



XXXII. CONGRESS OF IULTCS

PROGRAM

SCIENTIFIC PROGRAM

Tuesday 28, May 2013

- 12:00 - 18:00 Registration
EC / Joint Meetings
- 19:00 - 23:00 Welcome Cocktail at the Istanbul Boat
(Departure from Sheraton Maslak Hotel & Grand Cevahir Hotel)

Wednesday 29, May 2013

- 08:30 – 09:30 Opening Ceremony
- 09:30 – 09:45 Merit Award Presentation Ceremony
- 09:45 – 10:15 Heidemann Lecture
- 10:15 – 10:45 Coffee Break

Session I / Fundamental Research in Leather Technologies

Chairmen: Dr. Ma Hongrui & Prof. Dr. Patricia Casey

- | | | | |
|---------------|-----|--|-------------------|
| 10:45 – 11:00 | 296 | Model systems for leather research and beyond | Eleanor Brown |
| 11:00 – 11:15 | 163 | Everything you wanted to know about collagen models-but were too afraid to ask (part II)! | David Rabinovich |
| 11:15 – 11:30 | 47 | Type I collagen molecular map lends insights into the domain structure of the fibril and the genotype-phenotype relationship for some collagen mutations | James San Antonio |
| 11:30 – 11:45 | 280 | Micro-CT studies for three-dimensional leather-structure analysis | Haiko Schulz |
| 11:45 – 12:00 | 150 | A molecular dissection of quality | Gillian Norris |
| 12:00 – 12:15 | 191 | Evaluation of unhairing effectiveness of “pure” α -amylase | Yunhang Zeng |

Session I is sponsored by GÖRYAKINLAR Leathers

- 12:30 – 13:30 LUNCH

Session II / Fundamental Research in Leather Technologies

Chairmen: Dr. Agustín Marsal & Prof. Dr. Tony Covington

- | | | | |
|---------------|-----|--|---------------|
| 13:30 – 13:45 | 118 | The influence of non-aqueous solvents on lime and pickle swelling of goat skin | Limin Wang |
| 13:45 – 14:00 | 119 | 100 years of Syntans: How chemistry enabled increasing performance on leather | Jochen Ammann |
| 14:00 – 14:15 | 34 | The stability of metal-tanned and semi-metal tanned collagen | Addis Duki |

14:15 – 14:30	113	The negative effect of the use of disinfectants on shoes containing oxidizers	Hana Vaskova
14:30 – 14:45	76	Synthesis and properties of N-substituted polyurethane used in leather finishing	Libin Liu
14:45 – 15:00	236	Impact of proteases on collagen and elastin of different states	Biyu Peng

Session II is supported by EGE UNIVERSITY Leather Engineering Department

15:00 – 15:30 **Coffee Break**

I. Visual Display / Fundamental Research in Leather Technologies

15:00 – 15:30

65	Preparation and characterization of modified pectin: A new insights into biodegradable polymer for collagen stabilization	Jonnalagadda Raghava Rao
66	Taxation and duties in the worldwide leather	Luis Sergio Nunes Costa
68	Fabrication of core-shell structural modified casein via emulsifier-free polymerization and its application as leather finishing agent	Qunna Xu
71	PDMS-E grafted gelatin polymers for coating leather	Tianduo Li
89	Study on the leather-making technology of sturgeon skin	Taotao Qiang
107	Effect of oxidation products of cod fish oil and adsorbed water on oil tannage	Kyoji Sato
124	Use of tannery shavings in the adsolubilization process of 2-naphthol taken as a model substance	Agustin Marsal
130	Electro-oxidation of iso-propanol on poly-Ni (II)-unsymmetrical tetradentate schiff base complex modified vitreous carbon electrode	Derafa Wassila
142	Wanke sheep skins: a promising opportunity for value addition to Ethiopian leather sector	Muhammed Hussein
156	Novel polyether-based aliphatic polyurethane leather finishing agents composed of hyperbranched segments: Synthesis, characterization and properties	Xuechuan Wang
197	Investigation of some physical properties of vaketa leathers	Şükrü Ömür
198	Production of “Sahtiyen”, a traditional Turkish leather	Mehmet Mete Mutlu
199	Traditional vaketa leather production in the perspective of ecological sustainability	Şükrü Ömür
210	Molecular interactions in collagen stabilization of farmed alopex lagopus (fox) for its prospective use as leather textalopex lagopus	Swarna V Kanth
217	Fabrication and hydrophobic properties of fluorinated polyacrylate latexes via semi-continuous seeded emulsion polymerization	Jianzhong Ma
245	Study on the stress relaxation-time spectrum of upper leather from pigskin	Keyong Tang
251	Effects of external forces on the structure and properties of glutaraldehyde retanned chrome-leather	Jie Liu
263	Determination of antibacterial activity of bronophol against mix population of bacteria isolated from the salt-pack cured hides	Pınar Çağlayan
264	Examination of antibacterial activity of potassium dimethyl-dithiocarbamate against mix population of bacteria isolated from the salt-pack cured hides	Pınar Çağlayan
289	Quality improvement applications for leather handbag manufacture	Altan Afşar

