Khaled J. Elsaid, Ph.D.

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Education/Academic Qualifications:

Spring 2017: Ph.D. in Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada.

Thesis: Development, Modelling, Analysis, and Optimization of a Novel Inland Desalination with Zero Liquid Discharge for Brackish Groundwaters.

May 2010: Corporate Innovation and Entrepreneurship Program CIEP 2010,

Donald H. Jones Center for Entrepreneurship, David A. Tepper School of Business, Carnegie Mellon University in Qatar-CMUQ.

Sep. 2005: M.Sc. in Chemical Engineering, Minia University, Egypt.

Thesis: Biosurfactant Production from Renewable Resources.

May 2000: B.Sc. in Chemical Engineering, Minia University, Egypt,

Honor: Bachelor of Science with Honor Degree

Academic Experience:

Jan. 2018 - May 2018: Visiting Lecturer, Chemical Engineering Program, Texas A&M at Qatar, Doha, Qatar.

Jan. 2007 – Dec. 2017: Technical Lab Coordinator/Laboratory Manager, Chemical Engineering Program, Texas A&M at Qatar, Doha, Qatar.

March. 2002 - Dec. 2006: Assistant Lecturer / Research Associate, Chemical Engineering Department, Faculty of Engineering, Minia University, Egypt.

Sep. 2000 – Feb. 2002: Research Assistant, Ore Treatment Lab, Central Metallurgical Research and Development Institute CMRDI, Cairo, Egypt.

Awards and Honours

- 1- 3rd Place in "Visualization Development Competition VDC11" for a project entitled " Visualization of Fouling, Scale Formation and Deposition on Membrane Surfaces during Water Desalination," 2011, Texas A&M University at Qatar.
- 2- "5-Years Excellent service Award", 2012, Texas A&M University at Qatar.
- 3- 1st Place in "Visualization Development Competition VDC14" for a project entitled "**Development** of a Model-Based Visualization of Multi-Phase Flow with Reaction inside Monolithic Catalyst Support in Catalytic Packed Bed Reactors," 2014, Texas A&M University at Qatar.
- 4- "Academic Laboratory Safety Award," 2015-2016, Texas A&M University at Qatar
- 5- "10-Years Excellent service Award", 2017, Texas A&M University at Qatar.

Peer Reviewed Journal Publications

- 26. Zafar Said, Anis Allagui, Mohammad A. Abdelkareem, Hussain Alawadhi, Enas T. Sayed, Khaled Elsaid, "Effect of Co Doping on the Capacitive Behavior of Carbon Nanofibers," Submitted to Elctrochimica Acta, May 2018.
- Mohammad A. Abdelkareem, Enas T. Sayed, <u>Khaled Elsaid</u>, "Progress in Transition Metal 25. Carbides and Nitrides as Electrodes for Fuel Cells," Submitted to Scientific Reports, May 2018.
- Khaled Elsaid, Ahmed Abdel-Wahab, Bill Batchelor, "Kientics of Halogenated Byproducts 24. Formation in Chlorinated Seawater," Submitted to Desalination and Water Treatment, April 2018.
- 23. Khaled Elsaid, Zafar Khan Ghouri, Saeed Al-Meer, Mohammad A. Abdelkareem, "Urea Fuel Cell: An effective tool for dual wastewater treatment and power generation; potentials and challenges," Submitted to Journal of Power Sources, April 2018.
- 22. Zafar Khan Ghouri, Khaled Elsaid, Saeed Al-Meer, Nasser A.M. Barakat, "Engineering of hybrid graphene-Pt/TiO₂ nanostructure as efficient photocatalytic system for the treatment of wastewater coming from textile industries" Submitted to Scientific Reports, April 2018.
- Khaled Elsaid, M. Shamrukh, A. Elkamel, A. Abdel-Wahab, "Removal of Sulfate and Silica from 21. Groundwater Desalination Brine for Zero Liquid Discharge," Submitted to Desalination and Water Treatment, March 2018.
- 20. Zafar Khan Ghouri, Khaled Elsaid, Saeed Al-Meer, Nasser A.M. Barakat, "Synthesis of selfassembled core shell (Zinc Oxide-Carbon) microstructure-A green alternative electrocatalyst for ethanol electrooxidation" Submitted to International Journal of Electrochemical Science, March 2018.
- 19. Khaled Elsaid, M. Shamrukh, A. Elkamel, A. Abdel-Wahab, "Systematic assessment of NF-RO Hybrid Desalination System for High Recovery Brackish Groundwaters Desalination," Submitted to Desalination and Water Treatment, March 2018.
- 18. Zafar Khan Ghouri, Khaled Elsaid, Saeed Al-Meer, Nasser A.M. Barakat, "CePd nanoparticles incorporated Carbon nanofibers as efficient counter electrode for DSCCs" Submitted to Journal of Material Science – Material in Electronics, February 2018.
- 17. Khaled Elsaid, Stijepovic, M., M. Shamrukh, A. Elkamel, A. Abdel-Wahab, "Development and Validation of ion-specific permeability-coefficient membrane model for RO Desalination," Submitted to Desalination and Water Treatment, February 2018.
- 16. Khaled Elsaid, Stijepovic, M., M. Shamrukh, A. Elkamel, A. Abdel-Wahab, "Desalination of Brackish Groundwater: Potentials and Challenges – A review," Submitted to Desalination, February 2018.
- Mohammad A. Abdelkareem, Enas T. Sayed, Anis Allagui, Zafar Said, Khaled Elsaid, M. El Haj 15. Assad, "Comparative analysis of liquid versus vapor-feed passive direct methanol fuel cells pDMFC," Submitted to Renewable Energy, January 2018.
- 14. Zafar Said, Anis Allagui, Mohammad A. Abdelkareem, Hussain Alawadhi, Khaled Elsaid, "Acidfunctionalized carbon nanobers for high stability, thermoelectrical and electrochemical properties of nanofuids," Journal of Colloid and Interface Science (2018), Vol 520, pp. 50 – 57.

