Mahnaz Hassanpour

CONTACT

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EDUCATIONAL QUALIFICATION

Dec 2020 – Sep 2017: M.Sc. (Polymer Chemistry), Institute for Advanced Studies in Basic Sciences
GPA: 17.64/20

Dissertation Project:

- Sythesis and Characterization of Monomer, Polymer and Modified Cotton based on Ionic Liquids with Antimicrobial Feature

Jan 2017 – Sep 2013: B.Sc. (Applied Chemistry), Islamic Azad University
GPA: 17.64/20

PUBLICATIONS

Research Papers

- Tracing the Antibacterial Performance of Bis-Imidazolium-based Ionic Liquid Derivatives
Mahnaz Hassanpour, Seyed Mohammad Torabi, Davoud Afshar, Mohammad Hossein Kowsari,* Ali Akbar Meratan, and Nasser Nikfarjam*. (ACS Applied Bio Materials, Accepted 2024)

- Highly Efficient Antibacterial Cotton Fabrics Surface-Immobilized by Bisimidazolium-based Ionic Liquid Derivatives
Mahnaz Hassanpour, Davoud Afshar, Vahid Hassani, Nasser Nikfarjam* (Under Preparation)

- Tracing Experimentally Compatible Bactericidal Activity of Dicationic Imidazolium Based Ionic Liquids: New Insights to Influence of Functional Groups on Permeation and Anti-dhesion by MD Simulations
Seyed Mohammad Torabi, Mohammad H. Kowsari*, Mahnaz Hassanpour, Nasser Nikfarjam
(Under Preparation)

Review Papers

- Antimicrobial Ionic Liquid-based Materials for Biomedical Applications Nasser Nikfarjam, Matineh Ghomi, Tarun Agarwal, Mahnaz Hassanpour, ..., Eric Lichtfouse*, Franklin R Tay*, Pooyan Makvandi* (Advanced Functional Materials, Accepted 2021)

- Ionic liquid-mediated synthesis of metal nanostructures: Potential application in cancer diagnosis and therapy Mahnaz Hassanpour, Mohammad Hassan Shahavi, ..., Pooyan Makvandi6*, Hasan Karimi male*, Ehsan Nazarzadeh Zare* (Journal of Ionic Liquids, Accepted 2022)

● Porous materials for the recovery of rare earth elements, platinum group metals, and other valuable metals: a review Sidra Iftekhar, Golnaz Heidari, Neda Amanat, Ehsan Nazarzadeh Zare, Muhammad Bilal Asif, Mahnaz Hassanpour, Vesa Pekka Lehto & Mika Sillanpaa (Environmental Chemistry Letters, Accepted 2022)

● Advances in aptamer-based drug delivery vehicles Kousar Ghasemi, Mahdieh Darroudi, Ilnaz Rahimmanesh, Matineh Ghomi, Mahnaz Hassanpour, ..., Ana Cláudia Santos*, Navid Rabiee* (Advanced Therapeutics, Accepted 2022)

● Nanotechnology for SARS-CoV-2 diagnosis Alisa Khodadadi1, Atefeh Zarepour, Sepideh abbaszadeh, Maryam Firoozi, Fatemeh Bahrami-Banan, Amir Rabiee, Mahnaz Hassanpour, ..., Pooyan Makvandi*, Esmaeel Sharifi* (Nanofabrication, Accepted 2022)

● Biosynthesized Nanomaterials with Antioxidant and Antimicrobial Properties Golnaz Heidari, Mahnaz Hassanpour, ..., Nasser Nikfarjam* (Materials Chemistry Horizons, Accepted 2022)

● 2D MXene nanocomposites: Electrochemical and biomedical applications Marzieh Ramezani Farani, Behnam Nourmohammadi Khiarak, Rui Tao, Zegao Wang, Sepideh Ahmadi, Mahnaz Hassanpour, ..., Eder C. Lima*, Navid Rabiee* (Environmental Science: Nano, Accepted 2022)

