

MUATAZ A. ATIEH
Professor
Chemical and Water Desalination Engineering Program
University of Sharjah
Sharjah

EDUCATION

PhD , Chemical Engineering	University Putra Malaysia, Malaysia	2005
Thesis:	Synthesis, Characterization and Application of Carbon Nanotubes and Carbon Nanofibers	
MSc , Chemical Engineering	University Putra Malaysia, Malaysia	2002
Thesis:	Stability and Rupture Time of Liquid Film Flowing Down an Inclined Plane	
BSc , Chemical Engineering	Al-Fateh University, Libya	1999

SPECIALIZATION

General Specialization	Chemical Engineering, Reaction Kinetics and Reactor Design, Fluid Mechanics and Heat Transfer
Research Fields	Nanotechnology, Nanomaterials, Nanofluids, Environmental Nanotechnology, Membrane, Water Treatment and Desalination, Renewable Energy, CVD.

PROFESSIONAL POSITIONS

2021-Current	Coordinator	Chemical and Water Desalination Engineering Program
2019-Current	Head of Desalination Research Group (DRG)	Research Institute of Sciences and Engineering (RISE), University of Sharjah
2019-Current	Full Professor	MNE Department, College of Engineering, University of Sharjah
2017-2019	Full Professor	College of Science and Engineering, Hamad Bin Khalifa University (HBKU), Qatar,
2015-2019	Senior Scientist	Qatar Environment & Energy Research Institute (QEERI), Qatar Foundation, Qatar
2015-2017	Associate Professor	College of Science and Engineering, Hamad Bin Khalifa University (HBKU), Qatar
2012- 2014	Associate Professor	Department of Chemical Engineering, College of Engineering Sciences, King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia
2008- 2011	Assistant Professor	Department of Chemical Engineering, College of Engineering Sciences, King Fahd University of Petroleum and Minerals KFUPM, Saudi Arabia
2006 - 2007	Head of Nanoscience and Nanotechnology Research Group (N&N RU)	Department of Biochemical and Biotechnology Engineering, College of Engineering Sciences, International Islamic University Malaysia (IIUM), Malaysia
2006 -2007	Assistant Professor	Department of Biotechnology Engineering, College of Engineering Sciences, International Islamic University Malaysia (IIUM), Malaysia
2005	Post Doctorate	Combinatorial Technology & Catalysis Research Center (COMBICAT), University of Malaya, Malaysia
2000 - 2004	Research Assistant	Department of Chemical and Environmental Engineering, College of Engineering Sciences, University Putra Malaysia (UPM), Malaysia

AWARDS & HONORS

2016	Best Team Award	Qatar Environment & Energy Research Institute (QEERI), Qatar Foundation, Qatar
2013	Excellence in Research Award	King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia
2006	Gold Medal	(KERIE 5-6 December) Effect of Multi-Wall Carbon Nanotubes on the Physical Properties of SMR-L (Biopolymer), Malaysia
2006	Gold Medal	(KERIE 5-6 December) Production of High Purity of Carbon Nanotubes by using Chemical Vapor Deposition (CVD), Malaysia
2006	Silver Medal	(KERIE 5-6 December) Production of Carbon Nanofibers by using Chemical Vapor Deposition (CVD), Malaysia
2006	Silver Medal	(KERIE 5-6 December) Effect of Multi-Wall Carbon Nanotubes on the Physical Properties of SMR 10, Malaysia
2006	Bronze Medal	(KERIE 5-6 December) Removal of Cadmium from waste water by using Multi-Wall Carbon Nanotubes, Malaysia
2006	Bronze Medal	(KERIE 5-6 December) Synthesis of Carbon Nanotubes over Aluminum Oxide Al ₂ O ₃ as Substrate Catalyst, Malaysia
2005	Bronze Medal	(IPTA R&D EXPO) 30 September-2 October, Malaysia
2005	Bronze Medal	(IPTA R&D EXPO) 30 September-2 October Design of Compressed Natural Gas (CNG) Tank, Malaysia
2004	Silver Medal	(International Ausstellung IENA) Malaysia
2003	Gold Medal	(PAMERAN REKA CIPTA & PENYLIIDIKAN) UPM 8-10 July, Malaysia
2003	Bronze Medal	(I.TEX), Malaysia
2003	Silver Medal	(EXPO S& T) 7-9 August science and engineering, Malaysia
2003	Bronze Medal	(EXPO S& T) 7-9 August (material)), Malaysia
2002	Silver Medal	(Invention & Research Exhibition), Malaysia

INVITED TALKS (Keynote, Plenary Speakers)

- Keynote Speaker** 2nd International Conference on Materials Science and Materials Chemistry during March 20-21, **2019 at London, UK.**
- Keynote Speaker** International Conference on Nanotechnology and Nanoscience, 28-30 September **2018 Osaka, Japan**
- Plenary Speaker** International Conference on New and Renewable Energy Resources for Sustainable Future, 2-4 February **2017 Jaipur, India**
- Keynote Speaker** 2nd International Conference and Expo on Separation Techniques 26-28 September, **2016 Valencia, Spain**

PROFESSIONAL SERVICES

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| 2017 | Guest Editor | Special issue for journal of Bioinorganic Chemistry and Applications |
| 2016 | Chaired a session | 2 nd International Conference on Desalination and Environment, 23- 26 January 2016, Qatar |
| 2016 | Member | European Membrane Society, 2016 |
| 2007 | Chaired a session & Scientific Committee | International Conference on Biotechnology Engineering 14-15 May 2007 UIA, Kuala Lumpur Malaysia |
| 2007 | Member of Scientific Committee | International Conference on Computational Modeling and Experiments of the Composites Materials, 28-31 March 2007 Liptovský Mikuláš, Slovakia |
| 2006 | Co-Chaired a session | International Conference on MEMS and Nanotechnology 14-15 March 2006 IIUM Kuala Lumpur Malaysia |

REVIEW OF TECHNICAL REPORTS, PAPERS AND PROPOSAL

❖ Reviewed Journal Papers for Journal of

- Fuel
- Desalination
- Separation and Purification Technology
- AJSE
- Fullerenes, Nanotubes and Carbon Nanostructure
- Nanoscience and Nanotechnology (*JNN*)

❖ Reviewed Technical Research Proposals for

- Deanship for Scientific Research, KFUPM , Saudi Arabia
- King Abdul Aziz City for Science and Technology (KACST) , Saudi Arabia
- Deanship for Scientific Research (KACST) , Saudi Arabia
- Royal Scientific Society, Jordan

PUBLIC LECTURES, SEMINARS AND PRESENTATIONS

- 2015 Introduction to Nanotechnology” Gas Processing Center, Qatar University, Qatar
- 2009 First Workshop on Carbon Nanotubes: Synthesis, Characterization and Application, King Fahd University of Petroleum and Minerals (KFUPM) , Saudi Arabia
- 2009 Ongoing Research in Nanocarbon Materials: Synthesis, Characterization and Application of Carbon Nanomaterials, King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia
- 2008 Introduction to Nanotechnology, King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia

FUNDED RESEARCH PROJECT (Lead Principle Investigator (LPI)/ Principle Investigator (PI)/ Consultant)

