Curriculum Vitae

Name: Professor Dr. Qusay F. Alsalhy (Prof. since 1st September 2013)

Date of Birth: 8th of February 1969

Nationality: Iraqi

Mailing Address: Chem. Eng. Dep., University of Technology-Iraq, Alsinaa Street No. 52, P.O. Box 35010, Baghdad-Iraq

Cell Phone: +96-4-7711357935; +96-4-7901730181

E-mail: qusay_alsalhy@yahoo.com, 80006@uotechnology.edu.iq

Language: Arabic and English

ORCID: 0000-0002-0495-1300

h-index **31 at Scopus**

h-index **33 at Google scholar**

i10-index **69**

Web of Science Researcher ID I-1315-2019

Academic Qualifications Profile

1. B.Sc. in Chemical Engineering, Chemical Engineering Department-University of Technology-Baghdad, Iraq, **1986-1990**.
2. M.Sc. in Chemical Engineering, Chemical Engineering Department-College of Engineering-Al-Nahrain University-Baghdad, **1992-1994**.

   Thesis: "The Effect of Interaction on the Closed Loop System of a Multi-Component Distillation Column". Supervisor: Prof. Safa Al Naimi.
3. Ph.D. in Chemical Engineering, Chemical Engineering Research Center, East

China University of Science and Technology, Shanghai, China, **2001-2004**.

Dissertation: "Study on Fundamental Understanding during the Preparation Process of Hollow Fiber UF Membrane and Its Application". Supervisor: Prof. Xu Zhen-Liang.

Professional Qualifications

1. Chemical Engineer-Ministry of Industrial and Minerals, from June 1990 to May 1991.
2. Assistant lecturer, Department of Chemical Engineering-University of Technology, Alsinaa Street No. 52, P.O. Box 35010, Baghdad-Iraq, from 1996 up to 2001.
3. Lecturer Doctor, Department of Chemical Engineering-University of Technology, from 2004 up to 8th march 2008.
4. Member of Chemical Engineering Research unit, University of Technology, from Sep. 2004 up to date.
5. Associate professor Dr., Department of Chemical Engineering-University of Technology, 9th March 2008 up to date.
6. Member of Iraqi Engineer Association, from 1990 up to date.
7. Member of European Membranes Society, from July 2009 up to date.
8. Director of membrane technology research unit, 28/6/2012.
9. Professor Dr., Department of Chemical Engineering-University of Technology, 1st September 2013.

Awards

- Award science Day of Ministry of Higher Education and Scientific Research 2012
- Award first professor of Chemical Engineering Department 2015
- Awards Certificate of Recognition from ACS publication for reviewing activity in 2016 (valued contribution as an ACS publications reviewer).
- Award University of Technology Day for h-index in research and development 2017.
- Award University of Technology Day for h-index in research and development

2019.

- One of the world's top 2% scientists for the year 2021.
- One of the world's top 2% scientists for the year 2023.
- Alayen Iraqi University AUIQ senior Scientific Researcher Award (2024)
- Alayen Iraqi University AUIQ High Impact Paper Award (2024)

Activities and Positions

1. Coordinator of Unit Operation Branch, Chemical Engineering Department, University of Technology, Alsinaa Street No. 52, and P.O. Box 35010, Baghdad-Iraq, from Sep. 2004 - 2007.
2. Director of Oil and Gas Refinery Branch- Chemical Engineering Department- University of Technology, Baghdad- 2008-2010.
3. Deputy Head of Chemical Engineering Department, University of Technology, Baghdad- 2008 to 2009.
4. Director of Chemical Process Engineering Branch-Chemical Engineering Department- University of Technology, Baghdad- 2010 to 2012.
5. Deputy Head of Chemical Engineering Department for Scientific affairs and postgraduate studies, University of Technology, 2012-2015.
6. Director of Membrane Technology Research Unit, Chemical Engineering Department, University of Technology, 2012 up to date.

Teaching

1-For undergraduate

1. Engineering Mechanics.
2. Strength of Materials.
3. Basic principles of Chemical Engineering
4. Engineering Drawing (Manual).
5. Engineering Drawing by AUTOCAD Software.
6. Supervision of various laboratories in Chemical Engineering field.
7. Supervision of Hollow fiber and flat-sheet membrane fabrication

Laboratories.

8. Supervision of Plant Design Projects for Final year Undergraduate Students.
9. Supervision of Especial Problem Projects for Final year Undergraduate Students.

2-For postgraduate

*** Fluid Dynamics (M.Sc. course) (2008-2009)**

*** Separation processes (M.Sc. course) (2009 up to date)**

*** Advance Mass Transfer (PhD course) (2015 up to date)**

International projects

- **"Forward osmosis desalination by thermo-responsive hydrogels for small villages close to the Persian Gulf", Germany, Iraq and Iran, more detail in the following website.**

https://www.hydrodesal.uni-mainz.de/team/

M.Sc. and Ph.D. Supervise

1. **Master Degree Supervisor for Chemical Engineering Students**, 1st July 2006, **Dissertation:** "Separation performance of polymeric hollow fiber ultrafiltration membranes".
2. **Master Degree Supervisor for Chemical Engineering Students**, 1st October 2008, **Dissertation:** "High performance of Nanofiltration hollow fiber membranes".
3. **Master Degree Supervisor for Material Engineering Students**, 1st October 2008, **Dissertation:** "Preparation and characterization of PVC hollow fiber membranes".
4. **Master Degree Supervisor for Material Engineering Students**, 1st October 2009, **Dissertation:** "Preparation and characterization of PVC/PEG/PS composite hollow fiber membranes".
5. **Master Degree Supervisor for Chemical Engineering Students**, 1st October 2009, **Dissertation:** Effect of operating conditions on the separation performance

of PVC hollow fibers.

