

Curriculum Vitae

General Information

Name and Surname: Hossein Hazrati

Date of Birth: March 31, 1985

Place of Birth: Tabriz, Iran

Gender: Male

Education:

1) B.Sc, Chemical Engineering, Sahand University of Technology, Tabriz, Iran (2004-2008),
Grade: 17.98 out of 20 (Second Rank)

2) M.Sc, Chemical Engineering, Sharif University of Technology, Tehran, Iran (2008-2010)
Grade: 18.33 out of 20 (First Rank)

3) Ph.D, Chemical Engineering, Sharif University of Technology, Tehran, Iran (2011-2015)
Grade: Excellent

Professional Experience:

- Associate Professor, Faculty of Chemical Engineering, Sahand University of Technology, Tabriz, Iran (2020- Present)
- Assistant Professor, Faculty of Chemical Engineering, Sahand University of Technology, Tabriz, Iran (2016- 2020)

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Research Interests:

- Biotechnology
- Mixed Matrix Membranes
- Microfiltration, Ultrafiltration and Gas Separation
- Oil-Water Separation Membranes

Publications:

My Google Scholar page:

<https://scholar.google.com/citations?user=zX7tn2wAAAAJ&hl=en>

My Scopus page:

<https://www.scopus.com/authid/detail.uri?authorId=37561271000>

ISI papers

- 1) Sara Esteki, Soorena Gharibian, Hossein Hazrati, Ehsan Taheri, Application of an electrochemical filter-press flowcell in an electrocoagulation-MBR system: efficient membrane fouling mitigation, Journal of Environmental Chemical Engineering, 2024 02 1
- 2) Soorena Gharibian, & Hossein Hazrati, Towards practical integration of MBR with electrochemical AOP: Improved biodegradability of real pharmaceutical wastewater and fouling mitigation, Water Research, 2022 6 30
- 3) A Omidvar, S Masoumi, M Monsefi, Y Jafarzadeh, M Nasiri, H Hazrati, PVC/PMMA blend ultrafiltration membranes for oil-in-water emulsion separation, Polymer Bulletin, 2023 08 15.
- 4) L Karimi, H Hazrati, S Gharibian, H Shokrkhar, Investigation of various anode and cathode materials in electrochemical membrane bioreactors for mitigation of membrane fouling, Journal of Environmental Chemical Engineering, 2021 02 30
- 5) L Karimi, H Hazrati, H Shokrkhar, Investigating of Operational Parameters on the Performance of Membrane Electro bio Reactor System for Synthetic Wastewater Treatment, Iranian Chemical Engineering Journal ۲۰۲۲, ۰۴ ۲۱

