

The Fiber Society Spring 2010 International Conference

**Bursa, Turkey
12-14 May 2010**

ISBN: 978-1-63266-643-7

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2010) by The Fiber Society
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact The Fiber Society
at the address below.

The Fiber Society
North Carolina State University
College of Textiles
PO Box 8301
Raleigh, NC, 27695-8301
USA

Phone: (919) 513-0143
Fax: (919) 515-3057

admin@thefibersociety.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Wednesday, May 12

7:30	Registration and Breakfast	
8:30	Welcoming Remarks, Business & Announcements 281	<i>Yusuf Ulcay, Chair</i> <i>Dominique Adolphe, President, Fiber Society</i> <i>İbrahim Burkay, President of UTİB 283</i>
9:00	Plenary Talk (in Orhangazi Salon): Dr. Behnam Pourdeyhimi, North Carolina State University, U.S.A.: <i>Nonwovens as Potential Shelter Materials 287</i>	
9:45	Break	

Morning Session

	Session 1A: Nano Applications <i>Chair: Fatma Göktepe</i> <i>Room: Seminar 3</i>	Session 1B: Dyeing & Finishing <i>Chair: Kevser Korhan-Taymaz</i> <i>Room: Seminar 4</i>
10:00	<i>Metal or Metal Oxides Coated Nanofibrous Web with Exceptional IR and UV Extinction at High Permeability 3</i> <u>Jintu Fan</u> , Pingtang Zhao, and Huijun Wu, Hong Kong Polytechnic University	<i>Improved N-Halamine Antimicrobial Coatings</i> <u>Hasan B. Kocer</u> , Roy M. Broughton, S.D. Worley, Auburn University 51
10:20	<i>Nanoclay and Compatibilizer Effects on Polypropylene Cast Film Processing and Properties 5</i> <u>Sabit Adanur</u> and Ikilem Gocek, Auburn University	<i>Poly(ethylene Terephthalate) Antistatic Treatment 53</i> <u>Stephen Michielsen</u> and Samuel B. Watson, North Carolina State University
10:40	<i>Direct Electrospinning of Highly Twisted, Continuous Nanofiber Yarns 7</i> <u>Tong Lin</u> , Usman Ali, Yaqiong Zhou, and Xungai Wang, Deakin University	<i>Antibacterial Functionalizations of Textile Fabrics Through Low-cost Wet Chemistry Methods 55</i> <u>Mouna Messaoud</u> and Michel Langlet, LMGP

11:00	Break
-------	--------------

11:20	<i>Use of Nanospinning Facilities to Produce Tubular Guides for Peripheral Nerve Repair</i> <u>Laurence Schacher</u> ¹ , Nabyl Khenoussi ¹ , Dominique C. Adolphe ¹ , Didier Gigmes ² , Thomas Trimaille ² , and Denis Bertin ² , ¹ CNRS/UHA, ² UMR CNRS 9	<i>The Application of Nano-oxides in the Antiwrinkle Finishing of Cotton Fabric ... 56</i> <u>Tianhong He</u> , Jinbo Yao, and Haiyang Zhao, Tianjin Polytechnic University
11:40	<i>Pointed Surface Modification of Fibrous Structure for Development of Fiber-based Microfluidic Devices 11</i> <u>Fehime Vatansver</u> ¹ , Ruslan Burtovyy ¹ , Taras Andruk ¹ , Sergiy Minko ² , Konstantin Kornev ¹ , and Igor Luzinov ¹ , ¹ Clemson University, ² Clarkson University	<i>The Effect of Chemical Structure and Particle Size of Crease Recovery Agents on the Electrical Conductivity of Treated Woven Fabrics 61</i> <u>Cem Güneşoğlu</u> , Sinem Güneşoğlu, and Bilgen Çeliktürk, Gaziantep University
12:00	<i>Production of PAN and PVA Nanofibers Incorporated PMMA/n-Hexadecane Nanocapsules for Thermal Comfort in Textiles 13</i> <u>Sennur Alay</u> ¹ , Cemil Alkan ² , and Fethiye Göde ¹ , ¹ Süleyman Demirel University, ² Gaziosmanpaşa	<i>Performance Evaluation of Ultrasonic Assisted Reactive Dyeing of Cotton Under Multiple Variables 62</i> <u>Nisar Ahmad Jamil</u> , Babar Shahbaz, Muhammad Tayyab Nouman, University of Agriculture

