

Hammad Siddiqui

Graduate Student (Final Semester)-Material Science Department Qatar University

• Mobile: +974 31356060 || • E-MAIL hs18548@qu.edu.qa , hs1709594@qu.edu.qa , siddiquihrs@gmail.com

PROFILE

Adept in detecting, diagnosing, and contributing to the resolution of flaws and hindrances with a problem-solving approach along with technical expertise of various research-based equipment and their characterization. Consistently adhere to Good Laboratory Practice (GLP) as well as safety protocols, producing results that are accurate, while being safe and compliant with regulatory standards. Thoroughly equipped to operate in dynamic research environment where I can utilize my expertise. I thrive to enrich my understanding of applied research from high caliber researchers with national and global contribution in the field of materials technology and membrane.

EDUCATION

Master of Science (Material Science & Technology)

College of Art & Science,
Qatar University, Doha (Qatar)
February 2018-present.



Bachelor of Engineering (Chemical Engineering)

Sinhgad College of Engineering
University of Pune, Maharashtra-India
Passed-June 2017.



Sinhgad Institutes

Higher Secondary (Science)

CBSE Board of Education
Ideal Indian School, Doha-Qatar
Passed March 2013.



EXPERIENCE

Research Assistant, April 2019 Till date

Center for Advanced Materials
H-10 New Research Complex, Doha-Qatar.



Summer Research Internship, 2019

Advanced Electron Microscope (SEM & TEM)



• Mobile: +974 31356060 || • E-MAIL hs18548@qu.edu.qa , hs1709594@qu.edu.qa , siddiquihrs@gmail.com

Center Laboratories Unit, Qatar University

Student Research Assistant, 2018- 2019 (6 Months)

Gas Processing Center
H-10 New Research Complex, Doha-Qatar.



Industry Equipment Training, June 2016

OmniActive Health Technologies Limited
Hinjewadi-Pune, Maharashtra -India.



Training in Milk Processing, August 2015

Katraj Milk Dairy
Katraj-Pune, Maharashtra -India.



Publications

A. A. El-Samak, **Hammadur Siddiqui**, S. Zaidi, D. Ponnamma, M. Hassan, M. Al-Maadeed * “Role of metal oxide nanofibers in water purification” **Publisher: Elsevier. Expected publishing date December, 2020.**

Mariam Elnour , **Hammadur Siddiqui**, Khlaed M. Khan__Jain, Nader Meskin*, Syed Zaidi*, “Full scale seawater reverse osmosis desalination plant simulator for cyber security research” **Published in 21st IFAC World Congress Conference Berlin, Germany in June ,2020.**

Hammadur Siddiqui, Nasser Al nuami , Syed Javid Zaidi* “Reverse osmosis sea water desalination: Qatar experience and vision” **Published in WSTA 13th Gulf Water Conference "Water in the GCC: Challenges and Innovative Solutions" State of Kuwait in march ,2019.**

Hammadur Siddiqui, Syed Javid Zaidi* “Desalination in Qatar: Present Status and Future Prospects” **Published in Civil engineering research journal ,volume 6 issue 5 ,Juniper publication. December ,2018**

Hammadur Siddiqui, A. A. El-Samak, Syed Javid Zaidi* “Sea water pretreatment technologies for SWRO: current status and challenges “ (ongoing)

Hammadur Siddiqui, Syed Javid Zaidi* “Qatar water resource Management: water production and consumption (Ongoing)”

PROJECTS

Multipurpose Modular Research Bench-2020. (70000 USD)
Designed and custom fabricated Modular Multipurpose Multi-Layer Bench including efficient piping system through Solid work software. The facility has

been currently utilized to run a pilot scale study of membrane on Forward Osmosis and Reverse Osmosis system on a single table with ability to run a hybrid system.

Membrane Caster and Smart Weight Balance System (12500 USD)

Supervised a custom fabrication of multifunctional membrane casting machine and wi-fi enabled automated weight balance system for accurate and efficient data collection of pilot scale study.

Procurement of Laboratory utilities for Water based R&D ,2020

Complete procurement with sound awareness of legalities involved in import and export of the all the laboratory utilities that includes heavy mechanical machinery, Hazardous chemical, commercial membranes and laboratory supplies.

Simulation of RO based Sea water desalination, 2019 (Ongoing)

Understanding the plant data acquisition system and simulating it with softwares like MATLAB, Simulink ROSA, Toray-D2D, Winflow, IMSD Design. Supervised the generation of Artificial Neural Network for the pilot study to develop model for data validation and precise prediction.

Laboratory Scale Membrane Modification 2019 – (Ongoing)

Preparing modified membrane through various techniques for efficient water desalination and exhaustive characterization of as-modified membrane.

Manufacturing of Formaldehyde using Methanol, 2016- 2017 (11 months)

Comprehensive analysis of formaldehyde production that includes process selection, thermodynamics, material & energy balance, detailed design of heat exchanger and absorber, cost estimation of entire project, plant location and layout consideration.



SKILLS

- Scientific data acquisition and analysis along with academic research-based report writing.
- Operating laboratory equipment and sample preparation techniques for electrospinning, transmission electron microscopy, scanning electron microscopy, x-ray diffraction spectroscopy, X-ray photoelectron spectroscopy, differential scanning calorimetry, thermogravimetric analysis, and impedance spectroscopy.
- Designing and supervision of research-based experimental set up for desalination and membrane filtration.

- Operating and assisting various R&D equipment.
- Supervision of students in conducting experiments.
- Planning and scheduling the projects through Microsoft Project and Primavera.
- Expert in process analyzing softwares like Simulink ROSA and Winflow.
- Proficient in data analysis by Origin Pro and Chemdraw Ultra 12.
- Highly skilled in MS Excel, MS Word and MS PowerPoint.