292	The effect of different finishing films on some fastness properties of handbag leathers	Hüseyin Ata Karavana
333	A novel core-shell polyacrylate/OMMT nanocomposite latex: Synthesis, characterization and its application as a coating binder	Gürbüz Gülümser
359	A Histological and Histochemical Study of a Fish Skin: <i>Katsuwonus Pelamis</i>	Eylül Küçükakın

Session III / New Developments in Chemical Products for the Tanning Industry
Chairmen: Dr. Haiko Schulz & Regina Canovas Teixeira

15:30 – 15:45	81	A Nanobiotechnological Approach in the Bating Process	Evren Türker
15:45–16:00	188	Determination of antioxidant properties of commonly used vegetable tannins and their effects on prevention of Cr(VI) formation	Çiğdem Kılıçarıslan
16:00 – 16:15	117	Isolation and identification of fungal species affecting leather garments and evaluation of effective fungicides	K. Phebe Aaron Kavati
16:15 – 16:30	155	Development of fungal dyes and application in the leather dyeing	Wagner Fernando Fuck
16:30– 16:45	141	Eco-friendly and innovative polymer topic: The dyeing levelness for buffed leather by using amphoteric polymer agent	Jian Hong Hsu
16:45 – 17:00	342	Production of bio-polymers from leather shavings – Reuse as retanning agents	Jordi Escabrós
17:00 – 17:15	222	Preparation of modified rapeseed oil/organic montmorillonite nanocomposite and its application as leather fatliquoring agent	Qunna Xu

Session III is sponsored by FARBEN the chemical producer

Thursday 30, May 2013

Session IV /New Developments in Chemical Products for the Tanning Industry /Machinery Developments in Leather Industry
Chairmen: Dr. Dietrich Tegtmeier & Dr. Luminita Albu

08:30 – 08:45	98	Thermo-chromic pigments in leather finishing	Aybeniz Şeren
08:45 – 09:00	209	Fabrication of hollow silica particles and its application in polyacrylate membrane forming agent for leather finishing	Yan Bao
09:00 – 09:15	28	Development of nanocomposites with antibacterial effect for leather and textile	Anna Bacardit
09:15 – 09:30	356	A study on a new tanning agent	Asım Öncüler
09:30 – 09:45	353	C.R.C.: Cell rotary conditioning system	Giulio Tandura
09:45 – 10:00	36	Fish leather a traditional crafts and industrial goods	Alois G.Püntener

10:00 – 10:15	44	Traceability: From farm to tannery	Rene Liauzon
10:15 – 10:30		IUR Presentation on scientific facts and figures regarding chromium	Dietrich Tegtmeier