12:20–1:45	Lunch at the Göl Café Restaurant
------------	---

Afternoon Session

1:45 Plenary Talk (Orhangazi Salon): Dr. Roy M. Broughton, Auburn University, U.S.A.
New Directions in Braiding 289

	Session 2A: Nano Applications <i>Chair: Behnam Pourdeyhimi</i> <i>Room: Seminar 3</i>	Session 2B: Dyeing & Finishing <i>Chair: Abdülkadir Bilişik</i> <i>Room: Seminar 4</i>	Session 2C: Fabric Properties <i>Chair: Recep Eren</i> <i>Room: Seminar 5</i>
2:20	<i>The Effect of Material and Thickness of Collector Electrode on Fiber Fineness in Electrospinning</i> 15 F. Göktepe ¹ , G. Şimşek ² , Ö. Göktepe ¹ , and S. Çömlekçi ³ , ¹ Namik Kemal University, ² Pamukkale University, ³ Suleyman Demirel University	<i>The Antimicrobial Efficiency of Polyamide 6/Silver Nanocomposites</i> 64 Aysin Dural Erem ¹ , Mikael Skrifvars ² , Uğur Demirpek ³ , and Gülay Özcan ¹ , ¹ Istanbul Technical University, ² University of Borås, ³ GATA	<i>The Thermal Properties of Alpaca and Alpaca/Wool Blended Fabrics</i> 89 Umut Bilen ¹ and Erhan Kirtay ² , ¹ Namik Kemal University, ² Ege University
2:40	<i>Structural Design of Electrospun Nanofibers</i> .. 17 Maryam Yousefzadeh ^{1,2} , Mohammad Amani ¹ , Masoud Latifi ¹ , Wee-Eong Teo ³ , and Seeram Ramakrishna ³ , ¹ Amirkabir University of Technology, ² Iranian National Elite Foundation, ³ National University of Singapore	<i>A Study of Antimicrobial Property of Textiles Using Dendrimers as a Vehicle for Antimicrobial Agents</i> 66 Subhas Ghosh ¹ and Nadarajah Vasanthan ² , ¹ Eastern Michigan University, ² Long Island University	<i>Fabric Formability in Multilayer Woven Fabrics</i> ... 91 A. Alamdar-Yazdi, J. Dastjerdi, and M. Fotohi, University of Yazd
3:00	<i>Electrospun Functional Nanofibers</i> 19 Tamer Uyar, Fatma Kayaci, Asli Celebioglu, and Ali Ekrem Deniz, Bilkent University	<i>Investigating the Effect of Silver Doped Bio-antibacterial Finishing Agent on the Properties of Knitted Fabrics</i> 68 Mustafa E. Üreyen, Aydin Dogan, and A. Savaş Koparal, Anadolu University	<i>Body Modification for Enhanced Sport Performance</i> G. Montagna ¹ , H. Carvalho ^{2,3} , A. Catarino ² , M. Dias ² , and S. Rocha ² , ¹ Technical University of Lisbon, ² University of Minho 93
3:20	<i>Treatment of Sepiolite for Improving Polyurethane Nanocomposite Electrospun Fibers</i> 22 Birgül Benli ¹ , Rastam Hojiyev ² , Tuncay Gümüş ² , Yusuf Ulcay ² , Ali Demir ¹ , and Mehmet S. Çelik ¹ , ¹ Istanbul Technical University, ² Uludağ University	<i>Application of Chitosan on Textiles</i> 70 Usha Sayed and Sanjay Kumar Bandopadhyay, Institute of Chemical Technology	<i>Nonlinear 3D Modeling of Fibrous Assemblies by Their Tensile, Shear and Bending Properties</i> 95 G.K. Stylios and L. Luo, Heriot Watt University
3:40	Break		