PROJECT TITLES	FUNDING AGENCY	AMOUNT (\$)	START	END	ROLE
Production of Carbon Nanomaterials and Application in Removal of Toxic Heavy Metals from Water and Wastewater	IIUM-FRGS, Malaysia	100,000	2007	2009	PI
Production of Carbon Nanotubes (CNTs) by using Gas/Solid Atomizer Chemical Vapor Deposition (GSA-CVD) for Nanocomposite Application	KFUPM-CENT Saudi Arabia	150,000	2008	2010	LPI
Multiscale Design of New Generation RO Membranes for Seawater Desalination	KFUPM-MIT Saudi Arabia	200,000	2008	2012	PI
Melt Spinning Process of Super-Fiber-Composites	KAUST	150,000	2008	2011	PI

Production of Carbon Nanotubes (CNTs) by using Fluidized Bed Chemical Vapor Deposition (FB-CVD)	Internal Fund (DSR) Saudi Arabia	150,000	2009	2011	LPI
Production of Carbon Nanotubes by using a Vertical Orifice Chemical Vapor Deposition (VO-CVD) for Water Purifications and Polymerization of Polystyrene Nanocomposite	NSTIP Saudi Arabia	600,000	2009	2011	LPI
Effect of Radiation and Conventional Vulcanization on the Mechanical and Physical Properties of Natural Rubber/Carbon Nanotubes Nanocomposite	NSTIP Saudi Arabia	600,000	2010	2012	LPI
Treatment of water contaminated with MTBE by Photo-TiO ₂ and Carbon Nanotubes (CNTs)	NSTIP Saudi Arabia	200,000	2010	2012	PI
Removal of Phenolic Compounds from Water using Carbon Nanotubes and Activated Carbon Materials	KACST Saudi Arabia	150,000	2012	2014	LPI
Experimental Investigation of Heat Transfer Characterization for CNT Nanofluid in Heat Exchangers	NSTIP Saudi Arabia	600,000	2012	2014	LPI
Production of Carbon Nanotubes by an Injection Chemical Vapor Deposition Reactor (I-CVD)	KFUPM Saudi Arabia	150,000	2013	2014	Consultant
Water Desalination Driven by Microwave Heating Source	UOS Sharjah, UAE	10,000	2019	2021	LPI
Developing New Electrodes for commercialization of Capacitive Deionization unit for sweater desalination	UOS	60,000	2019	2021	COI

Graphene oxide-based membranes for waste water treatment	UOS	60,000	2020	2022	LPI
Fabrication of flat sheet and tubular ceramic membranes for water treatment and desalination	UOS	110,000	2020	2022	LPI
Develop of Green Polymeric Membranes for water treatment and desalination	UOS	110,000	2020	2021	LPI

MASTER, DOCTORAL AND POST DOCTORATE SUPERVISION

❖ MASTER STUDENT SUPERVISION

University/Period	Thesis Title	Student Name	My Role
KFUPM (2008-2009)	Lead and Chromium Removal from Water by Using Modified and Non-Modified Carbon Nanotubes	Omar Ba-Katheer	Main Advisor
KFUPM (2008-2009)	Removal of arsenic and mercury from water by multi-walled carbon nanotubes	Salman Khaldi	Com. Member
KFUPM (2009-2010)	Effect of carbon nanotubes functionalised with different surfactants on the mechanical and thermal properties of natural rubber	Abdul Lateef	Co- Advisor
KFUPM (2009-2010)	Effect of Surface Modifcation of Carbon Nanotubes (CNT) on the Mechanical & Thermal Properties of CNT/Polypropylene Nanocomposites	Salihu Adamu Girei	Co- Advisor
KFUPM (2009-2010)	Experimental Investigation of Heat Transfer Characterization for CNT Nanofluid in Heat Exchangers	Osamah Awadh	Main Advisor
KFUPM (2009-2010)	Production of Carbon Nanotubes (CNTs) using Floating Catalyst Chemical Vapor Deposition (FC-CVD) reactor for microbiological applications	Samer Mohammed	Main Advisor
KFUPM (2009-2010)	Adsorption of mercury and phenol from aqueous solution by activated carbon from palm seed pits	Saeed Al-Ghamdi	Com. Member
KFUPM (2010-2011)	Effects of functionalized carbon nanotubes with surfactants of the thermal and mechanical properties of polyethylene nanocomposites	Ahmed Akanbi	Main Advisor

KFUPM (2011-2012)	Effect of Ceramic NanoFillers on Polyethylene Properties	Omer Bin Sohail	Com. Member
KFUPM (2011-2012)	Degradation of Methyl Tertiary Butyl Ether Using UV/Titanium Dioxide and Carbon Nanotubes	Musah Muhyedeen	Com. Member
KFUPM (2011-2012)	Removal of phenolic components using different types of carbon adsorbents materials	Hamza Abbas	Main Advisor
KFUPM (2012-2013)	Heat Transfer Enhancement of Nanofluid using raw, Chemically Modified and Impregnated Carbon Nanotubes	Abdullah Manasra	Main Advisor
KFUPM (2013-2014)	Design and Optimization of Multi Walled CNT using CVD Reactor	Nasser Al Hammad	Co-Advisor
KFUPM (2013-2014)	Synthesis, Characterization and Application of Polysulfone/Nanofiller Nanocomposite Membrane for Water Purification	Arsalan Khalid	Main Advisor
KFUPM (2013-2014)	Production of carbon nanotubes using vertical CVD Reactor	Ammar Jamie	Co-Advisor
KFUPM (2014-2015)	Influence of Surfactants on the Stability of Nanofluids of Raw and Impregnated Carbon Nanotubes for Application of Heat Transfer	Ismail W. Almanassra	Co-Advisor
KFUPM (2014-2015)	Application of Raw and Modified Carbon Nanotubes For Adsorption of BTX Compounds from Water	Aamir Abbas	Co-Advisor
KFUPM (2014-2015)	Effect of Micro and Nano Carbon Adsorbents Doped with Metal Nanoparticles on the Removal of Heavy Metals from Water	Muhammad Imran	Co-Advisor
KFUPM (2014-2015)	Electrochemical Reduction of CO ₂ Using Carbon Nanotubes	Muhammad Irfan	Co-Advisor
KFUPM (2014-2015)	Production of high purity Multi wall carbon nanotubes from p-Xylene and ferrocene by using vertical chemical vapor deposition reactor fitted with an ultrasonic atomizing head	Fahad Ali Rabbani	Co-Advisor

KFUPM (2014-2015)	Removal of Ammonia from water using modified nanomaterials	Kashif Rehan	Co-Advisor
HBKU (2016-2017)	Experimental Investigation of Double-Pipe Heat Exchangers in Air Conditioning Applications Using Water and CNT Nanofluids	Seif Mahmoud	Main-Advisor
HBKU (2016-2018)	CFD Analysis of Heat Transfer Nanofluids in Shell and Tube Heat Exchanger	Mahmoud Jamma	Main-Advisor
HBKU (2016-2018)	Novel Polysulfone /Graphene Oxide Membrane Synthesis, Characterization and Application	Mohammed Hachach	Co-Advisor
UOS (2019-2021)	Appropriate Greywater Treatment Technologies for Sharjah	Adel Al Tayar	Co-Advisor

