Mazeyar Parvinzadeh Gashti, PhD

Assistant Professor

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EDUCATION

2016	**NSERC Postdoctoral Fellow, Chemical Engineering** McGill University, Montreal, Canada
2014-2015	**Postdoctoral Fellow, Chemistry and Biochemistry** Laval University, Quebec, Canada
2011-2013	**BUNDESSTIPENDIATEN Postdoctoral Fellow, Chemistry and Biochemistry** University of Bern, Bern, Switzerland

RESEARCH INTERESTS

- Advanced Micro/Nano Manufacturing with Electrospinning, Micro/Nanofabrication, Polymer Composite Manufacturing in Extrusion
- Functional Polymers, Composite, Fibers and Particles
- Plasma Polymerized Textile Coatings, Surface Functionalization Using Different Coating Methods
- Fiber Fabrication in Microfluidic Devices
- Polymeric Webs, Personal Protection Equipment

FUNDING

2022-2024	Principal Investigator, National Science Foundation, (Phase 1), USA
2022-2024	Principal Investigator, United States Department of Agriculture, (Phase 1), USA
2021-2022	Co-Principal Investigator, Innovative Solutions Canada Program, In collaboration with University of British Columbia, Canada
2021-2022	Co-Principal Investigator, Innovation for Defence Excellence and Security Program, In collaboration with University of British Columbia, Canada
2019-2020	Co- Principal Investigator, Innovation for Defence Excellence and Security Program, In collaboration with University of British Columbia, Canada
2018-2019	Co- Principal Investigator, The Industrial Research Assistance Program, Canada
2017-2018	Co- Principal Investigator, Build in Canada Innovation Program, In collaboration with University of British Columbia, Canada
2016	Postdoctoral Scholarship, Natural Sciences and Engineering Research Council Research Associate Scholarship, McGill University, Canada
2011-2013	Postdoctoral Scholarship, Swiss Government Excellence, University of Bern, Switzerland

April 2019- Present
Member of Directory Board
Canadian Institute of Textile Science, Canada

• Promoting the dissemination and interchange of knowledge concerning flexible materials, fibers, composites and other materials
• Promoting and encouraging original basic or applied research, and where appropriate, collaborative/interdisciplinary research related to fibers, textiles and polymer materials
• Promoting the development of fibers, textile, textile-based composites and other material science
• To offer coaching and mentoring to prepare industrial and academic representatives to face the hurdles of the product development process
• Collaborating with educational organizations to develop opportunities for study in fibers, textile, textile-based composites and other material science
• Assisting in the establishment of standards with ***STANDARDS COUNCIL OF CANADA*** in fibers, textile, textile-based composites and other material industries

Current Courses Taught

CHEM 730 - Advanced Polymer chemistry
CHEM 215 - General Chemistry I Laboratory

Previous Courses Taught

Advanced Materials and Composites, Fiber Chemistry, Organic Chemistry, Polymer Chemistry, Chemistry of Dyes and Intermediate Materials, Chemistry of Textile Materials, Nonwoven Fabrics, Polymer Laboratory, Fiber Chemistry Laboratory, Laboratory of Dyeing, Laboratory of Natural Fibers

GOOGLE SCHOLAR LINK

https://scholar.google.com/citations?user=JGfd580AAAAJ&hl=en&authuser=2&oi=ao

PUBLICATIONS

BOOK CHAPTERS

Theme: Polymers, Nanocomposites, Textiles, Coatings

2022 1. R. Assefipour, **M. Parvinzadeh***, J. He, “State-of-the-Art characterization methods for historic textiles”, Title of Book: Handbook of Museum Textiles, Volume 2: Scientific and Technological Research, Editors: S. Jose, S. Thomas, P. Pandit, R. Pandey, John Wiley & Sons, pp. 107-129.

2020 2. **M. Parvinzadeh***, M. Bustos, H. Alayan, R. Jamarani, M. Maric, “Thermal properties of aliphatic polyesters”, Title of Book: Thermal analysis of textiles and fibers, Editors: M. Jaffe and J. Menczel, ELSEVIER, pp. 151-189.

2016 3. **M. Parvinzadeh***, F. Alimohammadi, A. Kiumarsi, W. Nogala, Z. Xu, W. J. Eldridge, A. Wax, “Microscopy of Nanomaterials”, Title of Book: Nanocomposite Materials: Synthesis, Properties and Applications, Editors: J. Parameswaranpillai, T. Kurian, Y. Yu, N. Hammed, CRC PRESS, pp. 105-128.

4. **M. Parvinzadeh***, E. Pakdel, F. Alimohammadi, “Nanotechnology-based coating techniques for smart textiles”, Title of Book: Active Coatings for Smart Textiles, Editor: J. Hu, ELSEVIER, pp. 243-268.

2012 5. **M. Parvinzadeh***, F. Alimohammadi, G. Song, A. Kiumarsi, “Characterization of nanocomposite coatings on textiles: a brief review on Microscopic technology”, Title of Book: Current microscopy contributions to advances in science and technology, MICROSCOPY BOOK SERIES - Number 5, Editor: A. Méndez-Vilas, FORMATEX RESEARCH CENTER, pp. 1424-1437.

2011 6. **M. Parvinzadeh***, J. Willoughby, P. Agrawal, “Surface and bulk modification of synthetic textiles to improve dyeability”, Title of Book: Textile Dyeing, Editor: Peter J. Hauser, INTECH, pp. 261-298.

