

10th Asian International Conference on Leather Science and Technology

Scientific Program (first version)

November 24, 2014

Keynote Lecture

| No. | Title | Authors |
|-----|---|--------------------------|
| K-1 | Sustaining the global leather industry | Anthony Covington |
| K-2 | Leather: genuine, good, beautiful - Europe's leather quest for sustainability | Gustavo Gonzalez-Quijano |

Oral Session 1

| No. | Title | Authors |
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| O-1 | Inverse chrome tanning technology based on wet white tanned by Al-Zr complex tanning agent | Siwei Cai, Bi Shi, Wenhua Zhang, Yunhang Zeng, Ya-nan Wang |
| O-2 | Turning to nature for stabilization of skin protein | Victor John Sundar, Chellappa Muralidharan, Asit Baran Mandal |
| O-3 | Development of cleaner unhairing process | Valeika Virgilijus, Beleska Kestutis, Justa Sirvaityte and Violeta Valeikiene |

Oral Session 2

| No. | Title | Authors |
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| O-4 | Reliable and environmentally friendly enzymatic unhairing with low amounts of sulfide | Daniel Herta, Jürgen Christner, Jan-Tiest Pelckmans and Jens Fennen |
| O-5 | Chemical free enzyme based unhairing | Saravanan Palanivel, Kamini Numbi Ramudu, Gowthaman Marichetti Kuppuswamy |
| O-6 | Application of horse chestnut saponin Aescin as degreasing agent | Gökhan Zengin, Eylem Kılıç, Arife Candaş Adıgüzel Zengin |
| O-7 | Sustainability and environmental footprints - A way forward in the leather market | Yu Mei, Gerhard Wolf |
| O-8 | Uncertainty in the environmental studies for the leather chain: a scenario approach for the proper selection of the analysis type | Federico Brugnoli, Carlo Brondi, Federico Fragassi |
| O-9 | Acceleration of mass transfer in leather processing | Vera Radnaeva |
| O-10 | A success story on the impact of safety environment pollution of the leather industries to food chain in Bangladesh | Marjjuk Ahmed |
| O-11 | Role of institutions and policies in sustainable growth of leather industry in India | Sandeep Kumar Gupta and Sanjeev Gupta |

Oral Session 3

| No. | Title | Authors |
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| O-12 | A case study on the sustainability strategies of some leading firms in the Indian leather industry | Sandeep Kumar Gupta, and Uday S. Racherla |
| O-13 | Is sustainability a problem for leather industry? | Thanikaivelan Palanisamy |
| O-14 | “Green” technologies for leather and fur industry | Dmitry Shalbuev |
| O-15 | Green technology for leather manufacturing: Combined organic tanning based on garad and glutaraldehyde | A.E Musa, G.A. Gasmelseed |
| O-16 | An environmentally-friendly approach for wet white leather manufacture with tannic acid - laponite combination tannage | Jiabo Shi, Keshuai Ren, Changdao Mu, Wei Lin |

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| O-17 | Clean tanning technologies based on chrome-free tanning agent TWT | Zhang Jing, Li Jing, Shi Bi, Li Bin, Yan Lan |
| O-18 | A non-pickling and high chromium-exhaustion tanning method | Chunxiao Zhang, Biyu Peng |
| O-19 | New application of tingi (<i>ceriops tagal</i>) bark powder to an barramundi (<i>lates calcarifer</i>) fish skin an alternative vegetable tanning material | Kasmudjiastuti Emiliana, Setiya Murti Rihastiwi, Budi Susanto Heru |
| O-20 | Dialdehyde cellulose: A bi-functional crosslinking macromolecule for Type I collagen | Swarna V Kanth, Krithika V Kanth, Gladstone Christopher Jayakumar, Usharani Nagarajan, Jonnalagadda Raghava Rao |

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AICLST Lecture

| No. | Title | Authors |
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| A-1 | Current status and superiority of JAPAN ECO LEATHER | Masami Sugita |
| A-2 | Growth of leather sector and recent environmental development in Asian countries | S.Rajamani, Keiji Yoshimura |

