

# Program



## Headlines of the XXXIII IULTCS Congress

- 1** Fundamental research in Collagen and in Leather Science and Technology
- 2** New sustainable developments in leather making processes and operations, waste treatments and use of residues
- 3** Innovative leather making and waste treatment technologies successfully used nowadays in full scale tannery production
- 4** New developments in chemical products and materials for the tanning industry
- 5** Optimization of the use of energy and machinery in leather industry
- 6** Advanced leather analysis
- 7** Safety and health in the leather industry
- 8** Design, fashion and marketing in the leather industry
- 9** New global requirements - carbon footprint, novel international certifications, others - and their effect on leather making

### 24<sup>th</sup> November 2015, Tuesday

15:00 - 23:00	Registration - FEEVALE Theatre	
12:00 - 14:00	Asian International FORUM & LIAISON, 2016 Asian Congress in Beijing	Swan Tower Hotel
14:00 - 16:00	IUE Commission meeting	Swan Tower Hotel
16:00 - 18:00	IULTCS EC meeting	Swan Tower Hotel
18:00 and 18:45	Departure from Official Hotels to FEEVALE Theatre	
19:30	Solemn opening of XXXIII IULTCS Congress - Welcoming cocktail	Costume High sport
23:00	Returning to the Official Hotels	

### 25<sup>th</sup> November 2015, Wednesday

08:30 - 09:30	Opening Ceremony	
09:30 - 09:45	IULTCS Merit Award	
09:45 - 10:15	Heidemann Lecture - James San Antonio	

10:15 - 10:45 | Coffee Break

## Session I

Chairmen: Luiz Zugno & Regina C. Teixeira

TIME	HEADLINE	TITLE	NR	PRESENTER
10:45 - 11:05	1	Selective filling of loose structured areas and blood-veins in leather with polymeric lightweight particles	157	Jens Fennen
11:05 - 11:25	1	Changes in tear resistance of bovine hides during the chrome tanning process	015	Ricardo Tournier
11:25 - 11:45	1	Enthalpic and entropic contributions to the stability of fibrous collagen in untanned and tanned state at varying humidities	133	Michael Meyer
11:45 - 12:05	1	Three-dimensional (3-d) reconstruction of the leather fiber bundles	017	Huayong Zhang

12:05 - 13:30 Lunch - IUC/IUF/IUP Commissions meeting

## Session II

Chairmen: Mariliz Gutterres & Roberto Kamelman

TIME	HEADLINE	TITLE	NR	PRESENTER
13:30 - 14:00	Invited Speaker	<b>Leather Innovation. The Brazilian Design Case</b>		Maurício Medeiros
14:00 - 14:20	1	Collagen structure and strength in leather	024	Richard Edmonds
14:20 - 14:40	1	Ionic Liquids: Role of “task specific” or “designer” materials in leather making	029	Nishad Fathima
14:40 - 15:00	1	Investigations about the binding mechanisms of vegetable tanning agents to collagen	132	Michaela Schroepfer
15:00 - 15:20	1	Qualitative evaluation of crossbred cattle leathers	146	Manuel A. C. Jacinto
15:20 - 15:40	1	A novel method for determining surface charge and isoelectric point of leather	091	WangYanan

15:40 - 16:10 Coffee Break

## Session III

Chairmen: Patricia Casey & Bi Shi

TIME	HEADLINE	TITLE	NR	PRESENTER
16:10 - 16:30	1	Study on the pyrolysis behaviors and mechanism of leathers in inert atmosphere	103	Keyong Tang

16:30 - 16:50	4	Development of products from Acacia mearnsii: a case of sustainability in the leather industry	006	Carlos Rodolfo Wolf
16:50 - 17:10	4	A new formulation for the treatment of acid-deterioration (Red Rot) in historic leathers	065	A. Lama
17:10 - 17:30	4	High performance Acrylic Polymer Technology for use in leather finishing processes (ALCA LOLLAR AWARD - 2015)	070	Joseph Hoefler
17:30 - 17:50	4	Biodegradation and Biogas Production from solid waste of tanneries	120	Caroline Agustini
17:50 - 18:10	4	Influence of an amphoteric retanning agent on the properties of leather. Part II	125	Olga Ballus

