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| Currently | Professor at Department of Chemical Engineering Qatar University | |
|---------------------|--|----------------------|
| Courses | Advanced Air Pollution Process Modeling and Simulation Unit Operations (solid handling) Pollution and its Control Air Pollution and its Control Separation Processes Fluid Mechanics Thermodynamics for Chemical Engineers Fundamentals of Chemical Engineering Numerical Methods Desalination Processes | |
| Research | Modeling and simulation of thermal processes. Crystallization and scaling prevention. Desalination. Membrane synthesis. Air pollution control | |
| Associate Professor | Department of Chemical Engineering at Qatar University | Sept 2007 –June 2013 |
| Associate Professor | Department of Chemical Engineering at Jordan University of Science & Technology (JUST) | Aug 2004 – Aug 2007 |
| Assistant Professor | Department of Chemical Engineering at JUST | Jan 2000-Aug 2004 |
| Full-time lecturer | Department of Chemical Engineering at JUST | Sept 98 - Jan 2000 |
| Postdoctorate | Department of Chemical Engineering at University of Wisconsin-Madison | Jan 97 - Aug 98 |
| Education | University of Bremen . Bremen, Germany Ph.D. in Chemical Engineering Thesis: The Growth Kinetics in the Crystallization | Aug 96 |
| | from Solution in Presence of Additives University of Jordan. Amman, Jordan M.Sc. in Chemical Engineering Thesis: Crystallization of KCl from KCl Solutions and from Carnallite Solutions | June 91 |
| | Jordan University of Science & Technology. Irbid, | June 88 |

| | B.Sc. in Chemical Engineering Senior Project: Drying Curves of Potassium Chloride | |
|---|---|--|
| Teaching Assistantship | University of Bremen University of Jordan | Fall 92 - Fall 96 Fall 88 - Spring 91 |
| Work Experience | Arab Potash Company. Dead Sea, Jordan | Nov 91-April 92 |
| | Technical Department Jordan Petroleum Refinery Company. Zarka, Jordan Summer Engineer | Summer 87 |
| Honors | German Academic Exchange Service Scholarship (Deutscher Akademischer Austauschdienst DAAD) | April 92-Dec 96 |
| | Invited researcher . Chemical Engineering Dept. University of Halle-Wittenberg. Germany | July-Augt 2000 |
| | Invited researcher . Chemical Engineering Dept. University of Halle-Wittenberg. Germany | July-Aug 2001 |
| | National Program: Faculty for Factory. Funded by the Higher Council of Science and Technology-Jordan Qatar Gas Company : summer internship in Ras Laffan - Qatar | July-Oct 2004 July-Oct 2006 July-August 2008 |
| Local Activities | Environmental Impact Assessment (EIA) Committee at Ministry of Environment-Jordan | Aug 2003 - Sept 2007 |
| | "Sulfur Cement Certification" Committee at Qatar Standards – Qatar | Jan 2009 –Sept 2010 |
| Short Courses delivered to industry | Sea Water Desalination held at Saudi Electricity Company, Jeddah | 11-13 Nov. 2001 |
| maasay | Steam and Water Quality held at Saudi Electricity Company, Jeddah | 14-15 Nov. 2001 |
| | Desalination Principles "Water Skills Enhancement & Information to Decision- Makers In Jordan's Water Sector", WERSC, University of Jordan, Amman | 20-24 April 2003 |
| | WERSE, University of Jordan, Amman Desalination Operation & Maintenance "Water Skills Enhancement & Information to Decision-Makers In Jordan's Water Sector", WERSC, University of Jordan, Amman | 1-5 June 2003 |
| | Boiler Feed Treatment & Desalination held at ADMA-OPCO – Das Island, Abu Dhabi, UAE | 11-14 December 2006 |
| | Water Treatment GASCO CAMS Training program. Abu Dhabi, UAE | 29 April–May 01 2007 |
| | Boiler Feed Water Treatment & Steam Generation TUV-Akademie, Dubai, UAE | 25 – 29 Nov 2007 |
| | Water Treatment GASCO CAMS Training program. Abu Dhabi, UAE | 18 – 20 Nov 2008 |
| | Heat Exchanger: Operation, maintenance and troubleshooting Doha- Qatar. organized by Horizon services | 28 -31 May 2012 |
| | Desalination , Demineralization Water treatment & Boiler feed water preparation Sur-Oman, organized by Tadreeb; training and consultancy | 9 – 11 Sept. 2013 |

