

Elham Tavakoli

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[Google scholar](#)

Education

- Doctoral
University of Nebraska-Lincoln
Department of Material Science and Engineering,
September 2017 to present
- Master of Science Sharif University of Technology
Department of Chemistry, Organic Chemistry
September 2014 to September 2016
Overall GPA: 17.30 out of 20 – 3.78 out of 4.00 (Via 28 Credits)
➤ Remark: The Average GPA of Organic Chemistry is: 15.89 out of 20
- Bachelor of Science
Sharif University of Technology Department of Chemistry, Pure Chemistry
September 2009 to September 2014
Overall GPA: 16.02 out of 20 – 3.24 out of 4.00 (Via 136 Credits)
➤ Remark: The Average GPA of Chemistry is: 14.35 out of 20

Educational Honors and Awards

- Doctoral:
 - Nebraska Engineering Recruitment Fellowship, College of Engineering graduate program, 2017-2018
 - Nebraska Engineering Recruitment Fellowship, College of Material Science and Engineering program, 2018-2019
- Master:
 - Ranked 9th place among more than eleven thousands participants of Iran's national entrance test for Master of Science in Chemistry, 2013-2014.
 - Ranked 6th place among forty students, Department of chemistry, Sharif University of Technology, Graduate class, 2014-2016.
 - Ranked 3rd place among all the students in Organic Chemistry, Department of chemistry, Sharif University of Technology, 2014-2016.

- Undergraduate:
 - Ranked in the top 10% percent among participants of Iran's national entrance test for Bachelor of Science in 2009.
 - Ranked 9th place among fifty students, Department of chemistry, Sharif University of Technology, Undergraduate class of 2009.

Research Experience

- Working on the synthesis of novel material for ion removal from water resources and soil.
- Working on condensation polymerization of siloxane monomers.
- B.Sc. Thesis "Synthesis and characterization of salep sulfate and its utilization in preparation of metal ion adsorbent", Supervisor: Professor Pourjavadi.
- M.Sc. Thesis "Yolk/Shell Catalyst based on Carbon", Supervisor: Professor Pourjavadi.
- M.Sc. Thesis "Double network hydrogel with high mechanical properties and investigation of its biocompatibility", Supervisor: Professor Pourjavadi.

Academic Experience:

- Research Assistant in Transformative Coatings and Interfaces (TCI), Department of Chemical and Biomolecular Engineering, University of Nebraska-Lincoln, Under the supervision of Dr. Nejati, since Fall 2017
- Teaching Assistant in the General Chemistry laboratory, Department of Chemistry, Sharif University of Technology, under the supervision of Dr. Kia, Fall 2015.
- Research Assistant in the Polymer laboratory, Department of Chemistry, Sharif University of Technology, Under Supervision of Dr. Pourjavadi, 2012-2013
- Research Assistant in the Polymer laboratory, Department of Chemistry, Sharif University of Technology, Under the supervision of Dr. Pourjavadi, 2014-2016

Teaching and Mentoring Experience

- Undergraduate Research Mentor; Advised Fatma Al-sharji, at University of Nebraska-Lincoln, Fall 2017 to the present
- Undergraduate Research Mentor; Advised Tung Nguyen, at University of Nebraska-Lincoln, Fall 2017 to the present

Publications

- Pourjavadi, A., Doulabi, M., Alamolhoda, A., Tavakoli, E., and Amirshkari, S., 2013. Synthesis and characterization of salep sulfate and its utilization in preparation of heavy metal ion adsorbent. *Journal of Applied Polymer Science*, 130(4), pp.3001-3008.
- Pourjavadi, A., Tavakoli, E., Motamedi, A., and Salimi, H., Facile synthesis of extremely biocompatible double-network hydrogels based on chitosan and poly (vinyl alcohol) with enhanced mechanical properties. *Journal of Applied Polymer Science*.

Conference presentation

- **E. Tavakoli**, A. Motamedi, And A. Pourjavadi, poster presentation with the title of “Synthesis of a new Double Network Hydrogel with high mechanical properties based on chitosan and poly (vinyl alcohol)”, 12th International Seminar on Polymer Science and Technology, 2016
- **E. Tavakoli**, S. Kaviani, M. Bavarian, and S. Nejati, Oral presentation with the title of “Optimal Reaction Design of Alkoxy Silane Copolymers using Design of Experiment Methods, AIChE, Spring 2018
- **E. Tavakoli**, M. Bavarian, and S. Nejati, Oral presentation with the title of “Toward Controlling Copolymerization of Alkoxy Silanes”, Graduate Research Fair, University of Nebraska, Lincoln, Spring 2018

Computer and programming skills

- Programming: Pascal
- Microsoft Office (word, excel, and PowerPoint)
- ChemDraw Professional
- Origin
- Adobe Illustrator
- Visualization for Electronic and Estructural Analysis (Vesta)

Instrument

- FT-IR spectroscopy
- Atomic Absorbent Spectroscopy (AAS)
- Ultraviolet–visible (UV-Vis) spectroscopy
- Gas Chromatography (GC)
- Gas Permeation Chromatography (GPC)
- Thermogravimetric Analysis (TGA)
- Raman Spectroscopy
- Nuclear Magnetic Resonance (NMR)
- X-ray photoelectron spectroscopy (XPS)

Fields of Interest

- Organic chemistry
- Electrochemistry
- Polymer
- Material
- Catalysts
- Synthesis

Language

- Persian: Native
- English: Fluent

