

MUNA A. ABU-DALO, Professor

Director of the Consultative Center for Science and Technology
Chemistry Department, Faculty of Science and Arts
Civil Engineering Department, Faculty of Engineering
Jordan University of Science and Technology (JUST)
P.O.Box , 3030, Irbid, 22110 JORDAN

Phones: +962-2-7201000 ext. 23557

Email : maabudalo@just.edu.jo

Fax: +962-2-7201071

ORCID : <https://orcid.org/0000-0002-3800-4715>

A. Professional Preparation:

Yarmouk University, Irbid, Jordan	Chemistry	B.S. 1992
University of Jordan, Amman, Jordan	Analytical/Environmental Chemistry	M.S. 1996
University of Colorado at Boulder	Environmental Engineering	PhD. 2003

B. Appointments:

09/2021-present	Director, the Consultative Center for Science and Technology, Jordan University of Science and Technology (JUST), Irbid, Jordan.
08/2018-present	Professor, joint appointment at both Department of Applied Chemical Sciences and Civil Engineering Department, Jordan University of Science and Technology (JUST), Irbid, Jordan
08/2013-11/2018	Associate Professor, joint appointment at both Department of Applied Chemical Sciences and Civil Engineering Department, Jordan University of Science and Technology (JUST), Irbid, Jordan
09/2013-09/2016	Director, Queen Rania Al-Abdallah Center for Environmental Sciences & Technology, Jordan University of Science and Technology (JUST), Irbid, Jordan.
09/2012-09/2013	Assistant Professor, joint appointment at both Department of Applied Chemical Sciences and Civil Engineering Department, Jordan University of Science and Technology (JUST), Irbid, Jordan
02/2011-09/2012	Assistant Professor, Department of Applied Chemical Sciences, Jordan University of Science and Technology (JUST), Irbid, Jordan
02/2010-1/2011	Visiting Assistant Professor, Department of Civil, Environmental, and Architectural Engineering, University of Colorado at Boulder, Colorado, USA.
09/2008-2/2010	Assistant Professor, Water and Environmental Engineering Department, German Jordanian University, Amman, Jordan
02/2008-06/2008	Visiting Assistant Professor, Faculty of Graduate Studies, University of Jordan, and Amman, Jordan
05/2004-12/2007	Visiting Assistant Professor, Department of Civil and Environmental Engineering, Clarkson University, Potsdam, NY, USA.
08/1999-08/2003	Teaching and Research Assistant, Department of Civil Engineering, University of Colorado at Boulder, USA
08/1996-07/1998	Instructor, Department of Pharmacy, Al-Isra University, Amman-Jordan.
08/1993-07/1996	Teaching and Research Assistant, Department of Chemistry, University of Jordan, Amman-Jordan.

C. Publications in the last three years:

1. Al Bawab, A., **Abu-Dalo, M.**, Khalaf, A., & Abu-Dalo, D. (2022). Olive Mill Wastewater (OMW) Treatment Using Photocatalyst Media. *Catalysts*, 12(5), 539.
2. Odeh, F., **Abu-Dalo, M.**, Albiss, B., Ghannam, N., Khalaf, A., Amayreh, H. H., & Al Bawab, A. (2022). Coupling magnetite and goethite nanoparticles with sorbent materials for olive mill wastewater remediation. *Emergent Materials*, 5(1), 77-88.
3. **Abu-Dalo, M.A.**; Al-Atoom, M.A.; Aljarrah, M.T.; Albiss, B.A. (2022). "Preparation and Characterization of Polymer Membranes Impregnated with Carbon Nanotubes for Olive Mill Wastewater". *Polymers*, 14, 457. <https://doi.org/10.3390/polym14030457>
4. **Abu-Dalo, M.**, Abdelnabi, J., Al-Rawashdeh, N. A., Albiss, B., & Al Bawab, A. (2021). "Coupling coagulation-flocculation to volcanic tuff-magnetite nanoparticles adsorption for olive mill wastewater treatment". *Environmental Nanotechnology, Monitoring & Management*, 100626.
5. Al-Widyan, M., Khasawneh, M., & **Abu-Dalo, M.** (2021). "Potential of Floating Photovoltaic Technology and Their Effects on Energy Output, Water Quality and Supply in Jordan". *Energies*, 14(24), 8417.
6. **Abu-Dalo, M.**, Abdelnabi, J., and Al Bawab, A. (2021). "Preparation of Activated Carbon Derived from Jordanian Olive Cake and Functionalized with Cu/Cu₂O/CuO for Adsorption of Phenolic Compounds from Olive Mill Wastewater." *Materials* 14.21, 6636. DOI: [10.3390/ma14216636](https://doi.org/10.3390/ma14216636)
7. Alnairat, N., **Abu Dalo, M.**, Abu-Zurayk, R., Abu Mallouh, S., Odeh, F., & Al Bawab, A. (2021). "Green Synthesis of Silver Nanoparticles as an Effective Antibiofouling Material for Polyvinylidene Fluoride (PVDF) Ultrafiltration Membrane". *Polymers*, 13(21), 3683. DOI: [10.3390/polym13213683](https://doi.org/10.3390/polym13213683)
8. Abu-Dalo, M. A., Al-Rosan, S. A., & Albiss, B. A. (2021). "Photocatalytic Degradation of Methylene Blue Using Polymeric Membranes Based on Cellulose Acetate Impregnated with ZnO Nanostructures". *Polymers*, 13(19), 3451. DOI: [10.3390/polym13193451](https://doi.org/10.3390/polym13193451)