6. **Master Degree Supervisor for Chemical Engineering Students**, 1st October 2010, **Dissertation:** Preparation and characterization of poly (Lactic acid) (PLA) membranes for pervaporation application.
7. **Master Degree Supervisor for Biotechnology Students**, 1st October 2010, **Dissertation:** Sewage wastewater treatment using PVC hollow fiber ultrafiltration membranes.
8. **Master Degree Supervisor for Chemical Engineering Students**, 1st October 2011, **Dissertation:** Oily Wastewater treatment by membranes bioreactor (MBR).
9. **Master Degree Supervisor for materials Engineering Students**, 1st October 2012, **Dissertation:** Brackish water desalination using membrane distillation technique.
10. **Master Degree Supervisor for Chemical Engineering Students**, 1st October 2012, **Dissertation:** Treatment of produced water from oil wells by floatation and membrane technique
11. **Master Degree Supervisor for Chemical Engineering Students**, 1st May 2013, **Dissertation:** Seawater desalination by using vacuum membrane distillation (VMD).
12. **Master Degree Supervisor for Chemical Engineering Students**, 21 October 2014, **Dissertation**: Analysis of mass and heat transfer for water desalination by membrane distillation (MD).
13. **Master Degree Supervisor for Chemical Engineering Students**, 21 October 2015, **Dissertation**: Sweeping gas membrane distillation for desalination using hydrophobic membranes.
14. **Master Degree Supervisor for Chemical Engineering Students**, 1st of July 2016, Dissertation: Improvement of membrane properties by using carbon nanotubes for membrane distillation application.
15. **Master Degree Supervisor for Chemical Engineering Students**, 20 October 2016, **Dissertation**: Preparation and characterization of PPSU hollow fiber membranes for saline water desalination using Forward Osmosis process.
16. **Master Degree Supervisor for Chemical Engineering Students**, 20 August

2017, **Dissertation**: Produced water desalination by membrane distillation technique.

17. **Master Degree Supervisor Students**, 12 October 2017, **Dissertation**: Preparation of NF blend membrane for dyes removal from industrial wastewater.
18. **Master Degree Students Supervisor**, 20 October 2018, **Dissertation**: Preparation of UF membrane modified by nanoparticles material for treatment of oily wastewater.
19. **Master Degree Students Supervisor**, 20 Dec. 2017, **Dissertation**: Studying the effect of nanoparticles material on the properties of PVC membranes for various solutes separation.
20. **Master Degree Students Supervisor**, 20 Dec., 2019, Synthesis and characterization of PVC-TFC hollow fibers for forward osmosis application.
21. **Master Degree Students Supervisor**, 20 October 2020, Zeolite-reinforced polymeric membranes: prominent features and wastewater treatment applications.
22. **Master Degree Students; Supervisor**, October 2019, Effect of Nano biopolymer as additive on PES membrane performance, Middle Technical University, Baghdad, Iraq.
23. **Master Degree Students; Supervisor**, November 2020, Modification of polyphenyl sulfone membrane by poly(terephthalic-co-glycerol-g-fumaric acid) copolymer nanoparticles as pore formers, Civil Engineering Department, University of Technology-Iraq.
24. **Master Degree Students; Supervisor**, October 2023, Study the effect of graphene oxide incorporation in polyethersulfone on the interaction mechanism and performance of the nanofiltration membrane for dye removal, Chemical Engineering Department Faculty of Engineering, University of Technology-Iraq.
25. **Master Degree Students; Supervisor**, March 2023, Enhance the anti-fouling of flat sheet polyphenyl sulfone membranes incorporating graphene oxide-tungsten oxide (GO-WO2.89) for ultrafiltration applications, Chemical Engineering Department, University of Technology-Iraq.
26. **Master Degree Students; Supervisor**, May 2023, Fabrication of Poly(vinyl chloride) coated forward osmosis (FO) membrane for direct fertigation applications,

Chemical Engineering Department, University of Technology-Iraq.

27. **Master Degree Students; Supervisor**, July 2022, Preparation and characterization of thin film composite forward osmosis membrane, Chemical Engineering Department, University of Technology-Iraq.
28. **Master Degree Students; Supervisor**, October 2023, Preparation and characterization of thin-film and MAX phase membrane for forward osmosis process, Chemical Engineering Department, University of Technology-Iraq.
29. **Master Degree Students; Supervisor**, September 2023, Simultaneous removal of organic and inorganic effluents from wastewater using modified polymeric membrane, Chemical Engineering Department, University of Technology-Iraq.
30. **Master Degree Students; Supervisor**, September 2023, Green synthesis of Iron/Palladium or Iron/Nickel functionalized membranes for degradation textile dyes in contaminated water, Chemical Engineering Department, University of Technology-Iraq.