| Professional Associations | Jordan Engineers Association (JEA) European Desalination Society (EDS) American Ecological Engineering Society (AEES) |
|------------------------------|---|
| Languages | Very good language skills in English, German and Arabic |

Publications (After Year 2000)

<u>Journals</u>

1. Gildeh H., Mohammadian A., I. Nistor, H. Qiblawey and X. Yan. CFD Modelling and Analysis of the Behavior of 30° and 45° Inclined Dense Jets; New Numerical Insights. Journal of Applied Water Engineering and Research. Accepted (2015).

2. Perera D.H.N., Q. Song, H.A.M. Qiblawey and E. Sivaniah. Regulating the aqueous phase monomer balance for flux improvement in polyamide thin film composite membranes. Journal of Membrane Science 487, 74 - 82 (2015).

3. Shirkhani H., Mohammadian A., Ousmane S. and H. Qiblawey. Analysis of triangular C-grid finite volume scheme for shallow water flows. Advances in Water Resources 82, 176–195 (2015)

4. Shirkhani H., Ousmane S., Mohammadian A. and H. Qiblawey. Projection of Significant Wave Height in a Coastal Area under RCPs Climate Change Scenarios. Natural Hazards Review, DOI: 10.1061/(ASCE)NH.1527-6996.0000192 (2015)

5. Gildeh H., Mohammadian A., I. Nistor and H. Qiblawey. Numerical modeling of 30° and 45° inclined dense turbulent jets in stationary ambient. Environmental Fluid Mechanics 15, 537 – 562 (2015).

6. Judd S., Qiblawey H., Al-Marri M., Clarkin C., Watson S., Ahmed A. and S. Bach. The size and performance of offshore produced water oil-removal technologies for reinjection. Separation and Purification Technology 134, 241 – 246 (2014).

7. Black R., Sartaj M., Mohammadian A. and H. Qiblawey. Biosorption of Pb and Cu using fixed and Suspended Bacteria. Journal of Environmental Chemical Engineering 2, 1663 – 1671 (2014).

8. Hazim Qiblawey, M. Arshad, A. Easa and M. Atilhan. Viscosity and Density of Ternary Solution of Calcium Chloride + Sodium Chloride + Water from T = (293.15 to 323.15) K. Journal of Chemical and Engineering Data 59, 2133-2143 (2014)

9. Gildeh H., Mohammadian A., I. Nistor and H. Qiblawey. Numerical Modeling of Turbulent Buoyant Wall Jets in Stationary Ambient Water. ASCE's Journal of Hydraulic Engineering 140 (6) (2014) (doi: 10.1061/(ASCE)HY.1943-7900.0000871)

10. Perera D.H. N., S.K. Nataraj , N. M. Thomson, A. Sepe , S. Hüttner, U. Steiner, H. Qiblawey and E. Sivaniah. Room-temperature development of thin film composite reverse osmosis membranes from cellulose acetate with antibacterial properties. Journal of Membrane Science 453, 212 - 220 (2014)

11. Beljadid A., A. Mohammadian and Hazim Qiblawey An Unstructured Finite Volume Method for Large-scale Shallow Flows using the Fourth-order Adams Scheme. Computers & Fluids 88, 579 - 589 (2013)

12. Beljadid A., A. Mohammadian and Hazim Qiblawey. Numerical simulation of rotation dominated linear shallow water flows using finite volume methods and fourth order Adams scheme. Computers & Fluids 62, 64 - 70 (2012)

13. Hazim Qiblawey, F. Banat, and Al-Naser Q. Performance of reverse osmosis pilot plant powered by Photovoltaic in Jordan, Renewable Energy 36, 3452 – 3460 (2011)