 **Visual Presentation 25<sup>th</sup> November 2015, Wednesday**  
**4<sup>th</sup> Floor**

TIME	HEADLINE	TITLE	NR	PRESENTER
All day	1	Effect of chrome tanning on the thermal behavior of collagen fibers: A calorimetric and kinetic analysis	004	Wentao Liu
All day	1	Towards a mechanistic understanding of stress-strain behavior in leather	012	Richard L. Edmonds
All day	4	Reduction of Yellowing Effect on Leathers with UV Absorber Benzophenone-4	020	Safiye Meriç Açıkel
All day	1	Characterization of collagen fibers air-gap spun from highly concentrated solutions	039	Osamu Harada
All day	1	Degradability of Chrome Tanned Hide Collagen with Penicillium	040	Jinwei Zhang
All day	1	Improving The Properties of Wet-White Tanned Leather Characteristics By Using Collagen-Based Biopolymer	048	Bahri Basaran
All day	4	Preparation and Application of Polysiloxane-grafted Polyamide-amine Fatliquoring Agent	056	Xuechuan Wang
All day	4	Modification of Alkanolamides by Hyperbranched Polymer and Application in Fatliquoring	061	Xue-Chuan Wang
All day	1	Mathematical modeling in tanning research	063	Vera Radnaeva
All day	1	The physicochemical properties of collagen gel as the model for hide fiber cross-linked by glutaraldehyde	076	Zhenhua Tian
All day	4	Fabrication and Performance of Polyacrylate/Hollow ZnO Composite Emulsion for Leather Film-forming Agent	082	Yan Bao
All day	1	Effect of sodium chloride on structure of collagen fiber network in pickling and tanning	096	Xinxin Li
All day	1	Preparation and characterization of collagen/gelatin/bioglass composite	106	Xichan He
All day	4	Synthesis and application of Zinc Oxide (ZnO) nanoparticles for enhancing fastness properties of Cationic formulations in leather finishing	119	K. Ram Kumar

All day	4	Preservative effect of microbicides in leather	124	Juliana Tolfo da Fontoura
All day	4	Qualitative aspects of sheep hides tanned with Black Jurema and Red Angico	145	Alexandra Rocha de Oliveira
All day	4	New organic tanning sistem from renewable source; "wet wine from grape"	148	Marco Nogarole
All day	4	TiO <sub>2</sub> - SiO <sub>2</sub> -GLYMO nanocomposite prepared by sol-gel processing for leather finishing	168	Meruyert Koizhaigaynova
All day	4	A new vegetable tanning material for leather industry: <i>Acacia nilotica</i> L.	169	Çiğdem Kılıçarıslan Özkan
All day	1	Absorption and fixation of vegetable tannins by collagen	172	Franciela Spier
All day	4	Tanning study with chestnut tannin associated with acrylic resin	178	Patrice M. de Aquim
All day	1	Application of DFT calculations on the study of the tanning process with tetra-hydroxymethylphosphonium salt	179	Rafael L. Ortiz
All day	1	Fish Skins: Valuable Resources for Leather Industry	185	Arife Candaş Adıgüzel Zengin
All day	4	Green Fungicide Technologies	187	Dennis L. Dalton
All day	1	The role of surface properties in durability and comfort of finished leathers	192	Claudia Florio


**26<sup>th</sup> November 2015, Thursday**
**Session IV**

Chairmen: Michael Meyer &amp; Carlos Wolf

TIME	HEADLINE	TITLE	NR	PRESENTER
08:30 - 09:00	Invited Speaker	<b>Leather at Bentley: Re-defining luxury for the 21<sup>st</sup> century</b>		Mark Stang
09:00 - 09:20	4	Oxidation stability of fat-liquors; preventing the formation of Cr (VI) on leather	143	Guido Batema
09:20 - 09:40	4	Synthesis and characterization of Hyper-branched Polyurethane finishing agent	058	Ting Chen
09:40 - 10:00	4	Hybrid tannage with cationic syntan and chrome	204	Eric Poles
10:00 - 10:20	4	Design and fabrication of Casein-based TiO <sub>2</sub> Nanocomposite for self-cleaning leather finishes	026	Qunna Xu