Ph.D Students Supervisor

1- Thesis: "Effects of Osmotic Agent Concentration and Type on the Performance of Osmotic Membrane Distillation".**1st July 2009**

2- Thesis: "A Study of the Effect of Operating Conditions on the Reverse Osmosis Membrane Performance with and without Air Sparging Technique ".**1st July 2007 to 2010**

3- Thesis: "Desalination of seawater and produced water by membrane distillation". October **2012**.

4- Thesis: "Preparation and characterization of polymeric membranes for nanofiltration, membrane distillation and forward osmosis". **February 2013**.

5- Thesis: "Preparation and characterization of PVDF-co-HFP membranes for direct contact membrane distillation". **November 2013**, Co-supervisor: PhD student in University of Pahang, Malaysia.

6- Thesis: Analysis of different heavy metals retention from single salt and

binary aqueous solutions by using nanofiltration membrane, **February 2013**.

7- **Thesis: Hospital wastewater treatment by submerged membrane bioreactor**, PhD student in University of Technology, **October 2015**.

8- **Thesis:** CVD-Synthesis of Carbon Nanomaterials with Improved Hydrophobicity of Membrane Distillation, PhD student in University of Malaya, Kuala Lumpur, Malaysia **October 2016**.

9- **Thesis:** Organic-Organic separation by forward osmosis technique and membrane distillation process, PhD student in University of Technology, **July 2018.**

11- **Thesis:** Carbon nanotube-sponge membrane bioreactor system with different configurations for treatment of wastewater, PhD student in University of Technology, **Civil Engineering, February 2019.**

12- **Thesis:** Study the Characteristics and the separation Performance of Membranes Synthesized by using Nano- porous Zeolite material in flexible polymer for application of pollutant removal from waste water, PhD student in University of Technology, **Civil Engineering, February 2019.**

13- Thesis: Different nanoparticles additives in polymeric membranes for wastewater treatment, PhD student in University of Technology, **Chemical Engineering, February 2019.**

14- Thesis: Dehydration of alcohols by novel pervaporation membranes, PhD student in University of Technology, **Chemical Engineering, February 2019.**

15- Thesis: Arabian Gulf water desalination by hybrid forward osmosis-membrane distillation, PhD student in University of Technology, **Chemical Engineering, February 2019.**

16- Thesis: Photocatalytic polyethersulfone membrane reinforced with tungsten oxide for wastewater treatment, PhD student in Materials Engineering Department, University of Technology-Iraq, November 2019.

17- Thesis: Investigation of The Effect of Max Phase and MXene on The Performance of PVDF Membrane in The Treatment of Textile Wastewater,

PhD student in Materials Engineering Department, University of Technology-Iraq, November 2021.

18- Thesis: Study the effect of embedded modified nanoparticles on the performance of polymeric membranes in wastewater treatment, PhD student in Materials Engineering Department, University of Technology-Iraq, October 2022.

19- Thesis: Synthesis of PVC membrane structures modified with nanoscale silicon dioxide particles for use in wastewater treatment of car washes, PhD student in Department of Chemical Technology of Fuel and Industrial Ecology, Chemical Technology Institute, Ural Federal University Named after First President of Russia B. N. Yeltsin, Yekaterinburg, Russia, September 2020.

20- Thesis: Modification of polymeric membranes by embedded of hydrophilic nanoparticles for dye removal from textile wastewater, PhD student in Chemical Engineering Department, University of Gabes, Tunis, April 2022.

21- Thesis: Developing of Novel Membranes using Superhydrophobic Nanomaterials for Water Desalination Process via Membrane Distillation, PhD student in Chemical Engineering Department, University of Technology-Iraq, November **2022.**

22- Thesis: Mixed Matrix Membranes (MMM) for Wastewater Applications: Experimental and Modeling Study, PhD student in Chemical Engineering Department, University of Technology-Iraq, November **2022.**

23- Thesis: Nanocomposite membrane for dyes Wastewater Treatment, PhD student in Chemical Engineering Department, University of Almansora, Egypt, November **2022.**

Scholarships

Ph.D. scholarship, Chemical Engineering Research Center, East China University of Science and Technology, Supported by China Scholarship Council (CSC), Fuxingmennei Dajie, No.,160 -100031 Beijing-China. Sep. 2001 to July 2004.

Fellowships and research visitor

1- **Researcher Visitor,** Department of Applied Physics, Complutense University of Madrid, from 1st of April 2006 up to 1st of June 2006, **(Preparation and Characterization of Flat-Sheet and Hollow Fiber Membranes by using various gas gap distance).**
2- **Fellowship (Grant),** Department of Applied Physics, Complutense University of Madrid, from 26th of September 2007 to 28th of December 2007, **(Design of Novel Heat Exchangers Based Composite Hollow Fibers).**
3- **Researcher Visitor,** Institute on Membrane Technology, ITM-CNR, Calabria University, Cosanza, Italy, July-August 2009.
4- **Researcher Visitor,** Institute on Membrane Technology, ITM-CNR, Calabria University, Cosanza, Italy, July-August 2010.
5- **Researcher Visitor,** Department of Chemical Engineering, KU Leuven, Belgium, July-August 2011.
6- **Researcher Visitor,** Institute on Membrane Technology, ITM-CNR, Calabria University, Cosanza, Italy, September-October 2013.
7- **Researcher Visitor,** Institute on Membrane Technology, ITM-CNR, Calabria University, Cosanza, Italy, October 2016.
8- **Researcher Visitor,** Institute on Membrane Technology, ITM-CNR, Calabria University, Cosanza, Italy, 15th November 2022.
9- **Researcher Visitor,** Faculty of Materials and Chemical Engineering, Miskolc University, Miskolic city, Hungary 26th November 2022.
10- **Researcher Visitor,** Faculty of Physical Chemistry, Johannes Gutenberg University Mainz, Mainz 17th July 2023.