Oral Session 4

| No. | Title | Authors |
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| O-21 | Rationalized method to enhance chromium uptake: Nanocomposites as novel less chrome tanning auxiliaries for chrome tanning | Bin Lv, Min Liu, Jianzhong Ma, Dangge Gao |
| O-22 | CLEANTAN: Zero sewage water chrome tanning intensified by CO ₂ | Manfred Renner, Eckhard Weidner, Helmut Geihlsler |
| O-23 | Chrome-reduced tanning technology for cleaner dyed sheep skin processing | Wei Ding, Xuede Zhang, Ya-nan Wang, Bi Shi, Mingrong Cao |
| O-24 | Study on performance of non-chrome tanning hyperbranched polymer with terminal carboxyl groups-Al complex tanning agent | Taotao Qiang, Xin Gao, Xiaoke Chen, Longfang Ren |
| O-25 | Application of epoxy resin with carboxyl group in leather tanning process | Dangge Gao, Rui Li, Bin Lv, Jianzhong Ma, Jing Wei |
| O-26 | Ionic liquids as new age material for collagen stabilization: Bane or Boon? | N Nishad Fathima, Ami Mehta, J Raghava Rao, B U Nair |
| O-27 | Structural investigation of African camel hides and its suitability for leather and leather products | Belay Meles, Aravindhan Rathinam, Karthikeyan Rajan, Ganamani |
| O-28 | Adsorption of anionic dye from aqueous solution by chemically modified collagen fiber: Equilibrium, kinetic, and thermodynamics study | Xuechuan Wang, Feifei Zhang |

Oral Session 5

| No. | Title | Authors |
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| O-29 | The future in retanning; new products based on biopolymers | Dr. Dietrich Tegtmeier, Christopher Tysoe, Matthias Bley |
| O-30 | Preparation and application of retanning agent from raw-trimming wastes | James Kanagaraj, Thamizharasan Senthilvelan, Rames Chandra Panda |
| O-31 | Preparation of fibrous SO ₄ ²⁻ /TiO ₂ -Al ₂ O ₃ solid acid using collagen fiber as template and its catalytic activity in the dehydration of fructose | Yonglan Cheng, Wenhua Zhang, Xuepin Liao, Bi Shi |
| O-32 | Study on the molecular control technology of collagen protein extracted from leather shavings | Pang Xiaoyan Ding Zhiwen Zhang Huijie |

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| O-33 | Stabilization of collagen through functionalized ZnO Nanorods | Vedhanayagam Mohan, Usha Ramamurthy, Kalarical Janardhanan Sreeram, Balachandran Unni Nair |
| O-34 | A novel collagen cryogel based on non-covalent modification with tea polyphenol | Huan Tan, Wei Lin, Changdao Mu |
| O-35 | Comparative assessment of greenhouse gas emissions and energy consumption of biodiesel from fleshings and petroleum diesel | Eylem Kılıç, Rita Puig, Grau Baquero, Gökhan Zengin |
| O-36 | Impact of typical surfactants on the collagenolytic and elastolytic activities of proteases | Yanhong Li, Chunxiao Zhang, Jinxia Du, Biyu Peng |

Oral Session 6

| No. | Title | Authors |
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| O-37 | The influence of dye on degradation of tannins by white rot fungus | Yanchun Li, Xin Xue, Liwen Zheng |
| O-38 | Bioremediation and biodegrading of wet blue leather with different cladosporium species | Eser Eke Bayramoğlu, Claudia Florio, Gianluigi Calvanese |
| O-39 | A concept of modern tannery wastewater treatment | Wolfram Scholz |
| O-40 | Eco-friendly technology for enhancing water economy in leather processing | Jonnalagadda Raghava Rao, Gladstone Christopher Jayakumar, Kalarical Janardhanan Sreeram, Balachandran Unni Nair |
| O-41 | A study on the degradation of phenolic syntan and melamine syntan in tannery wet-finishing wastewater using electro-oxidation and advanced oxidation techniques | S. Sundarapandiyam, G. Bhaskar Raju, P. Saravanan, and B. Chandrasekaran |
| O-42 | Innovative leather processing for elimination of end-of-pipe treatment: Kinetic - Control-Variable (KCV) a new approach | Kandukalpatti C Velappan |
| O-43 | Study on preparation of terminal amino hyperbranched polymer and its adsorption on Cr(VI) | Taotao Qiang, Xiaoning Li, Qiaoqiao Bu, Longfang Ren |
| O-44 | Approach to efficient bating and degreasing for wet blue: Multi-enzyme system | Dangge Gao, Xueyan Hou, Jianzhong Ma, Bin Lv |
| O-45 | The effective usage of dyestuff for nubuck leather | Shiu-Fu Liang, Yun-Tai Yeh, Yu-Yi Lin, Chun-Chu Yeh, Chao-Hsi Cheng, Ching-Fang Chen, Chih-Hung Yu |

