Homa Maleki

Associate Professor

Faculty: Arts

Department: Carpet

Education

Degree	Graduated in	Major	University
BSc	2007	Textile Engineering	Yazd University
MSc	2009	Textile Engineering	AmirKabir University of Technology
Ph.D	2014	Textile Engineering	AmirKabir University of Technology

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
Faculty of Art - University of Birjand	Academic Staff	On Contract	Full Time	

Work Experience

Assistant Professor, (2016– present) University of Birjand, Birjand, Iran

Guest Researcher, (2018) Department of Chemistry, University of Cologne, Cologne, Germany

Guest Researcher, (2011) MIRA Institute for Biomedical Technology and Technical Medicine, Faculty of Science and Technology, University of Twente, Enschede, The Netherlands

Awards

- (2019) National Scholarship Programme of the Slovak Republic (NSP) Scholarship Programme: teaching/research/artistic stay in Slovakia.
- (2018) DAAD scholarship, Funding programme: Research Stays for University Academics and Scientists.

- (2014) Exceptional Talent PhD Student
- (2009) Distinguished M.S. thesis of Amirkabir University of Technology

Subjects Taught

FIELDS of INTEREST

- Electrospinning&nanofibrous structures
- Nanoscience
- Material characterization
- Physical-mechanical ptoperties of of textiles
- Biomedical application of Textiles
- Optimization of dyeing procedure

Course Topics

Natural Dyeing,

Chemical Dyeing,

Fiber Science,

Applied Chemistry

Papers in Conferences

1. حسین بارانی,هما مالکی,سمانه خالقی,زهرا حیدری،بهینه سازی فرایند رنگرزی کلاف نخ پشمی با رنگزای پوست تخمه آفتاب‌گردان،دومین همایش ملی رنگ محیط زیست و توسعه پایدار،شماره صفحات ۰-۰،تهران،۲۰۲۳ ۰۱ ۲۵.
2. هما مالکی,قره آغاجی علی اکبر,تولیت طیبه،بررسی رفتار رهایش دارو از نخ حاصل از الکتروریسی الیاف پلی (لاکتیک اسید)،دهمین کنفرانس ملی مهندسی نساجی ایران،شماره صفحات -،اصفهان،۲۰۱۶ ۰۴ ۲۶.
3. Elham Rahimtoroghi,Mehran Kasra ,A Novel Electrospun Scaffold For Collagenous Connective Tissue Regeneration ,بیست و هشتمین کنفرانس ملی و ششمین کنفرانس بین المللی مهندسی زیست پزشکی ایران ,pp. 0-0 ,25 11 2021 ,تهران.
4. Gharehaghaji Ali Akbar ,Preparation and characterization of PVA twisted yarns using electrospinning method ,24th International IFATCC Congress ,pp. 1-5 ,2016 06 13.
5. Semnani Rahbar Rouhollah,Kalantari Bahareh ,Development of Continuous Twisted Nanofiber Yarn Containing Microencapsulated Phase Change Materials (PCMs) ,24th International IFATCC Congress ,pp. 6-10 ,2016 06 13.
6. Hossein Barani ,Antibacterial Poly-l-lactide acid / Polyvinyl alcohol Nanofibrous Hybrid Yarns ,24th International IFATCC Congress ,pp. - ,2016 06 13.

Papers in Journals

1. Bahareh Azimi,Claudio Ricci,Teresa Macchi,Cemre G□nday,Sara Munaf□,Federico Pratesi,Veronika Tempesti,Caterina Cristallini,Luca Bruschini,Andrea Lazzeri,Serena Danti,Nazende G□nday ,& T□reli,A Straightforward Method to Produce Multi-Nanodrug Delivery Systems for Transdermal/Tympanic Patches Using Electrospinning and Electrospray,Polymers,Vol. 17,No. 15,pp. 3494-3512,2023,ISI،JCR،Scopus.
2. Hossein Barani,Sennur Alay Aksoy,Demet Y□lmaz,Rouhollah Semnani Rahbar,Fabrication and characterization of nanoencapsulated PCM-doped cotton/PAN nanofiber based composite yarns for