14. Hazim Qiblawey and Abu Jdayil B. Viscosity and Density of the Ternary Solution of Magnesium Chloride + Sodium Chloride + Water from (298.15 to 318.15) K. Journal of Chemical and Engineering Data 55, 3322 – 3326 (2010)

15. Hazim Qiblawey, M. Papapetrou and F. Banat A Strategy for the Introduction of Desalination Powered by Renewable Energy in Jordan, Desalination and Water Treatment 3, 252 – 260 (2009)

16. Hazim Qiblawey, F. Banat, and Q. Al-Naser Laboratory setup for water purification using household PV-driven reverse osmosis unit, Desalination and Water Treatment 7, 53 - 59 (2009)

17. Fawzi Banat, H. Qiblawey and Q. Al-Naser Economic evaluation of a small autonomous system powered by PV installed in the Village of Hartha, Jordan, Desalination and Water Treatment 3, 169 - 174 (2009)

18. H. Mohameed Qiblawey and F. Banat Solar Thermal Desalination Technologies. Desalination 220, 633-644 (2008)

19. Mjalli F., Ettouney H., Abdel-Jabbar N. and H. Qiblawey Design and Operating Characteristics of Pilot Scale Reverse Osmosis Plants Desalination 222, 441 - 450 (2008)

20. Abu-Jdayil B., Mohameed H. A. and A. Bsoul A Determination of Optimal Dead Sea Salt Content in Cosmetic Emulsion Using Rheology and Stability Measurements. Journal of Cosmetic Science 59, 1-14 (2008)

21. Majali F., Abdel-Jabbar N, H. Ettouney and H. Qiblawey. Advanced Computational Techniques for Solving Desalination Plant Models Using Neural and Genetic based, Chemical Product and Process Modeling. Vol. 2, Iss. 3, Art. 29, 1-24 (2007)

22. Abdel-Jabbar N., Mjalli F.S., H. Mohameed Qiblawey and H. Ettouney Development of Web Based Computer Package for the Simulation of Thermal Desalination Processes, Chemical Product and Process Modeling. Vol. 2, Iss. 3, Art. 14, 1-27 (2007)

23. Abdel-Jabbar N., Mohameed Qiblawey H., Mjalli F.S. and H. Ettouney Simulation of Large Capacity MSF Brine Circulation Plant. Desalination. 204, 501-514 (2007)

24. Mjalli F., Abdel-Jabbar N., Qiblawey H. and H Ettouney Neural and genetic based techniques for solving the MSF model as opposed to conventional numerical methods Computer Aided Chemical Engineering, Volume 24, Pages 297-302 (2007)

25. Banat F, Subiela V. and H. Mohameed Qiblawey Site Selection for the Installation of Autonomous Desalination Systems (ADS). Desalination 203, 410 - 416 (2007)

26. Mohameed H. , Abu Jdayil B. and K. Takrouri Separation of Para-Xylene from Xylene Mixture via Crystallization. Chemical Engineering & Processing 46, 25 – 36 (2007)

27. Abu Jdayil B., Mohameed H. A. A Facial Mask Comprising Dead Sea Mud. Journal of Cosmetic Science 57, 441-454 (2006).

28. Mohameed H.A., Abu Jdayil B. and A Eassa Flow Properties of Corn Starch-Milk-Sugar System Prepared at 368.15 K. Journal of Food Engineering. 77, 958-964 (2006)

29. Abdel-Jabbar N., Mjalli F.S., H. Mohameed Qiblawey and H. Ettouney Computer Package for Design and Costing of Thermal and Membrane Desalination Processes, International Desalination Association World Congress, paper # SP05-218, Singapore, Sept. (2005)

30. Abu Jdayil B., Mohameed H. A. Rheology of Dead Sea Shampoo Containing the Antidandruff Climbazole. International Journal of Cosmetic Science. 26, 281-289 (2004).

31. Al-Rawajfeh A. E., Glade H., Mohameed H. A. and J. Ulrich Simulation of CO2 Release in Multiple-Effect Distillers. Desalination. 166, 41-52 (2004).

