

Curriculum Vitae

General Information:

Name and Surname: Yoones Jafarzadeh

Date of Birth: September 20, 1983

Place of Birth: Tabriz, Iran

Gender: Male

Marital Status: Married and has a daughter

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

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Professional Experience:

- Visiting Associate Professor, Faculty of Physics, Universidad Complutense de Madrid, Madrid, Spain (January 30, 2022-August 9, 2022)
- Associate Professor, Faculty of Chemical Engineering, Sahand University of Technology, Tabriz, Iran (January 21, 2019- Present)
- Assistant Professor, Faculty of Chemical Engineering, Sahand University of Technology, Tabriz, Iran (January 10, 2015- January 20, 2019)
- Chair of Industry Relations Organization, Faculty of Chemical Engineering, Sahand University of Technology, Tabriz, Iran (June 1, 2015- June 1, 2019)

Education:

1. Ph.D.: Chemical Engineering, Sahand University of Technology, Tabriz, Iran
(September 2010- December 2014)

Grade: 19.03 out of 20

Ph.D. Thesis Title: Preparation and Evaluation of Fouling Resistant Mixed Matrix Polyethylene Nanocomposite Membranes for Water Treatment

Supervisor: Prof. R. Yegani

Visiting Scholar: Istanbul Technical University, Istanbul, Turkey (March 2014- July 2014)

Project Title: ZIF-8/Matrimid MMMs for gas separation

Supervisor: Prof. Birgul Tantekin Ersolmaz

M.Sc.: Chemical Engineering, Sahand University of Technology, Tabriz, Iran
(September 2007- December 2009)

Grade: 18.43 out of 20 (First Rank)

M.Sc. Thesis Title: Experimental Investigation of Effective Parameters on the Separation of Organic and Aqueous Phases in a Horizontal Phase Separator

Supervisors: Prof. S. Shafiei and Dr. A. Ebadi

B.Sc.: Chemical Engineering, Sahand University of Technology, Tabriz, Iran
(September 2002-September 2006)

Grade: 16.28 out of 20 (Second Rank)

B.Sc. Project Title: Study on the Mechanisms of the Separation of Gases Using Nano-Structure Zeolites

Supervisor: Prof. A. Babaluo

Research Interests:

- Polymer and Mixed Matrix Membranes
- Nanostructure Materials
- Microfiltration and Ultrafiltration
- Membrane-based Wastewater Treatment
- Membrane Bioreactors

Publications:

My Google Scholar page:

<https://scholar.google.com/citations?user=qBVEAD8AAAAJ>

My Researchgate page:

https://www.researchgate.net/profile/Yoones_Jafarzadeh

[32] E. Shafaatia, Y. Jafarzadeh, H. Etemadi, M. Hermani, Refinery oily wastewater treatment using PVC/SiO₂ ultrafiltration membranes, *Water and Environmental Journal*, Submitted.

[31] L. Shapouri, S. Masoumi, N. Dadgar, Y. Jafarzadeh, Preparation, characterization, and fouling analysis of PVC/ND-PEG ultrafiltration membranes for whey separation, *Diamond and Related Materials*, Under Review.

[30] M. Monsefi Khosroshahi, Y. Jafarzadeh, M. Nasiri, M. Khayet, Novel polyvinyl chloride ultrafiltration membranes blended with amphiphilic

polyethylene glycol-block-poly(1, 2-dichloroethylene) copolymer for oily wastewater treatment, *Journal of Water Process Engineering*, 56 (2023) 104433.

[29] 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*, Accepted.

[28] R. Rashidi, S. Khakpour, S. Masoumi, Y. Jafarzadeh, Effects of GO-PEG on the performance and structure of PVC ultrafiltration membranes, *Chemical Engineering Research and Design*, 177 (2022) 815-825.

[27] S. Hosseinpour, M. Azimian-Kivi, Y. Jafarzadeh, R. Yegani, Pharmaceutical wastewater treatment by polypropylene membranes incorporated with carboxylated and PEG-grafted nanodiamond, *Water and Environmental Journal*, 35 (4) (2021) 1249-1259.

[26] 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*, 18 (11) (2021) 3407-3418.

[25] F. Kazemi, Y. Jafarzadeh, S. Masoumi, M. Rostamizadeh, Oil-in-water emulsion separation by PVC membranes embedded with GO-ZnO nanoparticles, *Journal of Environmental Chemical Engineering*, 9 (1) (2021) 104992.