10:20 - 10:50	Coffee Break
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## Session V

Chairmen: Jean Pierre Gualino & Hugo Springer

TIME	HEADLINE	TITLE	NR	PRESENTER
10:50 - 11:10	4	A novel class of polymeric fatliquors	190	Giancarlo Lovato
11:10 - 11:30	4	Easy BlueTan – A chrome tanning evolution	159	Naim Miguel
11:30 - 11:50	2	Can there be a greener alternative to water for diffusion of auxiliary (generic) dispersions into chrome tanned leather?	059	Kalarical J. Sreeram
11:50 - 12:10	2	Decolorization studies of leather dyes by the native isolate <i>Trametes</i> sp. SC10	121	Santiago Ortiz

12:10 - 13:30 | Lunch - FLAQ TIC and IUT Commissions Meetings

## Session VI

Chairmen: Giancarlo Lovato & Swarna Kanth

TIME	HEADLINE	TITLE	NR	PRESENTER
13:30 - 13:50	2	Sustainable process in the production of Wet-Blue leathers	135	Rejane M. M. Paiva
13:50 - 14:10	2	Investigation of novel Deep Eutectic Systems for the reduction of water usage in leather manufacture	099	William Wise
14:10 - 14:30	2	Technological advances towards the use of bio-waste in dyeing of leather	066	Malathy Jawahar
14:30 - 14:50	2	Silica imprinted materials for selective adsorption of contaminants in tannery wastewater	167	Jaqueline Benvenuti
14:50 - 15:10	2	Definition of minimum acceptable environmental standards for the Environmental Commission of the IULTCS	155	Thierry Poncet
15:10 - 15:30	8	Importance of the relationship between softness and directionality of physical properties on leather for automotive upholstery	151	Patricia Casey

15:30 - 16:00 | Coffee Break

## Session VII

Chairmen: Thomas Yu & Patrice Aquim

TIME	HEADLINE	TITLE	NR	PRESENTER
16:00 - 16:20	3	The challenges of biological nitrogen removal and reduction of sludge handling and disposal costs	126	Wolfram Scholz

16:20 - 16:40	3	Recovery of water for reuse from tannery wastewater and other advanced environmental protection measures – Asian scenario	036	S. Rajamani
16:40 - 17:00	2	Steam explosion utilization as pre-treatment of chrome leather waste in order to produce biogas	043	Aline Dettmer
17:30	Displacement to IST Couro			
18:00 - 19:30	Visit IST Couro and ABQTIC			
19:30 - 20:00	Assembly of ABQTIC			
20:30	Returning to the Official Hotels			

## Visual Presentation 26<sup>th</sup> November 2015, Thursday

### 4<sup>th</sup> Floor

TIME	HEADLINE	TITLE	NR	PRESENTER
All day	2	Ink pattern from liquid waste of leather trim, intended for buildings and tarred roads	007	Janete Schneider
All day	2	Board- MDL generated from leather processing waste	009	Janete Schneider
All day	2	Evaluation of the use of rainwater and reuse of effluents in the chemical industry	011	Zolair Fritsch
All day	9	Carbon footprint of a tanning company in Turkey	027	Eylem Kiliç
All day	2	Gelatin extracted from chromed leather waste applied as raw material for polymeric film production	028	Bianca Santinon Scopel
All day	2	Reducing of pollution load in Chrome Tanning and Dying Process effluents by p(HEMA-GMA)-IDA Membrane Adsorption System	035	Safiye Meriç Açıkel
All day	2	Application of Collagen Hydrolysate in Cereal Seed Treatment	072	Carmen Gaidau
All day	2	Application of a clean auxiliary for leather to obtain a low-salt pickling and less chrome tanning process	079	Lu Jia
All day	2	Inhibitory effect of protein filling agent from bovine hair on the oxidation of Cr(III)	094	Yue Yu
All day	2	Study of adsorption properties of anionic dyes on graphene oxide/chitosan composite porous microspheres	108	Xiaoxiao Li
All day	2	Creating economic values from black for black: A case for use of paper industry wastes in leather processing	117	Pandian Balasubramanian
All day	4	Plant derived Saponin Aescin as an antimicrobial soaking agent	085	Arife Candaş Adıgüzel Zengin
All day	2	Preparation and characterization of adsorbents using chrome shavings to remove Cr(III) ions from aqueous solutions	122	Yuling Tang

