

Milad Zehtab Salmasi

Ph.D. Student
Department of Chemical and Petroleum Engineering
University of Calgary

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Education

Doctor of Philosophy, Chemical Engineering/Energy and Environment

July, 2023

Department of Chemical and Petroleum Engineering, University of Calgary, Calgary, Canada

- Member of Green Catalysis Research Group

Master of Science, Chemical Engineering/Thermo-kinetics and Catalysis

Sep. 2017 – Jan. 2020

Department of Chemical and Petroleum Engineering, Sharif University of Technology, Tehran, Iran

- GPA: 3.91/4.0 (17.27/20)
- M.Sc. Thesis: Biodiesel production from vegetable oils through the Transesterification method catalyzed by Talc clay-supported Heterogeneous catalyst under the optimized condition in the Bench scale.
- Supervisors: Dr. Mohammad Kazemeini, Dr. Samahe Sadjadi

Bachelor of Science, Chemical Engineering

Feb. 2013 – Jan. 2017

Department of Chemical Engineering, Sahand University of Technology, Tabriz, Iran

- GPA: 3.45/4.0 (16.66/20), last two years: 3.79/4.0 (17.49/20)
- B.Sc. Thesis: Effects of nanofluids on heat exchangers
- Supervisors: Dr. Jafarsadegh Moghaddas

Research Experience

Research Assistant at Catalysis and Surface science laboratory

Jan. 2019 – Dec. 2022

Sharif University of Technology, Tehran, Iran

- An Examination of Heterogeneous Catalysts for Biodiesel Production from Vegetable Oils
- An Investigation of Photocatalysts for Water Treatment Application
- An Investigation of Photocatalysts for CO₂ Photoreduction Application

Professional Experience

Laboratory Expert

May. 2021 – Oct. 2021

Shirin Asal Food Industrial Group, Tabriz, Iran

- Perform standardized qualitative and quantitative tests to determine the physical or chemical properties of food or beverage products.
 - Developed standard operating procedures (SOPs) aligned with good laboratory practices (GLPs) and good manufacturing practices (GMPs)
 - Developed regulatory requirements and guidelines in food safety management and control, such as ISO standards and hazards and critical control points (HACCP) system.
 - Participate in quality management system review and promote quality and food safety policies to all personnel.

TA Ships and Teaching Experience

Sharif University of Technology, Tehran, Iran

Jan. 2019 – Jun 2019

- Assistant to Dr. Mohammad Kazemeini
Teaching Assistant for “Transport Phenomena II”

Sahand University of Technology, Tabriz, Iran

Jan. 2016 – Jan 2017

- Assistant to Dr. Hafez Maghsoudi
Teaching Assistant for “Unit Operation I”

Publications

- **Milad Zehtab Salmasi**, Mohammad Kazemeini, Samahe Sadjadi; “Transesterification of sunflower oil to biodiesel fuel utilizing a novel K_2CO_3 /Talc catalyst: Process optimization and kinetic investigations”; Journal of **Industrial Crops and Products**, 15 November 2020, Volume 156, 112846. <https://doi.org/10.1016/j.indcrop.2020.112846>
- Shayan Jalalmanesh, Mohammad Kazemeini, Mohammad H. Rahmani, **Milad Zehtab Salmasi**; “Biodiesel production from sunflower oil using K_2CO_3 impregnated kaolin novel solid base catalyst”; **Journal of the American Oil Chemists’ Society**, 15 April 2021, Volume 98, Issue 9, Pages 633-642. <https://doi.org/10.1002/aocs.12486>
- **Milad Zehtab Salmasi**, Mohammad Kazemeini, Samahe Sadjadi, Reza Nematollahi; “Spinel $MgAl_2O_4$ nanospheres coupled with modified graphitic carbon nitride nanosheets as an efficient Z-scheme photocatalyst for photodegradation of organic contaminants”; Journal of **Applied Surface Science**, 30 May 2022, Volume 585, 152615. <https://doi.org/10.1016/j.apsusc.2022.152615>
- Farzad Hasanvandian, **Milad Zehtab Salmasi**, Mohsen Moradi, Sara Farshineh Saei, Babak Kakavandi, Shahrbanoo Rahman Setayesh; “Enhanced spatially coupling heterojunction assembled from $CuCo_2S_4$ yolk-shell hollow sphere capsulated by Bi-modified TiO_2 for highly efficient CO_2 photoreduction”; **Chemical Engineering Journal**, 15 September 2022, Volume 444, 136493. <https://doi.org/10.1016/j.cej.2022.136493>
- Mohammad Ahmadi, Mehrdad Moslemzadeh, Azra Naderi, **Milad Zehtab Salmasi**, Motahareh Harati, Roshanak Rezaei Kalantary, Babak Kakavandi; “Intensified photodegradation of nitrobenzene using ZnO-anchored spinel cobalt ferrite: Environmental application, mechanism, and degradation pathway”; **Journal of Water Process Engineering**, October 2022, Volume 49, 103064. <https://doi.org/10.1016/j.jwpe.2022.103064>

Language Proficiency

English Exams

- TOEFL iBT score (Oct. 29, 2022): 90 (Reading: 23, Listening: 22, Speaking 20, Writing 25)
- TOEFL iBT MyBest score: 93 (Reading: 23, Listening: 23, Speaking 21, Writing 26)

Links

- **Google Scholar** 
- **Research Gate** 
- **LinkedIn** 

References

- **Dr. Hua Song** (Email: sonh@ucalgary.ca)
Associate Professor, Department of Chemical and Petroleum Engineering, University of Calgary, Calgary, Canada
- **Dr. Mohammad Kazemeini** (Email: kazemini@sharif.edu)
Professor, Department of Chemical and Petroleum Engineering, Sharif University of Technology, Tehran, Iran
- **Dr. Samahe Sadjadi** (Email: s.sadjadi@ippi.ac.ir)
Associate Professor, Gas conversion Department, Iran Polymer and Petrochemical Institute (IPPI), Tehran, Iran
- **Dr. Babak Kakavandi** (Email: kakavandibvch@gmail.com)
Associate Professor, Department of Environmental Health Engineering, Alborz University of Medical Sciences, Karaj, Iran
- **Dr. Jafarsadegh Moghaddas** (Email: jafar.moghaddas@sut.ac.ir)
Professor, Department of Chemical Engineering, Sahand University of Technology, Tabriz, Iran