**Curriculum Vitae**

**Negin Farhadian**

**Ph.D. Chemical Engineering, Postdoc.**

**Date of Birth:** 10/09/1986

**Gender**: Female

**Nationality:** Iranian

**Address:** Health Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran.

**E-mail:** neginfarhadian@yahoo.com

**Education:**

**B.Sc.:** Chemical engineering (Food Industry), Department of chemical engineering, Jundishapoor University of Dezful, Khuzestan, IRAN (2008).

**M.Sc.:** Chemical engineering (Process Design), Department of chemical engineering, Faculty of Engineering, Razi University, Kermanshah, IRAN (2013).

**Ph.D.:** Chemical engineering (Thermo-kinetic and Catalysis), Department of chemical engineering, Faculty of Engineering, Razi university of Kermanshah, Kermanshah, IRAN (2016).

**Post doc.:** Postdoctoral of Environmental contaminants and control, Research Center for Environmental Determinants of Health (RCEDH), KUMS, Kermanshah, Iran.

**Published Manuscripts (ISI papers):**

1. Shekarbeygi, Zahra, **Negin Farhadian**, Mohabbat Ansari, Mohsen Shahlaei, and Sajad Moradi. "An innovative green sensing strategy based on Cu-doped Tragacanth/Chitosan nano carbon dots for Isoniazid detection." Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 228 (2020): 117848.
2. Moradi, Sajad, **Negin Farhadian**, Fatemeh Balaei, Mohabbat Ansari, and Mohsen Shahlaei. "Multi spectroscopy and molecular modeling aspects related to drug interaction of aspirin and warfarin with pepsin; structural change and protease activity." Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 228 (2020): 117813.
3. Pirsaheb, Meghdad, Sajad Moradi, Mohsen Shahlaei, Xiangke Wang, and **Negin Farhadian**. "Ultrasonic Enhanced Zero-Valent Iron-Based Fenton Reaction for Ciprofloxacin Removal under Aerobic Condition." Environmental Processes 7, no. 1 (2020): 227-241.
4. Zarei, Shabnam, **Negin Farhadian**, Rokhsareh Akbarzadeh, Meghdad Pirsaheb, Anvar Asadi, and Zahra Safaei. "Fabrication of novel 2D Ag-TiO2/γ-Al2O3/Chitosan nano-composite photocatalyst toward enhanced photocatalytic reduction of nitrate." International journal of biological macromolecules 145 (2020): 926-935.
5. Nematpour, Najmeh, **Negin Farhadian**, Kosar Sadat Ebrahimi, Elham Arkan, Faranak Seyedi, Salar Khaledian, Mohsen Shahlaei, and Sajad Moradi. "Sustained release nanofibrous composite patch for transdermal antibiotic delivery." Colloids and Surfaces A: Physicochemical and Engineering Aspects 586 (2020): 124267.
6. Pirsaheb, Meghdad, Sajad Moradi, Mohsen Shahlaei, Xiangke Wang, and **Negin Farhadian**. "A new composite of nano zero-valent iron encapsulated in carbon dots for oxidative removal of bio-refractory antibiotics from water." Journal of cleaner production 209 (2019): 1523-1532.
7. Pirsaheb, Meghdad, Sajad Moradi, Mohsen Shahlaei, Xiangke Wang, and **Negin Farhadian**. "Simultaneously implement of both weak magnetic field and aeration for ciprofloxacin removal by Fenton-like reaction." Journal of environmental management 246 (2019): 776-784.
8. **Farhadian, Negin**, Rokhsareh Akbarzadeh, Meghdad Pirsaheb, Tien-Chien Jen, Yadolah Fakhri, and Anvar Asadi. "Chitosan modified N, S-doped TiO2 and N, S-doped ZnO for visible light photocatalytic degradation of tetracycline." International journal of biological macromolecules 132 (2019): 360-373.
9. Mirzaei, Shabnam, Sajad Moradi, Hosna Ehzari, **Negin Farhadian**, and Mohsen Shahlaei. "Application of general regression neural network and central composite design in fabrication and performance of magnetite (Fe3O4) modified carbon paste electrode for the electrochemical detection of Clomiphene." Microchemical Journal 147 (2019): 1028-1037.