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Oral Session 7

| No. | Title | Authors |
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| O-46 | Synthesis and application of multiterminal alkenyl polymers | Xuechuan Wang, Ting Zhang |
| O-47 | Modification of waterborne polycarbonate urethane coating agent using carbon nanotubes | Yanqing Wang, Bunshi Fugetsu, Qianjie Wang |
| O-48 | Effects of stress state while dried on leather mechanical properties | Tang Keyong, Wang Fang, Du Jing, Zhao Kang |
| O-49 | Structure changes of collagen and leather by shrinkage | Pengyuan Yang, Yuxuan Qiao, Keyong Tang, Pengxiang Jia |
| O-50 | Comparative measurement of hexavalent chromium for chrome-tanned leather by extracting at acidic conditions with that by alkaline extraction | Koki Ogata, Yuki Kumazawa, Yoichi Koyama, Keiji Yoshimura, and Koji Takahashi |

Oral Session 8

| No. | Title | Authors |
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| O-51 | Considerations on the test methods currently applied to measure fogging and haze on automotive upholstery leather | Dr. Patricia Casey, Tech. Pablo Pignatelli, Tech. Leonardo Pileggi |
| O-52 | DNA Extraction from leather in several ways | Kazuya Takase, Mariko Terashima, Keiji Yoshimura |
| O-53 | Construct the wet blue (WB) Input-Mix Model of leather industry with activity-based benefit assessment approach | Mei-Fang Wu, Feng-Tcheng Cheng, Pei-En Huang |
| O-54 | Identifying human resource innovations to nurture innovative climate in research and development organization dedicated to leather and allied sciences | Kanimozhi B, Vinodh Kumar M, Swarna V Kanth, Thiruvenkadam T, Geethalakshmi Balaji |
| O-55 | Effect of carrying school backpacks on gait parameters changes in Chinese elementary students of Sichuan area | Zhou Nan, Chen Wuyong, Zhou Jin, Yang Luming, Hu Caibo, Zhou Lichang |

