 1/2

SPEED SCIENCE

- 2:55 p.m. Study on the application of a new multi-epoxy reinforcement agent for sheep leather (#246) X. Pang / N. Liu / W. Ding / X. Liao / Z. Ding
- 2:58 p.m. A pragmatic Approach towards the Manufacture of wet-white Leathers using a bio-polymeric Tanning System (#240) P. N. Kariuki / A. Yasothai / G. C. Jayakumar / S. V. Kanth
- 2:58 p.m. Cleaner Chrome Tanning – Technology of low-chrome tanning without salt, pickling and short procedure (#146) L. Jianxun / F. Yanjuan / M. Hewei
- 3:07 p.m. Advanced diagnostics and innovative solutions for leather defects: *the problem of yellowing* (#78) C. Florio / R. Aveta / G. Calvanese / B. Naviglio

3:20 p.m. – 3:50 p.m.

Exhibition Hall

COFFEE BREAK**POSTER SESSION 5 (INDEX)**

4:00 p.m. – 5:00 p.m.

Seminar 1

VGCT MEETING

7:00 p.m. – 11:55 p.m.

Large Hall

CONGRESS DINNER

8:00 a.m. – 9:00 a.m.

Foyer – Hall 1/2

REGISTRATION — DOORS OPEN

Freiberg Leather Days Participants joining

9:00 a.m. – 9:20 a.m.

Hall 1/2

KEY NOTE

- 9:00 a.m. Minimizing Emissions of automotive leather (#187) V. Rabe / R. Graupner von Wolff / M. Kleban

9:20 a.m. – 10:20 a.m.

Hall 1/2

SESSION 7

- 9:20 a.m. Sustainable Value Creation from Leather Solid Wastes: Preparation of Shoe Soling Material using Nano Fillers (#26) S. Gupta / S. Ponsubbiah / S. K. Gupta / S. Mandal
- 9:35 a.m. Extended Surfactants for Leather (#218) A. Kilikli / I. Reetz
- 9:50 a.m. Factors affecting penetration of acrylic resin in crust leather during retanning process (#179) Y. Song / Y. Zeng / M. Cao / B. Shi
- 10:05 a.m. Biopolymer-Liposome composite for Fatliquor Applications – a “green” Approach to optimal Transport and Delivery of natural Oils (#279) N. Bhargavi / D. Aruna / K. J. Sreeram

10:20 a.m. – 10:50 a.m.

Exhibition Hall

COFFEE BREAK

10:50 a.m. – 11:10 a.m.

Hall 1/2

KEY NOTE

- 10:50 a.m. Capturing the Environmental Impact of Leather Chemicals (#190) M. P. Costello

11:10 a.m. – 12:25 p.m.

Hall 1/2

SESSION 8

- 11:10 a.m. **Novel blades for shaving – a new approach to understanding the shaving process** (#242) P. Kuchler / T. Witt / A. Nikowski / E. Klüver / M. Meyer
- 11:25 a.m. **Automation in Leather Making – A Cleaner Production Approach** (#271) R. C. Panda / J. Kanagaraj
- 11:40 a.m. **Synthesis and Application of Dendritic-linear Polymer PAMAM-Si for Leather Fatliquoring Process** (#120) X. Wang / S. Sun / H. Wang / J. Li
- 11:55 a.m. **Synthesis of Cationic Protein with High Quaternary Ammonium Coefficient for Adsorption Dyes Application in Leather Retanning** (#150) J. Xu / J. M. Lu / T. D. Li
- 12:10 a.m. **Mesoporous Hollow SiO₂ Spheres Stabilized Pickering Emulsion to Improve Water Vapor Permeability and Water Resistance for Leather Finishing Agent** (#199) Y. Bao / Y. Zhang / J. Ma

12:25 p.m. – 1:00 p.m.

Restaurant – Exhibition Hall

LUNCH BREAK

1:00 p.m. – 1:45 p.m.

Hall 1/2

SESSION 9

- 1:00 p.m. **Sustainability 4.0 – the passport to our future** D. Tegtmeyer
- 1:20 p.m. **“Zirkeltraining” – a Recycling/Upcycling example for Leather** B. Dörra / M. Kreykenbohm
- 1:35 p.m. **Image campaign Leather Naturally!** E. Dikkers

1:45 p.m. – 2:20 p.m.