10. Pirsaheb, Meghdad, Sajad Moradi, Mohsen Shahlaei, and **Negin Farhadian**. "Application of carbon dots as efficient catalyst for the green oxidation of phenol: Kinetic study of the degradation and optimization using response surface methodology." Journal of hazardous materials 353 (2018): 444-453.
11. **Farhadian, Negin**, Mostafa Godiny, Sajad Moradi, Abbas Hemati Azandaryani, and Mohsen Shahlaei. "Chitosan/gelatin as a new nano-carrier system for calcium hydroxide delivery in endodontic applications: Development, characterization and process optimization" Materials Science and Engineering: C 92 (2018): 540-546.
12. **Farhadian, Negin**, Jamshid Behin, and Arsalan Parvareh. "Residence time distribution in an internal loop airlift reactor: CFD simulation versus digital image processing measurement." Computers & Fluids 167 (2018): 221-228.
13. Moradi, Sajad, Komail Sadrjavadi, **Negin Farhadian**, Leila Hosseinzadeh, and Mohsen Shahlaei. "Easy synthesis, characterization and cell cytotoxicity of green nano carbon dots using hydrothermal carbonization of Gum Tragacanth and chitosan bio-polymers for bioimaging."Journal of Molecular Liquids 259 (2018): 284-290.
14. Pirsaheb, Meghdad, Anvar Asadi, Mika Sillanpää, and **Negin Farhadian**. "Application of carbon quantum dots to increase the activity of conventional photocatalysts: a systematic review." Journal of Molecular Liquids 271 (2018): 857-871.
15. Seyed Zachariah Moradi, Sajad Moradi, Amin Nowroozi, Komail Sadrjavadi, **Negin Farhadian**, Hosna Ehzari and Mohsen Shahlaei, "Insights from a combination of theoretical and experimental methods for probing the biomolecular interactions between human serum albumin and clomiphene", RSC Adv., 2018, 8, 40663.
16. **Farhadian, Negin**, and Jamshid Behin. "Degradation of 2, 4-dichlorophenoxyacetate isopropyl amine (2, 4-D IPA) by O3/AC/UV in an internally slurry airlift photo-reactor." Environmental technology 38, no. 24 (2017): 3180-3191.
17. Behin, Jamshid, and **Negin Farhadian**. "Multi-objective optimization of oxidative desulfurization in a sono-photochemical airlift reactor." Ultrasonics sonochemistry 38 (2017): 50-61.
18. Behin, Jamshid, **Negin Farhadian**, Mojtaba Ahmadi, and Mehdi Parvizi. "Ozone assisted electrocoagulation in a rectangular internal-loop airlift reactor: application to decolorization of acid dye." Journal of Water Process Engineering 8 (2015): 171-178.
19. Behin, Jamshid, and **Negin Farhadian**. "Digital image processing technique to investigate the hydrodynamics of an airlift reactor with double downcomer." Chemical Engineering & Technology 38, no. 12 (2015): 2207-2216.
20. Behin, Jamshid, and **Negin Farhadian**. "Residence time distribution measurements in a two dimensional rectangular airlift reactor by digital image processing." Experimental Thermal and Fluid Science 51 (2013): 244-250.

**Published Manuscripts (Scientific papers):**

1. Behin, Jamshid, and **Negin Farhadian**. "Response surface methodology and artificial neural network modeling of reactive red 33 decolorization by O3/UV in a bubble column reactor." Adv Environ Technol 1, no. 2016 (2016): 33-44.
2. Behin, Jamshid and **Negin Farhadian**. "Response surface methodology for ozonation of trifluralin using advanced oxidation processes in an airlift photoreactor." Applied Water Science 7, no. 6 (2017): 3103-3112.