32. Abu Jdayil B., Mohameed H. A., Snouber T. and M. Sa'id Rheology and Storage Test of Dead Sea Shampoo. Applied Rheology. 14, 96-103 (2004).

33. Mohameed H. A., B. Abu Jdayil and A. Al-Shawabkeh Effect of Solids Concentration on the Rheology of Labneh (Concentrated Yogurt) Produced from Sheep Milk. Journal of Food Engineering. 61, 347-352 (2004).

34. Abu Jdayil B., Mohameed H. A., M. Sa'id and T. Snouber Rheological Characterization of Hair Shampoo in the Presence of Dead Sea Salt. International Journal of Cosmetic Science. 26, 19-29 (2004).

35. Abu Jdayil B., Mohameed H. A. and A Eassa Rheology of Starch-Milk-Sugar Systems: Effect of Heating Temperature . Carbohydrate Polymers. 55, 307-314 (2004).

36. Abu Jdayil B., Mohameed H. A. and A Eassa Rheology of Wheat Starch-Milk-Sugar Systems: Effect of Starch Concentration, SugarTtype and Concentration, and Milk Fat Content. Journal of Food Engineering. 64, 207-212 (2004). 37. Abu Jdayil B. and H. A. Mohameed Time-Dependent Flow Properties of Starch-Milk-Sugar Pastes. European Food Research and Technology. 218, 123-127 (2004).

38. Mohameed H.A. Abdel-Jabbar N., Takrouri K. and A. Nasr Model-Based Optimal Cooling Strategy for Batch crystallization Processes Trans IChemE, Part A,81, 578-584 (2003).

39. Abu Jdayil B. and H. A. Mohameed Experimental and Modeling Studies of the Flow Properties of Labneh as Affected by the Storage Time. Journal of Food Engineering. 52, 359-365 (2002).

40. Mohameed H.A., Abu Jdayil B. and M. Al Khateeb Effect of Cooling Rate on Unseeded batch Crystallization of KCl. Chemical Engineering and Processing, 41, 297-302 (2002).

41. Patience, D., Rawlings J.B. and H.A. Mohameed Crystallization of para Xylene in Scraped Surface Crystallizer. AIChE Journal, 47, 2441-2451 (2001).

Books

1. Banat F. and H. *Qiblawey "Membrane Desalination driven by Solar Energy"*. In "Solar Desalination for the 21st Century" Rizzuti L., Ettouney H.M. and A. Cipollina (editors), pages 271 – 291. Springer, Dordrecht. The Netherlands (2007). ISBN 9781402055072

2. H.A. <u>Mohameed</u> Wachstumskinetik in der Loesungskristallisation mit Fremdstoffen. PhD Thesis, Universitaet Bremen, Shaker Verlag, Aachen, ISBN 3-8265-1952-3 (1996).

