

EBRAHIM SADEGHI



Personal Information

Name and surname: Ebrahim Sadeghi

Present academic position: Scientific member of Shomal University of Iran, Faculty of Engineering, Department of Chemical Engineering.

Current address: Chemical Engineering Department, Faculty of Engineering, Shomal University, Amol, P.O.Box 731, Iran .

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Education

- PhD in Chemical Engineering, Semnan University, Semnan, Iran (2019).
Dissertation Title: Experimental Investigation and Mathematical Modeling of the Drying Process Using Infrared Radiation
- M.Sc in Chemical Engineering (Separation Processes), Tarbiat Modares University, Tehran, Iran, (2002-2005).
Thesis Title: Theoretical and Experimental Surveying of the Overall Mass Transfer Coefficient from the Continuous (Aqueous) Phase to the Dispersed (Organic) Phase in a Pulsed Packed Column
- B.Sc in Chemical Engineering (Food Industries), Mohaghegh Ardebili University, Ardebil, Iran, (1998-2002).
Thesis Title: Design of Airlift Reactors

Research Interests

- Drying Technology
- Process
- Modeling and Optimization Processes
- Separation Processes such as: Liquid Liquid Extraction (LLE), ...

Publications

Journals:

1. Rostami L, Naeimi M, & **Sadeghi E.** (2026). Effect of Inulin and Whey Protein Concentrate as Fat Replacer in Low-Fat Wheyless Cheese: Textural, Physicochemical, and Sensory Characteristic. *Plant Biotechnology Persa*, 8(3): Proof.
Publisher: Ilam University of Medical Sciences
<https://pbp.medilam.ac.ir/article-1-434-en.pdf>
2. Jafari, F., Movagharnejad, K., & **Sadeghi, E.** (2026). Optimization of Forced Convective-Assisted Infrared Drying With Unheated Air for Eggplant Waste: Kinetics, Energy, GHG Emissions, and Quality Properties. *Journal of Food Processing and Preservation*:9932082, <https://doi.org/10.1155/jfpp/9932082>.
3. Mousavi, S., Rostami, L., & **Sadeghi, E.** (2025). Modeling and Optimization of Functional, Muffin Composition Using Multi-Criteria Analysis and Fuzzy Decision Logic. *International journal of nonlinear analysis and applications*.
Publisher: *International Journal of Nonlinear Analysis and Applications (IJNAA)*
4. Moghadam, B. B., **Sadeghi, E.**, & Lashkenari, M. S. (2024). Preparation and evaluation of S-rGO/ZnFe₂O₄/NiCoLDH nanocomposite electrocatalyst in oxygen reduction reaction. *International Journal of Hydrogen Energy*, 72, 789-799.
<https://doi.org/10.1016/j.ijhydene.2024.05.419>
5. Babaei Moghadam B., **Sadeghi E.**, Rostami A. A., & Fazli S. (2023), Chemisorption and physisorption studies of carbonyl fluoride and carbon disulfide on C19 X (X = Zn, Co and Sc) nanocage by DFT-based calculation, *Materials Today Communications*, 35, 106162.
<https://doi.org/10.1016/j.mtcomm.2023.106162>
6. Jafari, F., Movagharnejad, K., & **Sadeghi, E.** (2023). Evaluation of far-infrared drying on the quality properties of zucchini slices: influence of operating parameters. *Innovative Food Technologies*.
<http://dx.doi.org/10.22104/IFT.2023.6235.2138>
7. Jafari, F., Movagharnejad, K., & **Sadeghi, E.** (2020). Infrared drying effects on the quality of eggplant slices and process optimization using response surface methodology. *Food Chemistry*, 127423.
<https://doi.org/10.1016/j.foodchem.2020.127423>
8. **Sadeghi, E.**, Haghighi Asl, A., & Movagharnejad, K. (2020). Optimization and quality evaluation of infrared-dried kiwifruit slices. *Food Science & Nutrition*, 8(2), 720-734.
<https://doi.org/10.1002/fsn3.1253>
9. **Sadeghi, E.**, Movagharnejad, K., & Haghighi Asl, A. (2020). Parameters optimization and quality evaluation of mechanical properties of infrared radiation thin layer drying of pumpkin samples. *Journal of Food Process Engineering*, 43(2), e13309.
<https://doi.org/10.1111/jfpe.13309>
10. **Sadeghi, E.**, Haghighi Asl, A., & Movagharnejad, K. (2019). Mathematical modelling of infrared-dried kiwifruit slices under natural and forced convection. *Food science & nutrition*, 7(11), 3589-3606.
<https://doi.org/10.1002/fsn3.1212>
11. **Sadeghi, E.**, Movagharnejad, K., & Haghighi Asl, A. (2019). Mathematical modeling of infrared radiation thin-layer drying of pumpkin samples under natural and forced convection. *Journal of Food Processing and Preservation*, 43(12), e14229.
<https://doi.org/10.1111/jfpp.14229>
12. Barari Gangaraj, S. A., Eisazadeh, H., & **Sadeghi, E.** (2016). Preparation and characterization of polypyrrole nanocomposites by using various surfactants and Fe₂O₃ nanoparticles in aqueous media. *Journal of Vinyl and Additive Technology*, 22(3), 362-367.
<https://doi.org/10.1002/vnl.21449>.