❖ DOCTORAL STUDENT SUPERVISION

University/Period	Thesis Title	Student Name	My Role
KFUPM (2008-2011)	Design and Fabrication of Orifice Chemical Vapor Deposition (O-CVD) Reactor for Production of Carbon Nanotubes and Their Application in Styrene Polymerization	Issam Amro	Co- Advisor
KFUPM (2008-2011)	Design, Synthesis, and Testing of Nanofiltration Membranes for Water Desalination Using LBL Method	Fahad Alkhalidi	Committee Member
KFUPM (2009-2012)	Microtitration by Differential electrolytic potentiometry using Carbon nanotubes modified Silver electrodes	Abdulaziz Nabil	Committee Member
KFUPM (2009-2012)	Mercury removal by carbon nanotube modified by sulfur	Abdullah Malki	Committee Member
KFUPM (2009-2013)	Pressure Drop Reduction of stable water in oil emulsion flow in pipes	Mohammed Al-Yaari	Committee Member
KFUPM (2009-2013)	Copolymerization of Ethylene and propylene in the presence of nanofillers using early transition metal catalyst	Omer Bakather	Committee Member

KFUPM (2011-2014)	Synthesis, characterization and application of metal organic frame (MOF)	Sarfraz Muhammad	Co- Advisor
KFUPM (2011-2015)	Synthesis and Characterization of Novel Metals Nanoparticles Impregnated on Micro and Nano Carbonaceous Adsorbents for Removal of Organosulfur Compounds from Liquids	Mazen K. Nazal	Co- Advisor
KFUPM (2011-2015)	Synthesis of novel carbon nanotube membranes for applications in water treatment	Ihsanullah Khan	Co- Advisor
KFUPM (2011-2015)	Graphene Transfer Onto PP, PES and PVDF Polymeric Substrates: Development of Water Purification Membranes	Feras Kafiah	Co- Advisor
KFUPM (2011-2015)	Synthesis and Characterization of Graphene Fabricated by Chemical Vapor Deposition	Ahmed Ibrahim	Co- Advisor
KFUPM (2013-2015)	Mark-space Differential Electrolytic Potentiometry Using Solid Electrodes Coated with Carbon Nanotubes in Titrimetry and as a Detector in Flow Injection Analysis	Abdalghaffar Osman	Co-Advisor
HBKU (2016-2018)	Development of a novel carbon materials for water treatment and desalination	Ahmad Fard	Main Advisor
HBKU (2016-2018)	Development of A Novel Membrane For Water Treatment and Desalination	Yahia Menwai	Main Advisor
HBKU (2016-2019)	Experimental Investigation of Heat Transfer Thermal Solar Collectors runs by Nanofluids	Tejiv Singh	Main Advisor
HBKU (2016-2018)	Modified Montmorillonite For Water Treatment and Desalination	Dema Almesri	Co-Advisor
HBKU (2016-2019)	Corrosion Behavior of Nanofluids	Dana Abdeen	Main Advisor

❖ **POST DOCTORATE SUPERVISION**

Period	Name	Tasks
2018-2019	Dr. Souhar Sabri	Testing the Anti-Bacterial Properties of The Fabricated Polymeric , Ceramic Membranes And Materials
2018-2019	Dr. Rashad Gashaani	Materials Synthesis and Characterization for Water And Energy Applications
2018-2019	Dr. Ahmed Fard	Micro , Ultra And Nano Filtrations Ceramic Membranes Fabrication and Testing for Wastewater and Oil and Gas Applications
2018-2019	Dr. Yehia Menawi	Micro , Ultra , Nano and RO Filtrations Polymeric Membrane Fabrication and Testing for Wastewater and Desalination Applications Nanomaterials Synthesis, functionalization's, surface modifications and characterizations

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

2021

1. Oyehan, T.A., Laoui, T., Tawabini, B., Olabemiwo, F.A., **Atieh, M.A.** "Enhancing the adsorptive capacity of carbon nanofibers by impregnation with ferric oxide for the removal of cadmium from aqueous solution" **Journal of Water Process Engineering**, 2021, **42**, 102130
2. Ihsanullah, I., **Atieh, M.A.**, Sajid, M., Nazal, M.K. "Desalination and environment: A critical analysis of impacts, mitigation strategies, and greener desalination technologies" *Science of the Total Environment*, 2021, 780, 146585
3. Sayed, E.T., Al Radi, M., Ahmad, A., **Atieh, M.A.**, Olabi, A.G. "Faradic capacitive deionization (FCDI) for desalination and ion removal from wastewater" **Chemosphere**, 2021, **275**, 130001
4. Almanassra, I.W., Kochkodan, V., McKay, G., Atieh, M.A., Al-Ansari, T. "Review of phosphate removal from water by carbonaceous sorbents" **Journal of Environmental Management**, 2021, **287**, 112245
5. Al-Gaashani, R., Zakaria, Y., Lee, O.-S., Kochkodan, V., **Atieh, M.A.** "Effects of preparation temperature on production of graphene oxide by novel chemical processing" *Ceramics International*, 2021, 47(7), pp. 10113–10122
6. Almanassra, I.W., McKay, G., Kochkodan, V., **Atieh, M.A.**, Al-Ansari, T. "A state of the art review on phosphate removal from water by biochars" **Chemical Engineering Journal**, 2021, **409**, 128211
7. Almanassra, I.W., Okonkwo, E.C., Alhassan, O., **Atieh, M.A.**, Kochkodan, V., Al-Ansari, T. "Stability and thermophysical properties test of carbide-derived carbon thermal fluid; a comparison between functionalized and emulsified suspensions" **Powder Technology**, 2021, **377**, pp. 415–428
8. Fard, A.K., Rhadfi, T., McKay, G., Lee, O.-S., **Atieh, M.A.** "Two-dimensional mxene for efficient arsenic removal from aqueous solutions: Experimental and molecular dynamics simulation" **Desalination and Water Treatment**, 2021, **211**, pp. 280–295
9. Abdeen, D.H., Atieh, M.A., Merzougui, B. "Corrosion behaviour of 316L stainless steel in CNTs-water nanofluid: Effect of temperature" **Materials**, 2021, **14(1)**, pp. 1–19, 119"

2020

10. Sayed, E.T., Shehata, N., Abdelkareem, M.A., **Atieh, M.A.** "Recent progress in environmentally friendly bio-electrochemical devices for simultaneous water desalination and wastewater treatment" **Science of the Total Environment**, 2020, **748**, 141046