Conferences and Presentations

- 1. The EuroMed 2015 conference Desalination for Clean Water and Energy, 10-14 May 2015, Palermo, Italy.
- 2. The Fourth International Annual Gas Processing Symposium. October 26 27, 2014. Doha- Qatar.
- 3. Water World Middle East 2014 conference and exhibition. October 12 –14, 2014. Abu Dhabi, United Arab Emirates.
- 4. The Second Arab Water Conference and Exhibition, May 27 29, 2014. Doha Qatar.
- 5. Conference and Exhibition on Desalination for the Environment: Clean Water and Energy. May 11-15, 2014, Limassol, Cyprus.
- 6. Qatar Foundation Annual Research Conference 2013, November 24-25, 2013, Qatar National Convention Center, Doha Qatar
- 7. Qatar National Research Fund (QNRF) Event on the occasion of holding COP 18 Environment & Climate Change "An assessment of present and future environmental impacts of major desalination plants in under changing climate" 29 November 2012, Doha, Qatar.
- 8. Qatar Environment & Energy Research Institute (QEERI) of Qatar Foundation. COP 18 Panel Discussion on: Climate Change: Scientists Suggestions for Mitigation In the GCC region. 27 November 2012, Doha, Qatar.
- 9. EU-GCC Clean Energy Network: EU GCC Co-operation on RES, Energy Efficiency & CCS Discussion Groups and Seminars. May 7-9, 2012, Doha, Qatar.
- 10. Desalination for the Environment: Clean Water and Energy. April 23–26, 2012, Barcelona, Spain.
- 11. The Third International Annual Gas Processing Symposium. March 5-7, 2012. Doha-Qatar
- 12. Water World Middle East 2012 conference. February 6-8, 2012, Doha, Qatar
- 13. GCC Power and Water Desalination Summit 2011. October 2 3, 2011. Doha Qatar
- 14. American Ecological Engineering Society Conference. May 22 25, 2011. Asheville, North Carolina USA
- 15.
- 16. American Society of Agricultural and Biological Engineers (ASABE) 2010 Annual International Meeting. June 20-23, 2010. Pittsburgh, Pennsylvania, USA.
- 17. Second Annual Gas Processing Symposium. January 11-14, 2010. Doha- Qatar
- 18. Seventh Doha Natural Gas Conference & Exhibition. March 9-12, 2009. Doha, Qatar
- 19. EuroMed 2008- Desalination for Clean Water & Energy. November 9-13 2008. Dead Sea, Jordan.
- 20. International Jordanian Chemical Engineering Conference V, 12–15 September 2005. Amman, Jordan.
- 21. Water Resources and Environment Protection in the Middle East and North Africa 4-5 October 2004. Amman, Jordan
- 22. EuroMed 2004- Desalination Strategies in South Mediterranean Countries 30 May- 3 June 2004. Marrakech, Morocco.
- 23. International Jordanian Chemical Engineering Conference IV, 22–24 September 2002. Amman, Jordan.
- 24. 15th Conference European Colloid and Interface Society (ECIS) 16-21 September 2001. Coimbra, Portugal.
- 25. International Jordanian Chemical Engineering Conference III 27 29 September 1999. Amman, Jordan.

- 26. Texas-Wisconsin Modeling and Control Consortium (TWMCC) 16-19 September 1997. Madison, Wisconsin USA.
- 27. 7th Annual Meeting of the Association for Crystallization Technology (ACT) 6-9 April 1997. Monsanto Chemical Company, St. Louis, Missouri, USA.
- 28. 13th Symposium on Industrial Crystallization 16-19 September 1996. Toulouse, France
- 29. Bremen International Workshop on Industrial Crystallization BIWIC 12-13 September 1996. Bremen, Germany.
- 30. International Conference on Crystal Growth XI, ICCG 18-23 June 1995. The Hague, The Netherlands.
- 31. Annual Meeting of the German Association for Crystallization Technology (GVC-Fachausschuss) 20-22 March 1995. Bad Hersfeld, Germany.
- 32. Bremen International Workshop on Industrial Crystallization BIWIC 8-9 September 1994. Bremen, Germany.
- 33. ACHEMA 94, International Meeting on Chemical Engineering and Biotechnology 5-11 June 1994. Frankfurt am Main, Germany.
- 34. Jordanian Chemical Engineering Conference I 18-20 October 1993. Amman, Jordan.
- 35. 12th Symposium on Industrial Crystallization 21-23 September 1993. Warsaw, Poland.
- 36. Delft & Bremen International Workshop on Industrial Crystallization D+BIWIC 13-16 September 1993. Bremen, Germany.