Theme: Biomaterials

2014 7. F. Paquet-Mercier, M. Safdar, **M. Parvinzadeh**, J. Greener, “Emerging spectral microscopy techniques and applications to biofilm detection”, Title of Book: Microscopy: Advances in Scientific Research and Education, MICROSCOPY BOOK SERIES - Number 6, Editor: A. Méndez-Vilas, FORMATEX RESEARCH CENTER, pp. 638-649.

2013 8. **M. Parvinzadeh***, J. Hulliger, M. Burgener, H. Oulevey-Aboulfad, F. Alimohammadi, G. L. Bowlin, “Microscopy methods to study the structure of scaffold in bone tissue engineering: a brief review”, Title of Book: Current microscopy contributions to advances in science and technology, MICROSCOPY BOOK SERIES - Number 5, Editor: A. Méndez-Vilas, FORMATEX RESEARCH CENTER, pp. 625-638.

REFERED JOURNAL PAPERS

Theme: Manufacturing of Polymers and Functional Nanocomposites

2021

1. M. L. Lepage, M. Takaffoli, C. Simhadri, R. Mandau, **M. Parvinzadeh**, R. Nazir, M. Mohseni, W. Li, C. Liu, L. Bi, G. Falck, P. Berrang, K. Golovin, A. S. Milani, G. A. DiLabio, J. E. Wulff, "Influence of topical cross-Linking on mechanical and ballistic performance of a woven ultra-high-molecular-weight polyethylene fabric used in soft body armor", ACS Applied Polymer Materials, 3, 6008-6018 (IF: 5).

2018

2. F. Alimohammadi, **M. Parvinzadeh***, A Mozaffari, "Polyvinylpyrrolidone/Carbon Nanotube/Cotton Functional Nanocomposite: Preparation and Characterization of Properties", Fibers and Polymers, 19, 1940-1947 (IF: 2.5).
3. I. Ebrahimi, **M. Parvinzadeh***, "MWCNT-Polypyrrole-Ag nanocomposites as promising electromagnetic shielding materials: Comparing chemical deposition and photoreduction approaches", Journal of Physics and Chemistry of Solids, 118, 80-87 (IF: 4).

2016

4. Z. Noralian, **M. Parvinzadeh***, I. Ebrahimi, "Fabrication of multifunctional graphene/polyvinylphosphonic acid/cotton nanocomposite via a facile spray layer by layer assembling", RSC Advances, 6, 23288-23299 (IF: 3.9).
5. I. Ebrahimi, **M. Parvinzadeh***, "Chemically reduced versus photo-reduced clay-Ag-polypyrrole ternary nanocomposites: Comparing thermal, optical, electrical and electromagnetic shielding properties", Materials Research Bulletin, 83, 96–107 (IF: 5.4).

2015

6. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Dispersibility of hydrophilic and hydrophobic nano-silica particles in polyethylene terephthalate films: Evaluation of morphology and thermal properties", Polymers and Polymer Composites, 23, 285-296 (IF: 2.1).

2013

7. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Various nanosilica particles affecting dyeability of polyethylene terephthalate silica nanocomposites", Fibers & Polymers, 14, 743-751 (IF: 2.5).
8. **M. Parvinzadeh***, R. Hajiraissi, M. Parvinzadeh, "Morphological, optical and electromagnetic characterization of polybutylene terephthalate/silica nanocomposites", Fibers & Polymers, 14, 1324-1331 (IF: 2.5).
9. **M. Parvinzadeh***, H. Allahyary, P. Nasraei, M. Parvinzadeh, "SiO2–kaolinite affecting the surface properties of polyvinyl chloride/SiO2–kaolinite nanocomposites", Fibers and Polymers, 14, 1870-1876 (IF: 2.5).

2012

10. **M. Parvinzadeh***, S. Eslami, "Structural, optical and electromagnetic properties of aluminum-clay nanocomposites", Superlattices & Microstructures, 51, 135–148 (IF: 3.22).
11. M. Alimohamadi, **M. Parvinzadeh***, R. Shami, A. Kiumarsi "Deposition of silver nanoparticles on carbon nanotube by chemical reduction method: evaluation of surface, thermal and optical properties", Superlattices & Microstructures, 52, 50–62 (IF: 3.22).
12. **M. Parvinzadeh***, S. Moradian, "Effect of nanoclay type on dyeability of polyethylene terephthalate/clay nanocomposites", Journal of Applied Polymer Science, 125. 4109–4120 (IF: 3).
13. **M. Parvinzadeh***, A. Almasian, "Synthesizing tertiary silver/silica/kaolinite nanocomposite using photo-reduction method: Characterization of morphology and electromagnetic properties", Composites B: Engineering, 43, 3374-3383 (IF: 13.1).

2011

14. R. Hajiraissi, **M. Parvinzadeh***, "Preparation of Polybutylene terephthalate/silica nanocomposites by melt compounding: Evaluation of surface properties", Applied Surface Science, 257, 8443– 8450 (IF: 6.7).
15. **M. Parvinzadeh***, S. Eslami, "Optical and electromagnetic characteristics of Clay–iron oxide nanocomposites", Research on Chemical Intermediates, 37, 771–784 (IF: 3.3).