9. Bani Rashaid A., Nusair N., Alqhazo M., **AbuDalo, M.**, Adams, J, Bashtawi M. (2021). "Heavy Metals and Trace Elements in Scalp Hair Samples of Children with Severe Autism Spectrum Disorder: a Case-Control Study on Jordanian Children". *Journal of Trace Elements in Medicine and Biology*, May 2021. 67(9), 126790 . DOI : [10.1016/j.jtemb.2021.126790](https://doi.org/10.1016/j.jtemb.2021.126790)
10. Borhan Albiss and **Muna Abu-Dalo (2021)**. "Photocatalytic Degradation of Methylene Blue Using Zinc Oxide Nanorods Grown on Activated Carbon Fibers". *Sustainability* 13(9), 4729. DOI: 10.3390/su13094729
11. Abu-Qdais, Hani A., **Muna A. Abu-Dalo**, and Yazan Y. Hajeer (2021). "Impacts of Nanosilver-Based Textile Products Using a Life Cycle Assessment." *Sustainability* 13(6): 3436. DOI: [10.3390/su13063436](https://doi.org/10.3390/su13063436)
12. **AbuDalo M**, El-khateeb M, Ayadi H, Al-Rahahleh B, Jaradat A, Guermazi W. (2020) "First assessment of water quality of an artificial lake for fish culture and irrigation: A case study of water reuse in water shortage area across the Middle East". *Aquaculture Research.*; 00:1–15.
13. **AbuDalo, M.**, Nevostrueva, S., Hernandez, M. (2020) "Removal of Radionuclides from Acidic Solution by Activated Carbon Impregnated with Methyl- and Carboxy- Benzotriazoles". *Scientific Reports*, 10(1):11712. DOI: [10.1038/s41598-020-68645-4](https://doi.org/10.1038/s41598-020-68645-4)

Other Significant Products:

- [1] Hernandez, M. and **Abu-Dalo, M.** , Removing Metals from Solutions Using Metal Binding Compounds and Sorbents Therefore, US Patent # 7,361,279, Issued April, 2008.
- [2] Hernandez, M. and **Abu-Dalo, M.**, Khanna, G., Quick, Al., Metal removal system and method, US Patent # **10,106,437 B2**, issued 23 Oct , 2018

D. Synergistic Activities:

- Acted as Director for Queen Rania Al- Abdallah Center for Environmental Sciences & Technology during 2013-2016 at JUST, dedicated my efforts to spreading environmental awareness locally and internationally
- Acted as a role model for young high school students ; as part of the project: "Chain Reaction" <http://www.chreact.eu> with the aim to stimulate a sustainable approach for inquiry-based science education and insights into the varied career paths available in science and engineering.
- Established collaboration with University of Washington (UW), Seattle which yielded the study abroad course "[Water in an Arid Land- The Engineered Water Cycle in Jordan](#)", held at Jordan University of Science and Technology (JUST) for five summers 2012-2018.
- Established national and international collaborations, which yielded several submitted proposals and published papers in membrane development and desalination, green nanoparticles synthesis, olive mill wastewater treatment, sensors development for environmental applications and Sustainable Fish Culture.
- Trained, moderated and participated in several professional training & workshops in Jordan and abroad. I am a certified trainer from the Accreditation Center and Quality Control.
- Organized, chaired, lectured, attended, and moderated several congresses, conferences, symposiums, meetings and workshops for funded projects and scientific networking
- Hosting and advising Ph.D. students from the University of Biskra, Algeria during their research internship in Jordan.
- Founding member of the Women Water Nexus Network; Liaison Officer for the Association of Jordanian Women Academic; Coordinator for MEDRC Water Research Fellowship Program; advisor for SIT Study abroad program; reviewing papers; evaluating proposals and awards; advising undergraduate and graduate students, and active member of several committees at and outside JUST.

E. Collaborators and Other Affiliations

Collaborators and Co-editors

Hernandez Mark (University of Colorado at Boulder), Richard Partch and Silvana Andreescu, (Clarkson University), Ayman Ababneh, Hani Abu Qdais, Nathir Al-Rawashdeh and Borhan Albiss (Jordan University of Science and Technology, JUST), Nabil Nassory (JUST), Heidi Gough and Kim, Amy (University of Washington), Isabel Escobar (University of Toledo (UT)), Vinka Craver (University of Rhode Island (URI)), Tequila Harris, (Georgia Institute of Technology), Felecia Nave (Prairie View A&M University (PVAMU)), Katherine Cunningham (The George Washington University), Elham El-Zanati (National Research Center (NRC), Egypt), Mohamed Taky (Ibn Tofail university, Morocco) , Mahmoud Hafsi (ONEE, Morocco), Najwa I. Abdulla (University of Baghdad, Iraq)

Professional membership and Other Affiliations:

Environmental & Water Resources Institute (EWRI) and American Society of Civil Engineering (ASCE) 2012-2020; American Chemical Society (ACS) since 2017; Jordanian Chemical Society since 2009 (Member of the administrative body 2016-2018); Association of Jordanian Women Academics AJWA since 2016; Jordanian Association of Engineers, since 2009

Graduate and Postdoctoral Advisors

Mark T. Hernandez, (University of Colorado at Boulder) and (Philip K. Hopke) Clarkson University