- [24] S. Sabalanvand, H. Hazrati, Y. Jafarzadeh, Adsorption of organic compounds on the Fe₃O₄ nanoparticles for forestalling fouling in membrane bioreactor, *Journal of Water and Environmental Nanotechnology* 4 (2) (2020) 88-96.
- [23] H. Hazrati, N. Karimi, Y. Jafarzadeh, Performance and antifouling properties of PVDF/PVP and PSf membranes in MBR: A comparative study, *Membrane Water Treatment* 11 (2) (2020) 159-166.
- [22] F. Beygmohammdi, H. Nourizadeh Kazerouni, Y. Jafarzadeh, R. Yegani, Preparation and characterization of PVDF/PVP-GO membranes to be used in MBR system, *Chemical Engineering Research and Design*, 154 (2020) 232-240.
- [21] H. Noorizadeh Kazerouni, Y. Jafarzadeh, R Yegani, Study on the effect of m-phenylenediamine as a cross-linking agent on the mechanical, chemical and thermal properties and performance of cellulose acetate/nanodiamond membranes, *Polymer Bulletin*, 77 (1) (2020) 405-425.
- [20] S. Hoseinpour, Y. Jafarzadeh, R. Yegani, S Masoumi, Embedding neat and carboxylated nanodiamonds into polypropylene membranes to enhance antifouling properties, *Polyolefins Journal* 6 (1) (2019) 63-74.
- [19] Atefeh Tizchang, Yoonas Jafarzadeh, Reza Yegani, Soroush Khakpour, The effects of pristine and silanized nanodiamond on the performance of polysulfone membranes for wastewater treatment by MBR system, *Journal of Environmental Chemical Engineering*, 7 (6) (2019) 103447.

- [18] S. Khakpour, Y. Jafarzadeh, R. Yegani, Incorporation of graphene oxide/nanodiamond nanocomposite into PVC ultrafiltration membranes, *Chemical Engineering Research and Design* 152 (2019) 60-70.
- [17] M. Azimian Kivi, H. Alinia, Y. Jafarzadeh, R. Yegani, High-density polyethylene membranes embedded with carboxylated and polyethylene glycol-grafted nanodiamond to be used in membrane bioreactors, *Journal of Applied Polymer Science*, 136 (35) (2019) 47914.
- [16] S. Masoumi, A. Miroliaei, Y. Jafarzadeh, Preparation and characterization of MWCNT-COOH/PVC ultrafiltration membranes to use in water treatment, *Advances in Environmental Technology* 4 (2) (2018) 95-105.
- [15] S.M. Abdoli, S. Shafiei, A. Raouf, A. Ebadi, Y. Jafarzadeh, Insight into Heterogeneity Effects in Methane Hydrate Dissociation via Pore-Scale Modeling, *Transport in Porous Media*, 124 (1) (2018) 193-201.
- [14] S.M. Abdoli, S. Shafiei, A. Raouf, A. Ebadi, Y. Jafarzadeh, H. Aslannejad, Water flux reduction in microfiltration membranes: a pore network study, *Chemical Engineering & Technology*, 41 (8) (2018) 1566-1576
- [13] M. Javadi, Y. Jafarzadeh, R. Yegani, S. Kazemi, PVDF membranes embedded with PVP functionalized nanodiamond for pharmaceutical wastewater treatment, *Chemical Engineering Research and Design*, 140 (2018) 241-250
- [12] A. Behboudi, Y. Jafarzadeh, R. Yegani, Incorporation of silica grafted silver nanoparticles into polyvinyl chloride/polycarbonate hollow fiber membranes for pharmaceutical wastewater treatment, *Chemical Engineering Research and Design*, 135 (2018) 153-165

- [11] A. Behboudi, Y. Jafarzadeh, R. Yegani, Enhancement of antifouling and antibacterial properties of PVC hollow fiber ultrafiltration membranes using pristine and modified silver nanoparticles, *Journal of Environmental Chemical Engineering*, 6 (2) (2018) 1764-1773
- [10] S. Heidari, Y. Jafarzadeh, M. Seyfollahi Samarin, R. Yegani, Study on the fouling behavior of HDPE/PE-g-MA/EVA blend membrane fabricated via TIPS method, *Polyolefins Journal* 4 (2) (2017) 233-249.
- [9] A. Behboudi, Y. Jafarzadeh, R. Yegani, A. Akbari, Preparation and characterization of polyethylene/glass fiber composite membrane prepared via thermally induced phase separation method, *Polyolefins Journal* 4 (2) (2017) 199-210.
- [8] A. Behboudi, Y. Jafarzadeh, R. Yegani, Polyvinyl chloride/polycarbonate blend ultrafiltration membranes for water treatment, *Journal of Membrane Science*, 534 (2017) 18-24.
- [7] A. Behboudi, Y. Jafarzadeh, R. Yegani, Preparation and characterization of TiO₂ embedded PVC ultrafiltration membranes, *Chemical Engineering Research and Design*, 114 (2016) 96-107.
- [6] Y. Jafarzadeh, R. Yegani, Thermal, mechanical, and structural properties of ZnO/polyethylene membranes made by thermally induced phase separation method, *Journal of Applied Polymer Science*, 132 (2015) 42338.
- [5] Y. Jafarzadeh, R. Yegani, S.B. Tantekin Ersolmaz, Effect of TiO₂ nanoparticles on structure and properties of high density polyethylene membranes prepared by thermally induced phase separation method, *Polymers for Advanced Technologies*, 26 (2015) 392-398.