2010 16. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, “Surface characterization of polyethylene terephthalate/silica nanocomposites”, Applied Surface Science, 256, 2792–2802 (IF: 6.7).
17. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, “Effect of addition of modified nano-clays on surface properties of the resultant polyethylene terephthalate/clay nanocomposites”, Polymer-Plastics Technology and Engineering, 49, 874-884 **(Among the most cited articles in Journal in 2013-2016)** (IF: 2.43).

Theme: Surface Engineering, Fabrication of Functional Coatings

2023 18. E Pakdel, J. Sharp, S. Kashi, W. Bai, **M. Parvinzadeh**, X Wang, “Antibacterial Superhydrophobic Cotton Fabric with Photothermal, Self-Cleaning, and Ultraviolet Protection Functionalities”, ACS Applied Materials & Interfaces, 15, 34031-34043, (IF: 9.5).

2018 19. A. Almasian, Gh. Chizari Fard, M. Mirjalili, **M. Parvinzadeh**, “Fluorinated-PAN nanofibers: Preparation, Optimization, Characterization and fog harvesting Property”, Journal of Industrial and Engineering Chemistry, 62, 146-155 (IF: 6.1).
20. S. Nourbakhsh, **M. Parvinzadeh**, S. Jafari, “Comparison between nano and micro silicon softener on corona discharge-treated cotton fabric”, Journal of Industrial Textiles, 47, 1757-1768 (IF: 3.2).

2015 21. **M. Parvinzadeh***, S. T. Ghehi, S. V. Arekhloo; A. Mirsmaeeli, A. Kiumarsi, “Electromagnetic shielding response of UV-induced polypyrrole/silver coated wool”, Fibers & Polymers, 16, 585-592 (IF: 2.5).
22. **M. Parvinzadeh***, I. Ebrahimi, M. Pousti, “New insights into corona discharge surface ionization of polyethylene terephthalate via a combined computational and experimental assessment”, Current Applied Physics, 15, 1075–1083 (IF: 2.4).
23. **M. Parvinzadeh***, S. Eslami, “A robust method for production of electromagnetic shielding cellulose fiber via immobilization of iron oxide pillared clay nanoparticles under UV irradiation”, Functional Materials Letters, 08, 1550073 [4 pages] (IF: 1.3).

2014 24. **M. Parvinzadeh***, D. Hegemann, M. Stir, J. Hulliger, “Thin film plasma functionalization of polyethylene terephthalate to induce bone-like hydroxyapatite formation”, Plasma Processes & Polymers, 11, 37-43 (IF: 3.5).
25. **M. Parvinzadeh***, H. Adibzadeh, “Ultrasound for efficient emulsification and uniform coating of an anionic lubricant on cotton”, Fibers & Polymers, 15, 65-70 (IF: 2.5).

2013 26. **M. Parvinzadeh***, A. Almasian, “UV radiation induced flame retardant cellulose fiber by using polyvinylphosphonic acid/carbon nanotube composite coating”, Composites B: Engineering, 45, 282-289 (IF: 13.1).
27. **M. Parvinzadeh***, A. Poornaserani, H. Ehsani, M. Parvinzadeh, “Surface oxidation of cellulose by ozone-gas to improve the functionality of fluoromonomer”, Vacuum, 91, 7-13 (IF: 4).
28. **M. Parvinzadeh***, M. Yousefpour Navid, M. H. Rahimi, “Effects of coating of silicone emulsions on thermal properties and flammability of polyethylene terephthalate textile”, Pigment & Resin Technology, 42, 34-44 (IF: 1.4).
29. F. Alimohammadi, **M. Parvinzadeh***, A. Shamei, “Functional cellulose fibers via polycarboxylic acid/carbon nanotube composite coating”, Journal of Coatings Technology and Research, 10, 123-132 (IF: 2.3).
30. **M. Parvinzadeh***, A. Elahi, M. Parvinzadeh, “UV radiation inducing succinic acid/silica-kaolinite network on cellulose fiber to improve the functionality”, Composites B: Engineering, 48, 158–166 (IF: 13.1).
31. **M. Parvinzadeh***, A. Almasian, “Citric acid/ZrO2 nanocomposite inducing thermal barrier and self-cleaning properties on protein fibers”, Composites B: Engineering, 52, 340-349 (IF: 13.1).
32. **M. Parvinzadeh***, M. Parvinzadeh, “Effect of colloidal dispersion of clay on some properties of wool fiber”, Journal of Dispersion Science and Technology, 34, 853–858 (IF: 2.05).

2012 33. **M. Parvinzadeh***, R. Shami, M. Alimohamadi, “Preparation of water-repellent cellulose fiber using polycarboxylic acid/hydrophobic silica nanocomposite coating”, Surface & Coating Technology, 206, 3208–3215 (IF: 5.4).
34. **M. Parvinzadeh***, M. Yousefpour Navid, M. H. Rahimi, “Coating of macro- and microemulsion silicones on polyethylene terephthalate fibers: Evaluation of thermal properties and flammability”, Journal of Applied Polymer Science, 125, 1430–1438 (IF: 3).
35. F. Alimohammadi, **M. Parvinzadeh***, A. Shamei, “A novel method for coating of carbon nanotube on cellulose fiber using 1,2,3,4-butanetetracarboxylic acid as a cross-linking agent”, Progress in Organic Coatings, 74, 470–478 (IF: 6.6).
36. **M. Parvinzadeh***, A. Almasian, M. Parvinzadeh, “Preparation of electromagnetic reflective coating on wool fiber using nano-ZrO2/citric acid composite”, Sensors & Actuators: A. Physical, 187, 1-9 (IF: 4.6).