All day	2	Dye removal of tannery wastewater by adsorption in leather waste: the understanding of the phenomenon up optimization with real wastewater	153	Carolina S. Gomes
All day	2	Biogas production from tannery wastes – Evaluation of isolated microorganisms effect	158	Jayna Pessuto
All day	2	Study on Treatment and Utilization of Leather Industry Sludge and Solid Waste by Low Temperature Pyrolysis	161	Nhat Thien Nguyenc
All day	2	One step to prepare fatliquor from the extracted fat of cowhide fleshings for using in leather processing	162	Md. Abul Hashem
All day	2	Dye Adsorption with Tannery Solid Waste	163	Bianca Mella
All day	2	Tannery Wastewater Treatment with Scenedesmus sp.	165	Juliana Tolfo da Fontoura
All day	2	Characterization and evaluation of a fungal enzymatic pool with unhairing activity	176	Betina Galarza
All day	2	Evaluation of waste management in tanneries	180	Eliane Andrioli
All day	2	Ammonia removal from tannery waste leachate by process	181	Aldrim Vargas de Quadros
All day	2	Extraction of bovine hair keratin from unhairing waste of hides	188	Franck Souza
All day	9	Carbon Footprint of light leathers	193	Biagio Naviglio

 **27<sup>th</sup> November 2015, Friday**

**Session VIII**

Chairmen: Ricardo Tournier & Marina Moreira

TIME	HEADLINE	TITLE	NR	PRESENTER
08:30 - 09:00	Invited Speaker	<b>Sustainable tannery. The JBS Group Tannery case</b>		Fernando Bellese
09:00 - 09:20	6	A new moisture Non-Contact Measurement application on leather	147	Sergio Alonso
09:20 - 09:40	6	Studies towards the influence of syntans on the assembly of collagen	111	Jochen Ammenn
09:40 - 10:00	6	Observation of penetration and reaction of acrylic resin retanning agent in leather using fluorescent tracer technique	093	Zeng Yunhang
10:00 - 10:20	6	Fatty materials as nutrient for fungal growth on wet blue leather	060	Marcelo Fraga

10:20 - 10:50 | Coffee Break

## Session IX

Chairmen: Thierry Poncet & José Fernando Bello

TIME	HEADLINE	TITLE	NR	PRESENTER
10:50 - 11:10	6	Use of viscoelastic changes to demonstrate the relationship between drying parameters – a preliminary study	042	William Wise
11:10 - 11:30	6	False Positives I – Naphthylamines identification towards HPLC-DAD-MS analysis with ISO 17234-1 technique	071	Manila De Cicco
11:30 - 11:50	6	System expansion for environmental impact assessment in the leather industry – The leather product environmental footprint pilot project case	199	Federico Brugnoli
11:50 - 12:10	9	Best available techniques in leather tanning	086	Vicente Segarra

12:10 - 13:30 | Lunch - IUR and IUL Commissions meetings

## Session X

Chairmen: Christine Powley-William & Geoff Holmes

TIME	HEADLINE	TITLE	NR	PRESENTER
13:30 - 14:00	Invited Speaker	<b>Brazilian Leather Sustainability Certification</b>		Álvaro Flores
14:00 - 14:20	7	Assessment of occupational safety and health management in the leather sector in Kenya	200	Arthur S. Onyuka
14:20 - 14:40	7	Study and evaluation of occupational health, musculoskeletal disorder and safety among worker's in cutting section of leather goods manufacturing industries using REBA technique	195	Karthikeyan Kattaiya
14:40 - 15:00	7	Method development for determination of odors as an indicator of environment condition in tanneries surroundings	149	Lisiane Emilia G. Metz
15:00 - 15:20	7	Investigation of core dimensions on organizational culture in Leather Research and Development Laboratory	069	Swarna V. Kanth

