

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

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.