- 6) F Ghasemzadeh, HN Kazerouni, H Adelinia, Y Jafarzadeh, H Hazrati, Modified graphene oxide/Polyvinyl chloride membranes for wastewater treatment, Chemical Engineering & Technology, Vol. 46, pp. 373-382, 2023 02 30
- 7) Mina Ahsani, Reza Sabouri, Mathias Ulbricht, Hossein Hazrati, Abbas Jafarizad, Reza Yegani, Preparation and characterization of hydrophilic and antibacterial silver decorated silica-grafted-poly(vinylpyrrolidone) (Ag-SiO₂-PVP) nanoparticles for polymeric, Journal of Applied Polymer Science, 2021 10 10.
- 8) S Sabalanvand, H Hazrati, Y Jafarzadeh, A Jafarizad, S Gharibian, Investigation of Ag and magnetite nanoparticle effect on the membrane fouling in membrane bioreactor, International Journal of Environmental Science and Technology, 2021 02 30
- 9) H Hazrati, M Rostamizadeh, M Atashzar, Effect of Solid Retention Time on Membrane Fouling In the Membrane Bioreactor Systems for Treating Synthetic Wastewater, Journal of Civil and Environmental Engineering, 2021 10 30
- 10) S Mohamadi, H Hazrati, J Shayegan, Influence of a new method of applying adsorbents on membrane fouling in MBR systems, Water and Environment Journal, 2020/12
- 11) M Ahsani, H Hazrati, M Javadi, M Ulbricht, R Yegani, Preparation of antibiofouling nanocomposite PVDF/Ag-SiO₂ membrane and long-term performance evaluation in the MBR system fed by real pharmaceutical wastewater, Separation and Purification Technology, 2020/10
- 12) N Karimi, H Hazrati, Petrochemical wastewater treatment by membrane bioreactor with behavior modify of membrane fouling through granule activated carbon: A case study, Modares Civil Engineering journal 2020, 2020
- 13) S Gharibian, H Hazrati, M Rostamizadeh, Continuous electrooxidation of Methylene Blue in filter press electrochemical flowcell: CFD simulation and RTD validation, Chemical Engineering and Processing-Process Intensification, 2020-2
- 14) H Hazrati, N Karimi, Y Jafarzadeh, Performance and antifouling properties of PVDF/PVP and PSf membranes in MBR: A comparative study, Membrane Water Treatment, 2020-1
- 15) ZS Sajadian, H Hazrati, M Rostamizadeh, Investigation of influence of nano H-ZSM-5 and NH₄-ZSM-5 zeolites on membrane fouling in semi batch MBR, Advances in Nano Research, 2020/2
- 16) F Beygmohammdi, HN Kazerouni, Y Jafarzadeh, H Hazrati, R Yegani, Preparation and characterization of PVDF/PVP-GO membranes to be used in MBR system, Chemical Engineering Research and Design, 2020/02
- 17) Fatemeh Mashayekhi, Hossein Hazrati, Jalal Shayegan: *Fouling control mechanism by optimum ozone addition in submerged membrane bioreactors treating synthetic wastewater*. Journal of Environmental Chemical Engineering 10/2018;, DOI:10.1016/j.jece.2018.10.016
- 18) Davood Kahfroushan, Seyyed Alireza Tabatabaei-Nejad, Hossein Hazrati, Sahar Rastegar: *Investigation and Modeling of Ozone Penetration in a Fixed Bed Reactor for Purification of Soil Contaminated with Anthracin*. Ozone Science and Engineering 09/2018;, DOI:10.1080/01919512.2018.1518706