Hall 1/2

CLOSING CEREMONY

POSTER SESSION 1

- P1-01** Effects of graphene oxide on the thermal properties of bovine hide powders (#214) L. Luo
- P1-02** Biocolorant for leather post tanning applications: An eco-benign study (#216) T. Alagumuthu
- P1-03** Preparation and properties of a wood adhesive based on leather wastes modified by blocked waterborne polyurethane (#141) X. Wang
- P1-04** Measurement of leather surface: variability in the measurement using electronic and pin wheel devices on different kind of leathers (#308) R. Mascolo
- P1-05** Primary Treatment of Tannery Wastewater using biopolymer Chitosan (#309) P. R. Burusa
- P1-06** Study on the preparation and characterization of nonionic silicone wetting agent used in waterborne polyurethane (#103) F. F. Zhang
- P1-07** Preparation and Properties of Collagen/Sodium Humate Blend Solution (#112) Z. Tian
- P1-08** Evaluation of ecotoxicity of typical surfactants for leather manufacture by luminescent bacteria (#121) W. M. Han
- P1-09** Novel method for preparing fish collagen gels with excellent physicochemical properties via the dehydration of ethanol (#122) L. Shen
- P1-10** Development of poly(Styrene-b-sodium acrylate) for cleaner wet end application (#123) M. S. Alam
- P1-11** Application of Vegetable Bark Extract as Alternative Retanning Agent for Leather Processing (#12) A. E. Musa
- P1-12** Influence of Photoperiod on Biomass Production and Removal of Nutrients from Tannery Effluents with microalgae Consortium (#19) A. D. C. C. Pena
- P1-13** Modified Polyacrylates as a new Leather Retanning Agents (#20) M. Canudas
- P1-14** Development and Investigation of Low collagen degradability Unhairing Enzyme (#21) S. Cao
- P1-15** Enhancing performance properties of conventional leather finishing topcoat by incorporating metal oxide based formulations (#31) S. Gupta
- P1-16** Polymeric bio-composites: Cleaner leather processing and its role in property enhancement of tanned leather (#34) S. Sharmila
- P1-17** Dissolution of Collagen Fibers from Tannery Wastes in Ionic Liquid and Regenerative Morphology (#41) Y. Pei

P1-18 Minus salt goat skin preservation: Extreme chloride reduction in tannery wastewater (#43) M. A. Hashem

P1-19 Characteristics Analysis of High Mechanical Strength Gymnastic Leather and Its Producing Process Optimization (#44) J. Song

P1-20 Quality of Leather Products as Seen from the Consumer's Standpoint (#46) D. Murai

P1-21 The Effect of Molecular Size of Plasticizer and Crosslinking Agents on the Properties of Gelatin films (#47) X. Zheng

P1-22 Sorption comparison of trivalent chromium on various Ficus carica charcoal from tannery wastewater (#54) M. A. Hashem

P1-23 Sustainable Tannery Effluent Treatment System with TDS Management (#58) S. Rajamani

P1-24 LIFE COAST Green Organic Agents for Sustainable Tanneries (GOAST) (#62) R. Pasquale

P1-25 A new system to measure leather shrinkage temperature (#68) J. M. Morera

P1-26 Optimization of chamois oxidation process of leather using benzoyl per oxide as oxidizing agent (#70) B. Sahu

POSTER SESSION 2

SPSC1-01 Constructive application of marine algae for collagen stabilization: Molecular insight on its interaction with leather protein (#232) A. Tamil Selvi

SPSC1-02 Investigation on the release kinetics of chrome from finished chrome tanned leather (#138) J. W. Long

P2-01 Biodegradation of chrome shavings using Bacillus Sp. (MG995009), a chrome resistant Bacterium (#217) A. Sindhuja

P2-02 Preparation of Prussian Blue Nanoparticles / Polyacrylate Composite for Self-healing Leather Finishing Agent (#142) J. Zhang

P2-03 Study on the Difference of Collagen Fibre Structure Caused by Epoxy Resin Embedding (#143) J. Lu

SPSC1-03 Preservation of Bovine Hide using Less Salt with Low Concentration of Antiseptic (#265) M. I. Sarker

SPSC1-05 A Novel Microspheres Composite Hydrogels Cross-linked by Methacrylated Gelatin Nanoparticles: Enhanced Mechanical Property and Biocompatibility (#45) C. Wang

SPSC1-07 Review of the scientific and technological literature of fungicides in tannery industry: reducing the use and increasing the efficiency of fungicides in the leather industry (#195) Z. Biehl

PSPC1-08 Analysis of the Functional Components of Acid Protease and Investigation of Bating Mechanism of Wet-blue (#36) H. Li

P2-04 Study of the application of wb600-kert in unhairing process (#74) Y. Shen

P2-05 Characteristics of typical pollutants in tannery site soil: a review (#75) X. Teng

P2-06 Ti (III)-tannin combination tanning technology based on microwave irradiation (#76) J. Wu

P2-07 A Novel Collagen Extraction Method Based on Microwave Irradiation (#79) Y. Cheng

P2-08 Influence of mildew on the contents of free fatty acids in leather (#86) L. Jin

P2-09 Minimization of the environmental impact in the chrome tanning process by a closed-loop recycling technology (#95) L. Jin

P2-10 Characterization of Volatile Organic Compounds (VOC) in wet-white and metal-free leathers (#97) B. Naviglio

P2-11 High-efficiency chrome tanning using pre-treatments: synchrotron SAXS and DSC study (#98) Y. Zhang

P2-12 Crafting Casein-Templated Porous TiO₂ Nanosphere for Bionic Intelligent Leather Surface (#100) Q. Fan

POSTER SESSION 3

P3-01 Collagen modified Base of Unfigured Sea-island Superfine Fiber Synthetic Leather Based on "Click Chemistry": Constructions and Moisture permeability (#189) N. Xu