Poster Session

| No. | Title | Authors |
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| P-1 | Novel gelatin-cellulose composite hydrogels for removing organic dyes from wastewater | Ying Pei, Yuhui Li, Shuqi Liu, Xuejing Zheng, Jie Liu, Keyong Tang |
| P-2 | Influence of masking agents on zinc tanning process | Shan Cao, Baozhen Cheng |
| P-3 | An approach to save electricity in small-scale tanners | Hisayoshi Shiozaki, Hirohiko Washiya, Kenji Itho and Masami Sugita |
| P-4 | In-situ polymerization of aniline for spontaneous colouration and electrical conductivity in leathers | Wegene Demisie Jima, Thanikaivelan Palanisamy, Krishnaraj Kaliappa, Phebe Kavati, Chandrasekaran Bangaru |
| P-5 | Rapid determination of four isothiazolinones in leathers by ultra performance liquid chromatography | Lingyun Yu, Mengru Wu, Wei Dong, Wei Lin |
| P-6 | Innovative approach for human resource development in leather goods design and making using modern Information technology tools | Krishnaraj. K, Suresh kumar. PS, Phebe Aaron. K, Aranganathan. M, Sathiamoorthy. G and Chandrasekaran. B |
| P-7 | eGov_SD_eSTEM for environmental issues and management for an industry at national and international level | Latha Anantharaman |
| P-8 | Determination of n-methyl-2-pyrrolidone (NMP) in leather by gas chromatograph-mass spectrometer | N Nishad Fathima, Ami Mehta, J Raghava Rao, B U Nair |
| P-9 | A novel approach for synthesis of anti-fouling polyurethane coating containing zwitterions | Chunhua Wang, Changdao Mu, Wei Lin |
| P-10 | The Preparation of modified graphene / waterborne polyurethane composites and the application on the synthetic leather as electromagnetic shielding coating | Xiaomin Luo, Peng Zhang, Rui Liu |
| P-11 | The study of preparation and properties of UV-curing nano-SiO ₂ / waterborne polyurethane composite films | Xiaomin Luo, Rui Liu, Peng Zhang |
| P-12 | Application of collagenase inhibitors on enzymatic unhairing process | Haiming Cheng, Min Chen, Xiaohong Xu, Zhiqiang Li |
| P-13 | Innovative materials for smart properties on leather surface | Carmen Gaidau, Aurora Petica, Madalina Fleancu, Madalina Popescu, Roxana Mioara Piticescu |
| P-14 | Use of collagen hydrolysate for cereal seed treatment | Doru Gabriel Epure, Carmen Gaidau, Mihaela Niculescu, Emil Stepan, Lenuta Iuliana Epure, and Mihai Gidea |
| P-15 | Preparation of ampholytic retanning agent using hide collagen protein | Chen Yongfang, Ding Zhiwen |

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| P-16 | Study on the effect of commonly used surfactants on down | Taotao Qiang, Juan Li |
| P-17 | The influence of dendritic-linear poly(amido)amine surface groups on the properties of wet blue leather | Xuechuan Wang, Yuanyuan Qin, Haijun Wang ,Taotao Qiang |
| P-18 | Effect of hydrophilic chain extenders on film properties of hyperbranched waterborne polyurethane leather finishing agents | Xuechuan Wang, Jing Ren |
| P-19 | Dyeing properties of polyurethane blending film modified with hyperbranched polymer | Longfang Ren, Na Wang |
| P-20 | Synthesis and properties of dendritic waterborne polyurethane leather finishing agent based on Castor oil and PCDL | Longfang Ren, Zidong Guo |
| P-21 | Study on the synthesis and application of colored polyurethane finishing agent | Zhang Yue, Pang Xiao-yan, Ding Zhi-wen, Qiang Xihuai |
| P-22 | The simultaneous bioremoval of chromium and dye by immobilized phanerochaete chrysosporium | Yanchun Li, Liwen Zheng, Yuping Li, Jun Dong |
| P-23 | Synthesis and application of a new nanocomposite as flame retardant of leather | Bo Li, Jiayun Li, Yuanping Jiang and Lixin Li1 |
| P-24 | Nano zinc oxide as an antibacterial agent in leather finishing formulation | Barkat Ali Solangi, Beena Zehra and Hafiz Rub Nawaz |
| P-25 | Development of quantitative evaluation method of hair follicle patterns for identification of leather materials (animal species) | Satoru Dohshi |
| P-26 | Dyeing technology to a small lot and a wide variety kinds order (2) | Makoto Matsumoto |
| P-27 | Preparation and property study of silica aerogels modified waterborne polyurethane thermal insulation film | Xiaomin Luo, Binghui Ge, Xiongxiang Wang |
| P-28 | Impact of hydrophobic monomers with different chain length on the waterproofing and filling performances of amphiphilic acrylate copolymers | Jinxia Du, Biyu Peng |
| P-29 | Synergistic effect of aluminum hydroxide and encapsulated red phosphorus on the flame retardancy of waterborne polyurethane synthetic leather | Xiaomin Luo, Min Cao |
| P-30 | A theoretical study on binding sites of collage with chromium | Weimo Han, Wenhua Zhang, Bi Shi1, Mingrong Cao, Xuepin Liao |
| P-31 | Novel Masked waterborne polyurethanes for leather tanning | Jie Liu, Haojun Fan, Yi Chen |
| P-32 | 1-butyl-3-methylimidazolium acetate as an alternative solvent for type I collagen | Jie Liu, Yi Chen, Haojun Fan |
| P-33 | Intelligent leathers and innovative products: Chameleon effect based smart leather finishes | S. Sumithra, Vellapan Brindha, Swarna V Kanth, Malathy Jawahar and B. Chandrasekaran |
| P-34 | Reduction of skin disorders with formaldehyde from leather product in consumption stage | Daisuke Murai |
| P-35 | Leather and Ethnic Textile combination products: An ecofriendly approach towards leather product design and its socio-economic impact | Kattaiya Karthikeyan, Kaliappa Krishnaraj, Bangaru Chandrasekaran, and Asit Baran Mandal |
| P-36 | Removal and reuse of chromium from tanning wastewater | Bianca Mella, Ana Cláudia Glanert, Mariliz Gutterres |
| P-37 | Role of magnetite immobilized enzymes in leather processing | Gunavadhi Murugappan, Gladstone Christopher Jayakumar, Yasmin Khambhaty, Kalarical Janardhanan Sreeram, Jonnalagadda Raghava Rao, Balachandran Unni Nair |