11. Almanassra, I.W., Kochkodan, V., Ponnusamy, G., **M.A. Atieh**, M., Al-Ansari, T. “*Carbide Derived Carbon (CDC) as novel adsorbent for ibuprofen removal from synthetic water and treated sewage effluent*” **Journal of Environmental Health Science and Engineering**, 2020, **18(2)**, pp. 1375–1390
12. Ihsanullah, I., Jamal, A., Ilyas, M., Khan, G., **Atieh, M.A.** “*Bioremediation of dyes: Current status and prospects*” **Journal of Water Process Engineering**, 2020, **38**, 101680
13. Singh, T., W. Almanassra, I., Ghani Olabi, A., McKay, G., **Atieh M. A.**, “*Performance investigation of multiwall carbon nanotubes based water/oil nanofluids for high pressure and high temperature solar thermal technologies for sustainable energy systems*” **Energy Conversion and Management**, 2020, **225**, 113453
14. Kafiah, F., Laoui, T., Abdelsalam, E., **Atieh M. A.**, Khan, Z., Alkasrawi, M. “*Monolayer graphene transfer onto hydrophilic substrates: A new protocol using electrostatic charging*” **Membranes**, 2020, **10(11)**, 1–14, 0358
15. Alkhouzaam, A., Qiblawey, H., Khraisheh, M., **Atieh M. A.**, Al-Ghouti, M. “*Synthesis of graphene oxides particle of high oxidation degree using a modified Hummers method*” **Ceramics International**, 2020, **46(15)**, pp. 23997–24007
16. Osman, A.M., Abulkibash, A.M., **Atieh, M.A.** “*Fabrication of a CNT/Ag potentiometric sensor for redox reactions via catalytic chemical vapor deposition*” **Electrochemistry Communications**, 2020, **119**, 106806
17. Almasri, D.A., Kayvani Fard, A., McKay, G., Kochkodan, V., **Atieh, M.A.** “*A novel adsorptive ceramic membrane for efficient strontium removal*” **Journal of Water Process Engineering**, 2020, **37**, 101538
18. Khuwaileh, B.A., Al-Hamadi, F.I., Hartanto, D., Said, Z., **Atieh M. A.**, “*On the performance of nanofluids in APR 1400 PLUS7 assembly: Neutronics*” **Annals of Nuclear Energy**, 2020, **144**, 107508
19. Khraisheh, M., Dawas, N., Nasser, M.S., **Atieh M.A.**, Adham, S., McKay, G. “*Osmotic pressure estimation using the Pitzer equation for forward osmosis modelling*” **Environmental Technology (United Kingdom)**, 2020, **41(19)**, pp. 2533–2545
20. Almanassra, I.W., Kochkodan, V., Subeh, M., **Atieh, M. A.**, Al-Ansari, T. “*Phosphate removal from synthetic and treated sewage effluent by carbide derive carbon*” **Journal of Water Process Engineering**, 2020, **36**, 101323
21. Singh, T., **Atieh, M.A.**, Al-Ansari, T., Mohammad, A.W., McKay, G. “*The role of nanofluids and renewable energy in the development of sustainable desalination systems: A review*” **Water (Switzerland)**, 2020, **12(7)**, 2002
22. Hussein, M.A., Shahzad, H.K., Patel, F., Atieh, M.A., Baroud, T.N., Laoui, T. “*Porous Al₂O₃-CNT nanocomposite membrane produced by spark plasma sintering with tailored microstructure and properties for water treatment*” **Nanomaterials**, 2020, **10(5)**, 845

23. Almanassra, I.W., Manasrah, A.D., Al-Mubaiyedh, U.A., Malaibari, Z.O., **Atieh, M.A.** “An experimental study on stability and thermal conductivity of water/CNTs nanofluids using different surfactants: A comparison study” **Journal of Molecular Liquids**, 2020, **304**, 111025
24. Ihsanullah, I., Sajid, M., Kabeer, M., Shemsi, A.M., **Atieh, M.A.** “First Investigations on the Removal of Tungsten Species from Water Using Multi-walled Carbon Nanotubes” **Water, Air, and Soil Pollution**, 2020, **231(3)**, 119
25. Osman, A.M., Abulkibash, A.M., **Atieh, M.A.** “Time-biased square wave differential electrolytic potentiometry for determination of ascorbic acid in a complex matrix at multi-walled carbon nanotubes modified silver electrodes” **Arabian Journal of Chemistry**, 2020, **13(1)**, pp. 2955–2963

2019

26. D Abdeen , **M A Atieh**, B Merzougui, W Khalfaoui “Corrosion Behaviour of 316L Stainless Steel in CNTs-Water Nanofluid– Effect of Temperature” **Materials**, s 2019, **12**, 1634
27. Almasri, D.A., Saleh, N.B., **M A Atieh** , McKay, G., Ahzi, S. “ Adsorption of Phosphate on Iron Oxide Doped Halloysite Nanotubes ” **Scientific Reports**, 2019, **9(1)**,3232
28. Nazal, M.K., Khaled, M., **M A Atieh**, Oweimreen, G.A., Abulkibash, A.M. “The Nature and Kinetics of The Adsorption of Dibenzothiophene in Model Diesel Fuel on Carbonaceous Materials Loaded with Aluminum Oxide Particles” **Arabian Journal of Chemistry**, 2019, **12(8)**, 3678-3691
29. R Al-Gaashani, A Najjar, Y Zakaria, S Mansour, **M A Atieh** “XPS and Structural Studies of High Quality Graphene Oxide and Reduced Graphene Oxide Prepared By Different Chemical Oxidation Methods” **Ceramics International**, 2019, **45 (11)**, 14439-14448
30. I Almanassra, A Manasrah, U Al-Mubaiyedh, T Al-Ansari, **M A Atieh** “An experimental study on stability and thermal conductivity of water/CNTs nanofluids using different surfactants: A comparison study” **Journal of Molecular Liquids**, 2019, **111025**
31. D Almasri, N Saleh, **M A Atieh**, G McKay, S Ahzi, “Adsorption of phosphate on iron oxide doped halloysite nanotubes” **Scientific Reports, Nature**, 2019 **9 (1)**, 3232
32. A Najjar, S Sabri, R Al-Gaashani, **M A Atieh**, V Kochkodan, “Antibiofouling Performance by Polyethersulfone Membranes Cast with Oxidized Multiwalled Carbon Nanotubes and Arabic Gum” **Membranes**, 2019, **9 (2)**, 32
33. Y Manawi, V Kochkodan, A Ismail, A Mohammad, **M A Atieh** “Performance of Acacia Gum as a Novel Additive in Thin film Composite Polyamide RO Membranes” **Membranes**, 2019, **9**, 30
34. S Sabri, A Najjar, Y Manawi, N Eltai, A Al-Thani., **M A Atieh**, V Kochkodan “Antibacterial Properties of Polysulfone Membranes Blended with Arabic Gum” **Membranes**, 2019 **(9)** 29

35. M Khraisheh, N Dawas, M Nasser, M Al-Marri, **M A Atieh**, S Adham “*Osmotic Pressure Estimation using the Pitzer Equation for Forward Osmosis Modeling*” **Environmental Technology**, 2019, 1-22
36. A Najjar, S Sabri, R Al-Gaashani, V Kochkodan, **M A Atieh** “*Enhanced Fouling Resistance and Antibacterial Properties of Novel Graphene Oxide-Arabic Gum Polyethersulfone Membranes*” **Applied Sciences**, 2019, 9 (3), 513
37. D Abdeen, M Hachach, M Koc, **M A Atieh** “*A Review on the Corrosion Behaviour of Nanocoatings on Metallic Substrates*” **Materials** 2019, 12 (2), 210
38. N Sezer, **M A Atieh**, M Koc “*A Comprehensive Review on Synthesis, Stability, Thermophysical Properties, and Characterization of Nanofluids*” **Powder Technology** 2019, 344, 404-431
39. K Loganathan, H Al-Sulaiti, S Bukhari, A Fard, Y Manawi, **M A Atieh** “*Distribution of Salinity and Trace Elements of Surface Seawater in the Arabian Gulf Surrounding the State of Qatar*” **Desalination and Water Treatment Journal** 10.5004/dwt.2019.23316