Session IV is sponsored by SISECAM Group

10:30 – 11:00 Coffee Break

II. Visual Display / New Developments in Chemical Products for the Tanning Industry

10:30 – 11:00

94	Synthesis, characterization and electrochemical behavior of a novel tetradentate schiff base ligand (H ₂ L) and its cadmium complex Cd(II) L. the single crystal of (H ₂ L) DMSO	Sabrina Bendia
147	New generation emulsifiers for the leather industry	Ivo Reetz
181	Green synthesis of monodispersed iron oxide nanoparticles for Leather Finishing	Sreeram Kalarical Janardhanan
194	Unique preservation for wet-white tannages	Marc Hombeck
205	Alternative Fungicides for the Leather Industry: Application in wet blue and vegetal leather	Agustin Marsal
207	Leather retanning with protein based product	Miriam Cooper da Silva
211	Microbial pigments – novel benign colorants for leather finishing	A. Tamil Selvi Alagumuthu
219	Preparation of foamed composites from poly (ethylene-co-vinyl acetate) and aramid fibers for shoe materials	Jianzhong Ma
246	Preparation of polyamide surfactant with collagen hydrolysate from tannery solid wastes	Keyong Tang
275	Synthesis, characterization and electrochemical study of new tetradentate nickel(II)-Schiff base complex derived from 1,2-diaminoethane and 5-(N,N-methylphenyl)	Yasmina Ouennoughi
282	A novel Copper (II) complex of tetradentate NNOO Schiff base containing pyrrol ring: Synthesis, spectral characterization, electrochemical study, morphological and electrocatalytical properties on Cu(II) modified glassy carbon electrode	Djouhra Aggoun
288	Utilization of tannery fleshing fat for making soap	Suliestiyah Wiryodiningrat
337	Optimization and design of tanning process using Zr-Al-Ti complex tanning agent	Weihua Dan

Session V / Clean Innovative Technologies in Leather Making

Chairmen: Jean Pierre Gualino & Dr. Zhang Jing

11:00 – 11:15	41	Interest of the use of feather in the generation of news strains isolated from rotten bovine hides	Anne Laure Lepretre
11:15 – 11:30	265	Destruction of archaeal and bacterial communities in leather industry with electric current	Meral Birbir



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11:30 – 11:45	334	New challenges in oxidative beamhouse: latest innovations on process sustainability	Gustavo Adrian Defeo
11:45 – 12:00	178	A new approach of enzymatic unhairing process on cattle hide	Haiming Cheng
12:00 – 12:15	131	Innovative new degreasing technology with enzymatic biosolutions	Muhammad Arshad Gazi
12:15 – 12:30	200	Light weight leather with premium aesthetics	Marc Hombeck

Session V is sponsored by NOVOZYMES

12:30 – 13:30 LUNCH

Session VI / Clean Innovative Technologies in Leather Making / Waste Products and By-products
Chairmen: Dr. Michael Meyer & Elton Hurlow

13:30 – 13:45	15	Salt free zero emission chrome tanning technology – an approach to ecofriendly tanning	Victor John Sundar
13:45 – 14:00	37	Click chemistry approaches to tanning processes: Role of periodates on vegetable tannin-accelerated process with improved properties	Sadulla Sayeed
14:00 – 14:15	358	A novel approach to clean tanning technology	Jing Zhang
14:15 – 14:30	267	Innovative enzyme applications in tanning processes	Mercedes Roig
14:30 – 14:45	183	Problematic SVHCs in leather: boron compounds	Gianluigi Calvanese
14:45 – 15:00	43	What sort of "detox list" for the tanning industry"?	Thierry Poncet
15:00 – 15:15	35	Towards zero solid waste: Utilizing tannery waste as a protein source for poultry feed	Hira Lal Paul

Session VI is sponsored by CLEARITY Chemical Products Companies

15:30 – 16:00 Coffee Break

III. Visual Display / Clean Innovative Technologies in Leather Making

15:30 – 16:00

14	Green solution for ecology and economy in tanning - phosphonium and polyamide combination process	Victor John Sundar
25	Dyeing Properties of Atmospheric Pressure Plasma Treated Leathers	Safiye Meriç Gökalp
50	Pretreatment of lime yard effluent with alkaliphiles reduces the sludge formation and treatment efficacy	Yasmin Khambhaty
69	Aggregation of carboxymethylchitosan induced by calcium ions	Tianduo Li
73	Research about structure and properties of nano-TiO ₂ /waterborne polyurethane composite membrane	XiaoMin Luo