thermoregulation,Journal of Energy Storage,Vol. 101,No. 101,pp. 113849-113849,2024,JCR،Scopus.
3. Hossein Barani,Abbas Khashei Siuki,,fatemeh taheri rad,Optimizing dyeing parameters for sustainable wool dyeing using quinoa plant components with antibacterial properties,Cleaner Engineering and Technology,Vol. 100780,No. 21,pp. 1-12,2024,Scopus.
4. Demet Y□lmaz,Sennur Alay Aksoy,Rouhollah Semnani Rahbar,Burak S□□□t,Seyed Sajjad Azimi,Fabrication of PCM-loaded polylactic acid (PLA)/cotton biocomposite yarn with thermoregulation function,CELLULOSE,Vol. 30,No. 30,pp. 3995-4009,2023,ISI،JCR،Scopus.
5. Mehran Kasra,Elham Rahimtoroghi,Hydrogels reinforced by electrospun nanofibrous yarns designed for tissue engineering applications: mechanical and cellular properties,International Journal of Polymeric Materials,Vol. 16,No. 72,pp. 1294-1306,2023,JCR،Scopus.
6. هما مالکی,عالیه مهنیا,حسین بارانی,سمانه خالقی،ارزیابی فرآیند رنگرزی و ثبات رنگی الیاف پشمی رنگرزی شده با گیاه گل گندم طلایی،علوم و فناوری نساجی،مجلد ۴،شماره ۱۳،شماره صفحات ۱۲-۲۰۲۵،۳۱.
7. هما مالکی,عالیه مهنیا,حسین بارانی,سمانه خالقی،ارزیابی فرآیند رنگرزی و ثبات رنگی الیاف پشمی رنگرزی شده با گیاه گل گندم طلایی،علوم و فناوری نساجی،شماره صفحات ۱-۲۰۲۴،۲۰.
8. روح الله سمنانی رهبر,هما مالکی،Processing and Tensile Properties of Twisted Core-Shell Yarns Fabricated by Double Nozzle Electrospinning Device،Fibers and Polymers،شماره صفحات ۱۲۵۶-۲۰۲۱،۱۲۶۵،JCR،Scopus.
9. هما مالکی،A review on the thermal and acoustic insulation properties of hand-woven woolen carpets،۵۲،۲۰۲۱-۳۹ رجشمار،مجلد ۲،شماره ۱،شماره صفحات.
10. کاظم,امیرحسین چیت سازان,هما مالکی،پژوهشی بر نقش و شیوه بافت در تون بافی خراسان جنوبی (مطالعه موردی روستاهای خشک، خراشاد، گورید بالا و شورستان)،رجشمار،مجلد ۲،شماره ۱،شماره صفحات ۹۵-۲۰۲۱،۱۱۳.
11. Rouhollah Semnani Rahbar,Sajjad Azimi,Thomas Schneiders,Caroline Emonts,Thomas Gries,Optimizing Thermo-mechanical and Shape-Memory Properties in Nanofibrous Yarns Through Twist Variation and Core–Shell Structure,Fibers and Polymers,Vol. 26,No. 26,pp. 607-619,2025,ISI،JCR،Scopus.
12. Rouhollah Semnani Rahbar,Sajjad Azimi,Thomas Schneiders,Caroline Emonts,Thomas Gries,Optimizing Thermo-mechanical and Shape-Memory Properties in Nanofibrous Yarns Through Twist Variation and Core–Shell Structure,Fibers and Polymers,pp. 1-13,2025,ISI،JCR،Scopus.
13. Rouhollah Semnani Rahbar,Sennur Alay Aksoy,Demet Yilmaz,Development of PCM-Loaded Composite Yarns for Enhanced Thermoregulation in Medical Textiles,Fibers and Polymers,Vol. 10,No. 25,pp. 3957-3974,2024,ISI،JCR،Scopus.
14. Rouhollah Semnani Rahbar,S. Alireza Zolfaghari,Effects of weaving parameters on acoustic and thermal insulation properties of handmade carpets,JOURNAL OF THE TEXTILE INSTITUTE,Vol. 1,No. 1,pp. 1-12,2023,JCR،Scopus.
15. Bahareh Azimi,Vito Gigante,Roohollah Bagherzadeh,Andrea Mezzetta,Serena Danti,Mario Milazzo,Lorenzo Guazzelli,Patrizia Cinelli,Andrea Lazzeri,Cellulose-based fiber spinning processes using ionic liquids,CELLULOSE,Vol. 29,No. 29,pp. 3079-3129,2022,JCR،Scopus.
16. Rouhollah Semnani Rahbar,Demet Yilmaz,Sennur Alay Aksoy,Electrospun poly (lactic acid)-cotton core-shell yarns: Processing, morphology, and mechanical properties,Journal of Composite Materials,Vol. 23,No. 56,pp. 3541-3552,2022,JCR،Scopus.
17. Bahareh Azimi,Saeed Ismaeilimoghadam,Serena Danti,Poly(lactic acid)-Based Electrospun Fibrous Structures for Biomedical Applications,Applied Sciences,Vol. 6,No. 12,pp. 3192-3234,2022,ISI،JCR،Scopus.
18. Sanjay Mathur,Axel Klein,Antibacterial Ag containing core-shell polyvinyl alcohol-poly (lactic acid) nanofibers for biomedical applications,Polymer Engineering & Science,pp. 0-0,2020,JCR،Scopus.
19. Rouhollah Semnani Rahbar,Ahsan Nazir,Improvement of physical and mechanical properties of electrospun poly(lactic acid) nanofibrous structures,Iranian Polymer Journal,pp. 0-0,2020,JCR،isc،Scopus.
20. Hossein Barani,Stereocomplex electrospun fibers from high molecular weight of poly(L-lactic acid) and poly(D-lactic acid),Journal of Polymer Engineering,Vol. 2,No. 40,pp. 136-142,2020,ISI،JCR،Scopus.

