

## Curriculum Vitae

### Personal

Date and place of birth: July 18, 1990 , Shahrood, Iran  
Nationality: Iranian

### Research Interests

- o Gas storage and separation
- o Adsorption
- o Metal-Organic frameworks
- o Computational fluid dynamics (CFD)
- o Molecular dynamic simulation
- o Artificial Intelligence

### Education

- 2014 - Now **Ph.D. candidate in Chemical Engineering, Petroleum University of Technology, Ahvaz, Iran.**
- Transport Phenomena and Separation Processes
- Supervisors:** Dr. Ahmad Shariati, Dr. Mohammad Reza Khosravi-Nikou  
**Thesis title:** Adsorptive Separation of Propane/Propylene Mixture Using Metal-Organic Frameworks Containing Coordinatively Unsaturated Metal Sites
- 2012-2014 **M.Sc. in Chemical Engineering, Sharif University of Technology, Tehran, Iran.**
- Transport Phenomena and Separation Processes
  - GPA: 17.12/20
- Supervisors:** Prof. Ali Akbar Seyfkordi, Dr. Amir Naser Ahmadi  
**Thesis title:** Investigation The Effect of Additives on Effective Parameters in Design and Production of Bentonite-Sulfur Formulation Using CFD Simulation
- 2008-2012 **B.Sc. in Chemical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran.**
- Gas and Oil Refining
  - GPA: 18.23/20 (Ranked 2<sup>nd</sup> )
- Supervisor:** Prof. Majid Pakizeh  
**Thesis title:** Theoretical Investigation of Some Pore Size Distribution Determination Methods for Microporous Materials
- 2004-2008 **Diploma in Mathematics and Physics, Shahed Highschool, Shahrood, Iran.**
- GPA: 18.73/20 (Ranked 1<sup>st</sup> )

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## Honors and Awards

- 2014 **63<sup>th</sup> Rank**, Nationwide **Ph.D.** Entrance Exam in Chemical Engineering, among more than 5,000 participants, Iran.
- 2012 **13<sup>th</sup> Rank**, Nationwide **M.Sc.** Entrance Exam in Chemical Engineering, among more than 10,000 participants, Iran.
- 2012 **Outstanding**, Awarded as Outstanding **B.Sc.** Graduate in Chemical Engineering, Ferdowsi University of Mashahd, Iran.
- 2012 **1<sup>st</sup> Rank**, the Northeast pre-regional and Ranked **28<sup>th</sup>** in nationwide Scientific Student Olympiad.
- 2008 **Top 0.5%**, Nationwide **B.Sc.** Entrance Exam, among more than 500,000 participants, Iran.

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## Industrial Experience

- 2011 **Petrochemical Research and Technology Company, Mahshahr, Iran.**
- Working as internship for 3 months at methanol to propylene (MTP), vinyl acetate monomer (VAM) and Polyethylene terephthalate (PET) pilot plants.
- 2014 **Research Institute of Petroleum Industry (RIPI), Tehran, Iran.**
- Working at Bentonite-Sulfur pilot plant (obtained elemental sulfur from the gaseous hydrogen sulfide in raw natural gas was used for production of sulfur fertilizer by blending with Bantonite and some micronutrients)
  - Design of baffled stirred tanks for production of homogenous Bentonite-Sulfur suspension with different formulations.

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## Teaching Experience as Lecturer

Petroleum University of Technology, Ahvaz, Iran.

- 2016-2017
- Aspen Hysys Workshop
- 2017-2018
- Fluid Mechanics Lab.

Technical and Vocational University, Ahvaz, Iran.

- 2016-2018
- Fluid Mechanics
- 2016-2018
- Application of Mathematics in Chemical Engineering
- 2016-2018
- Process Control I
- 2016-2018
- Unit Operation Lab.

## Computer skills

### Programming Languages

C++  
MATLAB

### Software

Microsoft Office  
Aspen (Hysys, Plus, Dynamic)  
Aspen Adsorption  
Ansys Fluent (CFD simulation)  
Comsol Multiphysics  
Material Studio (Molecular Simulation)

## Language

### Persian

Native

### English

Pre-advanced

### Arabic

Basic

## Publications

Maryam Fattahi, **Hassan Abedini**, Alireza Baghban & Mohammad Amin Anbaz, *Application of LS-SVM strategy to estimate  $H_2S$  loading capacity in different ionic liquids and alkanolamines*, Journal of Petroleum science and technology , (2017) 35: 1117-1123

**Hassan Abedini**, Majid Pakizeh, Sajjad Amiri, *Theoretical investigation of some pore size distribution determination methods for microporous materials*, Iranian Chemical Engineering Journal, (2015) 13 : 51-61.

Morteza Pakzati, **Hassan Abedini**, Ahmad Shariati, *Effects of various precursors on characteristics of prepared adsorbents and their adsorption capacity for ethanol separation from aqueous solution*, Submitted to the 10<sup>th</sup> International Chemical Engineering Congress & Exhibition, Isfahan, Iran.

**Hassan Abedini** , Muhammad Suleymani, Milad Arabloo, Ahmad Shariati, *A study of two computer based techniques for prediction of nanofluids viscosity: ANFIS versus LS-SVM*, Submitted paper.