75	The research on natural product as crosslinker in modification of polyurethane	XiaoMin Luo
100	Method for screening microgram quantities of proteolytic enzymes for depilation	Richard Edmonds
133	Isolation, characterization and effects of inhibitors on bacteria producing biogas from tannery sludge	Patrícia Schacker dos Anjos
148	Clean innovative technology in leather making	Viorica Deselnicu
158	Investigation of antimicrobial properties of leather and sheepskin for medical use treated with colloidal silver solutions	Carmen Gaidau
190	Minimization of nitrogen impact in beamhouse processing of leather manufacture	Bi Shi
252	Antifungal activity of silver doped hydroxyapatite on leather	Meruyert Koizhaiganova
274	Decorin content and near infrared spectroscopy analysis of dried collagenous biomaterial samples	Mila Aldema-Ramos
295	Study on the possibility to utilize clay with layered silicate structure for leather finishing	Altan Afşar
297	An eco-benign semi-metal tanning system to cleaner leather production	Viktoriia Plavan
355	The effect of lipolytic enzyme preparations in degreasing process for double face production	A. Candaş Adıgüzel Zengin

III. Visual Display /Waste Products and By-products

105	New trends in leather waste reduction and its control	Sultan Çivi
128	Biodiesel production from limed fleshing waste of leather industry: Alkaline versus bio-catalysis	Thanikaivelan Palanisamy
138	Studies on the characterization of the reject stream salt residue and possible reuse in leather processing	Aravindhan Rathinam
143	Biopolymers from wet-white leather wastes applied for the remediation of degraded soils	Ioannis Ioannidis
146	Biocomposites based on organic tanned leather wastes	Viorica Deselnicu
192	Chemical composition and hydrolytic method of the waste bovine hair from tannery	Wei-cai Zheng
193	A collagen-based flocculant prepared from solid leather wastes	Xue-pin Liao
250	Preparation and properties of sisal microfibrils/gelatin biomass composites	Jie Liu
256	Protein extraction from chromium tanned leather waste by <i>Bacillus subtilis</i> enzymes	Aline Dettmer
261	From a problem of solid waste to an useful product in beamhouse process	Betina Claudia Galarza
305	Characterization of collagen hydrolysates prepared using different organic acids and dairy by-product	Eylem Kilic
329	ZnO-templated synthesis and photocatalytic activity of zno/zns heterojunction	Tianduo Li

Session VII / Waste Products and By-products

Chairmen: Dr. Joan Carles Castell & Thomas Yu

16:00 – 16:15	177	Recovery and utilization of animal fat from sheepskin degreasing effluent	Vinodhkumar Marudhamuthu
16:15 – 16:30	80	Flexible technology of biodiesel production from fleshings	Karel Kolomaznik
16:30 – 16:45	137	Use of nanotubes in photocatalytic processes for organic matter removal in tannery wastewater	Leonardo Madeira Martins
16:45 – 17:00	93	Hybrid collagen-cellulose-albumin biofibers from skin waste: a potential bioabsorbable suture material	Thanikaivelan Palanisamy
17:00 – 17:15	96	Composting and beneficial use of tannery wastewater treatment sludges	Yiğit Kaman
17:15 – 17:30	272	Advancement in the catalytic combustion of tannery sewage sludge by studies in a fixed bed reactor	Rosario Mascolo

Session VII is supported by IDMIB Istanbul Leather and Leather Products Exporters Association