International workshop, and Lectures

- Professional development hours in Chemical Process Safety, Chemical Process Safety Faculty (CCPS) Workshops and The Global Home of Chemical Engineers (AIChE), July 2019 BASF sponsored CCPS faculty workshop, AIChE, 120 Wall Street, NY 10005,USA.
- Lecture entitled "**Recent development on Preparation of nanocomposite membranes For Wastewater Treatment**" is presented at Faculty of Materials and Chemical Engineering, Miskolc University, Miskolic city, Hungary 26th November 2022
- Lecture entitled "**Recent development on Preparation of nanocomposite membranes For Wastewater Treatment**" is presented at University of Mianz, Mianz city, Germany 1st of December 2022
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Book and Chapter

1. Qusay F. Alsalhy, Preparation process of hollow fiber UF membrane, LAP LAMBERT, Academic publishing, Germany, 2011 pages 116. ISBN-13: 978-3-8454-7365-9
2. The newsletter of the European Membrane Society Special issue - No. 84 July 2011. Membrane News is published by the European Membrane Society (EMS) http://www.emsoc.eu
3. Muayad Al-shaeli, Raed A Al-Juboori, Mohammad Amin Makarem, Qusay F Alsalhy, Bradley P Ladewig, Carbon Capture with Polymeric Membranes, Book chapter, 2023 Elsevier Inc. All rights reserved.
4. Muayad Al-shaeli, Raed A Al-Juboori, Mohammad Amin Makarem, Qusay F Alsalhy, Bradley P Ladewig, Carbon Capture With Fixed-Carrier Membranes, Book chapter, 2023 Elsevier Inc. All rights reserved.

Papers Published in Journals

1. **Qusay F. A.**, Z. L. Xu, Numerical Simulation of a Mathematical Model for

Dry/Wet-Spun Nascent Hollow Fiber Membrane, **Journal of Shanghai University**, vol.8, No.2 (2004) 213-220. **(Springer)**

2. Z. L. Xu, **Qusay F. A.**, Effect of Polyethylene glycol (PEG) Molecular Weights and Concentrations on Polyethersulfone (PES) Hollow Fiber Ultrafiltration Membranes, **Journal of Applied Polymer Science**, vol. 91 (2004) 3398-3407. **(Jon wiley)**
3. Z. L. Xu, **Qusay F. A.**, Polyethersulfone (PES) Hollow Fiber Ultrafiltration Membrane Prepared by PES/Non-solvent/NMP Solution, **Journal of Membrane Science**. 233 (2004) 101-111. **(Elsevier)**
4. Y.M. Wei, Z. L. Xu, **Qusay F. A.**, Ethanol-Water Mixture Separation by Pervaporation Process Using (PVA/PSf) Hollow Fiber Composite Membranes, **Journal of Applied Polymer Science**, Vol. 98, (2005) 247-254. **(Jon Wiley)**
5. **Qusay F. A.**, Study Effect of Elongational Viscosity on the Velocity Distribution for Dry/Wet-Spun Nascent Hollow Fiber Membrane, **Iraqi Journal of Chemical and petroleum Engineering**, 5 (2004) 13-18.
6. **Qusay F. A.**, Effect of Ethanol Concentrations in Internal Coagulant on the Morphology and Separation Performance of Polyethersulfone (PES) Hollow Fiber UF Membranes Prepared by PES/Ethanol/NMP Solution, **Engineering and Technology Journal** (Scientific Journal Published by the University of Technology-Baghdad), Vol. 25, No.2 (2007) 253-264.
7. Bing-Bing Li, Zhen-Liang Xu, **Qusay Alsalhy**, Ran Li, Chitosan-poly (vinyl alcohol)/poly (acrylonitrile) (CS-PVA/PAN) Composite Pervaporation Membranes for the Separation of Ethanol-Water Solution, **Desalination**, 193 (2006) 171-181. **(Elsevier)**
8. **Qusay Alsalhy**, Xu Zhen-liang, Yang Xio-tian, Separation performance of horizontal and vertical polyether sulfone hollow fiber UF modules, **Journal of Shanghai University**, 10 (2), (2006) 173-178. **(Springer)**
9. **Qusay Alsalhy**, Effect of Alcohol as Additives on the Morphology and Separation Performance of Polyethersulfone (PES) Hollow Fiber Ultrafiltration Membranes, **Engineering and Technology Journal**, vol. 26, no.12, 2008.

10. M. Khayet, M.C. Garc´ıa-Payo, **Qusay F. A.**, K.C. Khulbe, C.Y. Feng, T. Matsuura, Effects of gas gap type on structural morphology and performance of hollow fibers, **J. Membr. Sci.** 311 (2008) 259–269. **(Elsevier)**

11. **Qusay Alsalhy**, Recovery of PVA Using Polyethersulfone (PES) Hollow Fiber Ultrafiltration Membranes: Part II: Effect of Carboxymethyl Cellulose (CMC) Concentration**, Engineering and Technology Journal** (Scientific Journal Published by the University of Technology-Baghdad) Vol. 27, No. 5, 2009.

