

▶ Dr. Dalia Khalil Ali

Associate Professor in Organic Polymer Chemistry



Amman, Jordan



daliak.ali@hotmail.com



dalia.ali@iu.edu.jo



<https://www.linkedin.com/in/dalia-ali-7bb77447/>



+962 79727417



[0000-0001-9680-0026](https://orcid.org/0000-0001-9680-0026)



<https://scholar.google.com/citations?hl=en&user=ei8sa4MAAAAJ>

Nationality: Jordanian



Biography

I hold a Ph.D. in Organic Chemistry /Polymer from the University of Jordan. Since 2016, my research and professional interests have been concerned with renewable structures that can be turned into workable macromolecular materials. In addition, I am interested in the synthesis of novel polymers with favorable environmental properties by using common amino acids and monomers based on renewable organic compounds.

Research Achievements

I have contributed to the development of a method for producing polymers from renewable organic compounds for a variety of applications. Peer-reviewed scientific journals have published eleven of my articles on the synthesis of novel amino acid polymers for drug delivery and six of my research papers on the synthesis of novel polymers from natural materials to replace petroleum-based plastic materials.

Research Activities

During my academic career, I have been the chairman of the college's research committee and the University's Scientific Research Council member. Isra University provided financial support for four of my studies, three of which I oversaw as the principal investigator and one as a research associate. Furthermore, three international projects carried out by Kingston University in the United Kingdom and Najran University in the Kingdom of Saudi Arabia are associated. Apart from instructing numerous courses for undergraduate and graduate students at the University, I supervise graduate students, serve as a co-supervisor for a PhD candidate, and mentor three master's students; I co-supervise four



Education

Sep 2012 - June 2016 **Ph.D. in Organic Chemistry/Polymer**

The University of Jordan, Science College-Chemistry Department, Amman-Jordan

Sep 2007-Aug 2010 **MSc in Organic Chemistry/Polymer**

The University of Jordan, Science College-Chemistry Department, Amman-Jordan

Sep 2003- Feb 2007 **BSC in Chemistry**



Employment History

Oct 2017- Present

Associate Professor - Dean Assistant for Quality Assurance

Al-Isra University, Amman- Jordan

- Teaching:
 - Undergraduate courses:
 - Organic Chemistry 1
 - Organic Chemistry 2
 - General Chemistry
 - Organic Compound Diagnostics
 - Pharmaceutical Analytical Chemistry
 - Organic Chemistry Lab
 - Analytical and Instrumental Lab
 - Postgraduate courses (MSc):
 - Advanced Organic Synthesis
 - Research Methodology
- Services provided to students:
 1. I organized a science day for students in pharmacy college.
 2. I do academic advising for 50 students.
 3. I was helping my students record videos of organic chemistry lab experiments so Corona patients could watch these videos from home.
- I have supervised MSc students. A total of three primary and four associate supervisions.
- **I have CO-supervised PhD students.**
- I got three funds to develop amino acid-based polymers for drug delivery.
- Established collaboration in research within the University and regionally
- Member of the college quality council and research committee.

Jun 2015- Feb 2017

Part-time lecturer

Ahliyya Amman University, Amman-Jordan

- Teaching:
 - Undergraduate courses:
 - General Chemistry
 - General Chemistry lab
 - Analytical Chemistry lab

Oct 2012- Jul 2014

Part-time lecturer

Philadelphia University, Amman-Jordan

- Teaching:

- Undergraduate courses:
 - General Chemistry
 - Instrumental Chemistry
 - General Chemistry Lab

Sep 2011- Aug 2012

Part-time lecturer

The University of Jordan, Amman-Jordan

- Teaching:
 - Instrumental Chemistry Lab
 - General Chemistry Lab

Sep 2007- Jun 2010

Teaching and research assistant

The University of Jordan, Amman-Jordan

- The undergraduate students administrator in chemistry laboratories.
- Research assistance for funded project in the Department of Chemistry.



Professional Certificates, Workshops, and Conferences

Workshops

- Training workshop for a design e-learning course,2022.
- Training workshop for using Moodle program in e-learning,2021.
- Workshop in British council for (Early Academics Development Program),2020.
- Training workshop in SESAME for the use of synchrotron radiation in the field of experimental sciences and their applications in the Middle East,2019.
- Practical training in toxic substance analysis,2010.
- Practical training of product quality,2007.

Conferences

- The 17th Jordanian Chemical Conference, 2022.
- The 16th Jordanian Chemical Conference, 2019.
- International Conference at Al beat University, 2017.
- International Conference on Natural Products and Drug Discovery,2016
- International of Young Chemists, 2012.
- 11th Eurasia Conference on Chemical Sciences, 2010.