**19:00 – 22:30 Gala Dinner at Adile Sultan Palace
(Depart from Sheraton Maslak Hotel & Grand Cevahir Hotel)**

Friday 31, May 2013

Session VIII / Use of Advanced Techniques for Leather Analysis

Chairmen: Dr. Campbell Page & Dr. Catherine Money

08:45 – 09:00	127	Evaluation of drape on apparel leathers: Structure-property relationship	Krishnaraj Kaliappa
09:00 – 09:15	109	Synchrotron studies of leather structure	Richard Haverkamp
09:15 – 09:30	277	Methods for species detection on leather and collagen	Hauke Wulf
09:30 – 09:45	32	Measurement of fat-liquor distribution in ovine leather	Richard Edmonds
09:45 – 10:00	247	Mathematical regression technique to correlate Visual and Instrumental colour analysis for leather industry	Malathy Jawahar
10:00 – 10:15	185	Considerations on the test methods currently applied to measure fogging and haze in automotive upholstery leathers	Patricia Casey
10:15 – 10:30	45	Times are changing..., in the leather chemical laboratories	Jean Claude Cannot

Session VIII is supported by DTG Turkish Leather Brands

10:30 – 11:00 Coffee Break

IV. Visual Display / Use of Advanced Techniques for Leather Analysis

10:30 – 11:00

72	Understanding the chrome tanning: A theoretical perspective	Tianduo Li
92	DNA extraction from leather	Keiji Yoshimura
110	Collagen alignment and leather strength	Katie H. Sizeland
154	Impedance analysis: A tool for understanding changes in hydration dynamics of collagen on crosslinking	Nishad Fathima Nishter
182	Study of the corrosion of metal accessories in contact with leather	Rosario Mascolo
189	Alternative method for determination of free formaldehyde content in leather	Gökhan Zengin
224	Artificial neural networks for recipe formulation in leather dyeing based on tristimulus system	Malathy Jawahar
237	A new method for determining proteolytic activity on the basis of using nature hide powder labeled with low temperature active Dyestuffs as a substrate	Biyu Peng
291	Determination of structural changes on the artificially aged garment leathers by raman spectroscopy and FTIR+ATR	Hüseyin Ata Karavana
293	Development of a DNA chip for determination of mould contamination indoors and on interior material	Michael Meyer
294	Use of differential scanning calorimetry for the characterization and damage assessment of parchment and vegetable tanned leather	Lucretia Miu
299	New method for determination of Cr(VI), Cr(III) and other heavy metals in leather industry wastewaters	Viktoriia Plavan
303	Study of environmental impact on vegetable tanned leather by Micro Hot Table (MHT) method	Lucretia Miu
318	A novel technique for getting leather section image based on metallographic sample preparation	Tianduo Li

Session IX / Future of Leather Technologies and Environment

Chairmen: Dr. S. Rajamani & Richard Pai

11:00 – 11:15	308	Sustainable Leather	Catherine Money
11:15 – 11:30	91	Determination of dyestuffs remaining in dyeing processes of vegetable tanned leathers and their removal by using shavings	Mehmet Mete Mutlu
11:30 – 11:45	213	The potential of a local white-rot fungus for effective decolorization of azo dyes	Liwen Zheng
11:45 – 12:00	170	Biodegradation of azo dye by using azoreductase enzyme and its relevance in leather manufacture	A.B.Mandal
12:00 – 12:15	258	Biogas production from leather industry wastes	Guilherme Pantaleão da Silva Priebe

12:15 – 12:30 101 Leather sensors: Summit of technological excellence

Sreeram
Kalarical
Janardhanan

Session IX is supported by TURDEV Turkish Leather Foundation

12:30 – 13:30 LUNCH

Session X / Future of Leather Technologies and Environment
Chairmen: Dr. Eleanor Brown & Roberto Kamelman