	Session 3A: Nano Applications <i>Chair: Gajanan Bhat</i> <i>Room: Seminar 3</i>	Session 3B: Dyeing & Finishing <i>Chair: Stephen Michielsen</i> <i>Room: Seminar 4</i>	Session 3C: Fabric Properties <i>Chair: George K. Stylios</i> <i>Room: Seminar 5</i>
4:00	<i>Nanocomposite Fibers with Cellulose Nanocrystals and Carbon Nanotubes 24</i> <u>You-Lo Hsieh</u> and Ping Lu, University of California at Davis	<i>Dyeing of Polyamide Fabrics with a Natural Dye: White Onion Skin 71</i> <u>Riza Atay</u> and Osman Namirti, Namik Kemal University	<i>Thermal Comfort Properties of Knitted Fabrics Made of Elastane and Bioactive Yarns</i> <u>Elena Onofrei</u> , Ana Maria Rocha, and André Catarino, University of Minho 96
4:20	<i>Carbon Nanotube/Epoxy Nanocomposites 26</i> <u>Cihan Uzunpinar</u> ¹ , Maria L. Auad ¹ , Mirna A. Mosiewickib ² , and Robert J.J. Williams ² , ¹ Auburn University, ² University of Mar del Plata and National Research Council	<i>Dyeing of Sericin-modified Cotton with Reactive Dye in Absence of Salt 73</i> <u>D. Das</u> , S. Bakshi, and D.B. Datta, National Institute of Fashion Technology	<i>A Study on Moisture-related Properties of Wool/Acrylic Blend Fabrics 98</i> <u>M. Küçükali</u> , B. Uygen Nergis, and C. Candan, Istanbul Technical University
4:40	<i>Development of Nanoclay as Reinforcement for Polyester Fibers 28</i> <u>Rustam Hojiyev</u> ¹ , William Carty ² , and Yusuf Ulcay ¹ , ¹ University of Uludağ, ² Alfred University	<i>Natural Dyeing of Cationized Cotton 75</i> <u>Mustafa Tutak</u> and Hüseyin Benli, Erciyes University	<i>Thermoelectric Cooling Garment by Peltier Device</i> <u>Yelee Jung</u> , Ara Cho, Jiyeon Lee, and Eunae Kim, Yonsei University 100
5:00	<i>Challenging Issues for the Use of Nanoparticle Additives in Polyester Fiber Spinning 30</i> <u>Mutlu Sezen</u> , KorteKS	<i>Green Processing—Foam Dyeing for Developing the Washout Effect on Cotton Knitted Fabric 77</i> <u>Songmin Shang</u> , Enling Hu, Shanshan Tsoi, Chi Wai Kan, and Shou-Xiang Jiang, Hong Kong Polytechnic University	<i>A Study on the Effect of Microwaves on the Shrinkage of Weft Knitted Fabrics 102</i> <u>S.A. Mirjalili</u> , University of Yazd

Evening Session

5:40	Reception at KORTEKS
6:00	Visit of KORTEKS Facilities (www.korteks.com.tr)
7:00	Dinner at KORTEKS, Sponsored by KORTEKS
8:00	Evening Talk, Mr. Nejat Altin, General Director of KORTEKS
8:30-	City Tour by Bus
10:30	<ul style="list-style-type: none"> • Whirling Dervishes Ceremony at Karabas-i Veli Culture Center • Tea & Coffee Break at Hunkar Kosk (Mansion) Followed by Return to Hotels

Thursday, May 13

- 7:30 Registration and Breakfast
 8:00 Plenary Talk (in Orhangazi Salon): Dr. Moon Suh, North Carolina State University, USA
Assessment of Modeling for 100 Years—Good Models, Bad Models, and Wrong Models 291