12. M. Khayet, M.C. García-Payo, **Qusay F. A.,** M.A. Zubaidy Structural and performance studies of poly(vinyl chloride) hollow fiber membranes prepared at different air gap lengths, **Journal of Membrane Science**, Volume 330, Issues 1-2, 20, 2009, Pages 30-39. **(Elsevier)**

13. **Qusay Alsalhy**, A. Figoli, Sufyan Algebory, Ghanim M. Alwan, S. Simone, E. Drioli, Polyvinyl Alcohol/polyvinyl chloride (PVA/PVC) Hollow Fiber Composite Nanofiltration Membranes for Water Treatment, **Iraqi journal of chemical and petroleum engineering (IJCPE)** Vol.11, No.4, (2010) 23-32.

14. **Qusay Alsalhy**, Sufyan Algebory, Ghanim M. Alwan, A. Figoli S. Simone, E. Drioli, Hollow fiber ultrafiltration membranes from poly(vinyl chloride): Preparation, morphologies and properties, **Separation Science and Technology**, 46, (14) (2011) 2199-2210. **(Taylor & Francis)**

15. **Qusay Alsalhy**, Khalid T. Rashid, Walla A. Noori, A. Figoli S. Simone, E. Drioli, Poly (vinyl chloride) hollow fibers membranes for ultrafiltration applications: Effects of internal coagulant composition, **Journal of Applied polymer science**, Vol. 124, 2087–2099 (2012). **(Jon Wiley)**

16. Mohammad F. Abid, Saadi K. Al-Naseri, **Qusay F. Alsalhy**, Samirra N. Abdulla, Khalid T. Rashid, Desalination of Iraqi surface water using nanofiltration membranes, **Desalination and Water Treatment**, 29 (2011) 174-180. **(Taylor & Francis)**

17. **Qusay F. Alsalhy**, Hollow fiber ultrafiltration membranes prepared from blends of poly (vinyl chloride) and polystyrene, Desalination 294 (2012) 44–52. **(Elsevier)**

18. Salah S. Ibrahim and **Qusay F. Alsalhy**, Modeling and Simulation for Direct Contact Membrane Distillation in Hollow Fiber Modules, **AIChE J.**, 59 (2013) 589–603. **(Jon Wiley)**

19. **Qusay Alsalhy**, Influence of spinning conditions on the morphology, pore size, pore size distribution, mechanical properties and performance of PVC hollow fiber membranes, **Separation science and Technology**, 48 (2013) 234–245. **(Taylor & Francis)**

20. **Qusay Alsalhy**, Talib Albyati & Mumtaz Zablouk, A Study of the Effect of Operating Conditions on the Reverse Osmosis Membrane Performance with and without Air Sparging Technique, **Chemical Engineering Communications**, 200 (2013) 1–19. **(Springer)**

21. Qusay Alsalhy, Jamal M. Ali, Keetam Salim, Effect of operating conditions on the performance of PVC/PS hollow fiber membranes, **Engineering and Technology Journal** (Scientific Journal Published by the University of Technology-Baghdad) 30 (2012) 2767-2777.

22. **Qusay F. Alsalhy**, Khalid T. Rashid, Salah S. Ibrahim, Abdulsattar H. Ghanim, Bart Van der Bruggen, Patricia Luis, Mumtaz Zablouk, Poly(vinylidene fluoride-co-hexafluropropylene) (PVDF-*co*-HFP) hollow fiber membranes prepared from PVDF-*co*-HFP/PEG-600Mw/DMAC solution for membrane distillation, **Journal of Applied Polymer science,** 129 (2013) 3304-3313. **(Jon Wiley)**

23. **Qusay F. Alsalhy**, Jamal M. Ali, Ali A. Abass, Ali Rashed, Bart Van der Bruggen, Stefan Balta, Enhancement of poly (phenyl sulfone) membranes with ZnO nanoparticles, **Desalination and Water Treatment**, 51 (2013) 6070–6081. **(Taylor & Francis)**

24. **Qusay F. Alsalhy**, Amil S. Merza, Khalid T. Rashid, Arman Adam, A. Figoli, S. Simone, E. Drioli, Preparation and Characterization of poly(vinyl chloride)/poly (styrene)/poly (ethylene glycol) hollow-fiber membranes, **Journal of Applied Polymer science, 130** (2013) 989-1004. **(Jon Wiley)**

25. **Qusay F. Alsalhy**, Haydar A. Salih, Remonda H. Melkon, Yusra M. Mahdi, Noora A. Abdul Karim, Effect of the Preparation Conditions on the Morphology

and Performance of Poly(imide) Hollow Fiber Membranes, **Journal of Applied Polymer science,** 131(2014) 40428 (1 of 11). **(Jon Wiley)**

26. **Qusay F. Alsalhy**, Haydar A. Salih, Silvia Simone, Alberto Figoli, Mumtaz Zablouk, Enrico Drioli, Poly (ether sulfone) (PES) hollow-fiber membranes prepared from various spinning parameters, **Desalination** 345 (2014) 21–35. **(Elsevier)**

27. **Qusay F. Alsalhy**, Raheek I. Ibrahim**,** Haydar Alaa Salih, Mumtaz A. Zablouk, Experimental investigation and optimization of air sparging on hollow fiber membrane performance, American Journal of Modern Chemical Engineering, 1 (2014) 40-54.