13:30 – 13:45	99	Membrane bioreactor treatment of tannery effluents with nitrogen removal and low cost sludge drying	Wolfram Scholz
13:45 – 14:00	88	Study on Collagen Fiber Loaded Hyperbranched Polyamide-amine Adsorption Property on Cr(VI)	Feifei Zhang
14:00 – 14:15	228	The analysis of carbon footprint of biodegradability in leather during manufacture	Swarna V Kanth
14:15 – 14:30	204	System boundaries, functional unit, calculation methodologies and indicators as fundamentals for Life Cycle Assessment and Carbon footprinting in leather making	Federico Brugnoli
14:30 – 14:45	54	Sustainability in process innovation: development of a green tanning process supported by LCA methodology	Monica Puccini
14:45 – 15:00	271	Practical experiences with the REACH registration of leather chemicals	Campbell Page
15:00 – 15:15	270	Recent environmental regulations and technical developments in world leather sector	S. Rajamani

Session X is supported by GAYE Leather Products

15:30 – 16:00 Coffee Break

V. Visual Display / Future of Leather Technologies and Environment

5:30 – 16:00

12	Free of water chrome tanning – intensified by CO ₂	Renner Manfred
53	Treated municipal wastewaters as a sustainable resource of water for the leather industry	Monica Puccini
104	Optimized gas foaming procedure to prepare gelatin scaffolds for wound management	Ali Poursamar
114	Removing of Acid Dye from Leather Waste Water by Cr(III) chelated novel p(HEMA-GMA)-IDA Membrane	Safiye Meriç Gökalp
116	Dye Ligand Nanopolymers for Removal of Cr(III) From Leather Waste Water	Evren Türker
145	E-learning Module for Environmental Management System	Latha Anantharaman
151	Studies on some environmental conservation strategies in a common effluent treatment plant for a leather cluster	Sureshkumar Perumal Singaraj

157	Ecological technology for leather and furskin dry cleaning and restoration	Carmen Gaidau
168	Biological method for degradation of an azo dye: Recycling and reuse of treated waste water for leather processing	J.Kanagaraj James
173	Leather industry of turkey, in the adaptation process to EU water framework directive (WFD)	Erdem Görgün
184	Improving electrical conductivity of leather surface: the newest technologies for the newest industrial applications	Gianluigi Calvanese
212	What the future beholds for engineering education in leather?	Sadulla Sayeed
230	Removal of chromium from tanning wastewater by chemical precipitation and electrocoagulation	Mariliz Gutterres
234	A study on environmentally aware business models lean, green, zero waste technology, and corporate social responsibility	Latha Anantharaman
253	Process optimization for tanning leather to form a more sustainable	Mariliz Gutterres
273	The distribution and mobility of chromium in tannery sludge contaminated soil	Urana Dandar
279	Potential utilization of tannery sludge in growth media for ornamental plant	Selime Menteş Çolak
286	Treatment of ozonated tannery wastewater in Sequential batch reactor	SV. Srinivasan
302	New technology of leather processing Barguzin	Vera Radnaeva
354	Distance education in leather engineering and technology	Deniz Gürler Karaman

16:00 – 16:05 Presentation of IUE Commission by Dr. S. Rajamani

16:05– 16:10 Presentation of IUL Commission by Elton Hurlow

16:10 – 16:15 Presentation of IUC/IUP/IUF Commissions by Dr. Campbell Page

16:15– 16:20 Presentation of IUTIC

16:20– 16:30 Introduction of 2014 IULTCS Regional Conference by JALT

16:30 – 16:40 Introduction of 34th IULTCS Congress by Indian Society ILTA

16:40 – 17:00 Introduction of 33rd IULTCS Congress by Brazilian Society ABQTIC

17:00 – 18:00 Council of Delegates

18:00 – 18:30 Closing Ceremony

Parallel Meetings

Tuesday 28, May 2013

12:00 -15:00 Meeting of the IUE Commission

15:00 -18:00 Meeting of the EC



XXXII. Congress of IULTCS
May 29th–31th 2013 Istanbul/TURKEY



Wednesday 29, May 2013

12:30 -13:30 Meeting of the IUR Commission

17:30 -18:30 Meeting of the IUC/IUF/IUP Commissions

Thursday 30, May 2013

12:30 -13:30 Meeting of the IUT Commission

Friday 31, May 2013

08:00 -08:45 UNIDO Meeting

12:30 -13:30 Meeting of the IUL Commission