P3-02 Developing a Novel Method to Reduce the Impact of Corrosive Attacks on Skin. (#159) W. R. Wise

P3-03 Effects of soluble soybean polysaccharide as filling agent on the properties of leathers (#224) Z. Tang

P3-04 Crafting Flame Retardant Casein-based Mg-Al LDH Nanocomposite Leather Finishing Agent (#148) W. An

P3-05 Resource utilization-Preparation and Application of a sulfited Fat-liquor based on Waste beef tallow from Tannery (#152) L. Ruhui

P3-06 Observation and Analysis of Leather Structure Based on Nano-CT (#153) H. Zhang

P3-07 Microencapsulation of clove essential oil with gelatin and alginate (#164) V. V. Kopp

P3-08 A new material for Turkish Leather Industry: Fish Skin (#165) F. Akyüz

P3-09 Sustainability disclosure in the leather industry: A content analysis of selected sustainability reports (#166) O. Omoloso

P3-10 Fabrication of Casein/MOFs Composite Emulsion for Breathable Antibacterial Bi-functional Leather Finishes (#172) Q. Xu

P3-11 Study on Self-crosslinking of Hydrogen Peroxide Oxidating Collagen (#192) L. Fu

P3-12 New Wet White/Chrome Free Process offering significant Environmental and Physical Property advantages from Beamhouse to Crust (#194) J. J. Osgood

P3-13 Hygienic Property and Water Resistance of Waterborne Polyacrylate/Flower-like ZnO Composite Coatings (#197) Y. Bao

P3-14 Phosphate Modified Polyacrylate Emulsion and its Flame Retardancy (#198) Y. Bao

P3-15 A Research on the Use of Aluminum Sulphate in Parchment Production and its Effects on Ageing and Color (#202) E. E. E. Bayramoglu

P3-16 Development and practical application of unhairing method without using sulfide (#205) K. Takase

P3-17 Collagen stabilization using ionic liquids: A molecular level study (#206) A. Tarannum

P3-18 A sustainable approach to biodegradation of leather (#210) Y. Khambhaty

POSTER SESSION 4

SPSC2-03 Does post tanning chemicals influence sewability of leathers: An approach towards re-instigating the post tanning process (#249) K. Phebe Aaron

SPSC2-04 Chemical Safety and Occupational Safety and Health under the banner of REACH, CLP and National Occupational Safety and Health Legislation (#22) T. Martin

P4-01 Sound absorbing nanofibers from tannery solid waste: Trash to treasure (#255) N. N. Fathima

SPSC2-05 Monitoring of biogas production from tannery solid wastes at-line in a laboratory-scale anaerobic digester (#163) M. Gutierrez

SPSC2-06 Use of different pre-treated chromium leather shavings to produce biogas in continuous scale (#244) C. S. Gomes

SPSC2-07 Keratin derived from tannery cattle hair waste used for the preparation of waterborne polyurethane (#113) J. Liu

SPSC2-08 Closed loop systems for liming and tanning hides and skins at large and cottage-scale (#57) R. P. Daniels

P4-02 Towards an understanding of the thermal decomposition behaviors of wet blue leather: the chrome-retanning effect (#213) J. Liu

P4-03 Effects of different salt-enzymes on opening up of collagen fiber bundles for leather making (#230) Y. Zhang

P4-04 Collagen Hydrolysate from Limed Pelt Trimmings for the Application of Retanning (#231) M. H. Seid

P4-05 Leathers for marine applications: Instigating physico-chemical properties of conventional leather (#233) J. Gladstone Christopher

P4-06 Striding towards self Sustainability using Aluminium from Tanzanian Kaolin for Combination Tanning System (#234) C. R. China

P4-07 Leather quality as a function of cattle breed (#248) S. Stenzel

P4-08 Development of a tanning technology with Tanning agents from *Ligustrum vulgare* (#250) M. Schröpfer

P4-09 Application of silanes in leather tanning (#251) J. Benvenuti

P4-10 Tuning the self-assembly of Type (I) collagen (#252) R. K. Chanasma

P4-11 Investigation of the Reaction Mechanism between Bovine Collagen and a Triazine-Based Coupling Reagent (#253) G. Pozza

P4-12 Sustainable post-tan: A Multifunctional product for compact delivery of post tanning chemicals (#262) R. Sathya

P4-13 Effective Use of Enzymatic Processes in Beamhouse through Nanoparticle Immobilization (#263) K. J. Sreeram

P4-14 A Protein based Polymeric Syntan from Leather Waste: Retanning agentfor Sustainable Leather Processing (#270) J. Kanagaraaj

P4-15 Is Screening for Genuine Leather Possible? (#281) K. J. Sreeram

P4-16 Partial nitrification of sludge digester effluent in sequencing batch reactor: Identification of most significant factors to link with anammox reactor (#282) A. G. Melesse

P4-17 Some Comparisons of Thermal Energy Consumption in a Temperate versus a subtropical Climate Zone – Examples of Computation of net Energy needs for Float Heating and Chamber Drying (#283) J. Buljan

P4-18 The use of natural products in the leather industry: Depilation without damage (#291) Y.-H. Tu

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