Current Active research grants

| No | Title | Start Date | Budget (US\$) | Funded by |
|----|--|------------|------------------|--|
| 1 | Tertiary Treatment Of Produced Water For Reinjection | 08/12/2013 | 950,000 | Industrial funded project by Maersk Oil Research & Technology Center, Doha - Qatar |
| 4 | An assessment of present and future environmental impacts of major desalination plants in Qatar under changing climate | 01/04/2012 | 1,047,117 | Qatar National Research Fund, Fourth Cycle National Priorities Research Program (NPRP) |

Recently closed research grants

| No | Title | Close Date | Budget | Funded by |
|----|---|-------------------|---------|---|
| | | | (US\$) | |
| | Treatment of Laundry Wastewater From | 01/04/2015 | 8,500 | Internal grant - Qatar University |
| | Hospitals Using Membrane Technology | | | QUST-CENG-SPR-13/14-4 |
| 1 | Carbon Nano Tubes Embedded Thin Film | 18/08/2014 | 40,000 | Qatar National Research Fund, 14 th Cycle |
| | Nanocomposites For Seawater Desalination | | | Undergraduate Research Experience Program (UREP) |
| 2 | Synthesis and Evaluation of Polyetherimide- | 01/04/2014 | 38,500 | Internal grant - Qatar University |
| | Polyamide Thin Film Composite for High | | | QUUG-CENG-DCH-12/13-9 |
| | Pressure Reverse Osmosis | | | |
| 3 | The development of nanostructured composite | 01/12/2014 | 988,908 | Qatar National Research Fund, Third Cycle National Priorities |
| | membranes for reverse osmosis desalination | | | Research Program |
| | units | | | (NPRP) |
| 4 | Green infrastructure for greywater and A/C | Jan 2013 | 491,045 | Qatar National Research Fund, Second Cycle National |
| | condensation reuse | | | Priorities Research Program |
| | | | | (NPRP) |
| 5 | A/C condensate, A Source of Water for | Oct 2012 | 27,750 | Qatar National Research Fund, 10 th Cycle |
| | Hydroponic Farming | | | Undergraduate Research Experience Program (UREP) |

| 6 | Viscosity and Density Measurements of Concentrated NaCl-CaCl2-H2O Aqueous Solutions at Different Temperatures | July 2012 | 32,000 | QUUG-ENG-DCE-10/11-10 |
|---|---|-------------------|--------|---|
| 7 | Household Laundry Wastewater Reuse For Food Production | September 2013 | 37,700 | Qatar National Research Fund, 11 th Cycle Undergraduate Research Experience Program (UREP) |

Early Funded Projects (value US\$ 10,000 – 500,000)

| No | Title | Start date | Status | Funded by |
|----|--|------------|--------|--|
| 1 | Batch Crystallization of Potash: | 01/01/2000 | Closed | Jordan University of Science and Technology |
| | Estimation of Kinetic Parameters | | | Grant No (196/99) |
| 2 | Separation of para-Xylene from Isomers | 01/01/2000 | Closed | Jordan University of Science and Technology |
| | mixture via Crystallization | | | Grant No (215/99) |
| 3 | Production of Ferric Chloride by | 25/06/2000 | Closed | The Higher Council for Science and Technology |
| | Recycling of Scraped Iron | | | Grant No (192/2000) |
| 4 | Modeling and Simulation of the Release | 26/6/2001 | Closed | The Middle East Desalination Research Center |
| | of CO ₂ in Multiple Effect Distillers- | | | (MEDRC) |
| | Phase A | | | Grant No (84/2001) |
| 5 | Viscosity Measurement of Ternary | 09/09/2001 | Closed | Abdul Hameed Shoman's Fund for the Support and |
| | Aqueous Solutions to be found in Dead | | | Encouragement of Scientific Research |
| | Sea | | | |
| 6 | Modeling and Simulation of the Release | 01/03/2003 | Closed | The Middle East Desalination Research Center |
| | of CO ₂ in Multiple Effect Distillers – | | | (MEDRC) |
| | Phase B | | | |
| 7 | Autonomous Desalination System | 01/08/2003 | Closed | European Union |
| | Concepts for Sea Water and Brackish | | | (EU) |
| | Water in Rural Areas with Renewable | | | |
| | Energies: Potentials, Technologies, Field | | | |
| | Experience, Socio-Technical and | | | |

| | Socio-Economic Impacts (ADIRA) | | | |
|---|-----------------------------------|------------|--------|-----------------------------------|
| 8 | Viscosity Measurement of Aromatic | 01/03/2008 | Closed | Internal grant - Qatar University |
| | Mixtures | | | |