15:20 - 15:50 | Coffee Break - Council of Delegates Meeting



## Session XI

Chairmen: Campbell Page & Roberto Kamelman

15:50 - 16:00	Presentation of the IUE Commission
16:00 - 16:10	Presentation of the IUL Commission
16:10 - 16:20	Presentation of the IUC/IUF/IUP Commissions
16:20 - 16:30	Presentation of the IUR Commission
16:30 - 16:40	Presentation of the IUT Commission
14:40 - 16:50	Introducing the XI AICLST
16:50 - 17:00	Introducing the XXXV IULTCS Congress - VGCT
17:00 - 17:15	Introducing the XXXIV IULTCS Congress - ILTA
17:15 - 17:45	Closing ceremony
18:00	Returning to the Official Hotels
20:00	Departure from the Official Hotels to Closing/Gala Dinner
21:00	Closing/Gala Dinner at Gymnastics Society NH



## Visual Presentation 27<sup>th</sup> November 2015, Friday 4<sup>th</sup> Floor

TIME	HEADLINE	TITLE	NR	PRESENTER
All day	6	Water based polymer nanoclays composite coating rheology for leather applications	001	Sellamuthu N. Jaisankar
All day	6	Influence of breed and age on goat leather quality	013	Manuel Antonio Chagas Jacinto
All day	3	The Degradation of Dyes by a New White-rot FungiCo-immobilized Microcapsule	021	Yanchun Li
All day	6	Microstructural Characterization of Looseness in Bovine Leather using Ultrasound	022	Hannah Wells
All day	4	A Novel Lubricant with Nano-silica Additives and Its Uses for Leather Performance Properties	033	Ayşe Erciyes
All day	7	Safety Information and Diagnostic Tools for Process Industry	037	Latha Anantharaman
All day	4	New Smart Materials for Leather Surface Functionalisation	046	Carmen Gaidau
All day	5	The effect of linear pressure of the pressure roller by using leather tanning machine on the properties of leather	050	Chengjie Yang

All day	7	Reduction of skin disorders with formaldehyde from leather product	053	Daisuke Murai
All day	6	Use of a Profilometer to Profile the Leather Surface	064	Karl Flowers
All day	6	Characterization of Natural Tanning Extracts by FTIR and Multivariate Analysis	067	Fábio dos Santos Grasel
All day	7	Inhibition of generation of hexavalent chromium for chrome-tanned leather with collagen peptide and radical scavenger	074	Koki Ogata
All day	6	Composition and Characterization of proanthocyanidins in Larch Extract tanning effluent	077	Bo Teng
All day	4	Highly efficient antimicrobial leather finishing agent based on casein/Fe doped ZnO nanocomposites: Preparation and enhanced antimicrobial activities	081	Aiping Hui
All day	7	Effect of pyrolysis of tannery sludge in nitrogen atmosphere on environmental risk of Cr in bottom ash	095	Jianfei Zhou
All day	6	Collagen/chitosan asymmetrical membranes prepared by dry/wet phase separation: a new wound dressing for controlled antibacterial releasing	104	Wenlong Li
All day	6	Optimization of degreasing process in cowhide	127	Mariana I Lorenzo
All day	3	Effect of DMPA Content on Properties of Different Segment Waterborne Polyurethane	129	Wenqi Wang
All day	7	Environmental diagnosis of Estância Velha city (RS leather region) based on analytical data of its micro-watershed	152	Horst Mitteregger Júnior
All day	6	Comparative analysis between Fogging Test and Gas Chromatography coupled with Mass Spectrometry to identify the main volatile organic compounds present in semi-finished leather for automotive upholstery	160	Lucas Zoldan
All day	3	Enzymatic dehairing of bovine hide by plant proteases	164	Carolina de Araújo Viana
All day	6	Detecting Looseness in cattle hides using NMR Relaxometry	189	Geoff Holmes
All day	4	The dark side of leather: finishing issues and light-dependent properties of pigments	191	Claudia Florio
All day	8	Importance of the application of design tools in the development of surfaces for leather collections	197	Gerusa Giacomolli
All day	3	Research on the Relationship between Environmental Cost and Economic Benefit in Tanning Enterprise	203	Junhua Feng