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| P-38 | Eco-friendly fungicidal compounds from bixa orellana leave extract and its leather application | Alagumuthu Tamil Selvi, B. Edith Hephzibah, T. Keerthi, B.Madhan, Swarna V Kanth |
| P-39 | Studies on antifungal activity of lemon peel extract for leather application | A.Tamil Selvi, K.Phebe Aaron, S.Mythili, Swarna V Kanth, B.Chandrasekaran |
| P-40 | Phyto preservation of goat skin | Alagumuthu Tamilselvi, V. Brindha, N.Vedaraman, J. Kanagaraj, V. John Sunder |
| P-41 | Water vapor permeability behavior of polyacrylate / mesoporous hollow silica composite leather finishing agent | Yan Bao, Yongqiang Yang, Jianzhong Ma, Bozheng Liu |
| P-42 | Studies on usage of slaughterhouse by-product: characterization and utilization of skins from animal legs | Aravindhnan Rathinam, Abhinandan Kumar and Chandra Babu Narasimhan Kannan |
| P-43 | Collagen fibers by air gap wet spinning | Osamu Harada, Masahiro Doi, and Ryohei Fukae |
| P-44 | Application of proteases of wheat bran as a bating agent for goat leather processing | José Martegani, Germán Mazzilli, Natalia Scelsio, Alfonsina Bonfranceschi Barros, Alejandro Markán y Laura M. I. López |
| P-45 | Automatic identification of leather defects using wavelet feature extraction technique | Malathy Jawahar, Mohamed M Ismail, N.K. Chandra Babu |
| P-46 | Studies on the enhancement of lightfastness of vegetable tanned leathers | Mr. Vinodhkumar M, Dr. Kanagaraj J, Mr. Arunkumar V, Mr. Sathishkumar M |
| P-47 | Characterization of raw wastewater from tanneries | Mariliz Gutterres, Juliana Tolfo, Jaqueline Benvenuti, Carolina Gomes, Santiago Ortiz, Veranis dos Santos |
| P-48 | Design innovation in footwear – A prime concern for human foot health conditions | S.Mathivanan, R.Mohan, Gautham Gopalakrishna, and B.N.Das, |
| P-49 | Effect of power ultrasound on the activity and conformation of papain | Zhi-Long Yu, Wei-Cai Zeng, Wen-Hua Zhang, Xue-Pin Liao, Bi Shi |
| P-50 | A theoretical study on binding sites of collage with chromium | Weimo Han, Wenhua Zhang, Bi Shi, Mingrong Cao |
| P-51 | Concept mapping on by_product utilization | Latha Anantharaman |
| P-52 | Leather jacket comfort levels in a 25 °C and 65% RH environment | Yumiko Tsunoda, Asami Miki, and Asami Ishikawa |
| P-53 | The exploration of chestnut thorns shell extracts applying to tanning raw skins | M.M. Zhang, Q.J. Wang, X.J. Liu, B.R. Duan, W.B. Zhang C.Y. Zhao, A.R. Wang |
| P-54 | New trends in the recovery and utilization of high value products from keratinous wastes | Karthikeyan Rajan, Kavitha Pradeep, Chandra Babu Narasimhan Kannan, Berhanu Assefa |
| P-55 | A Microscopic evaluation of collagen-bile pigment interactions: <i>In vitro</i> surface phenomenon | Usharani Nagarajan, Gladstone Christopher Jayakumar, Bangaru Chandrasekaran |
| P-56 | Molecular insight of non enzymatic glycosylation of collagen-Therapeutic perspective of dietary carbohydrates | Gladstone Christopher Jayakumar |
| P-57 | Effect of gelatin content on the structure and drug release of gelatin/sodium alginate/mcc hydrogel beads | Ting Guo, Fang Wang, Keyong Tang |
| P-58 | Influence of stress state while dried on the yield and water vapor permeability of leathers | Du Jing, Fang Wang, Tang Keyong, Zhao Kang |
| P-59 | A Fatliquoring agent with collagen grafted rapeseed oil | Shufa Qin, Fang Wang, Keyong Tang |
| P-60 | The immobilization of tannin on cellulose for removing organic dyes | Ying Pei, Jin Zhao, Xuejing Zheng, Jie Liu, Keyong Tang |