Conferences:

1. Abdolvahabi, Sh., **Sadeghi, E.**, & Rostami, L. (14-16 February, 2026). Analysis and optimization of physical properties of bitumen modified with recycled rubber using response surface methodology. The 13th International Chemical Engineering Congress & Exhibition (IChEC 2026), Tehran, Iran.
[Publisher: IChEC 2026](#)
2. Zare, M. H., **Sadeghi, E.**, & Rostami, L. (14-16 February, 2026). Numerical Investigation of Natural Convection Heat Transfer of **Al₂O₃**/Water Nanofluid in an Inclined Square Cavity under the Influence of an External Magnetic Field. The 13th International Chemical Engineering Congress & Exhibition (IChEC 2026), Tehran, Iran.
[Publisher: IChEC 2026](#)
3. Ketabi, M., **Sadeghi, E.**, & Rostami, L. (27 December 2025). Water Crisis and Familiarity with Social Responsibilities in Addressing This Crisis (Persian language). The first national conference on university, public rights, interest and social responsibilities, Shomal University, Amol, Iran.
<https://civilica.com/doc/2624033/>
4. Rostami, L., & **Sadeghi, E.** (27 December 2025). The Role of Chemical Engineering in Protecting Public Resources and Realizing Public Rights through the Social Responsibility of Industries (Persian language). The first national conference on university, public rights, interest and social responsibilities, Shomal University, Amol, Iran.
<https://civilica.com/doc/2624053/>
5. Garmabi, F., Rostami, L., & **Sadeghi, E.** (27 December 2025). Green Chemistry and the Social Responsibility of Chemical Engineers in Innovative Solutions for Oily Wastewater Treatment (Persian language). The first national conference on university, public rights, interest and social responsibilities, Shomal University, Amol, Iran.
<https://civilica.com/doc/2624040/>
6. Jafari, F., Movagharnjad, K., & **Sadeghi, E.** (15-17 April, 2020). Investigation of Drying Kinetics of Eggplant Slices Using Infrared Dryer. The 11th International Chemical Engineering Congress & Exhibition (IChEC 2020), Fouman, Iran.
[Publisher: IChEC 2020](#)
7. Hosseini, S. M., Hejazi, M., **Sadeghi, E.** (2016). A review of methods for the removal of phenol from industrial waste (Persian language). The first international comprehensive competition conference of Engineering Sciences, Anzali, Iran.
<https://civilica.com/doc/545122/>
8. Barari Gangaraj, S. A., Eisazadeh H., **Sadeghi E.** (2014). Preparation of polypyrrole/ Fe₂O₃ Nanocomposites and its use in separation of lead from aqueous solution (Persian language). The first national conference of environmental health, safety and sustainable environment, Hamedan, Iran.
<https://civilica.com/doc/304359/>
9. Naeimifard, S., Bakeri, Gh., **Sadeghi, E.** (2014). Membrane humidification modeling and surveying of affecting parameters on its performance for humidity control of based polymer membrane fuel cell (Persian language). The first national conference on new and clean energy management, Hamedan, Iran.
<https://civilica.com/doc/307910/>
10. Etemadi, M., **Sadeghi, E.**, Hosseini, S. M. (2017). A review of the most important extraction methods from medicinal plants (Persian language). The 4th National Conference on Separation Science and Engineering, Babol, Iran.
<https://civilica.com/doc/632835/>
11. **Sadeghi, E.**, Towfighi Darian, J., Safdari S. J. (2003). Surveying of the effect of mass transfer direction on column diameter in Pulsed Packed Column (Persian language). The 9th national Chemical Engineering Congress, Science and Technology University, Tehran, Iran.
<https://civilica.com/doc/29838/>