2011 37. **M. Parvinzadeh***, I. Ebrahimi, “Atmospheric air-plasma treatment of polyethylene terephthalate fiber to improve the performance of nanoemulsion silicone”, Applied Surface Science 257, 4062–4068 (IF: 6.7).
38. M. H. Rahimi, **M. Parvinzadeh***, M. Yousefpour Navid, S. Ahmadi, “Thermal characterization and flammability of polyester fiber coated with cationic and nonionic emulsion”, Journal of Surfactants and Detergents 14, 595-603 (IF: 1.97).
39. **M. Parvinzadeh***, I. Ebrahimi, “Influence of atmospheric-air plasma on coating of nonionic lubricating agent on polyester fiber”, Radiation Effects and Defects in Solids 166, 408-416 (Among the most cited articles in Journal in 2013-2015) (IF: 1.02).
40. I. Ebrahimi, A. Kiumarsi, **M. Parvinzadeh***, R. Rashidian, M. H. Norouzi, “Atmospheric-air plasma enhances coating of different lubricating agents on polyester fiber”, The European Physical Journal, Applied Physics, 56, 10801-10810 (IF: 1.02).

2009 41. **M. Parvinzadeh***, N. Memari, M. Shaver, B. Katozian, S. Ahmadi, I Ziadi, “Influence of ultrasonic waves on the processing of cotton with cationic softener”, Journal of Surfactants and Detergents, 13, 135-141 (IF: 1.97).
42. **M. Parvinzadeh***, “Ultrasonic assisted finishing of cotton with nonionic softener”, Tenside Surfactants Detergents, 46, 335-339 (IF: 1).

2008 43. **M. Parvinzadeh***, H. Najafi, “Textile softeners on cotton dyed with direct dyes: Reflectance and fastness assessments”, Tenside Surfactants Detergents, 45, 13-16 (IF: 1).

44. **M. Parvinzadeh***, R. Hajiraissi, "Macro and Micro Emulsion Silicone Softeners on Polyester Fibres: Evaluation of Different Physical Properties", Journal of Surfactants and Detergents, 11, 269-273 (IF: 1.97).

45. **M. Parvinzadeh***, R. Hajiraissi, “Effect of nano and micro emulsion silicone softeners on properties of polyester fibres”, Tenside Surfactants Detergents, 45, 254-257 (IF: 1).

2007 46. **M. Parvinzadeh***, “The effects of softeners on the properties of sulfur-dyed cotton fibres” Journal of Surfactants and Detergents, 10, 219-223 (IF: 1.97).

Theme: Biotechnology, Bioprocessing

2013 47. **M. Parvinzadeh***, R. Assefipour, A. kiumarsi, M. Parvinzadeh, “Enzymatic hydrolysis of polyamide 6,6 with mixtures of proteolytic and lipolytic enzymes”, Preparative Biochemistry & Biotechnology, 43, 798–814 (IF: 3.14).

2010 48. A. Kiumarsi, **M. Parvinzadeh***, “Enzymatic hydrolysis of nylon 6 fiber using lipolytic enzyme”, Journal of Applied Polymer Science, 116, 3140–3147 (IF: 3).

2009 49. **M. Parvinzadeh***, R. Assefipour, A. Kiumarsi, “Biohydrolysis of nylon 6,6 fiber with different proteolytic enzymes”, Polymer Degradation and Stability, 94, 1197–1205 **(Among top 25 hottest articles in 2009-2010)** (IF: 5.9).

2007 50. **M. Parvinzadeh***, “A new approach to improve dyeability of nylon 6 fibre using a subtilisin enzyme”, Coloration Technology, 125, 228-233 **(The 3rd most cited article in 2009-2011)** (IF: 1.8).

51. **M. Parvinzadeh***, "Effect of proteolytic enzyme on dyeing of wool with madder", Enzyme and Microbial Technology, 40, 1719–1722 (IF: 3.4).

Theme: Biocomposite Crystals, Biocomposite Ceramics

2022 52. **M. Parvinzadeh*,** M. Stir, M. Burgener, J. Hulliger, B. G. Choobar, Z. Nooralian, M. R. Moghaddam, Hydroxypropyl methylcellulose-controlled in vitro calcium phosphate biomineralization”, New Journal of Chemistry, 46, 20082-20091 (IF: 3.3).

2020 53. **M. Parvinzadeh***, N. Dehghan, “Gel diffusion-inspired biomimetic calcium iodate/gelatin composite particles: Structural characterization and antibacterial activity”, Journal of Solid-State Chemistry, 285, 2020, 121262 (IF: 3.3).

2018 54. **M. Parvinzadeh***, A Shokri, “Hydrogel-assisted low-temperature synthesis of calcium borate nanoparticles”, Journal of the Australian Ceramic Society, 54, 2018, 601–607 (IF: 1.9).

2016 55. **M. Parvinzadeh***, M. Stir, J. Hulliger, “Growth of strontium hydrogen phosphate/gelatin composites by a biomimetic approach”, New Journal of Chemistry, 40, 5495-5500 (IF: 3.3).

56. **M. Parvinzadeh***, M. Helali, S. Karimi, “Green synthesis of zinc phosphate-based nanosheets by gel growth”, International Journal of Applied Ceramic Technology, 13, 1069-1073 (IF: 2.1).