- 13. E. K. Hlil D. Turki, Zafar Khan Ghouri, Saeed Al-Meer, <u>*Khaled Elsaid*</u>, Ahmed Easa, M.I.Ahmad, M. Ellouze, "Synthesis and physiochemical studies of perovskite manganite La0.8Ca0.2Mn1-xCoxO3 ($0 \le x \le 0.3$)," Journal of Magnetics (2017) Vol 22 (3), pp. 353 359.
- 12. Dorra Turki, Zafar Khan Ghouri, Saeed Al-Meer, <u>*Khaled Elsaid*</u>, MI Ahmad, Ahmed Easa, Gyorgy Remenyi, Sami Mahmood, El Kebir Hlil, Mohamed Ellouze, Foued Elhalouani, "*Critical Behavior of La*_{0. 8}*Ca*_{0.2}*Mn*_{1-x}*Co*_x*O*₃ *Perovskite (* $0.1 \le x \le 0.3$ *)*", **Magnetochemistry (2017)** Vol 3 (3), 28.
- Zafar Khan Ghouri; Saeed Al-meer; Khaled Elsaid; Nasser A.M.Barakat "Applicable anode based on Co₃O₄-SrCO₃ hetero-structure nanorods incorporated CNFs with low onset potential for DUFCs", Applied Nanoscience (2017) Vol 7 (8), pp. 625 – 631.
- Zafar Khan Ghouri, Saeed Al-Meer, <u>Khaled Elsaid</u>, Ahmed Easa, Muneera Th. Al-Qahtani, M. Shaheer Akhtar, "Engineering of magnetically separable ZnFe₂O₄@ TiO₂ nanofibers for Dye-Sensitized Solar Cells and removal of pollutant from water", Journal of Alloys and Compounds (2017) Vol 723 (8) pp. 477 483.
- 9. Nasser AM Barakat, M. Shaheer Akhtar, Ibrahim MA Mohamed, Yara Abu Dakka, Rawan Hamdan, Ahmed G. El-Deen, <u>Khaled Elsaid</u>, M. Obaid, Saeed Al-Meer, "Effective and stable FeNi@ N-doped graphene counter electrode for enhanced performance dye-sensitized solar cells", Materials Letters (2017) Vol. 191, pp. 80-84.
- Seong-Min Ji, Zafar Khan Ghouri, <u>Khaled Elsaid</u>, Yo Han Ko, Saeed Al-Meer, MI Ahmad, Dong Ick Son, Hak Yong Kim, "Capacitance of MnO2 Micro-Flowers Decorated CNFs in Alkaline Electrolyte and Its Bi-Functional Electrocatalytic Activity toward Hydrazine Oxidation", Int. J. of Electrochemical Science (2017) Vol. 12, pp. 2583-2592.
- Antsar R Hlil, Salvador Moncho, Robert Tuba, <u>*Khaled Elsaid*</u>, Györgyi Szarka, Edward N Brothers, Robert H Grubbs, Mohammed Al-Hashimi, Hassan S Bazzi, "Synthesis and catalytic activity of supported acenaphthoimidazolylidene N-heterocyclic carbene ruthenium complex for ring closing metathesis (RCM) and ring opening metathesis polymerization (ROMP)", J. of Catalysis (2016) Vol. 344, pp. 100-107.
- Ibrahim H. M. Aly, L. Abed Alrahim Mohammed, Saeed Al-Meer, <u>Khaled Elsaid</u>, Nasser A. M. Barakat. "Preparation and characterization of wollastonite/titanium oxide nanofiber bioceramic composite as a future implant material," Ceramics International (2016) Vol. 42(10), pp. 11525-11534.
- Nasser A.M. Barakat, Enas Ahmed, Mohammad Ali Abdelkareem, T.E. Farrag, Saeed Al-Meer, Salem Al-Deyab, <u>*Khaled Elsaid*</u>, M.M. Nassar, "Ammonium Phosphate as Promised Hydrogen Storage Material." Int. J. of Hydrogen Energy (2015) Vol. 40(32), pp.10103-10110.
- M. Obaid, Nasser A.M. Barakat, Olfat A. Fadali, Saeed Al-Meer, <u>Khaled Elsaid</u>, Khalil Abdelrazek Khalil, "Stable and Effective Super-Hydrophilic Polysulfone Nanofiber Mats for Oil/Water Separation" Polymer (2015) Vol.72, pp.125-133.