12. **Sadeghi, E.**, Towfighi Darian, J., Safdari S. J. (2004). Theoretical & Empirical Surveying of Overall Mass Transfer Coefficient from Continuous (Aqueous) Phase to Dispersed (Organic) Phase in Pulsed Packed Column (Persian language). The 10th national Chemical Engineering Congress, Sistan and Baluchistan University, Sistan and Baluchistan, Iran.
<https://civilica.com/doc/23727/>
13. **Sadeghi, E.**, Mahmoudian, A., Towfighi Darian, J., Pahlavanzadeh, H., Safdari S. J. (2003). Dispersed phase holdup surveying in pulsed packed columns (Persian language). The 5th National Student Conference on Chemical Engineering and the 3rd National Student Conference on Petroleum Engineering, Amir Kabir University, Tehran, Iran.
14. Mahmoudian, A., **Sadeghi, E.**, Pahlavanzadeh, H., Towfighi Darian, J., Safdari S. J. (2003). Surveying of flooding velocity in pulsed packed columns (Persian language). The 5th National Student Conference on Chemical Engineering and the 3rd National Student Conference on Petroleum Engineering, Amir Kabir University, Tehran, Iran.

Book

1. **Sadeghi, E.** and Pashaii E. (2014)," Thermodynamics (Persian language)", *Shomal Paydar Publication, Amol, Iran, Feb.2013.*

MSc Thesis Advisor and Supervisor

More than 10 MSc students supervised.

Technical and Language Skills

- MS Office, Windows and the Internet (Proficient)
- Knowledge in MATLAB
- Aspen HYSYS software, Design Expert software
- Persian (Fluent), English (Good)

Industrial and Professional Experience

- **Chemical Engineering department, Shomal University (Amol, Iran):**
I have been one of those responsible for the design and construction and mobilization of 13 educational laboratories. These laboratories are Chemistry, Organic Chemistry, Chemistry physics, Analytical Chemistry, Fluid Mechanics, Hydraulic, Heat Transfer, Unit Operation, Process Control, Food Microbiology, Food Quality Control, Polymer and Thermosynthetic (23 Sep2009-21 Jun 2019).
- **Kashan Gas Turbine power plant:**
I was working as a technical Supervisor for the duration of 2 years (2007-2009).
- **Isfahan Gas Company**
I was in the technical department (2006-2007).
- **Oil Refinery Industry of Tehran**
10 Weeks internships took place in the technical department (Summer 2001).

Teaching Experience

- **Shomal University**

I was head of Chemical Engineering Department at Shomal University in Amol from 23 September 2012 to 23 September 2014 and from 7 June 2021 to 20 April 2024. I also was a scientific member of chemical engineering department.

Reviewer Experience

I have refereed a number of articles for Scientific Reports, Food and Bioprocess Technology, Brazilian Journal of Chemical Engineering, Iranian Journal of Chemistry and Chemical Engineering, Journal of Food Processing and Preservation, and etc.

Biographical Summary

Ebrahim Sadeghi has received his undergraduate and postgraduate degrees in Chemical Engineering from Mohaghegh Ardebili University and Tarbiat modares University in Iran, respectively. He pursued his doctorate at the Semnan University in Iran. He was head of Chemical Engineering Department at Shomal University in Amol and is currently teaching Thermodynamics, Heat transfer, Chemical reaction engineering, Design of experiments (BS and Masters) at Chemical Engineering Department and thermodynamics Lab and Fluid Mechanics Lab at Mechanical Engineering Department and Fluid Mechanics, Open Channel Hydraulics, Hydraulics Lab at Civil Engineering Department at the aforementioned University. Ebrahim also has experience working at Kashan Gas Turbine power plant.

Ebrahim was One of the original members responsible for the design and construction of a pilot research and development plant. His primary research interests include Drying process, Modelling and optimization Processes, separation processes such as LLE, with applications in chemical engineering, environment engineering, and food engineering. Ebrahim was one of reviewers at Iranian Journal of Chemistry and Chemical Engineering (IJCCE) and Brazilian journal of Chemical Engineering. He has presented his research in numerous conferences and has published several papers in prestigious scientific journals.