2018

40. S Khan, **M A Atieh**, M Koç “*Micro-Nano Scale Surface Coating for Nucleate Boiling Heat Transfer: A Critical Review*” **Energies** 2018, 11 (11), 3189
41. Y Manawi, K Wang, V Kochkodan, D Johnson, **M A Atieh**, M Khraisheh “*Engineering the Surface and Mechanical Properties of Water Desalination Membranes Using Ultralong Carbon Nanotubes*” **Membranes** 2018, 8 (4), 106
42. A Osman, A Abulkibash, **M A Atieh** “*Time-Biased Square Wave Differential Electrolytic Potentiometry for Determination of Ascorbic Acid in A Complex Matrix at Multi-Walled Carbon Nanotubes Modified Silver Electrodes*” **Arabian Journal of Chemistry** 2018, 10.1016/j.arabjc.2018.08.005
43. M Aljumaily, M Alsaadia, N Hashim , Q Alsalhyd , F Mjalli , **M A Atieh** , A Al-Harrasi “*PVDF-co-HFP/Superhydrophobic Acetylene-Based Nanocarbon Hybrid Membrane for Seawater Desalination via DCMD*” **Journal of Chemical Engineering Research and Design**, 2018, 138, 248-259
44. H Shahzad, M Hussein, F Patel, N Al-Aqeeli, **M A Atieh**, T Laoui “*Synthesis and Characterization of Alumina-CNT Membrane for Cadmium Removal from Aqueous Solution*” **Ceramics International Journal** 2018, 44, 14, 17189-17198
45. Y Manawi, G McKay, N Ismail, A Fard, V Kochkodan, **M A Atieh** “*Enhancing Lead Removal from Water by Complex-Assisted Filtration with Acacia Gum*” **Chemical Engineering Journal** 2018, 352, 828–836
46. T Singh, **M A Atieh**, T Al-Ansari, K Saoud, G McKay “*Critical Review of Solar Thermal Resources in GCC and Application of Nanofluids for Development of Efficient and Cost*

Effective CSP Technologies” **Journal of Renewable and Sustainable Energy Reviews** **2018, 91, 708-719**

47. D Almasri, T Rhadfi, **M A Atieh**, G McKay, S Ahzi “*High Performance Hydroxyiron Modified Montmorillonite Nanoclay Adsorbent For Arsenite Removal*” **Chemical Engineering Journal** **2018, 335, 1-12**
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8. Y Manawi, H Homme, V Kochkodan, **M A Atieh** “*Desalination Pre-Treatment: Strontium Removal by Modified Activated Carbon*” **Desalination for the Environment: Clean Water and Energy 2016 May 22–26 Rome, Italy**
9. A Fard, **M A Atieh**, M Khraisheh, N Hilal “*Carbon Nanotube Doped with Metal Oxide Nanoparticles As New Material for Oil Removal*” **MRS Spring Meeting and Exhibition 2016 March 28 - April 01 Phoenix, USA**

10. **M A Atieh**, N Hilal, H Homme, T Rhadfi, A Fard “*Desalination Pre-Treatment: Boron Removal by Modified Activated Carbon*” **2th International Conference on Desalination and Environment 2016 January 23- 26 2016 Doha, Qatar**
11. **M A Atieh**, N Hilal, H Homme, T Rhadfi, A Fard “*Desalination Pre-Treatment: Boron Removal by Modified Activated Carbon*” **2th International Conference on Desalination and Environment 2016 January 23-26 Doha, Qatar**
12. **M A Atieh**, K Ihsanullah, A Adnan, L. Tahar “*New Generation of Inorganic Membrane*” **Euromembrane 2015 September 6-10 Germany**
13. **M A Atieh**, K Ihsanullah, A Adnan, L. Tahar “*New Generation of Anti-Microbial Membrane*” **2th International Conference on Desalination using Membrane Technology 2015 July 26 - 29 Singapore**
14. H Preud'homme, A Fard, T Rhadfi, **M A Atieh**, M Khraisheh “*Carbon Nanomaterial - Is It Strong Enough For Removal of Highly Hydrophylic Contaminants and Heavy Metals in Water with Hybrid Membranes*” **2th International Conference on Desalination using Membrane Technology 2015 July 26 - 29 Singapore**
15. A Ibrahim, A Owais, **M A Atieh**, R Karnik, T Laoui “*Effect of Surface Morphology of Copper Substrate on the Quality and Structure of Graphene Synthesized by Chemical Vapor Deposition*” **6th Forum on New Materials 2014 June 8-19 Tuscany, Italy**
16. O Sean, M Boutillier, S Bose, D Jang, J Odobo, Y Song, T Laoui, **M A Atieh**, J Kong, R Karnik “*Selective Ionic Transport Through Nanoporous Graphene*” **Flow 14: Micro and Nanofluidics, Fundamentals and Applications 2014 May 18-21 Enscheda, Netherlands**
17. **M A Atieh** “*Removal of Phenol from Water Different Types of Carbon – A Comparative Analysis*” **5th International Conference on Environmental Science and Development 2014 February 19-21 Singapore**
18. O Sean, Y Song, M Boutilier, S Bose, J Idrobo, T Laoui, **M A Atieh**, J Kong, R Karnik. “*Tuning the Selectivity of Graphene Membranes by Nucleation and Growth of Pore Defects*” **International Mechanical Engineering Congress & Exposition 2013 November 15–2 San Diego, USA**
19. O Sean, C Stewart, M Boutilier, J Lee, T Jain, J Idrobo, S Bhaviripudi, S Das, J Kong, T Laoui, **M A Atieh**, R Karnik “*Size Selective Transport of Molecules Through Nanoporous Grapheme Membranes*” **ICREA Symposium 2012 October 1-3 Barcelona, Spain**
20. O Sean, C Stewart, M Boutilier, J Lee, T Jain, J Idrobo, S Bhaviripudi, S Das, J Kong, T Laoui, **M A Atieh**, R Karnik “*Measuring Ionic and Molecular Transport Through Graphene Membranes*” **MIT Graphene Center Review Meeting 2012 June 2-5 Cambridge, MA, USA**