[4] Y. Jafarzadeh, R. Yegani, M. Sedaghat, Preparation, characterization and fouling analysis of ZnO/polyethylene hybrid membranes for collagen separation, *Chemical Engineering Research and Design*, 94 (2015) 417-427.

[3] Y. Jafarzadeh, R. Yegani, Analysis of fouling mechanisms in TiO₂ embedded high density polyethylene membranes for collagen separation, *Chemical Engineering Research and Design*, 93 (2015) 684-695.

[2] Y. Jafarzadeh, S. Shafiei, A. Ebadi, and M. Abdoli, Experimental investigation on the effect of parameters influencing the performance of a horizontal styrene-water separator, *Iranian Journal of Chemical Engineering*, 9 (3) (2012) 48-54.

[1] Y. Jafarzadeh, S. Shafiei, A. Ebadi, and M. Abdoli, Batch separation of styrene/ethyl benzene/water dispersions, *Iranian Journal of Chemical Engineering*, Volume 7 (4) (2010) 22-28.

Conferences and Seminars:

[1] **Yoones Jafarzadeh**, Reza Yegani, Ali Akbari, Aref Dadgostar, Effect of zeolite filler on the mechanical strength of polymeric membranes prepared via thermally induced phase separation method, The 7th Conference of Aseanian Membrane Society (AMS7), Korea, July 4-6, 2012.

[2] Ali Akbari, Reza Yegani, **Yoones Jafarzadeh**, Aref Dadgostar, Application of full factorial experimental design to investigate the impact of polymer concentration and coagulation bath temperature in fabrication of microporous PE membranes via TIPS method, 7th Conference of Aseanian Membrane Society (AMS7), Korea, July 4-6, 2012.

- [3] Aref Dadgostar, Reza Yegani, **Yoonas Jafarzadeh**, Ali Akbari, Investigation of polymer concentration and coagulation bath composition on the isotactic polypropylene microporous membranes properties prepared via thermally induced phase separation, 7th Conference of Aseanian Membrane Society (AMS7), Korea, July 4-6, 2012.
- [4]. Aref Dadgostar, Reza Yegani, **Yoonas Jafarzadeh**, “Preparation of isotactic polypropylene microporous membranes via thermally induced phase separation (TIPS) method”, submitted for 7th International chemical engineering congress and exhibition, Kish Island, November 2011.
- [5]. Reza Yegani, **Yoonas Jafarzadeh**, and Naser Saadat, “Study on the Stability of Facilitated Transport Membrane in Hydrogen Purification”, The 1st National Conference of Membrane and Membrane Processes, Tehran, February 2011.
- [6] R. Yegani, A. Tavakoli, **Y. Jafarzadeh**, S. Mohammadzadeh, S. Anarjani, Funi onalization Of High Density Polyethylene (HDPE) Microporous Membranes Using Various Oxidizing Agents, The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish, Iran, 24-27 February, 2014.
- [7] **Y. Jafarzadeh**, R. Yegani, Preparation and characterization of TiO₂/polyethylene nanocomposite membranes, Proceedings of 5th International Congress on Nanoscience & Nanotechnology (ICNN2014), 22-24 October 2014, Tehran, Iran.

Research Projects:

1. Improvement of polyvinyl chloride membrane to reduce fouling for treatment of oily wastewater, A research project founded by Iran National

Science Foundation (INSF); Proposal No. 97017736, July 2019-September 2021.

2. Polymer membranes for natural gas sweetening: comprehensive review, A research project founded by Research Institute of Petroleum Industry (RIPI); August 2020-September 2022.

Teaching Experience:

- Synthesis and Characterization of Nanostructure Materials (Graduate)
- Surface Phenomena (Graduate)
- Advanced Mass Transfer (Graduate)
- Applied Mathematics in Chemical Engineering (Undergraduate)
- Thermodynamics (Undergraduate)
- Physical Chemistry (Undergraduate)
- Mass Transfer (Undergraduate)

Awards:

- Selected Student and Prizewinner of Biennial Prize of the Founder of Sahand University of Technology, 2013, Tabriz, Iran
- Selected Researcher, Persian Gulf 3rd National Festival, Persian Gulf Science and Technology Park, Bushehr, Iran, 2012
- Selected Writer in the Field of History, Tabriz Second Book Festival, Tabriz Municipality, Tabriz, Iran, 2012

- Top Student Researcher, Sahand University of Technology, Tabriz, Iran, 2011
- Top M.Sc. Student of Chemical Engineering, Sahand University of Technology, Tabriz, Iran, 2009
- Top B.Sc. Student of Chemical Engineering, Sahand University of Technology, Tabriz, Iran, 2006