

Ali Jalali Qush Qayeh

(Chemical Engineer/Analytical lab specialist at Sahand
university of technology)

Data of birth: Oct 1997

Place of birth: Malekan, Iran

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Education

- MSc** Sahand University of Technology (Tabriz), Chemical Engineering 2023
Thesis: "Separation process of Glatiramer acetate (GA) using aqueous two-phase systems (ATPS) based on carbohydrates"
Supervisor: Dr. Javad Rahbar Shahrouzi
- BSc** Maragheh University (Maragheh, Iran), Chemical Engineering 2020
Thesis: "Drug Delivery: an overview"
Supervisor: Dr. Mohammad Sabzi

Employment experience

- **Analytical lab specialist** (part time) Oct 2021- Mar 2023
Instrument service and analysis center, Sahand University of Technology, Faculty of Chemical Engineering, Sahand, Iran
- **Analytical lab specialist** (full time) Jun 2022 - present
Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran
- **Liaison and representative of the Central Laboratory of Sahand University of Technology with the Central Laboratory of Ataturk University, Türkiye (DAYTAM)** (full time) Jun 2022 – Oct 2025
Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran
- **Liaison and representative of the Central Laboratory of Sahand University of Technology with the Iranian Laboratory Network (Labsnet)** (full time) Jun 2022 – present
Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran
- **Liaison and representative of the Central Laboratory of Sahand University of Technology with the Iranian Scientific Laboratories Network (Shaa)** (full time) Jun 2022 – present
Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran

Executive records of conferences

- Senior Assistant of the Scientific and Executive Secretaries of the “2nd International and the 5th National Conference on Laboratory Equipment and Technologies” Along with annual meeting of Laboratory Managers
10-11 Sept. 2024/ Sahand university of technology, Sahand , Tabriz, Iran.

Analysis Instruments

- **Simultaneous DSC/TGA (SDT 650, TA instrument, Waters LLC)/** *Advanced skills: installation, Calibration, training, and maintenance/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran.*
- **Dynamic Light Scattering (DLS Zetasizer Advanced series, Malvern Panalytical)/** *Advanced skills: installation, training, and maintenance/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran.*
- **FTIR (INVENIO S series, Bruker)/** *Advanced skills: installation, training, and maintenance/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran and Instrument service and analysis center, Sahand University of Technology Faculty of Chemical Engineering, Sahand, Iran.*
- **UV-Vis Spectroscopy (THERMO FISHER SCIENCE 2200 Evolution series and Jenway 6700 series)/** *Advanced skills: installation, training, and maintenance/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran and Instrument service and analysis center, Sahand University of Technology Faculty of Chemical Engineering, Sahand, Iran.*
- **Diffuse reflectance spectroscopy (DRS)/** *Advanced skills: installation, training, and maintenance/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran.*
- **BET/** *Intermediate skills/ Instrument service and analysis center, Sahand University of Technology, Faculty of Chemical Engineering, Sahand, Iran.*
- **HPLC/** *Intermediate skills/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran and Instrument service and analysis center, Sahand University of Technology Faculty of Chemical Engineering, Sahand, Iran.*
- **GC-MS/** *Intermediate skills/ Central laboratory of Sahand university of technology, Sahand University of Technology, Sahand, Iran and Instrument service and analysis center, Sahand University of Technology.*

Main research fields

- **Thermodynamics, Extraction,**
- **Process Modeling & Simulation**

Research experience

Granted Research Projects

Co-worker in:

- “Separation of glatiramer acetate using carbohydrates based aqueous two-phase system”, granted by Iran National Science Foundation.,

Teaching experience

Teaching Assistant	Feb 2022- Jun 2022
MATLAB in chemical Engineering, Dept. Engineering, Maragheh, university of Maragheh, Iran	
Teaching Assistant	Feb 2022- Jun 2022
MATLAB in chemical Engineering, Dept. Chemical Engineering, Sahand university of Technology, Sahand, Iran	
Teaching Assistant	Feb 2022- Jun 2022
Advanced modeling in chemical Engineering, Dept. Chemical Engineering, Sahand university of Technology, Sahand, Iran	

Course Taught

Course title	program	Credits	No. Semesters
MATLAB in chemical Engineering	BSc	1	1
MATLAB in chemical Engineering	BSc	1	1
Advanced modeling in chemical Engineering	MSc	3	1

Publications

Journal Publications

- Parsa Movahedi, Ali Jalali Qush Qayeh and Javad Rahbar Shahrouzi. "**Investigation of non-equilibrium separation time on the partitioning of cephalexin in an aqueous two-phase system composed of glucose and acetonitrile**" *Journal of Non-Equilibrium Thermodynamics*, **July 17, 2023**. <https://doi.org/10.1515/jnet-2023-0028>
- Ali Jalali Qush Qayeh, Javad Rahbar Shahrouzi and Gholamreza Pazuki. "**Separation of glatiramer acetate and its monomers utilizing aqueous biphasic systems based on glucose/sucrose and acetonitrile**" *Journal of the Taiwan Institute of Chemical Engineers*, **June 7, 2024**. <https://doi.org/10.1016/j.jtice.2024.105582>
- Bahareh Afzal Shoushtari, Ali Jalali Qush Qayeh, Javad Rahbar Shahrouzi and Gholamreza Pazuki. "**Partitioning Behavior of Glatiramer Acetate and Its Constituent Amino Acids in Aqueous Two-Phase System Containing Sorbitol/Fructose and Acetonitrile**" *Engineering Reports*, **October 24, 2025**, <https://doi.org/10.1002/eng2.70461>
- Fatemeh Yarahmadi, Javad Rahbar Shahrouzi and Ali Jalali Qush Qayeh. "**Influence of mixing time and agitation speed on partitioning and mass transfer coefficient of cephalexin in aqueous two-phase systems**" *Scientific Reports*, **November 19, 2025**, <https://doi.org/10.1038/s41598-025-24639-8>

Languages

Persian: Bilingual
Turkish Azerbaijani: Native
English: Fluent

Computer skills

Programming: MATLAB
Applications: MS-Office, Aspen Plus & HYSYS, COMSOL.