21. H Hamza, **M A Atieh**, T Laoui "*Removal of Phenol by Carbon Nanotubes and Activated Carbon - A Comparative Analysis*" **Sixteenth International Water Technology Conference 2012 May 7-10 Istanbul, Turkey**
22. O Sean, C Stewart, J Lee, T Jain, J Odrobo, T Laoui, **M A Atieh**, R Karnik "*Characterization of Graphene Membranes for Nanofiltration*" **MRS Spring Meeting 2012 April 9-13 San Fransisco, USA**
23. **M A Atieh** "*Removal of Zinc from Water Using Modified and Non-Modified Carbon Nanofibers*" **International Conference on Environment Science and Development 2011 February 26-28 Singapore**
24. L Tahar, S Hassan, R Karnik, E Wang, K Al-Hooshani, F Rahman, **M A Atieh**, T Humplik, J Lee, B Fellman, S O'Hern, M Aqeel and F Patel "*Nanostructured Membranes for Water Desalination*" **7th International Membrane Science & Technology Conference 2010 November 22-26 Sydney Australia**
25. F Batya, **M A Atieh**, E Wang "*Carbon-Based Electric Double Layer Capacitors for Water Desalination*" **ASME International Conference on Nanochannels, Microchannels and Minichannels 2010 August 1-5 Montreal, Canada**
26. F Batya, **M A Atieh**, E Wang "*Carbon-Based Electric Layer Capacitors for Water Desalination*" **ASME International Conference on Nanochannels, Microchannels and Minichannels 2010 August 1-5 Montreal, Canada**
27. **M A Atieh** "*Chromium (VI) removal from polluted water using carbon nanotubes growth over Activated Carbon (AC)*" **Urban Environmental Pollution: Overcoming Obstacles to Sustainability and Quality of Life 2010 June 20-23 Boston, USA**
28. **M A Atieh** "*Removal of Chromium (VI) from Water by Using Carbon Nanotubes*" **International Conference on Environment Science and Development 2010 February 26-28 Singapore**
29. **M A Atieh**, T Laoui, A Mohamad, S Aremu "*Chromium Removal from Aqueous Solutions Using Carbon Nanotubes*" **International Conference on Water Conservation in Arid Regions (ICWCAR 09) 2009 October 12-14 Jeddah, Saudi Arabia**
30. **M A Atieh** "*Effect of Reaction Temperature on the Production of Carbon Nanotubes on a Silicon Dioxide Wafer*" **Trends in Nanotechnology – TNT 2009 September 7-11 Barcelona , Spain**
31. A Amr, **M A Atieh**, K Mezghani, A AL-Amer, M AL-Harhi "*The Role of Reaction Temperature on the Growth of Carbon Nanomaterials*" **Trends in Nanotechnology – TNT 2009 September 7-11 Barcelona , Spain**
32. A Amr, **M A Atieh**, K Mezghani, A AL-Amer, M AL-Harhi "*Effect of Hydrogen Flowrate and Carbon Source on Production of Carbon Nanotubes by Chemical Vapor Deposition*" **International Conference on Materials for Advanced Technologies, ICMAT 2009 June 28 - July 3 Singapore**

33. F Abuilaiwi, **M A Atieh** “*Thermal Kinetics of Multiwall Carbon Nanotube Prepared by Floating Catalyst Chemical Vapor Deposition (FC-CVD)*” **International Conference on Materials for Advanced Technologies ICMAT 2009 June 28 - July 3 Singapore**
34. N Mubarak, Y Faridah, **M A Atieh**, M Al Saadi, and M Khalid “*Optimizing the Conditions for the Synthesis and Functionalization of Carbon Nanotube in Preparation to be used in Skim Latex Protein Purification*” **The International Conference on MEMS and Nanotechnology 2008 May 13-15 Kuala Lumpur, Malaysia**
35. A Kabbashi, **M A Atieh**, A Suleyman, A Al-Mamun, I Qudsieh, M AL- Saadi, B Shahdan “*Different Morphologies of Carbon Nanofiber Effect on the Chromium Removal from Aqueous Solution*” **Asian Symposium for Precision Engineering and Nanotechnology 2007 November 6-9 South Korea**
36. M Bahattab, I Hamdan, **M A Atieh**, Z Zainal “*Coating Preparation of Bi₂O₃, ZnO and TiO₂ Nanoparticle Using Polyol Method and Their use for water purification and Carbon Nanotubes fabrication*” **The Second Arab International Conference in Physics and Materials Science 2007 October 27- 29 Alexandria, Egypt**
37. A Ramzia, **M A Atieh**, I Syed “*Multi-Walled Carbon Nanotubes in Direct Methanol Fuel Cell Anode*” **The International Conference on MEMS and Nanotechnology 2008 May 13-15 Kuala Lumpur, Malaysia**
38. A Rinaldi, N Abdullah, S Abdhamid, **M A Atieh**, Schloeg R “*Growth of Nanocarbon on Activated Carbon Support: The Effect of Catalyst Impregnation Method*” **The International Conference on MEMS and Nanotechnology 2008 May 13-15 Kuala Lumpur, Malaysia**
39. **M A Atieh**, G Nazlia, A Fakhru'l-Razi, T Chuah, M Elsadig, F Ahmad, S Suleyman, R Dayang “*Carbon Nanofiber/Natural Rubber Composite*” **The International Conference on MEMS and Nanotechnology 2008 May 13-15 Kuala Lumpur, Malaysia**
40. S Iyuke, A Dana, A Fakhru'l-Razi, **M A Atieh**, A Al-Khatib “*Adsorption/Desorption Behaviors of Carbon Nanotubes, Nanofibers Produced By Chemical Vapor Deposition (CVD) using Floating Method*” **The 10th APCCHE Congress 2004 October 17-21 Ktakyushu, Japan**
41. **M A Atieh** A Fakhru'l-Razi, , S Iyuke, R Dayang, M AL-khatib, M El-Sadiq “*Synthesis and Characterization of Carbon Nanofibers and Nanotubes Using Floating Catalyst Chemical Vapor Deposition (FC-CVD)*” **Symposium of Malaysian Chemical Engineers (SOMChE) 2003 December 29-30 Selangor, Malaysia**
42. **M A Atieh** A Fakhru'l-Razi, S Iyuke, R Dayang, M AL-khatib, M El-Sadiq “*Characterization of Carbon Nanostructure By Adsorption/Desorption Of Nitrogen*” **Symposium of Malaysian Chemical Engineers (SOMChE) 2003 December 29-30 Selangor, Malaysia**
43. **M A Atieh** A Fakhru'l-Razi, S Iyuke, R Dayang, M AL-khatib, M El-Sadiq “*The Effect of Hot Zones on The Production of Carbon Nanostructures Using Floating Chemical Vapor*”

Deposition” **Symposium of Malaysian Chemical Engineers (SOMChE) 2003 December 29-30 Selangor, Malaysia**

44. **M A Atieh** A Fakhru-Razi, , S Iyuke, R Dayang, M AL-khatib, M El-Sadiq “*Production of Vapor Growth Carbon Fiber (VGCF) by Using CVD*” **Symposium of Malaysian Chemical Engineers (SOMChE) 2003 December 29-30 Selangor, Malaysia**
45. M Faizah, I Sunny, F Ahmadun, **M A Atieh**, A Masrom “*Production of Carbon Nanotubes Over Ni as Substrate Catalyst*” **13th Annual General Meeting of The Electron Microscopy Society of Malaysia 2003 December 15-17 Kedah Malaysia**
46. **M A Atieh** A Fakhru-Razi, , S Iyuke, R Dayang, M AL-khatib, M El-Sadiq “*Synthesis of Carbon Nanotubes Over Fe As Substrate Catalyst*” **13th Annual General Meeting of The Electron Microscopy Society of Malaysia 2003 December 15-17 Kedah Malaysia**
47. S Iyuke, A Dana, A Fakhru-Razi, **M A Atieh**, A AL-khatib “*Carbon Nanoporous Balls Adsorb Methane Better Than Activated Carbon at Room Temperature and Pressure*” **Asia Pacific nanotechnology forum 2003 November 19-21 Cairns, Australia**
48. A Fakhru’l-Razi, **M A Atieh**, D Biak, F Alkhatib, S Mahdi, F Yasin, A Abdullah, I Esayegbemu “*Production of aligned carbon nanotubes by the CVD method*” **National Symposium on Science and Technology 2003 July 28-30 Kuala Lumpur, Malaysia**
49. A Fakhru-Razi, **M A Atieh**, S Iyuke, R Dayang, M AL-khatib, M El-Sadiq “*Carbon Nanofiber and Carbon Nanotube Production by Floating Catalyst Chemical Vapour Deposition (FC-CVD)*” **Update on Microscopy and Microanalysis 2003 May 14-17 UPM, Kuala Lumpur, Malaysia**
50. A Fakhru-Razi, **M A Atieh**, E Iyuke, “*Nonlinear Stability of Thin Liquid Film on Solid Surface Under Gravity and Van Der Waals Forces*” **Second World Engineering Congress 2002 July 22-25 Sarawak, Malaysia**
51. T Ahmad, **M A Atieh** “*Nonlinear Simulation of Thin Liquid Film Flow on Inclined Planes*” **The 6th Saudi Engineering Conference 2002 December 14-17 Dhahran, Saudi Arabia**