Morning Session

	Session 4A: Nano Applications <i>Chair: Rudolf Hufenus</i> <i>Room: Seminar 3</i>	Session 4B: Dyeing & Finishing <i>Chair: Ian Hardin</i> <i>Room: Seminar 4</i>
9:00	<i>Electrospun Nanofiber Waterproof Breathable Membranes 32</i> <u>Ali Demir</u> , Emre Kiyak Yasar, and Tuncay Gumus, Istanbul Technical University	<i>Influence of Different Bleach Activators in Hydrogen Peroxide Bleaching of Pure Cotton Fabric 79</i> <u>M. Iftikhar</u> and H.M. Asif, University of Agriculture
9:20	<i>A New Look on Nanofibrous Nonwovens 34</i> <u>Karen De Clerck</u> , Sander De Vrieze, Bert De Schoenmaker, Lien Van Der Schueren, Ghent University	<i>Bleaching of Polyamide Fibres with Sodium Borohydride 80</i> <u>Duygu Yilmazer</u> and Mehmet Kanik, Uludağ University
9:40	<i>Interactive Effects of Synthesis Parameters on the Reaction of β-Cyclodextrin Nanocapsule with Itaconic Acid 36</i> <u>Malihe Nazi</u> ¹ , Reza Mohammad Ali Malek ¹ , Mohammad Bamani Moghaddam ² , ¹ Amirkabir University of Technology, ² Allameh Tabataba'i University	<i>The Effects of Ozone Treatment on Polylactic Acid (PLA) Fibers 82</i> <u>Mike Wilding</u> ³ , Hüseyin Aksel Eren ¹ , Osman Ozan Avinç ² , and Pinar Uysal ¹ , ¹ University of Uludağ, ² University of Pamukkale, ³ University of Manchester
10:00	<i>Spontaneous ZnO Nanoparticulation on the Surface of ZnO Nanofibers via Sol-Gel Electrospinning 38</i> <u>Yakup Aykut</u> , Behman Pourdeyhimi, and Saad A. Khan, North Carolina State University	<i>Effects of Different Finishing Processes on Breaking Strength of Denim Fabrics 84</i> <u>Sibel Kaplan</u> ² and Vildan Sular ¹ , ¹ Dokuz Eylül University, ² Suleyman Demirel University

10:20	Break
-------	--------------

	Session 5A: Nano Applications <i>Chair: Roy Broughton</i> <i>Room: Seminar 3</i>	Session 5B: Fabric Properties <i>Chair: Mike Wilding</i> <i>Room: Seminar 4</i>
10:40	<i>Electrospun Magnetic Polymer Nanocomposite Fibers 40</i> <u>Cem Güneşoğlu</u> ¹ , Zhanhu Guo ¹ , Suying Wei ¹ , Jiahua Zhu ¹ , Xuelong Chen ¹ , and David P. Young ² , ¹ Lamar University, ² Louisiana State University	<i>Evaluation of Abrasion Properties of Mattress Ticking from Knitted Spacer Fabrics 103</i> <u>Levent Onal</u> ¹ and Mustafa Yildirim ² , ¹ Erciyes University, ² Boyteks A.Ş.
11:00	<i>Electrospun Nanofibrous Structures with Live Yeast Cells 42</i> <u>M. Fatih Canbolat</u> , Nimish Gera, Behnam Pourdeyhimi, Balaji Rao, and Saad Khan, North Carolina State University	<i>Evaluation of Protective Clothing Materials Composition Property Relationship 105</i> <u>Kevser Korhan-Taymaz</u> and Tolga Saatioglu, Department of National Defence
11:20	<i>Air Filtration by PVA Nanofibers 44</i> <u>Yüksel İkiz</u> , Pamukkale University	<i>Ballistic Performance of Multiaxis Noninterlaced/Non-Z E-glass/Polyester Composites with Soft Backing Aramid Fabric Structures 107</i> <u>Kadir Bilisik</u> , Erciyes University

11:40	<i>Effect of Voltage and Tip-collector Distance on Electrospun Polyacrylonitrile (PAN) Nanofibers</i> 46 <u>Ümran Özkoç</u> , Halil İbrahim İçoğlu, and Ali Kireççi, University of Gaziantep	<i>Polymeric Optical Fiber Fabrics for Illumination and Sensorical Applications in Textiles</i> 109 <u>Lukas J. Scherer</u> , Evren Aslan Gürel, Markus Rothmaier, Rudolf Hufenus, and René Rossi, Empa
-------	---	--

12:00– 1:15	Lunch at the Göl Café Restaurant POSTER SETUP
----------------	--

Afternoon Session

1:15 Plenary Talk (in Orhangazi Salon): Dr. Ali Demir, İstanbul Technical University, Turkey
Fiber Research in Turkey. 292