2015 57. M. Burgener, T. Putzeys, **M. Parvinzadeh**, S. Busch, H. Aboulfadl., M. Wübbenhorst, R. Kniep, J. Hulliger, “Polar nature of a biomimetic fluorapatite/gelatin composite material”, Biomacromolecules, 16, 2814–2819 (IF: 6.2).

2014 58. **M. Parvinzadeh***, M. Burgener, M. Stir, J. Hulliger, “Barium hydrogen phosphate/gelatin composites versus gelatin-free Barium hydrogen phosphate: Synthesis and characterization of properties”, Journal of Colloid & Interface Science, 431, 149-156 (IF: 9.9).

2013 59. **M. Parvinzadeh***, M. Bourquin, M. Stir, J. Hulliger, “Glutamic acid induced kidney stones biomimicry by brushite/gelatin composite”, Journal of Materials Chemistry B, 1, 1501-1508 (IF: 7).

60. **M. Parvinzadeh***, M. Stir, M. Bourquin, J. Hulliger, “Mineralization of calcium phosphate crystals in starch template inducing a brushite kidney stone biomimetic composite”, Crystal growth and Design, 13, 2166–2173 (IF: 3.8).

61. **M. Parvinzadeh***, M. Stir, J. Hulliger, “Synthesis of bone-like micro-porous calcium phosphate/iota-carrageenan composites by gel diffusion”, Colloids and Surfaces B: Biointerfaces, 110, 426-433 (IF: 5.8).

Theme: Tissue Engineering, Biofilms, Microfluidic Devices

2024 62. G. C. Fard, **M. Parvinzadeh***, S. A. Dehdast, M. Shabani, E. Zarinabadi, N. Seifi, A. Berenjian, Novel Polyamide/Chitosan Nanofibers Containing Glucose Oxidase and Rosemary Extract: Fabrication and Antimicrobial Functionality. Coatings, 14 (4), 411 (IF: 3.4).

63. K. Vojnits, M. Mohseni, **M. Parvinzadeh**, A. V. Nadaraja, R. Karimianghadim, B. Crowther, B. Field, K. Golovin, S. Pakpour, Advancing Antimicrobial Textiles: A Comprehensive Study on Combating ESKAPE Pathogens and Ensuring User Safety. Materials 2024, 17, 283 (IF: 3.4).

2023 64. **M. Parvinzadeh**, S. A. Dehdast, A. Berenjian, M. Shabani, E. Zarinabadi, G. Chiari Fard, G. PDDA/Honey Antibacterial Nanofiber Composites for Diabetic Wound-Healing: Preparation, Characterization, and In Vivo Studies. Gels, 9, 173 (IF: 4.6).

2022 65. A. Mozaffari, **M. Parvinzadeh*,** “Air Plasma Functionalization of Electrospun Nanofibers for Skin Tissue Engineering”, Biomedicines, 10, 617 (IF: 4.7).

2021 66. Z. Noralian, **M. Parvinzadeh***, M.R. Moghaddam, H. Tayyeb, I. Erfanian, “Ultrasonically developed silver/iota-carrageenan/cotton bionanocomposite as an efficient material for biomedical applications”, International Journal of Biological Macromolecules, 180, 439-457 (IF: 8.2).

67. A. Mozaffari, **M. Parvinzadeh*,** M. Mirjalili, M. Parsania, “Argon and argon–oxygen plasma surface modification of gelatin nanofibers for tissue engineering applications”, Membranes, 11, 31 (IF: 4.2).

2020 68. A. Mozaffari, M. Mirjalili, **M. Parvinzadeh**, M. Parsania, “Effect of tannic acid on properties of electrospungelatin nanofibres”, Indian Journal of Fibre and Textile Research, 45, 153-163 (IF: 0.78).

2016 69. **M. Parvinzadeh**, J. Asselin, D. Boudreau, J. Greener, “A microfluidic platform with pH imaging for chemical and hydrodynamic stimulation of intact oral biofilms”, Lab on a Chip, 16, 1412-1419 (IF: 6.1).

70. J. Asselin, **M. Parvinzadeh**, D. Boudreau, J. Greener, “A Microfluidic Platform with Nanoparticle-Based Metal-Enhanced Fluorescence for pH Mapping Acidified Aqueous Solutions by CO_2 Microbubble”, MRS Advances, 1, 2037-2043 (IF: 0.8).
71. **M. Parvinzadeh**, M. Zarabadi, J. Greener, “A video imaging method for time-dependent measurements of molecular mass transfer and biofilm dynamics in microchannels”, MRS Advances, 1, 2099-2106 (IF: 0.8).
72. F. Paquet-Mercier, **M. Parvinzadeh**, M. J. Bellavance, S.M. Taghavi, J. Greener, Through thick and thin: a microfluidic approach for continuous measurements of biofilm viscosity” Lab on a Chip, 16, 4710-4717 (IF: 6.1).

73. J. Greener, **M. Parvinzadeh**, A. Eslami, S.M. Taghavi, “A microfluidic method and custom model for continuous, non-intrusive biofilm viscosity measurements under different nutrient conditions”, Biomicrofluidics, 10(6), 064107 (IF: 3.2).