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AWARDED PATENTS

1. R Karnik, B Suman, M Boutilier, N Hadjiconstantinou, T Jain, **M A Atieh** “*Mitigating leaks in membranes*” **US Patent 10,668,435**
2. BS Tawabini, **M A Atieh**, FA Abuilaiwi, SB Adebayo “*Doped Silver Nanoparticles on Carbon Fly Ash for Adsorption of Methyl Tertiary Butyl Ether*” **US Patent 10,596,546**
3. **M A Atieh**, A Abbas, BA Abussaud “*Method for Adsorbing and Removing Benzene*” **US Patent 10,532,937**
4. **M A Atieh**, Ihsanullah, T Laoui “*Carbon Nanotube Membranes*” **US Patent 10,369,526**
5. **M A Atieh**, Abdallah Darweesh Manasrah, Usamah Ahmad Al-Mubaiyedh, Tahar Laoui, Rached Ben-Mansour “*Aqueous Nanofluid Composition Containing Doped and Undoped Carbon Nanotubes*” **US 10,266,738**
6. **M A Atieh**, B Abussaud, A Abbas “*Method for Removing Benzene from Contaminated Aqueous Solutions*” **US Patent 10,065,870**
7. **M A Atieh**, A Abbas, B Abussaud “*Adsorption of Aromatic Hydrocarbons from Water using Metal Oxide Impregnated Carbon Nanotubes*” **US Patent 9,988,286**
8. **M A Atieh**, A Manasrah, U Al-Mubaiyedh, T Laoui, R Ben-Mansour “*Nanofluids Containing Carbon Nanotubes and Metal Oxide Nanoparticle Composites with Enhanced Heat Transfer and Heat Capacity Properties*” **US Patent 9,879,167**
9. **M A Atieh**, T Laoui “*Fabrication of Carbon Nanotube Membranes*” **US Patent 9,776,140**
10. O Bakather, **M A Atieh** “*Benzene Removal Using Carbon Nanotubes Impregnated with Iron*” **US Patent 9296625 B2**
11. Z Malaibari, **M A Atieh**, F Rabbani “*Ferrocene Catalyzed Method for Preparing Carbon Nanotubes*” **US Patent 9,988,275**
12. Z Malaibari, **M A Atieh**, F Rabbani “*Method for Preparing Multi-Wall Carbon Nanotubes Using Chemical Vapor Deposition with an Atomization System*” **US Patent 9,878,912**

13. F Rabbani, Z Malaibari, **M A Atieh** “*Reactor and Method for Synthesizing Metal Oxide Impregnated Carbon Nanotubes*” **US Patent 9,670,103**
14. M Khaled, M Nazal, **M A Atieh** “*Method for Removing Sulfur Compounds from Fuel Using an Adsorbent*” **US Patent 9,663,723**
15. M Khaled, M Nazal, **M A Atieh** “*Method for Desulfurizing Diesel Fuel*” **US Patent 9,862,895**
16. F Rabbani, Z Malaibari, **M A Atieh** “*Chemical Vapor Deposition Reactor with Preheating, Reaction, and Cooling Zones*” **US Patent 9,816,185**
17. F Rabbani, Z Malaibari, **M A Atieh** “*Method for Forming Aluminum Oxide/Carbon Nanotubes by Ultrasonic Atomization and Chemical Vapor Deposition*” **US Patent 9,834,444**
18. **M A Atieh**, A Al-Amer, I Amr “*Method of Inhibiting Free Radical Polymerization of Styrene*” **US Patent 8,865,019**
19. **M A Atieh**, B Amjad, L Tahar, M Samer “*Method of Removing E. Coli Bacteria from an Aqueous Solution*” **US Patent 8,754,041**

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20. B S Tawabini, **M A Atieh**, F A Abuilawi, S B Adebayo “*MTBE-Removal Composition With Acid-Treated Fly Ash Particles*” **US Patent App. 16/787,691**
21. B S Tawabini, **M A Atieh**, F A Abuilawi, S B Adebayo “*Silver Oxide Nanoparticle-Containing Fly Ash Adsorbent*” **US Patent App. 16/787,621**
22. D El-masri, M Hussien, S Ahzi “*Iron Oxide Modified Halloysite Nanomaterial*” **US Patent App. 16/594,454**
23. **M A Atieh**, S Sabri, V Kochkodan, Y Manawi, H Alsuliti “*Polymer membrane with arabic gum for water treatment*” **US Patent App. 16/591,251**
24. **M A Atieh**, D Almasri, T Rhadfi “*Method for adsorption of toxic contaminants from water*” **US Patent App. 16/345,696**
25. **M A Atieh**, Y Manawi, V Kochkodan “*Composite Reverse Osmosis Membrane, A Water Filtration System and A Method of Manufacturing Same*” **US Patent App. 16/156,312**
26. Z Malaibari, **M A Atieh**, F Rabbani “*Hot-Wall Reactor Method For Making Multi-Wall Carbon Nanotubes*” **US Patent App. 16/109,962**
27. Z Malaibari, **M A Atieh**, F Rabbani “*Catalytic Method for Multi-Wall Carbon Nanotubes*” **US Patent App. 16/109,998**
28. **M A Atieh**, A Abbas, BA Abussaud “*Method for Making and Using an Adsorbent*” **US Patent App. 16/047,588**