28. ALAA K. MOHAMMED**,** **Qusay Alsalhy** , SAFAA A. ALI, STUDY THE EFFECT OF TEMPERATURE ON THE PERFORMANCE OF HOLLOW FIBER MEMBRANE BIOREACTOR IN WASTEWATER TREATMENT, Asian Academic Research Journal of Multidisciplinary, 1 (2014) 365-374.

29. KT Rashid, SA Rahman, Q Alsalhy Hydrophobicity Enhancement of Poly (vinylidene fluoride-co-hexafluoropropylene) for Membrane Distillation, **Journal of Polymer Science and Technology** 1 (1), (2015) 1-9.

30. Manal A. Tooma, Tariq S. Najim, **Qusay F. Alsalhy**, Tiziana Marino, Alessandra Criscuoli, Lidietta Giorno, Alberto Figoli, Modification of polyvinyl chloride (PVC) membrane for vacuum membrane distillation (VMD) application, Desalination, 373 (2015) 58-70. **(Elsevier)**

31. Manal A. Tooma, Tariq S. Najim, **Qusay F. Alsalhy**, Synthesis and characterization of poly(vinyl chloride)-Graft-poly(ethyl acrylate) and its membrane, Al-mustansiriya Journal of Science, 26 (2) (2015).

32. **Qusay F. Alsalhy**, Riyadh S. Almukhtar, Harith A. Alani, Treatment of oil refinery wastewater by membrane bioreactor (MBR), Arabian J. of Sci. and Eng., 41 (2016) 2439–2452. **(Springer)**

33. Sufyan Fadhil Algebory, Tiziana Marino, Hassan F. Makki, **Qusay F. Alsalhy**, Serenella Blefari, Francesca Macedonio, Emanuele Di Nicolò, Lidietta Giorno, Enrico Drioli, Alberto Figoli, Novel PVDF-HFP flat sheet membranes prepared

by Triethyl Phosphate (TEP) solvent for Direct Contact Membrane Distillation, Chemical Engineering and Processing: Process Intensification, 102 (2016) 16-26. **(Elsevier)**

34. Ahmed A. Mohammad, **Qusay F. Alsalhy**, Salwa A. Hadi, Separation of lead and Cadmium from single and binary salt aqueous solution using nanofiltration membranes, Journal of Engineering, vol. 22, Issue 4, (2016) 50-67.

35. Khalid T. Rashid, Sunarti Binti Abdul Rahman, **Qusay F.Alsalhy**, Optimum operating parameters for hollow fiber membranes in direct contact membrane distillation, Arabian J. of Sci. and Eng., Volume 41, Issue 7, (2016) 2647–2658. **(Springer)**

36. Sunarti Binti Abdul Rahman, Khalid T. Rashid, **Qusay F. Alsalhy**, Improvement of PVDF-co-HFP Hollow Fiber Membranes for Direct Contact Membrane Distillation Applications, Indian Journal of Science and Technology, Vol 10(7) (2017) 1-5.

37. Asrar A. Alobaidy, Bashir Y. Sherhan, Areej D. Barood, Qusay F. Alsalhy, Effect of bore fluid flow rate on formation and properties of hollow fibers, Applied Water Science, (2017) 7:4387–4398. **(Springer)**

38. Qusay F. Alsalhy, Salah S. Ibrahim, Samraa R. Khaleel, Performance of vacuum poly(propylene) membrane distillation (VMD) for saline water desalination, Chemical Engineering & Processing: Process Intensification, 120 (2017) 68–80. **(Elsevier)**

39. Bashir Y. Sherhan, Areej D. Abbas, Hussein A. Alabdly, Thamer J. Mohammed, **Qusay F. Alsalhy**, Thamera Kidher, Lamees H. Fahad, Hamsa Ahmed and Remonda H. Melkon, Preparation of PPSU Hollow Fiber Nanofiltration Membranes for Nanofiltration Application, Iraqi Journal of Chemical and Petroleum Engineering, 18 (2017) 13-25.

40. **Qusay F. Alsalhy**, Ahmed A. Mohammed, Salwa H. Ahmed, Khalid T. Rashid, Mohammed A. AlSaadi Estimation of Nanofiltration Membrane Transport Parameters for Cobalt Ions Removal from Aqueous Solutions, Desalination and Water Treatment, 108, (2018) 235-245. **(Balaban Publisher)**

41. Sufyan Fadhil, **Qusay F. Alsalhy**, Hassan F. Makki, René Ruby-Figueroa, Tiziana Marino,Criscuoli Alessandra, Francesca Macedonio, Lidietta Giorno, Enrico Drioli, Alberto Figoli, Seawater desalination using PVDF-HFP membrane in DCMD process. Assessment of operating condition by Response Surface Method, Chemical Engineering Comunications, 206 (2), (2019) 237-246. **(Springer)**