2015 74. **M. Parvinzadeh**, Julien Bellavance, Marthinus Kroukamp, Gideon Wolfaardt, Seyed Mohammad Taghavi, J. Greener, “Live-streaming: Evidence of novel streamer formation mechanism and time-varying viscosity from time lapse videos”, Biomicrofluidics, 9, 041101 (IF: 3.2).

Theme: Membrane & Purification Technology

2016 75. A. Almasian, G. Chizari Fard, **M. Parvinzadeh**, M. Mirjalili, Z. Mokhtari Shourijeh, “Surface modification of electrospun PAN nanofibers by amine compounds for adsorption of anionic dyes”, Desalination and Water Treatment, 57, 10333-10348 (IF: 1.2).
76. A. Almasian, **M. Parvinzadeh***, Mohammad Ebrahim Olya, G. Chizari Fard, “Poly(acrylic acid)-zeolite nanocomposites for dye removal from single and binary systems“, Desalination and Water Treatment, 57, 20837-20855 (IF: 1.2).
77. A. Almasian, F. Najafi, M. Mirjalili, **M. Parvinzadeh**, G. Chizari Fard, “Zwitter ionic modification of cobalt-ferrite nanofiber for the removal of anionic and cationic dyes”, Journal of the Taiwan Institute of Chemical Engineers 67, 306-317 (IF: 5.7).
78. A. Almasian, Gh. Chizari Fard, **M. Parvinzadeh**, M. Mirjalili, Z. M. Shourijeh, “Surface modification of electrospun PAN nanofibers by amine compounds for adsorption of anionic dyes”, Desalination and Water Treatment, 57, 10333-10348 (IF: 1.2).

Theme: Natural Dyes Extraction, Textile Dyeing Procedures

2018 79. I. Ebrahimi, **M. Parvinzadeh***, M. Sarafpour, “Photocatalytic discoloration of denim using advanced oxidation process with H2O2/UV”, Journal of Photochemistry and Photobiology A: Chemistry, 360, 278-288 (IF: 4.3).

2017 80. A. Kiumarsi, **M. Parvinzadeh***, P. Salehi, M. Dayeni, “Extraction of dyes from Delphinium zalil flowers and Dyeing on silk”, The Journal of The Textile Institute, 108, 66-70 (IF: 1.77).

2016 81. **M. Parvinzadeh***, “New insight into compressive shrinkage finishing in a garment company: The effects on physical, mechanical and colorimetric properties of cotton woven fabrics”, Fibers & Polymers, 17, 130-135 (IF: 2.5).

82. I. Ebrahimi, **M. Parvinzadeh***, “Extraction of polyphenolic dyes from henna, pomegranate rind and Pterocarya fraxinifolia for nylon 6 dyeing”, Coloration Technology, 132, 162-176 (IF: 1.8).

2015 83. A. Kiumarsi, **M. Parvinzadeh***, “Pistachio Hulls, A new source of fruit waste for wool dyeing, Journal of Textile Science & Engineering, 5, 2.

84. I. Ebrahimi, **M. Parvinzadeh***, “Extraction of juglone from Pterocarya fraxinifolia leaves for dyeing, anti-fungal finishing and solar UV protection of wool”, Coloration Technology, 131, 451-457 (IF: 1.8).

2014 85. **M. Parvinzadeh***, B. Katozian, M. Shaver, A. Kiumarsi, “Clay nano-adsorbent as an environmentally friendly substitute of mordants in natural dyeing of carpet piles”, Coloration Technology, 130, 54-61 (IF: 1.8).

86. A. Peyravi, **M. Parvinzadeh***, S. H. Hosseini, “Chemical grafting of disperse dyes onto polyacrylonitrile: A novel method for coloration of fibers”, Fibers & Polymers, 15, 2307-2312 (IF: 2.5).

2013 87. **M. Parvinzadeh***, R. Rashidian, A. Almasian, A. B. Zohouri “A novel method for colouration of cotton using clay nano-adsorbent treatment”, Pigment & Resin Technology, 42, 175-185 (IF: 1.4).

2009 88. **M. Parvinzadeh***, “An environmentally method for dyeing rug pile using fruit waste colorant”, Research Journal of Chemistry and Environment, 13, 49-53 (IF: 0.63).

2007 89. M. Montazer, **M. Parvinzadeh**, "Dyeing of wool with marigold and its properties", Fibres & Polymers, 8, 181-185 (IF: 2.5).

2004 90. M. Montazer, **M. Parvinzadeh**, A. Kiumarsi, "Colorimetric properties of natural dyed wool after treatment with ammonia", Coloration Technology, 120, 161-66 (IF: 1.8).

2004 91. M. Montazer, **M. Parvinzadeh**, "Effect of ammonia on madder dyed natural protein fibre", Journal of Applied Polymer Science, 93, 2704-10 (IF: 3).