29. **M A Atieh**, AD Manasrah, UA Al-Mubaiyedh, T Laoui, R Ben-Mansour “*Heat Transfer Medium Containing Multi-Wall Carbon Nanotubes*” **US Patent App. 16/035,275**
30. M Khaled, M Nazal, **M A Atieh** “*Method for Forming a Reduced Thiophene/Dibenzothiophene Diesel Fuel*” **US Patent App. 15/991,709**
31. Z Malaibari, **M A Atieh**, F Rabbani “*Method for Making Ferrocene-Embedded Multi-Wall Carbon Nanotubes*” **US Patent App. 15/960,109**
32. R Karnik, S Bose, M Boutilier, G Nicolas, T Jain, S O'hern, T Laoui, **M A Atieh**, D Jang “*Mitigating Leaks in Membranes*” **US Patent App. 15/878,361**
33. **M A Atieh**, A Manasrah, U Al-Mubaiyedh, T Laoui, R Ben-Mansour “*Water-Based Nanofluid Heat Transfer Medium*” **US Patent App. 15/882,413**
34. **M A Atieh**, T Laoui “*Process for Forming A Sintered Iron Oxide Impregnated Carbon Nanotube Membrane*” **US Patent App. 15/651,688**
35. B Tawabini, **M A Atieh**, F Abuilawi, S Adebayo “*Doped Silver Nanoparticles On Carbon Fly Ash for Adsorption of Methyl Tertiary Butylether*” **US Patent App. 15/836,186**
36. M Khaled, M Nazal, **M A Atieh** “*Method for Removing Thiophene from Diesel Fuel with a Graphene Oxide Adsorbent*” **US Patent App. 15/707,198**
37. O Bakather, **M A Atieh** “*Nanocomposite for Removing Selenium from Water*” **US Patent App. 14/025,775**
38. O Bakather, **M A Atieh** “*Titanium-Impregnated Carbon Nanotubes for Selenium Removal*” **US Patent App. 14/084,475**
39. B Abussaud, A Abbas, **M A Atieh** “*Removal of Benzene from Water using Aluminum Oxide Impregnated Carbon Nanotubes Enhanced*” **US Patent App. 14/823,696**
40. A Abulkibash, **M A Atieh**, A Amro “*Silver Electrode Coated with Carbon Nanotubes*” **US Patent App. 13/705,100**
41. K Mezgani, A Fahmi, **M A Atieh** “*Linear Low Density Polyethylene Nanocomposite Fibers*” **US Patent App. 13/356,510**
42. C Sean, K Rohit, H Michael, A Cameron, **M A Atieh**, L Tahar, H Nicholas “*Graphene Based Filter*” **US Patent App. 13/835,173**
43. A Shaikh, **M A Atieh**, T Laoui “*Method of Forming Encapsulated Carbon Nanotubes*” **US Patent App. 12/662,778**
44. M Khaled, M Nazal, **M A Atieh** “*Method for reducing thiophene in diesel fuel*” **US Patent App. 10/093,867**

PATENTS SUBMITTED

45. **M A Atieh**, A Fard “*Novel Ceramic/Carbon Nanotubes Hybrid Membrane for Wastewater Treatment Application*” **2018-027**
46. **M A Atieh**, S Sabri, V Kockodan, Y Menwai, H Alsuliti “ *Novel Antibacterial Polysulphone Membrane Blended with Arabic Gum*” **2018-024**
47. D Almesri, **M A Atieh**, S Ahzi “*Iron Oxide Modified Halloysite Clay as an Efficient Adsorbent for Enhanced Selective Phosphate Removal From Water*” **2018-023**
48. **M A Atieh**, V Kockodan, Y Menwai “*Lead Removal by Arabic Gum*” **2018-022**
49. **M A Atieh** , D Abdeen, B Merzougui “*Corrosion Behaviour of Nanofluids*” **2018-021**
50. D Almesri, **M A Atieh**, E Mohamad “*Novel Nanocomposite Polysulfone Membrane Blended with Nanoclay for Water Treatment*” **2017-030**
51. **M A Atieh**, V Kockodan, Y Menwai “*Novel polyamide RO membranes blended with Acacia Gum (AG)*” **2017-028**
52. A Fard and **M A Atieh** “*Green and Novel Combined Separator-Adsorbent Inorganic Membrane for Produced Water Treatment*” **2017-0021**
53. D Almesri, T Rhadfi, **M A Atieh** “*Metal Hydroxide Modified Montmorillonite as an Efficient Adsorbent for Enhanced Heavy Metal Removal from Water Disclosure*” **2016-003**
54. **M A Atieh**, V Kockodan, Y Menwai “*Arabic Gum as a New Performer and Functionalizing Agent for Casting of Polymer Membranes*” **2016-0026**
55. A Fard and **M A Atieh** “*Synthesis of High Specific Surface Area Carbon Nanotubes Decorated with Silicon Dioxide Nanoparticles*” **2017-012**
56. A Fard, T Rhadfi, **M A Atieh**, M Kharisheh, N Hilal “*Total Removal of Oil from Water Using Doped Carbon Nanotube*” **2015-059**
57. **M A Atieh**, A Fard, T Rhadfi, M Kharisheh, N Hilal “*Total Removal of Strontium from Water Using Doped Activated Carbon (DAC)*” **2015-042**
58. **M A Atieh**, A Fard, T Rhadfi, H Preud’Homme, M Kharisheh, N Hilal “*MXENE As New Adsorbent for Heavy Metal*” **2015-031**
59. **M A Atieh**, A Fard, T Rhadfi, H Preud’Homme, M Kharisheh, N Hilal “*Removal of Barium with 2D Carbon Nanomaterial from Natural and Produced/Coproducted Waters*” **2015-032**

TEACHING EXPERIENCE

COURSES TAUGHT

❖ UNDERGRADUATE COURSES

No	Course Description	Course Number	University
1	Transport Phenomena (Heat Transfer)	BTE 3210	Biotechnology Engineering (BTE), IIUM , Malaysia
2	Thermodynamics	BTE 2510	IIUM
3	Separation Processes	BTE 4410	IIUM
4	Biochemical Processes	BTE 3710	IIUM
5	Biotechnology Engineering Lab II	BTE 2511	IIUM
6	Transport Phenomena I	CHE 204	Chemical Engineering (CHE), KFUPM, Saudi Arabia
7	Chemical Engineering Thermodynamics I	CHE 203	KFUPM
8	Chemical Engineering Thermodynamics II	CHE 303	KFUPM
9	Chemical Engineering Computing Laboratory	CHE 325	KFUPM
10	Process Design and Economics	CHE 425	KFUPM
11	Integrated Design	CHE 495	KFUPM
12	Engineering Thermodynamics	MNE 201	Department of Mechanical and Nuclear Engineering, University of Sharjah
13	Fluid Mechanics	MNE 202	UOS
14	Advanced Fluid Mechanics	MNE 432	UOS

❖ GRADUATE COURSES

No	Course Description	Course Number	University
1	Nanotechnology: Synthesis, Structure and Properties	CHE 543	KFUPM, Saudi Arabia
2	Advanced Fluid Mechanics “Master of Engineering in Oil and Gas Surface Facilities (OGSF)”	OGSF 510	KFUPM, Saudi Aramco and IFP School France

3	Advanced Transport Phenomena	SENS 662	Collage of Science and Engineering (CSE), Sustainability Program, HBKU, Qatar
4	Environmental Nanotechnology	SENV 662	HBKU, Qatar

❖ COURSE COORDINATION

Course Description	Course Number	University
Transport Phenomena I	CHE 204	CHE, KFUPM, Saudi Arabia
Chemical Engineering Thermodynamics I	CHE 203	CHE, KFUPM, Saudi Arabia

❖ SHORT COURSE

Course Description	Year	University
Polymer Degradation and Stabilization: Emphasis on Polymer Additives	2013	KFUPM, Saudi Arabia

❖ SERVICE COMMITTEES

- Member of ABET Accreditation Committee, CHE KFUPM Saudi Arabia
- Curriculum Committee, CHE KFUPM Saudi Arabia
- Promotion Committee, CHE KFUPM Saudi Arabia
- Lab & Safety Committee, CHE KFUPM Saudi Arabia
- Curriculum Committee, BTE IIUM, Malaysia

❖ STUDENT ADVISING AND HELP

- COOP Supervision and Summer Training
- Advised students in areas of Nanotechnology and projects
- Conducted help session for Nanotechnology courses and projects
- Maintained a daily office hour for regular and ad-hoc student