21. Hossein Barani,Red cabbage anthocyanins content as a natural colorant for obtaining different color of wool fibers,Pigment and Resin Technology,Vol. 3,No. 49,pp. 229-238,2020,ISI،JCR،Scopus.
22. Bahareh Azimi,Lorenzo Zavagna,Jose Gustavo De la Ossa,Stefano Linari,Andrea Lazzeri,Serena Danti,Bio-Based Electrospun Fibers for Wound Healing,Journal of Functional Biomaterials,Vol. 3,No. 11,pp. 67-105,2020,Scopus.
23. Hossein Barani,Extraction and antibacterial activity of Pulicaria gnaphalodes as a natural colorant: Characterization and application on wool fibers,Progress in Color, Colorants and Coatings,Vol. 3,No. 12,pp. 145-154,2019,isc،Scopus.
24. Hossein Barani,Influence of dyeing conditions of natural dye extracted from Berberis integerrima fruit on color shade of woolen yarn,Journal of Natural Fibers,Vol. 4,No. 16,pp. 524-535,2019,JCR،Scopus.
25. Hossein Barani,Haji Amin,Analysis of lecithin treatment effects on the structural transformation of wool fiber using vibrational spectroscopy,International Journal of Biological Macromolecules,Vol. 3,No. 108,pp. 585-590,2018,JCR،Scopus.
26. Hossein Barani,Morphological and mechanical properties of drawn poly(l-lactide) electrospun twisted yarns,Polymer Engineering & Science,Vol. 58,No. 7,pp. 1091-1096,2018,JCR،Scopus.
27. Hossein Barani,Saadatmand Mohammad Mahdi,Semnani Rahbar Rouhollah,Physical and morphological characterisation of poly(L-lactide) acid-based electrospun fibrous structures: tunning solution properties,Plastics, Rubber and Composites: Macromolecular Engineering,Vol. 47,pp. 438-446,2018,JCR،Scopus.
28. Gharehaghaji A.A.,Dijkstra P.J.,Electrospinning of continuous poly (L-lactide) yarns Effect of twist on the morphology thermal properties and mechanical behavior,Journal of the Mechanical Behavior of Biomedical Materials,Vol. 71,pp. 231-237,2017,JCR،Scopus.
29. Semnani Rahbar Rouhollah,Kalantari Bahareh,Fabrication of electrospun nanofibre yarn based on nylon 6/microencapsulated phase change materials,Journal of Experimental Nanoscience,Vol. 11,pp. 1402-1415,2016,JCR،Scopus.
30. Gharehaghaji A A,Toliyat T,Dijkstra P J,Drug release behavior of electrospun twisted yarns as implantable medical devices,Biofabrication,Vol. 8,pp. 1-13,2016,JCR،Scopus.
31. Ali Akbar Gharehaghaji,Giuseppe Criscenti,Lorenzo Moroni,P J Dijkstra,The influence of process parameters on the properties of electrospun PLLA yarns studied by the response surface methodology,Journal of Applied Polymer Science,Vol. 5,No. 132,pp. 41388-41401,2014,JCR،Scopus.
32. A A Gharehaghaji,L Moroni,P J Dijkstra,Influence of the solvent type on the morphology and mechanical properties of electrospun PLLA yarns,Biofabrication,Vol. 3,No. 5,pp. 35014-35021,2013,ISI،JCR،Scopus.

Books

1. The wool Handbook, Chapter 21