42. **Qusay F. Alsalhy**, Salah S. Ibrahim, Fatima A. Hashim, Experimental and theoretical investigation of air gap membrane distillation process for water desalination, **Chemical Engineering Research and Design,** 130 (2018) 95-108. **(Elsevier)**

43. **Qusay F. Alsalhy**, Faris H. Al-Ani, Arshed E. Al-Najar, A new Sponge-GAC-Sponge membrane module for submerged membrane bioreactor use in hospital wastewater treatment, Biochemical Engineering Journal, 133 (2018) 130-139. **(Elsevier)**

44. Aljumaily M.M, Alsaadi M.A., Das R., Hamid S.B.A., Hashim N. A, AlOmar M.K., Alayan HM., Novikov M., Qusay F. Alsalhy, Hashim M. A., Optimization of the Synthesis of Superhydrophobic Carbon Nanomaterials by Chemical Vapor Deposition, Scientific report, published online 2018. **(Nature springer)**

45. Qusay F. Alsalhy, Faris H Al-Ani, Arshed E Al-Najar, Sura IA Jabuk, A study of the effect of embedding ZnO-NPs on PVC membrane performance use in actual hospital wastewater treatment by membrane bioreactor, Chemical Engineering and Processing-Process Intensification, 130 (2018) 262-274. **(Elsevier)**

46. MM Aljumaily, MA Alsaadi, NA Hashim, **QF Alsalhy**, FS Mjalli, MA Atieh, PVDF-co-HFP/superhydrophobic acetylene-based nanocarbon hybrid membrane for seawater desalination via DCMD, Chemical Engineering Research and Design 138, (2018) 248-259. **(Elsevier)**

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Reviewer For International Journals (Clarivate)

Chemical Engineering Journal, Chemical Engineering and Technology, Journal of polymer research, Fiber and Polymers, Journal of Industrial and Engineering Chemistry, Chemical Engineering Communications, Journal of Applied polymer Science, Journal of Membrane Science, Journal of Chemical Engineering, Biotechnology**,** Desalination and water treatment, Separation Science and Technology, ACS Journal, Membrane and Water Treatment, Journal of Food, Separation and Purification Technology**,** International Journal of Green Energy, Chemical Engineering Communications, Brazilian Journal of Chemical Engineering.

International Conference Committee

1- Scientific committee for International conference on materials Engineering and Science, IconMEAS, Istanbul Aydin University, 8-8-2018

2- Scientific committee for International conference on materials Engineering and Science; IconMEAS, University of Technology, 2019.

National conference committee

1- Scientific committee, First scientific conference on the novel Techniques for refinery of oil and gas; April 2011
2- Scientific committee, ICANMA2018, University of Technology 2018.
3- Keynote speaker; Novel Techniques for wastewater treatment symposium; with AlMustaqbal University College, 2017.
4- Keynote speaker; World Water day symposium at Al-kitab University, 2019.
5- Keynote speaker; Basra water: Problem and solution symposium at Middle Technical University, 2019.
6- Keynote speaker; Basra water symposium at Chemical Engineering Department, University of technology, 2019.
7- Chairman of 4th postgraduate studies conference of Chemical Engineering 9-11 of June 2021.

Scientific and administrative committees

1. Member of the Board of Trustees of the Arab Organization for Engineering Education and Academic Accreditation / Federation of Arab Engineers 2020 and continuing
2. Head of the national assessor team for engineering and technical disciplines / affiliated to the Scientific Supervision and Evaluation Authority / Ministry of Higher Education and Scientific Research
3. Chairman of the Promotions Committee in the Chemical Engineering Department
4. Member of the University Promotions Committee

5. Member of the Scientific Promotions Committee in the Department of Chemical Engineering
6. Directly responsible for the Engineering Education Quality Assurance Division
7. Chairman of the Ministerial Committee to Introduce Postgraduate Studies at the Al-Khwarizmi College of Engineering, University of Baghdad
8. Chairman of the Ministerial Committee to Introduce Postgraduate Studies at the College of Engineering, University of Al-Qadisiyah
9. Chairman of the Ministerial Committee to Introduce Postgraduate Studies/Higher Diploma in the College of Engineering, Chemical Engineering Department/University of Al-Qadisiyah
10. Member of the University Graduate Studies Committee
11. Member of the University Teaching Competence Committee
12. Chairman of the Teaching Competence Committee in the Department of Chemical Engineering
13. Chairman of the Scientific Committee in the Department of Chemical Engineering
14. Chairman of the Graduate Studies Committee in the Department of Chemical Engineering
15. Chairman of the Scientific Citation Committee in the Department of Chemical Engineering
16. Member of the Audit Committee for research submitted for scientific promotions published in fake university journals
17. Chairman of the Comprehensive Examination Committee for PhD Students in the Department of Chemical Engineering
18. Chairman of the Competitive Examination Committee for Postgraduate Students in the Department of Chemical Engineering
19. Chairman of the Committee for translating the Chemical Engineering Department Manual into English
20. Head of the follow-up committee for the implementation of the memorandum of understanding with Al-Mustaqbal Private College
21. Chairman of the Books Committee in the Department of Chemical

Engineering

22. Head of the Maintenance Committee, Chemical Engineering Department

23. Member of the Certificate Equivalency Committee / Iraqi Engineers Syndicate / 2015 / Ongoing

24. Chairman and member of temporary committees

25. Member of scientific and preparatory committees for local and international conferences

26. Chairman and member of the discussion committees for doctoral, masters and higher diploma students in all universities of Iraq, Malaysia, and Iran.