- 3. Mohammed Al-Hashimi, Mohammed Abu Bakar, <u>Khaled Elsaid</u>, David Bergbreiter and Hassan Bazzi, "*Ring-Opening Metathesis Polymerization using Polyisobutylene Supported Grubbs Second-Generation Catalyst*", **RCS Advances (2014)**, Vol. 4, pp. 43766–43771.
- Mansouri, K.; <u>Elsaid, Khaled</u>; Bedoui A.; Bensalaha, N.; Abdel-Wahab A. "Application of Electrochemically Dissolved Iron in the Removal of Tannic Acid from Water," Chemical Engineering Journal (2011), Vol. 14, No. 2-3, pp. 970-976.
- Bedoui, A.; <u>Elsaid, Khaled</u>; Bensalah, N.; Abdel-Wahab, A. "Treatment of Pharmaceutical-Manufacturing Wastewaters by UV Irradiation/Hydrogen Peroxide Process," J. of Advanced Oxidation Technologies (2011), Vol. 14(2), pp. 226-234.

Peer Reviewed Conference Publications

- 8. <u>*Khaled Elsaid*</u>; M. Shamrukh, A. Elkamel, A. Abdel-Wahab, "Assessment of Groundwater quality in the State of Qatar for agriculture and domestic water supply applying membrane processes," **Proceedings of the 12th Gulf Water Conference**, Manama, Bahrain, 2017.
- <u>Khaled Elsaid</u>; Stijepovic, M. "Development of Model-Based Visualization Tool for Demonstration of Basic Separation Processes in Unit Operation Laboratory Courses," Proceedings of AIChE 2013 Annual Meeting, San Francisco, California, USA, 2013.
- <u>Khaled Elsaid</u>; Casson, V.; Hassiba, R. J.; Stijepovic, M.; Vetchot; L. N. "Integration of Process Safety in Chemical Process Design: Initiating a different Way of Thinking", Proceedings of 16th Annual International Symposium, Mary Kay O'Connor Process Safety Center, College Station, Texas, USA, 2013.
- <u>Khaled Elsaid</u>; Elkamel, A.; Ahmed Abdel-Wahab. "Development of Effective Chemical Treatment of Brine for Inland Desalination with Zero Liquid Discharge," Proceedings of the IUPAC2013 – 44th World Chemistry Congress, Istanbul, Turkey, 2013.
- 4. <u>*Khaled Elsaid*</u>; Ahmed Khodary, Elkamel, A.; Ahmed Abdel-Wahab. "Inland Desalination with Zero Liquid Discharge: Prospective, Challenges, and Recent Developments," **Proceedings of the 10th Gulf Water Conference**, Doha, Qatar, 2012.
- Ahmed Abdel-Wahab; Ali Dashti; Ali Anany; <u>Khaled Elsaid</u>; "Utilization of Byproduct Sulfur for Chromium Waste Treatment", Proceedings of the 2nd Annual Gas Processing Symposium. F. T. Eljack, G. V. Rex Reklaitis, and M. M. El-Halwagi (Editors), Elsevier B. V. Amsterdam, 2010.
- Mostafa, N. A.; <u>Khaled Elsaid</u>; "Production of Rhamnolipid Biosurfactant from Waste Vegetable Oil", Proceedings of the 6th International Conference on Role of Engineering Towards A Better Environment, RETBE' 06, Alexandria, Egypt, 2006.
- Mostafa, N. A.; Gabra, U. A.; Matter, S.; <u>Khaled Elsaid</u>; "Production of Rhamnolipid Biosurfactant from Effluents of Petroleum Industry", Proceedings of the 3rd Minia International Conference on Advanced Trends in Engineering, MICATE' 05, Minia, Egypt, 2005.