SELECTED CONFERENCE PRESENTATIONS/DELIVERED WORKSHOPS

Theme: Manufacturing of Polymer Nanocomposites, Functional Coatings

2010

1. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Surface characterization of polyethylene terephthalate/clay nanocomposites", The Polymer Processing Society 26th Annual Meeting, Banff, Canada.
2. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Disperseability, dyeability and thermal properties of polyethylene terephthalate/silica nanocomposites modified with hydrophilic or hydrophobic nanosilica", The Polymer Processing Society 26th Annual Meeting, Banff, Canada.
3. **M. Parvinzadeh***, R. Hajiraissi, S. H. Lajevardi, M. Shirzad, "Electrical conductivity of polyethylene terephthalate fibers coated with emulsion of nano silicones", The Polymer Processing Society 26th Annual Meeting, Banff, Canada.
4. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Effect of type of nanoclay on thermal properties of polyethylene terephthalate/clay nanocomposites", The Polymer Processing Society 26th Annual Meeting, Canada.
5. **M. Parvinzadeh***, M. H. Norouzi, R. Rashidian, I. Ebrahimi, R. Hajiraissi, "Atmospheric plasma treatment of polyethylene terephthalate substrate to improve adhesion of nano emulsion silicone", The Polymer Processing Society 26th Annual Meeting, Banff, Canada.
6. **M. Parvinzadeh***, M. Yousefpour Navid, M. H. Rahimi, "Effect of different ionic emulsions coating on the thermal stability of polyethylene terephthalate fibers", The Polymer Processing Society 26th Annual Meeting, Banff, Canada.
7. R. Hajiraissi, **M. Parvinzadeh***, "Some studies on surface properties of PBT silica nanocomposites", The Polymer Processing Society 26th Annual Meeting, Banff, Canada.
8. R. Hajiraissi, **M. Parvinzadeh***, "Poly butylene terephthalate silica nanocomposites by melt compounding: The thermal properties and morphology of prepared sheets", The

2009

Polymer Processing Society 26th Annual Meeting, Banff, Canada.
9. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Surface Characterization of polyethylene terephthalate/silica nanocomposites", Nano Today 2009 Conference, Singapore.
10. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "The effect of organoclays on dyeability of nanocomposite films based on poly(ethylene terephatalate)", The 42nd IUPAC World Chemistry Congress, Glascow, UK.
11. **M. Parvinzadeh***, S. Moradian, A. Rashidi, M.E. Yazdanshenas, "Some properties of polyethylene terephthalate/silica nanocomposites" at 8th World Chemical Engineering Congress, Montreal, Canada.

Theme: Biotechnology, Bioprocessing

2008

12. **M. Parvinzadeh**, "An environmentally friendly method for nylon 6 fiber hydrolysis using Lipolytic enzyme", 2nd International IUPAC Conference on Green Chemistry, Moscow-St. Petersburg, Russia.
13. **M. Parvinzadeh***, R. Assefipour, "Surface hydrolysis of polyamide 6,6 fiber using mixture of protease and lipase enzymes", 14th International Biodeterioration and Biodegradation Symposium, Messina, Italy.

2007

14. **M. Parvinzadeh***, M. Haji Ashrafi, "Protease enzyme for surface degradation of wool fibre to improve dyeability", II International Conference on Environmental, Industrial and Applied Microbiology, Seville, Spain.

AWARDS AND ACHIEVEMENTS

From 2019 to 2023	1. World Top 2% Scientists list by Stanford University.
2015	2. Distinguished Researcher, Tehran province, Iran.
	3. Distinguished Researcher, Azad University, Tehran, Iran.
2013	4. Switzerland Government fellowship, University of Bern, Bern, Switzerland.
2011	5. Distinguished Researcher, Tehran province, Iran.
2009	6. Distinguished Researcher, Shahre Rey Town, Tehran, Iran.
	7. Distinguished Researcher, Azad University, Tehran, Iran.
	8. Awarded grant, 2nd Workshop on Fats and Oils as Renewable Feedstock for the Chemical Industry, Emden, Germany.
2008	9. Awarded grant, Nanotechnology Initiative Council, Tehran, Iran
	10. Distinguished Researcher, Azad University, Tehran, Iran.
	11. Awarded grant, Federation of European Microbiological Societies, 14th International Biodeterioration & Biodegradation Symposium, 2008, Messina, Italy.
2007	
2005	12. Awarded grant, the 41st IUPAC World Chemistry Congress, Turin, Italy.
2001	13. 2nd Rank in PhD nationwide entrance examination, Iran.
	14. 1st Rank in MSc nationwide entrance examination, Iran.

INVITED GUEST EDITORSHIP

Active (2024)

1. Gels: Application of Smart Gel Material in Flexible and Wearable Electronics
Journal: GELS (IF: 4.6)

Published (2019-2023)