**Congress accepted:**

1. Jamshid Behin, **Negin Farhadian**, “Influence of solid loading on hydrodynamics of rectangular airlift bioreactor using CFD modelling”, Proceedings of the 15th Iranian National Congress of Chemical Engineering, University of Tehran, Tehran, Iran, 2015.
2. Jamshid Behin, **Negin Farhadian**, “Hydrodynamics of rectangular internal loop airlift reactor with double downcomer”, Proceedings of the 8th International Chemical Engineering Congress, Kish Island, Iran, 2014.
3. Jamshid Behin, **Negin Farhadian**, “Determination of axial dispersion coefficient in gasliquid column reactors using an accurate non-invasive method”, Proceedings of the 9th International Chemical Engineering Congress, Shiraz, Iran, 2015.
4. Jamshid Behin, Mehrzad Zandieh, **Negin Farhadian**, “Reactive Red 33 degradation by advanced oxidation process in a bubble column reactor: Modelling using artificial neural network”, Proceedings of the 9th International Chemical Engineering Congress, Shiraz, Iran, 2015.
5. Jamshid Behin, Ali Shahryarifar, Mohamad Mehdi Abadi, **Negin Farhadian**, “Ultrasonic induced conversion of natural iranian zeolite to synthetic zeolite” Proceedings of the 9th International Chemical Engineering Congress, Shiraz, Iran, 2015.

**Research Proposals:**

1. Investigation the influence of magnetic field on the amoxicillin and ciprofloxacin antibiotics removal efficiencies using heterogeneous Fenton process (nano zero valent iron/H2O2) in a bubble column reactor**, INSF.**
2. Integration of energy in unit 100 of Bisotoon Petrochemical Plant in order to optimization of energy consumption, granted by Petrochemical Research and Technology Company, 2013, as Main Co-Worker.
3. Investigation the influence of magnetic field on the amoxicillin and ciprofloxacin antibiotics removal efficiencies using heterogeneous Fenton process (nano zero valent iron/H2O2) in a bubble column reactor, Research Center for Environmental Determinants of Health (RCEDH), KUMS, as Main Co-Worker.
4. Study of H2O2 efficiency in the presence of carbon dot catalyst for green degradation of phenol from aqueous solution, Research Center for Environmental Determinants of Health (RCEDH), KUMS, as second executive.
5. Development of an ideal heterogeneous catalytic Fenton composite and application in antibiotics removal from aqueous, Research Center for Environmental Determinants of Health (RCEDH), KUMS, as second executive.
6. Experimental investigation of using natural polymers for sustained release of calcium hydroxide, Nano Drug Delivery Research Center, KUMS, as Main Co-Worker.
7. Optimization of chitosan/gelation/calcium hydroxide nanosphere preparation for endodontic applications, Nano Drug Delivery Research Center, KUMS, as Main Co-Worker.
8. Fabrication of an electrochemical sensor for determination of Clomiphene using Fe3O4 nanoparticles and artificial intelligence, Nano Drug Delivery Research Center, KUMS, as Co-Worker.

**Teaching Experiences:**

Teaching for B.Sc students, Islamic Azad University, Kermanshah Branch (3 years).

Teaching for B.Sc students, Zagros Institute of Higher Education, Kermanshah (5 years).

**Workshop participation:**

Systematic review and meta-analysis

HPLC

Gas chromatography

ICP

Data analysis by SPSS

**Instrumental Skills:**

UV/Visible, HPLC, Zetasizer, FTIR, XRD, SEM, TEM, and other common instruments in chemical laboratory

**Laboratory Skills:**

Technics and Knowledge needs to design, preparation and analyzing of some of nano particle systems for different applications like: drug delivery systems, water and wastewater treatment.

**Software Skills:**

Program needed to experimental design: DOX Program for analyze and publishing reports: Microsoft office.

**Languages:**
• Farsi
• English