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| P-61 | Effect of thermocycling on the thermal degradation behavior of tanned collagen matrices | Xuejing Zheng, Jie Liu, Kun Wang, Ying Pei, Keyong Tang |
| P-62 | Dissolution and regeneration of collagen fibers using ionic liquid | Xuejing Zheng, Zhuojun Meng, Jie Liu, Keyong Tang |
| P-63 | Removal of chromium (VI) from tannery effluents by microfibrillated cellulose/chitosan composite beads | Xuejing Zheng, Yingxia Wang, Qiannan Zhang, Ying Pei, Jie Liu, Keyong Tang |
| P-64 | The effect of different shoe outsole structures on plantar loading during running | Luming Yang, Shuwen Wu, Yanbo Liu |
| P-65 | Preparation and characteristics of amino silane modified gelatin | Sun Guolong, Huang Jin, Han Xiaona, Du Weining, Li Zhengjun |
| P-66 | Improvement of anaerobic digestion for tannery sludge with ultrasonic generator | Xiaoxing Li, Jie Chen, Jizhang Jia |
| P-67 | The preparation of adsorbents using leather waste and investigations of its adsorption characteristics to Cr (III) in water solution | Yuling Tang, Zaiyin Hu, and Ru Wang |
| P-68 | Evaluating performance characteristics of fusible interlinings used for leather apparel | K. Phebe Aaron, K. Krishnaraj, B. Chandrasekaran and A. B. Mandal |
| P-69 | Preservation of hides and skin with less salt and phyto-extract for cleaner curing technology | M. Vinodh Kumar, Swarna V Kanth, A. Tamilselvi, Brindha. V, Swetha S.K, Surekha. K, J. Kanagaraj |
| P-70 | Isolation and identification of some problematic fungi from double-face leather | Eser Eke Bayramoğlu, Claudia Florio, Gianluigi Calvanese |
| P-71 | Role of magnetite immobilized enzymes in leather processing | Gunavadhi Murugappan, Gladstone Christopher Jayakumar, Yasmin Khambhaty, Kalarical Janardhanan Sreeram, Jonnalagadda Raghava Rao, Balachandran Unni Nair |
| P-72 | Utilization of green solvents for post tanning operations | Bhargavi Narayana Reddy Gari, Solomon Fessehaye, Kalarical Janardhanan Sreeram, Jonnalagadda Raghava Rao, Balachandran Unni Nair |
| P-73 | Salt free ambient preservation of hides and skins: A viable approach | Victor John Sundar, Chellappa Muralidharan |
| P-74 | Extraction and purification of pigskin collagen in the ionic liquid based aqueous two-phase system | Zou Yongpeng, Ma Zhaoyun, Wang Zhonghui, Zhou Hualong, Tang Huazhao |
| P-75 | Fish scale collagen for semiconductor devices | Thotapalli Parvathaleswara Sastry, Sundaramurthy Inbasekaran, Thangavelu Muthukumar, Rethinam Senthil |