	Session 6A: Fibers Chair: Karen De Clerck Room: Seminar 3	Session 6B: Yarn Spinning Chair: Dominique Adolphe Room: Seminar 4	Session 6C: Test Methods Chair: Osman Babaarslan Room: Seminar
1:45	<i>Small Scale Tests for Characterization of Bioengineered Cotton Fibers</i> 113 <u>Özgür Ceylan</u> , Lieve Van Landuyt, and Karen De Clerck, Ghent University	<i>A Comparison of Yarn Properties Produced on Different Ring Spinning Methods</i> <u>Hüseyin Gazi Ortlek</u> and Gamze Kiliç, Erciyes University 135	<i>Fiber Quality Control Using Real-time Dyebath Monitoring</i> 149 <u>Melih Gunay</u> ¹ , Matt Farrell ¹ , William Dixon ¹ , and Warren Jasper ² , ¹ HueMetrix Inc., ² North Carolina State University
2:05	<i>Theoretical and Experimental Contributions Regarding the Main Characteristics of the Angora Mohair Fibers from Goats Acclimatized in Romania</i> 115 <u>Carmen Ghituleasa</u> , Emilia Visileanu, and Constantin Aurel, National Research and Development Institute for Textiles and Leather	<i>Investigation on Production and Properties of Core-spun Yarns Containing Nylon 66 Nanofiber Yarn as Core Part</i> 137 <u>Behrang Adeli</u> , Zahra Tadi, Mohsen Shanbeh, and Sedigheh Borhani, Isfahan University of Technology	<i>Evaluation of Fabric Defects in a Weaving Mill</i> 151 <u>H. Ziya Özek</u> , Namik Kemal University
2:25	<i>Sound Barrier Properties of PLA-Hemp Nonwoven Composites</i> 117 <u>Nazire Deniz Yilmaz</u> ¹ , Nancy B. Powell ² , and Pamela Banks-Lee ² , ¹ Pamukkale University, ² North Carolina State University	<i>Assessing and Predicting the Tensile Strength of Polyester/Viscose Blended Open-end Rotor Spun Yarns</i> <u>Oğuz Demiryurek</u> ¹ and Erdem Koç ² , ¹ Erciyes University, ² Ondokuz Mayıs University .. 139	<i>Shell Buckling Behavior of Fused Shirt Fabric Composite Under Cyclic Loading</i> 154 <u>Saeed Shaikhzadeh Najar</u> , Behnam Namiranian, and Hamid Reza Mehralian, Amirkabir University of Technology

2:45	Break
------	--------------

3:00	<i>An Experimental Investigation on Some Physical Properties of Socks from Some New Regenerated Fibers 119</i> <u>S. Cimilli Duru</u> , B. Uygun Nergis, and C. Candan, Istanbul Technical University	<i>Identifying the Most Important Aspect in Spining Triangle Dimensions Controlling 141</i> <u>A. Badehnoush</u> and A. Alamdar-Yazdi, University of Yazd	<i>Estimation of Dissolution State of Various Polymers (PVDE, PVC, and PAN) from a Sonochemical Point of View</i> <u>Masatomo Minagawa</u> ¹ , Ken-ichi Agatsuma ¹ , Yoshiomi Shimo ¹ , Nobuhiro Sato ² , and Tomochika Matsuyama ² , ¹ Yamagata University, ² Kyoto University 156
3:20	<i>The Potential Effect of Rain Drops on Piezoelectric Voltage Output 121</i> <u>D. Vatansever</u> and E. Siores, University of Bolton	<i>Effect of Compact-Jet Spinning System on Yar Hairiness143</i> <u>Demet Yilmaz</u> ¹ , Mustafa Reşit Usal ¹ , and Sayed Ibrahim ² , ¹ Suleyman Demirel University, ² Technical University of Liberec	<i>A Comparative Study on Degregation Occuredy by Applying Hair Colorant on Wool and Human Hair 158</i> <u>M. Sharzehee</u> , N. Rahimi-Rad, and A. Alamdar-Yazdi, University of Yazd
3:40	<i>Bicomponent Artificial Turf Fibers for Future Sports Flooring 123</i> <u>Rudolf Hufenus</u> ¹ , Christian Affolter ¹ , Martin Camenzind ¹ , Marcel Halbeisen ¹ , Adriaan Spierings ² , Andreas Tischhauser ³ , Kaspar Zogg ⁴ , and Gerhard Schramm ⁵ , ¹ Empa, ² Inspire AG, ³ TISCA, ⁴ TIARA, ⁵ Schramm GmbH & Co.	<i>Influence of Contaminated Cotton on Yarn Manufacturing 145</i> <u>Noorullah Soomro</u> ^{1,2} and Iftikhar Ali Sahito ¹ , ¹ Mehran University of Engineering and Technology, ² Çukurova University	<i>Development of Disposable Hydrophilic and Antibacterial Polypropylene Nonwoven Sheet 159</i> <u>Hakan Ünal</u> , Gulay Özcan, and Saliha Bellisoy, Istanbul Technical University
4:00–4:45	Poster Session Chair: Yusuf Ulcay <i>Posters will be evaluated by a commission and the best poster will be announced at the banquet.</i>		