Important Committees

1. Committee for establishing new Nanotechnology research center
2. Committee for establishing Department of Oil Technology
3. Founder of Membrane Technology Research Unit
4. Scientific Committee in Chemical Engineering Department
5. Postgraduate Committee in Chemical Engineering Department

Editor in chief and Editorial board in the following Journals

- Editor in Chief in Engineering and technology Journal, Publish bغ University of technology.
- Editor in The Open Chemical Engineering Journal, https://openchemicalengineeringjournal.com/editorial-board.php (Scopus Q3)
- Iraqi Journal of Chemical and Petroleum Engineering, Ministry of Higher Education of Iraq Publishing
- American Journal of Modern Chemical Engineering, Columbia International publishing

Contracts and projects

1. Five contracts and projects with Ministry of Industry and Minerals of Iraq,

Preparation of different hollow fiber membranes for different applications, 2011-2015.

2. A. F. Qusay, Z. L. Xu, Numerical Simulation of a Mathematical Model for Dry/Wet-Spun Nascent Hollow Fiber Membrane, and "Investigation of Polyvinyl Alcohol (PVA) Recovery from the Simulated Wastewater Using Horizontal and Vertical Polyethersulfone (PES) Hollow Fiber UF Modules", Contract grant sponsor: National Nature Science Foundation of China (No. 20076009), Development Project of Shanghai Priority Academic Discipline and National Key Fundamental Research Development Plan ("973" Plan, No.2003CB615705).
3. Z. L. Xu, A. F. Qusay, Effect of Polyethylene glycol (PEG) Molecular Weights and Concentrations on Polyethersulfone (PES) Hollow Fiber Ultrafiltration Membranes, (Contract grant sponsor: National Nature Science Foundation of China; and Development Project of Shanghai Priority Academic Discipline. Contract grant number: 20076009.
4. Z. L. Xu, A. F. Qusay, "Polyethersulfone (PES) Hollow Fiber Ultrafiltration Membrane Prepared by PES/Non-solvent/NMP Solution", and "Ethanol-Water Mixture Separation by Pervaporation Process Using (PVA/PSf) Hollow Fiber Composite Membranes", Contract grant sponsor: National Nature Science Foundation of China (No. 20076009), National Key Fundamental Research Development Plan ("973" Plan, No. 2003CB615705) and Development Project of Shanghai Priority Academic Discipline.
5. A. F. Qusay, "Effect of Alcohol as Additives on the Morphology, Performance and Mechanical Properties of PES hollow fiber Ultrafiltration Membrane", Contract grant sponsor: Ministry of Higher Education and Scientific Research, Iraqi government, Contract No. 353, Contract period: Nov. 2005 to May 2007.
6. A. F. Qusay, "PVA Recovery from simulated wastewater Using PES hollow fiber UF membranes: Part II; Effect of Carboxymethyl Cellulose CMC Addition", Contract grant sponsor: Ministry of Higher Education and Scientific Research, Iraqi government, Contract No. 354, Contract period: Nov. 2005 to May 2007.
7. A. F. Qusay, "Studying Effect of PEG Molecular Weights on Morphology, Properties and Oil-Surfactant-Water Separation System of Hollow Fiber

Ultrafiltration Membranes", Contract grant sponsor: Ministry of Higher Education and Scientific Research, Iraqi government, Contract period: Nov. 2006 to May 2008.

8. Qusay Alsalhy, "Desalination of Saline water using forward osmosis technique" Contract sponsor: Almustaqbal University College, 2018-2019. Number 20.
9. Qusay Alsalhy, " Preparation and Characterization of low PPSU concentration for ultrafiltration application', Contract grant Sponsor: Almustaqbal University College, 2018-2019 Number 23.

Research Interests

Membrane separations; (i.e. Microfiltration, Ultrafiltration, Nanofiltration, Pervaporation and Gas separation processes, Membrane distillation, and Forward osmosis); Powder Technology; Nanotechnology; Biochemical Engineering and Bioprocessing.

Recommended Reference

1. Dr. Xu Zhen-Liang, Chemical Engineering Research Center, Membrane Separation Director, East China University of Science and Technology, 130 Meilong Road, Shanghai 200237, China.
2. Prof. Enrico Drioli, Institute on Membrane Technology, ITM-CNR, Italy.
3. Prof. Bart van der Bruggen, Chemical Engineering Department, K.U. Leuven, Belgium.
4. Dr. Mumtaz A. Zablouk, Head of Chemical Engineering Department, University of Technology, P.O.Box 35010, Baghdad, Iraq.
5. Dr. M. Khayet, Department of Applied Physics I, Faculty of Physics, Complutense University of Madrid, Spain.
6. Dr. Safa A. Al Naimi, Chemical Engineering Department, University of Technology, P.O.Box 35010, Baghdad, Iraq.
7. Dr. Essam K. Halabia, Director of Unit Operation Branch, Chemical Engineering Department, University of Technology, P.O.Box 35010, Baghdad, Iraq.
8. Dr. Y.M. Wei, Chemical Engineering Research Center, East China University of Science and Technology, 130 Meilong Road, Shanghai 200237, China.