2. Special Issue " Synthesize of Particles and Crystals in Gels."
Journal: GELS (IF: 4.6)

3. Special Issue "Biopolymer Gel-Assisted Synthesis of Particles for Biomedical Applications"
Journal: GELS (IF: 4.6)

4. Special Issue “Smart Coatings on Fibers and Textiles”
Journal: FIBERS (IF: 3.9)

5. Special Issue "Gels Used for Flame-Retardant and Thermal-Insulation."
Journal: GELS (IF: 4.6)

6. Special Issue “Advances in Developing Functional Coatings on Fibrous Materials.”
Journal: MATERIALS (IF: 3.4).

7. Special Issue "Biopolymer Gel-Assisted Synthesis of Particles for Biomedical Applications II"
Journal: GELS (IF: 4.6)

8. Special Issue “Electromagnetic Shielding Composites and Fibers”
Journal: FIBERS (IF: 3.9)

CURRENT EDITORIAL BOARD/TOPICAL ADVISORY PANEL OF INTERNATIONAL JOURNALS

Since 2020	1. Polymers (IF=5)
	2. Membranes (IF=4.2)
	3. Frontiers in Materials (IF=3.2)
	4. Open Chemistry (IF=2.3)
	5. Gels (IF: 4.6)
	6. Molecules (IF: 4.6)
	7. Journal of Functional Biomaterials (IF: 4.8)
	8. Encyclopedia
	9. Journal of Composites Science (IF: 3.3)
	10. Bioscience Biotechnology Research Communications (Indexed in Emerging Sources Citation Index)
	11. Chemical Science International Journal
	12. Advances in Materials Research (AMR)
	13. Coatings (IF=3.4)
Since 2018	14. Chemical Sciences Journal (IF=1.4)
	15. Advances in Bioscience and Biotechnology (IF=1.43)
	16. Advances in Chemical Engineering and Science (IF=1.36)
	17. Biointerface Research in Applied Chemistry (Indexed in web of science)
Since 2017	18. Open Journal of Inorganic Non-metallic Materials (IF=0.43)
Since 2015	19. Journal of Fashion Technology & Textile Engineering (IF=0.26)
	20. Journal of Textile Science & Engineering (IF=0.343)
	21. Fibers (IF: 3.9)
	22. Journal of Bio Innovation
Since 2014	23. Advances in Biotechnology & Microbiology
	24. Advance Research in Textile Engineering
	25. Journal of Research & Developments in Chemistry
	26. Jacobs Journal of Enzymology and Enzyme Engineering
	27. Global Journal of Engineering Science and Researches

MEMBER OF CONFERENCE COMMITEES (ORGANIZING AND TECHNICAL)

2025	1. POLYSCIENCECONNECT2025, Rome, Italy.
2023	2. European Congress on Biopolymers and Bioplastics, Italy.
	3. International Forum on Biomaterials, Portugal.
2022	4. Virtual Symposium for Institute of Textile Science, Canada.
2021	5. The 5th International Conference on Materials and Intelligent Manufacturing, Harbin, China.
2021	6. 2nd International Conference on Textile Engineering, Osaka, Japan.
2021	7. The Annual Textile Symposium, The Canadian Institute of Textile Science, Montreal-Edmonton, Canada.
2020	8. The Canadian Institute of Textile Science's Scientific Meeting, Montreal-Edmonton, Canada.
2019	9. The 3rd International Conference on Materials and Intelligent Manufacturing, Incheon, South Korea.
2017	10. International Conference on Materials, Alloys and Experimental Mechanics, Narsimha Reddy Engineering College, India.
2016	11. International Conference on Stereochemistry, Sao Paulo, Brazil.

2014	12. International Symposium on Materials Application and Engineering (SMAE 2016), Chiang Mai, Thailand. 13. 2nd International Conference on Materials and Mechanical Science (ICMMS2014), Qingdao, Shandong, China. 14. The 1st International Conference on Material Science (ICOMS 2014), January 14-15, in Indiana, USA.
2013	15. The 1st International Conference on Materials and Mechanical Science (ICMMS), Sanya, Hainan, China.
2008	16. The International Conference on Chemistry Science and Application (ICCSA2013), Beihai, Guangxi, China.
2007	17. First Congress on Textile Engineering held by Shahre Rey Branch of Islamic Azad University, Iran.
2006	18. The Third Workshops of Color Physics, Institute for Color Science and Technology, Iran.
2005	19. The Second Workshops of Color Physics, Institute for Color Science and Technology, Iran. 20. The First Workshops of Color Physics, Institute for Color Science and Technology, Iran.

INTERNATIONAL & NATIONAL COMMITTEE MEMBERSHIP

Since 2019	1. Director of Institute of Textile Science, Canada
Since 2020	2. National Standard of Canada, Textile Test Methods.
Since 2018	3. ISO TC 102 (Chemical Analysis), The International Organization on Standardization (ISO). 4. ISO TC 102 (Physical Testing), The International Organization on Standardization (ISO).

PROFESSIONAL MEMBERSHIP

Since 2024	1. Member of Kansas IDEA network of Biomedical Research Excellence (K-INBRE) Mentors
Since 2022	2. The American Association of Textile Chemists and Colorists
Since 2019	3. Canadian Institute of Textile Science

REVIEWING OF INTERNATIONAL JOURNALS

More than 1000 papers are reviewed up to now at following International Journals:
ACS Applied Materials & Interfaces, Langmuir, ACS Applied Polymer Materials, ACS Omega, Industrial & Engineering Chemistry Research, ACS Sustainable Chemistry & Engineering, Crystal Growth & Design, Journal of Applied Polymer Science, Process Biochemistry, Surface & Coating Technology, Polymer Bulletin, Photochemistry and Photobiology, International Journal of Biological Macromolecules, Industrial & Engineering Chemistry Research, Spectroscopy Letters, Materials, Carbohydrate Polymers, Journal of Cleaner Production, Environmental Engineering and Management Journal, Journal of the Taiwan Institute of Chemical Engineers, Chemical Engineering Communications, International Journal of Organic Chemistry, Journal of Coatings Technology and Research, Cellulose Chemistry and Technology, Materials Letters, Journal of Surface Engineered Materials and Advanced Technology, Journal of Spectroscopy, Materials Science and Engineering B, Materials Science and Engineering C, Materials and Design, The Korean Journal of Chemical

Engineering, Chemical Engineering Journal, Environmental Progress, Advanced Powder Technology, Materials Chemistry and Physics, Coloration Technology, Composites B: Engineering.