Joined Research Projects

Role*	Project Title and Number	Fund, \$	Duration	Funding Agency
Research Mentor*	Utilization of Byproduct Sulfur for Treatment of Hazardous Waste.	40K	2007- 2008	Qatar National Research Fund, QF Doha, Qatar
Research Mentor*	Project #: UREP 01-001-4-356Silica and Sulfate Removals in InlandDesalination Using Reverse Osmosis withBrine Conversion and Zero LiquidDischarge.Project #: UREP 01-001-2-366	40K	2007- 2009	
Researcher*	Inland desalination with Zero Liquid Discharge for Brackish Groundwater. Proof of Concept PoC project	450K	2009- 2013	Qatar Science & Technology Park, QF Doha, Qatar
Research Mentor	Investigating and addressing photodegradation of conjugated polymers for solar applications <u>Project: UREP22-024-1-002</u>	30K		
Research Mentor	Preparation of transparent epoxy with self- healing properties <u>Project: UREP23-055-2-027</u>	30K	2018- 2019	
Research Mentor	Graphene Oxide Membrane with Engineered Interlayer Spacing Project: UREP23-056-2-028	30K		

*Roles of Research mentor and Co-PI, are not official due to eligibility at the time of the proposal submission, roles are actual role contributed to the project. Furthermore, an official statement from the project LPI stating the actual role can be obtained upon request. LPI = Lead Principal Investigator, PI = Principal Investigator.

Professional Societies Activities

Member	American Management Association (AMA), 2014–Present
	American Chemical Society (ASC), 2014–Present
	American Society of Mechanical Engineers (ASME), 2013–Present
	American Institute of Chemical Engineers (AIChE), 2012–Present

Community and Institutional Service:

- Reviewer:	Qatar Foundation, Qatar National Research Fund: for Undergraduate Research Experience Program UREP, and Secondary School Research Experience Program SSREP, Since 2014.	
- Judge:	Qatar Foundation, Qatar National Research Fund: for Qatar STEAM Fair 2015 & 2016.	
- Mentor:	Texas A&M University at Qatar, Chemical Engineering Program, Chem-E Car competition team.	
- Judge:	Laboratory Safety Award Committee, Texas A&M University at Qatar.	
-Member	Safety Council & Safety Oversight Committee, Texas A&M University at Qatar.	
-Member	Engineering Enriching Program EEP Steering Committee, Texas A&M University at Qatar.	
-Member	Center for Teaching Excellency Steering Committee, Texas A&M University at Qatar.	

Chemical Engineering Program, Texas A&M University at Qatar, PO Box 23874, Doha, Qatar

Attended Professional Training and Workshops:

- "R&D Laboratory Safety from Design to Maintenance", Qatar-Shell Research & Technology Center, 2011.
- *"Gas Explosion Hazards for LNG Facilities"* Introduction to HAZOP "Short Course," Mary Kay O'Connor Process Safety Center & Texas Engineering Experiment Station, Texas A&M University, 2011.
- "Fundamental of Safety Management," Texas A&M University at Qatar, 2014.
- "Writing Effective Project Safety Analysis Report," Texas A&M University at Qatar, 2014.
- "Team Building Workshop," Texas A&M University at Qatar, 2014.
- "Flipped Classes Workshop," Texas A&M University at Qatar, 2015.
- *"Introduction to HAZOP -Short Course*," Mary Kay O'Connor Process Safety Center & Texas Engineering Experiment Station, Texas A&M University, 2015.
- *"Toxic Gas Release in Oil & Gas Industry*" Introduction to HAZOP "Short Course," Mary Kay O'Connor Process Safety Center & Texas Engineering Experiment Station, Texas A&M University, 2016.
- "Developing Executive Leadership," American Management Association, 2015.
- "Collaborative Leadership Skills for Managers," American Management Association, 2015
- "OHSAS 18001:2007 Occupational Health and Safety Management Systems: Implementation", BSI Training Academy, 2017.