

[Research Interests](#)

[Qualifications](#)

[Publications](#)

[University Courses Taught](#)

[Patents](#)

[Journals Editor/ Reviewer](#)

ORCID ID: <https://orcid.org/0000-0002-2497-2117>

WoS:

<https://www.webofscience.com/wos/author/record/S-3248-2016>

Scopus Author ID: 56038008000

Scopus Link:

<https://www.scopus.com/authid/detail.uri?authorId=56038008000>

Researcher ID: 3129

Google Scholar:

<https://scholar.google.com/citations?user=PLShB8wAAAAJ&hl=ar&oi=ao>


# Prof. Mohammed Hamed Salem Abu-Dayyeh Matouq


Prof of chemical reaction engineering, water resources, environmental engineering, and GIS application in climate change

PROFESSOR

 [Faculty of Engineering Technology](#)

 <https://www.bau.edu.jo/@matouq>

 Major: Chemical Engineering

 Minor: Chem eng and environment

 [matouq@bau.edu.jo](mailto:matouq@bau.edu.jo)



## OverView

He holds a bachelor's degree in chemical engineering from the University of Jordan with second class honors and a master's degree in general biotechnology with a scholarship from the Faculty of Graduate Studies at the University of Jordan. In 1990 he received a scholarship from the Japanese government to obtain a doctorate degree in chemical engineering from Nagoya University in the specialization of reactor engineering. In 1994, he won several awards in the Engineers Syndicate competition for engineering projects, five projects from KAFD, King Abdullah Fund for Development and international projects. He was awarded the Japanese Emperor Medal for Academic Excellence, and the Rising Sun Medal of golden rays with a neck scarf. In promoting academic exchange and mutual understanding between Japan and Jordan 2023.



## Research Interests:

ISO 14000, Water and wastewater treatment, GIS in climate changes with Neural artificial network, adsorption kinetics



## Qualifications

#	Degree	University	Specialization	Graduation year
<b>1</b>	PHD	Nagoya University	chem eng	1994
<b>2</b>	MASTER DEGREE	University of Jordan	chem eng	1989
<b>3</b>	BACHELOR'S DEGREE	University of Jordan	chem eng	1987



## Publications

- 1- [Agroecology as Catalyst for Smallholder Farming Mitigation and Adaptation to Climate Change: Caribbean Region](#) ,SDGs in the Americas and Caribbean Region , 2023,Vol. 1,no. 1.
- 2- [Heavy Metal Removal from Wastewater Using Different Cheap Adsorbents: Olive Cake, Moringa, Eucalyptus, and Pine Cone](#) , Water and Wastewater Management , 2023,Vol. 1,no. 1.
- 3- [Innovative Approaches in Smallholder Farming Systems to Implement the Sustainable Development Goals](#) ,SDGs in the Americas and Caribbean Region , 2023,Vol. 1,no. 1.
- 4- [Integrating nature-based solutions with traditional smallholder farming systems to build climatic resilience in the Caribbean](#) ,SDGs in the Americas and Caribbean Region, Implementing the UN Sustainable Development Goals ? Regional Perspectives (IUNSDGRP), 2023,Vol. ,no. .
- 5- [Greywater reuse: an assessment of the Jordanian experience in rural communities](#) ,Water Science & Technology, 2022,Vol. ,no. .
- 6- [Treated oil shale ash and its capacity to remove Cd and Pb from aqueous solution](#) ,OIL SHALE, 2022,Vol. ,no. .
- 7- [Reducing non-residential asset sanitisation water footprint for improved public health in water-deficient cities](#) ,Sustainable Cities and Society, 2021,Vol. ,no. .
- 8- [Process Safety Management Strategies and Risk Assessment](#) ,jjeci, 2021,Vol. ,no. .
- 9- [30 Years Climate Change Impact on Weather Elements and Green Coverage: GIS and Remote Sensing Geo-Environmental Case Study in Jordan](#) , (Iraqi Geological Journal) , 2021,Vol. ,no. .
- 10- [Applying iron coating on the Saudi Arabia volcanic tuff for enhancing mercury adsorption from synthetic wastewater](#) ,Desalination and Water Treatment , 2021,Vol. ,no. .
- 11- [Biosorption of chromium and nickel from aqueous solution using pine cones, eucalyptus bark, and moringa pods: a comparative study](#) ,Water Practice & Technology, 2021,Vol. ,no. .
- 12- [Determination of Blood Calcium and Lead Concentrations in Osteoporotic and Osteopenic Patients in Pakistan](#) ,ACS Omega, 2021,Vol. ,no. .
- 13- [Evaluation of a Pilot Saline Water Treatment Unit using a Solar-Thermal Concentrator with Zero Energy Cost for Arid Regions](#) ,waterproductivity, 2021,Vol. ,no. .
- 14- [Rainwater Harvesting Policy Issues in the MENA Region: Lessons Learned, Challenges, and Sustainable Recommendations](#) , Handbook of Water Harvesting and Conservation: Basic Concepts and Fundamentals, 2021,Vol. ,no. .
- 15- [Derivation of digital terrain models and morphological parameters from very high resolution satellite images](#) ,International Journal of Hydrology Science and Technology, 2020,Vol. ,no. .

- 16- [QUALITY IMPROVEMENT OF OILY WASTEWATER](#)** ,United States Patent, 2020,Vol. 1,no. 1.
- 17- [Nanotechnology in packing materials for food and drug stuff opportunities](#)** , Journal of Environmental Chemical Engineering , 2020,Vol. ,no. .
- 18- [The Reuse of Treated Wastewater via Groundwater Recharge for the Development of Sustainable Water Resources](#)** ,International journal of Rural Development, Environment and Health Research(IJREH) , 2018,Vol. ,no. .
- 19- [Kinetics study of the ability of compost material for removing Cu<sup>2+</sup> from wastewater](#)** ,Global NEST Journal, 2018,Vol. ,no. .
- 20- [Nonlinear Multivariate Rainfall Prediction in Jordan Using NARX-ANN Model with GIS Techniques](#)** ,Jordan Journal of Civil Engineering, 2018,Vol. ,no. .
- 21- [Olive mill wastewater \(OMW\) treatment by using ferric oxide dephenolization and chemical oxygen demand removal](#)** ,Global NEST Journal, 2018,Vol. ,no. .
- 22- [Review Urban Wastewater Contamination in Agronomical Soils](#)** ,International Journal of Research Studies in Science, Engineering and Technology, 2018,Vol. ,no. .
- 23- [Solar photocatalytic detoxification using immobilised titanium oxide: a cost-effective tertiary treatment method for decentralised wastewater effluents](#)** ,Global NEST Journal, 2018,Vol. ,no. .
- 24- [The adsorption kinetics and modeling for heavy metals removal from wastewater by Moringa pods](#)** ,Journal of Environmental Chemical Engineering, 2015,Vol. 3,no. 2.



#### University Courses Taught

- 1- ISO 14000.
- 2- Biochemical engineering.
- 3- Chemical reaction engineering.
- 4- Pharmaceutical process engineering.
- 5- fluid mechanics.
- 6- Mathematical methods in chem eng.
- 7- Environmental engineering.
- 8- water and wastewater treatment.
- 9- Air pollution control.
- 10- Safety in engineering.



Patents

- **Quality improvement of oily wastewater** , United States Patent.