Evening Session

4:45	<i>Visit of TUBİTAK—BUTAL Facilities</i> (www.butal.tubitak.gov.tr)
5:00	<i>Janissary band of musicians performs; local folk show</i>
6:00	<i>Visit of City Museum</i>
7:30	<i>Banquet at the Yildirim Beyazıt Room, Merinos Congress Center</i> <i>Guest Speaker: Affan Ener, Director, Technical Textiles Division of Akin Tekstil</i>
10:30	<i>Entertainment by Firat Neziroğlu Show</i>

Friday, May 14

- 7:30 Registration and Breakfast
 8:00 Plenary Talk (in Orhangazi Salon): Dr. Lubos Hes, The Technical University of Liberec, Czech Republic: *The Effect of Finishing Treatment on Thermal Comfort Properties of Wet Fabrics* 294

	Session 7A: Melt Spinning Textile & Environment <i>Chair: Tamer Uyar</i> <i>Room: Seminar 3</i>	Session 7B: Test Methods <i>Chair: Aliasghar Alamdar-Yazdi</i> <i>Room: Seminar 4</i>	Session 7C: Fibers <i>Chair: Lubos Hes</i> <i>Room: Seminar 5</i>
8:40	<i>An Investigation on the Effect of the Intrinsic Viscosity on the Structural Properties of Poly(ethylene terephthalate) Fibers</i> 173 <u>M. Youssefi</u> and M. Morshed, Isfanhan University of Technology	<i>Determination of Aramid Types by Analytical Methods</i> 161 <u>Kenan Yildirim</u> ¹ , A. Melek Köstem ¹ , Uğur Özçağatay ¹ , Nurcan Aydin ² , and Şeref Güçer ^{1,2} , ¹ Tübitak, ² Uludağ University	<i>Flame Retardant PLA from Phosphoramidates</i> 125 <u>Sabyasachi Gaan</u> , Marina Turalija, and Laurie Mauclair Schoenholzer, Empa
9:00	<i>Improvement in Tensile Properties and Morphological Changes on Draw-annealing of Melt Spun PPS Fibers</i> 175 <u>Gajanan S. Bhat</u> and Prabhakar V. Gulgunje, University of Tennessee at Knoxville	<i>Production of Cotton Yarn Properties from Fiber Propertise Using Robust Regression</i> 163 <u>Hoseini Ravandi</u> and S.M. Taheri, Isfahan University	<i>Antibacterial Waterborne Polyurethanes</i> 127 <u>Buket Demir</u> , Roy Broughton, Leonardo De La Fuente, Jennifer Parker, and Maria L Auad, Auburn University
9:20	<i>Modeling Melt Spinning of Poly(ethylene teraphthalate) Fibers</i> 177 <u>Sengül Teke</u> ¹ , Şule Altun ¹ , Mehmet Teke ² , and Yusuf Ulcay ¹ , Uludağ University, FIGES Engineering	<i>An Analysis of Friction Coefficient on Nonwoven Fabrics by Using Two Different Methods</i> 166 <u>Nazan Avcioğlu Kalebek</u> and Osman Babaarslan, Çukurova University	<i>A Study About Photovoltaic Fibers</i> 129 <u>Ayse Bedeloglu</u> ¹ , Ali Demir ² , and Yalcin Bozhurt ¹ , ¹ Dokuz Eylul University, ² Istanbul Technical University
9:40	<i>The Effect of High-energy Electron Beam on High-density Polyethylene Fibers</i> <u>Farshad Sharbafian</u> ¹ , Jalil Morshedian ² , and Yousef Jahani ² , ¹ Islamic Azad University, ² Iran Polymer and Petrochemical Institute 179	<i>Mechanical Properties of Woven Reinforcement Fabric on Nonwoven Filters</i> 168 <u>Mehmet Ermin Yuksekkaya</u> , Mevlut Tercan, and Gamze Ozbag, Usak University	<i>Study on the Kinetics and Colouristic Properties of Polypropylene/Poly(butylene terephthalate)/Nanocaly Blend Nanocomposite Fibers</i> <u>A. Bigdeli</u> ¹ , H. Nazockdast ² , A.S. Rashidi ¹ , M.E. Yazdanshenas ³ , ¹ Islamic Azad University, ² Amirkabir University of Technology, ³ Islamic Azad University .. 131