- 19) Hossein Hazrati: *Selective production of light olefins from methanol over desilicated highly siliceous ZSM-5 nanocatalysts*. DOI:10.22063/poj.2017.1501
- 20) Hossein Hazrati: *Hydrophilic polypropylene microporous membrane for using in a membrane bioreactor system and optimization of preparation conditions by response surface methodology*. DOI:10.22063/poj.2017.1945.1104
- 21) Mohammad Rostamizadeh, Fereydoon Yaripour, Hossein Hazrati: *Ni-doped high silica HZSM-5 zeolite (Si/Al = 200) nanocatalyst for the selective production of olefins from methanol*. Journal of Analytical and Applied Pyrolysis 04/2018; 132., DOI:10.1016/j.jaap.2018.04.003
- 22) Hossein Hazrati, Nader Jahanbakhshi, Mohammad Rostamizadeh: *Fouling reduction in the membrane bioreactor using synthesized zeolite nano-adsorbents*. Journal of Membrane Science 03/2018; 555., DOI:10.1016/j.memsci.2018.03.076
- 23) Hossein Hazrati, Mohammad Rostamizadeh, Mohammad R. Omidkhah, Zahra Sadeghian: *Influence of synthesis and operating parameters on silicalite-1 membrane properties*. Comptes Rendus Chimie 12/2017; 21(1)., DOI:10.1016/j.crci.2017.11.008
- 24) Mohammad Rostamizadeh, Fereydoon Yaripour, Hossein Hazrati: *High efficient mesoporous HZSM-5 nanocatalyst development through desilication with mixed alkaline solution for methanol to olefin reaction*. Journal of Porous Materials 11/2017;, DOI:10.1007/s10934-017-0539-2
- 25) Hossein Hazrati, Amin Hedayati Moghaddam, Mohammad Rostamizadeh: *The influence of hydraulic retention time on cake layer specifications in the membrane bioreactor: Experimental and artificial neural network modeling*. Journal of Environmental Chemical Engineering 06/2017; 5(3)., DOI:10.1016/j.jece.2017.05.050
- 26) Amin Hedayati Moghaddam, Hossein Hazrati, Javad Sargolzaei, Jalal Shayegan: *Assessing and simulation of membrane technology for modifying starchy wastewater treatment*. 11/2016;, DOI:10.1007/s13201-016-0503-3
- 27) Hossein Hazrati, Jalal Shayegan, S. Mojtaba Seyedi: *The effect of HRT and carriers on the sludge specifications in MBR to remove VOCs from petrochemical wastewater*. Desalination and water treatment 12/2015; 57(46):1-13., DOI:10.1080/19443994.2015.1125800
- 28) Hossein Hazrati, Jalal Shayegan: *Influence of suspended carrier on membrane fouling and biological removal of styrene and ethylbenzene in MBR*. Journal of the Taiwan Institute of Chemical Engineers 12/2015; 64., DOI:10.1016/j.jtice.2015.12.002
- 29) Hossein Hazrati, Jalal Shayegan, Seyed Mojtaba Seyedi: *Biodegradation kinetics and interactions of styrene and ethylbenzene as single and dual substrates for a mixed bacterial culture*. Iranian Journal of Environmental Health Science & Engineering 10/2015; 13(1):72., DOI:10.1186/s40201-015-0230-y
- 30) Hossein Hazrati, Jalal Shayegan: *Determining apparent first-order Biological Rate constant for Styrene and Ethylbenzene in MBR with Mathematical model*. Advances in Bioresearch 03/2015; 6(2):112-121., DOI:10.15515/abr.0976-4585.6.2.112121
- 31) Hossein Hazrati, Jalal shayegan: *Volatile Organic Compound Removal Mechanisms in Membrane Bioreactor*. Advances in Environmental Biology 09/2014; 8(17):373-380.
- 32) Shervin Jamshidi, Gagik Badalians Gholikandi, Hossein Hazrati: *Optimization of anaerobic baffled reactor (ABR) using artificial neural network in municipal wastewater treatment*. Environmental engineering and management journal 01/2014; 13(1):95-104., DOI:10.30638/eemj.2014.012
- 33) Soheil Farajzadehha, Jalal Shayegan, S.A. Mirbagheri, Soroush Farajzadehha, Hossein Hazrati: *The combined UASB and MBR system to COD and TSS removal and excess sludge reduction for the treatment of high strength wastewater in various operational temperatures*. Desalination and water

treatment 01/2013; 53(2):352-359., DOI:10.1080/19443994.2013.846461

- 34) G. Badalians Gholikandi, H. Hazrati, H. Rostamian: *An artificial neural network model for the prediction of pressure filters performance and determination of optimum turbidity for coli-form and total bacteria removal.*
- 35) Hamid Reza Tashaouie, Gagik Badalians Gholikandi, Hossein Hazrati: *Artificial neural network modeling for predict performance of pressure filters in a water treatment plant.* Desalination and water treatment 02/2012; 39(1-3):192-198., DOI:10.1080/19443994.2012.669175
- 36) Hossein Hazrati, Jalal Shayegan: *Upgrading activated sludge systems and reduction in excess sludge.* Bioresource Technology 09/2011; 102(22):10327-33., DOI:10.1016/j.biortech.2011.08.112
- 37) Hossein Hazrati, Jalal Shayegan: *Upgrading of Existing Activated Sludge Systems in Iran with combination of UASB reactor and Membrane Technology to Increase Capacity and Reduce Excess Sludge.* Leading-Edge Technologies 2011 (6-10 June 2011, Amsterdam, The Netherlands); 05/2011
- 38) Hossein Hazrati, Jalal Shayegan: *Optimizing OLR and HRT in a UASB reactor for pretreating high-Strength municipal wastewater.* 10th International Conference on Chemical and Process Engineering; 01/2011, DOI:10.3303/CET1124215

Teaching Experience:

- Chemical reaction engineering (Graduate)
- Fermentation and biological processes (Graduate)
- Environmental Technology (Graduate)
- Heat transfer (Undergraduate)
- Biochemistry (Undergraduate)
- Physical Chemistry (Undergraduate)
- Analytical Chemistry (Undergraduate)