● Metal nanoparticles-assisted early diseases diagnosis Maryam Jouyandeh, S. Mohammad Sajadi*, Farzad Seidi*, Sajjad Habibzadeh, Navid Rabiee*, Mohammad Rabiee, Mahnaz Hassanpour, Mohammad Reza Saeb (OpenNano, Accepted 2022)

● An overview on new anticancer drugs approved by food and drug administration: impending economic and environmental challenges Mohamad Reza Sarfjoo, Arya Shad, Mahnaz Hassanpour, Rajender Varma (Materials Chemistry Horizons, Accepted 2022)

● Green and Sustainable Membranes: A review Satar Yousefiasl, Sajad Farashi, Asmita Deka Dey, Arun Kumar, Mahnaz Hassanpour, Esmaeel Sharifi*, Pooyan Makvandi* (Environmental research, Accepted 2023)

● Chitosan-based nanosystems for cancer diagnosis and therapy: Stimuli-responsive, immune response, and clinical studies Farnaz Dabbagh Moghaddam, Ehsan Nazarzadeh Zare, Mahnaz Hassanpour, …, Neisiany, Pooyan Makvandi*, Siavash Iravani, Yi Xu* (Carbohydrate Polymers, Accepted 2024)

● Hydrogel-integrated graphene superstructures for tissue engineering: From periodontal to neural regeneration Iman Zare, Mojdeh Mirshafiei, Bahareh Kheilnezhad, Bahareh Farasati Far, Mahnaz Hassanpour, …, Anwarul Hasan, Xiang Wang, Mohsen Adeli, Pooyan Makvandi* (Carbon, Accepted 2024)

Conference Papers

● Antibacterial Nanofibers Made by Imidazolium based Poly(ionic liquid)s Mahnaz Hassanpour, Nasser Nikfarjam*. ^{8}th International Conferenes on Nanostructures, Tehran, Iran.
(Poster Presentation, Accepted 2020)

● Antibacterial Cotton Fabrics Grafted by Imidazolium-Type Ionic Liquids Mahnaz Hassanpour, Nasser Nikfarjam*. ^{14}th International Seminar on Polymer Science and Technology, Tehran, Iran.
(Oral Presentation, Accepted 2020)

WORK EXPERIENCE

Jun 2020
Feb 2021

Research and Development Specialist, Abadgaran Construction Chemicals Group

Experience:

- Design and Synthesis of Isothiazolinone Biocides
- Design and Synthesis of Biobased Hardner

Nov 2022
Sep 2023

Research and Development Specialist, Simeco Polymer

Experience:

- Innovative Manufacturing Approaches for Crosslinked Polyethylene: A Focus on Peroxide and Silane Methods in the Production of Insulation Cables

RESEARCH INTERESTS

- Design and synthesis of various polymers through different polymerization methods, including FRP, ATRP, and RAFT
- Designing Smart Biomaterials for Tissue Engineering and Environment Applications
- Synthesis, Design of Nanomaterials and Organic Compounds for Biomedical Applications

TECHNIQUES KNOWN

MICROBIOLOGICAL TECHNIQUES

- Minimum Inhibitory Concentration (MIC) Assays
- Minimum Bactericidal Concentration (MBC) Assays

INSTRUMENTAL AND CHEMICAL TECHNIQUES

- Nuclear Magnetic Resonance (NMR) Spectroscopy
- Ultraviolet–Visible (UV-Vis) Spectroscopy
- Fourier Transform Infrared (FTIR) Spectrometry
- Qualitative Methods of Identification, Titration
- Fluent in Quantitative Analysis of Compounds

SOFTWARE SKILLS

GENERAL

- Microsoft Word, PowerPoint, Excel
- Photoshop

SCIENTIFIC

- MestReNova
- Mendeley
- Origin
- BioRender
- ChemDraw
- EndNote
- Blender
- Matrix

LANGUAGE SKILLS

- Persian (Native)
- English (IELTS 6)

REFERENCES

Dr. Nasser Nikfarjam
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Dr. Zahra Mohamadnia
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