10:00	Break
-------	--------------

	Session 7A: Melt Spinning continued
10:20	<i>Green Textiles, Sustainability, and the United States Market</i> 181 <u>Ian Hardin</u> , University of Georgia
10:40	<i>Recycling of Wool and Feather Wastes: Evaluation of Enzymatic Treatment</i> 182 <u>F. Dadashian</u> , N. Hemmatinejad, H. Atri, and N. Talaei, Amirkabir University of Technology

11:00– 11:30	Closing Remarks for the Conference
-----------------	---

Social Activities: Free for Participants Who Stay Friday Afternoon

Meet at 2:00 P.M. in Front of Merinos Congress Center

- Visit Village of Cumalikizik
- Karagoz Museum
- Fetih Gate of Bursa & Tophane (Tomb of Osman Gazi and Orhan Gazi, Founders of Ottoman Empire)
- Bali Bey Han Café and Old Commercial Centers and Shopping Tour

Poster Presentations

Session Chair: Yusuf Ulcay

Mehmet Kanik	<i>Use of Sodium Borohydride for Stripping of Reactive Dyed Cotton/Elastane Fabrics 187</i>
Riza Atav	<i>Effects of Fixing Agents on Fastness Properties of Mohair Fibers Dyed with Leveling Acid Dyes 189</i>
Sennur Alay	<i>Synthesis and Characterization of Poly(butyl acrylate)/n-hexadecane Microcapsules and Their Thermal Performances in Fabrics 191</i>
Cağlar Sivri	<i>Bioinspiration of Wood for a Better Impact Absorption 193</i>
Dominique C. Adolphe	<i>The Tapas—The Vegetal Felts Study of the Process of Production 195</i>
Gamze Supuren	<i>Surface Properties of Wool and Various Luxury Fibers 197</i>
Muhammet Akaydin	<i>A Research of Strength and Comfort Properties of Socks Knitted from New Cellulose-based Fibers 199</i>
Usha Sayed	<i>Application of Natural Polymer on Natural Fibers 201</i>
Usha Sayed	<i>Surface Modification of Cotton to Improve its Performance Properties 202</i>
Jiyeon Lee	<i>Intelligent Thermal Insulation of Winter Jacket by Power and Displacement of Embedded SMA Springs 203</i>
Ramiz Boy	<i>Novel Polysaccharide Polymers as Fibers and Films 205</i>
Özge Çelik	<i>Dynamic Analysis of Cam Driven Sley Mechanism 207</i>
Pinar Uysal	<i>The Effects of Ozone Treatment on Soybean Fibers 209</i>
Züleyha Değirmenci	<i>UV Protection of Naturally Colored Cotton Woven and Knitted Fabrics in Comparison to White and Dyed Fabrics 211</i>
Asli Çelebioğlu	<i>Effect of the Solvent Systems on the Morphology of the Electrospun Cellulose Acetate Nanofibers 213</i>
Marie Štěpánková	<i>Resistance of Direct Dyestuffs to Infrared Laser Light 215</i>
Marie Štěpánková	<i>Water-repellent Finish on Plasma Pretreated Fabrics 217</i>
Marie Štěpánková	<i>Contact Angle Hysteresis on Polyamide Surfaces 219</i>

Marie Štěpánková	<i>Estimation of Ti on Textiles by LIBS Method 221</i>
Fatma Kayaci	<i>Morphology of Nylon 66 Nanofibers Produced by Electrospinning from Different Solvents 223</i>
Andrea Chládová	<i>Photocatalytic Textiles Prepared by Sol-Gel Method 225</i>
Mouna Messaoud	<i>Antibacterial Functionalization of Textile Supports by Silver Nanoparticles Formed Through a Combination of Sol-Gel and Photochemistry Routes 227</i>
Laurence Schacher	<i>Characterization of the Color Change of an Iridescent Textile 228</i>
Fatma Yener	<i>Effect of Polymer Concentration on Electrospinning System REDO REQ 230</i>
Ali Demir	<i>Improvement of Artificial Vessel from Nanofibers 231</i>
Yakup Aykut	<i>Photovoltaic PEDOT: PSS-Fullerene (C₆₀₋₈₂) Composite Nanofibers Through Electrospinning 233</i>
Meltem Yanilmaz	<i>Polyurethane Polypyrrole Composite Nanofiber 235</i>
Suat Cetiner	<i>Poly(N-Methyl Pyrrole) Containing Semi-conductive P(AN-co-Vac) Composite Films 237</i>
Hasan Basri Kocer	<i>N-Halamine/Quat Copolymers for Antimicrobial Applications 239</i>
Ali Ashjarian	<i>Lasting Antimicrobial Effect of 6-(1-anthraquinonyl amino) Hexyldimethylammonium Bromide on Nylon Fabric 241</i>
Murat Yazici	<i>Micromechanical Modeling of Multilayer Plain Woven Textile Composites 243</i>
Remzi Gemci	<i>Comparisons of Yarn Strength Analysis for Viscose and Lyocell 245</i>
Ilkay Yuksek	<i>Investigation of Regenerated Bamboo, Cotton, and Bamboo/Cotton Blend Yarn Characteristics247</i>
Devrim Soyaslan	<i>Surface Appearance Evaluation of Some Weft Knitted Fabric Reinforced Composites 249</i>
S.A. Mirjalili	<i>A Study on the Effect of Ultrasound Waves on the Shrinkage of Weft Knitted Fabrics 251</i>
Emad Ghods	<i>Production by Acoustic Struction with Disposable Nonwoven Fabrics 252</i>
Maryam Sharzehee	<i>Antibacterial Finishing of Cotton Fabric by Applying Sulphamic Acid/Urea and Metallic Salts 254</i>
Emad Sedighi	<i>A Study on the Effect of the Method of Tops Production Used in Semi-worsted Yarns for Carpet 255</i>
Emad Hezavehi	<i>Evaluation of Antimicrobial Effect of Surgical Fabric Incorporating Nano Silver Colloid 257</i>
Pedram Payvandy	<i>The Effect of Sewing Seams on Woven Fabric Bending 258</i>
M. Hadizadeh	<i>On Applications of Geometry in Textile Design 260</i>
Kyoung Hong	<i>Effect of the Structure of the Thermal Barrier on the Thermal Protection 262</i>

Yasemin Dülek	<i>Mechanical Characterization of Polyester-Based Surgical Mesh Coated with Chitosan 268</i>
G. Ertik	<i>Correlation Between Chitosan Coating and Mechanical Properties of Artificial Vessels 270</i>
Semiha Eren	<i>Effect of Fiber Properties on Shrinkage of Fiber/PMMA Composite-Based Bone Cements 272</i>
Olçay Tok	<i>Effect of Fabric Construction on Strength of Automotive Seat Fabrics 274</i>
F. Bostan	<i>Effect of Thermal Finishing and Chemical Compaction on Mechanical Properties of Artificial Vascular Grafts 276</i>