Publications

Published papers

1. Hadeel Abu-Kreefeh, **Dalia K. Ali**, and Bassam A Sweileh, "Synthesis and characterization of novel green poly(ester-urethane)s based on 2-aminomethyl furan." *Journal of Polymers and the Environment*. (2024), [Under review](#)
2. Nour Radwan Achkar, **Dalia K. Ali**, Qais Jarrar, Shereen M. Assaf, and Eman Zmaily. "Enhancing Lung-Targeted Delivery of Fluticasone Propionate and Salmeterol Xinafoate: an in-vitro and in-vivo evaluation of novel tyrosine-based poly (ester amide) nanoparticles for fixed-dose combination inhalation therapy." *Scientific Reports*. (2024),
3. Eman Zmaily Dahmash, Lama Murad Attiany, **Dalia K. Ali**, Shereen Assaf, Jamal Alkrad, Hamad Alyami. "Development and characterization of transdermal patches using novel thymoquinone-L-arginine-based polyamide nanocapsules," *Journal of the American Association of Pharmaceutical Scientists*. (2024), **25:69** <https://pubmed.ncbi.nlm.nih.gov/38538972/>.
4. Aseel AL-Sarayrah, Samer Hussein-Al-Ali, Mike Haddad, **Dalia K. Ali** "Methotrexate-Nano polymer for Targeted Pulmonary Drug Delivery" *Indonesian Journal of Chemistry*. 2024, 24 (2), 427 – 443
5. Al-baldawi, Noor Mohammed, **Dalia K. Ali**, Qais Jarrar, Rasha Abuthawabeh, and Eman Zmaily. "Journal of Drug Delivery Science and Technology Quality by Design for the Synthesis and Optimisation of Arginine-Poly (Ester-Amide) Nanocapsules as Promising Carriers for Nose-Brain Delivery of Carbamazepine" 89, no. September (2023). <https://doi.org/10.1016/j.jddst.2023.105070>
6. AbdulKarim, Hussien, **Dalia K. Ali**, Esra' Taybeh, Hamad S. Alyami, Shereen M. Assaf, and **Eman Zmaily Dahmash**. "Novel Poly(Ester Amide) Derived from Tyrosine Amino Acid for Targeted Pulmonary Drug Delivery of Fluticasone Propionate." *Journal of Applied Polymer Science*, no. January (2023): 1–14. <https://doi.org/10.1002/app.53672>.
7. Alyami, Hamad S., **Dalia Khalil Ali**, Qais Jarrar, Abdolelah Jaradat, Hadeel Aburass, Abdul Aleem Mohammed, Mohammad H. Alyami, Alhassan H. Aodah, and Eman Zmaily Dahmash. "Taste Masking of Promethazine Hydrochloride Using L-Arginine Polyamide-Based Nanocapsules." *Molecules* 28, no. 2 (2023): 748. <https://doi.org/10.3390/molecules28020748>.
8. Ahmed, Zain Alabden Ghanim, Samer Hasan Hussein-Al-Ali, Ibrahim Abdel Aziz Ibrahim, Mike Kh Haddad, **Dalia Khalil Ali**, Anwar Mahmoud Hussein, and Ahmad Adnan Abu Sharar. "Development and Evaluation of Amlodipine-Polymer Nanocomposites Using Response Surface Methodology." *International Journal of Polymer Science* 2022 (2022). <https://doi.org/10.1155/2022/3427400>.
9. **Dalia Khalil Ali**, Samer Al-ali, Eman Zmaily Dahmash, Gada Edris, Hamad Alyami. "Reduction and pH Dualresponsive Poly(disulfide-amide) Nanoparticles Based on Cystine for Targeting Release of Doxorubicin." *Journal of Polymers and the*

Environment, 2022. 30, no. 11 (2022): 4809–20. <https://doi.org/10.1007/s10924-022-02552-9>.

10. **Dalia K. Ali**. "Synthesis and Characterization of Novel Biobased Ion - Bisfuran Polyamides Prepared by Interfacial Polycondensation of Bisfuran Diamine Monomer and Sustainable Dicarboxylic Acid Derivatives." Journal of Polymers and the Environment, 2022. <https://doi.org/10.1007/s10924-022-02496-0>.
11. Nadeen Alkurdi, Samer Hussein-Al-Ali, Awad Albalwi, Mike Haddad, Yousef Aldalahmah, **Dalia K. Ali**. "Development and Evaluation Novel Polymer Drug Delivery System using Polyamides-Disulfide-Cromolyn and Analyze Response Surface Design." Journal of Chemistry, (2022) <https://doi.org/10.1155/2022/7903310>.
12. Eman Zmaily Dahmash, **Dalia K. Ali**, Hamad S. Alyami, Hussien Abdulkarim, Mohammad H. Alyami, and Alhassan H. Aodah. "Novel Thymoquinone Nanoparticles Using Poly(Ester Amide) Based on L-Arginine-Targeting Pulmonary Drug Delivery." Polymers. vol. 14, no. 6 (2022): 1082. <https://doi.org/10.3390/polym14061082>.
13. Mohammad H. Alyami, Eman Zmaily Dahmash, **Dalia K. Ali**, Hamad S Alyami, Hussien Abdulkarim, and Samar A Alsudir. "Novel Fluticasone Propionate and Salmeterol Fixed-Dose Combination Nano-Encapsulated Particles Using Polyamide Based on L-Lysine." Pharmaceuticals. vol. 15, no. 3 (2022): 321. <https://doi.org/10.3390/ph15030321>.
14. Faten Alregeb, Fawwaz Khalili, Bassam Sweileh, and **Dalia K. Ali**. "Synthesis and Characterization of Chelating Hyperbranched Polyester Nanoparticles for Cd (II) Ion Removal from Water." Molecules. vol. 27, no. 12 (2022): 3656. <https://doi.org/10.3390/molecules27123656>.
15. Rami Ayoub, Jamal Jilani, Qais Jarrar, Raad Alani, Chrismawan Ardianto, Khang Wen Goh, **Dalia K. Ali**, and Said Moshawih. "Synthesis and In-Vivo Evaluation of Benzoxazole Derivatives as Promising Anti-Psoriatic Drugs for Clinical Use." Molecules vol. 27, no. 9 (2022): 3023. <https://doi.org/10.3390/molecules27093023>.
16. Rami Ayoub, Qais Jarrar, **Dalia K. Ali**, Said Moshawih, Yazun Jarrar, Muhammad Hakim, and Zainul Zakaria. "Synthesis of Novel Esters of Mefenamic Acid with Pronounced Anti-Nociceptive Effects and a Proposed Activity on GABA, Opioid and Glutamate Receptors." European Journal of Pharmaceutical Sciences. vol. 163, no. 105865 (2021): 1–9. <https://doi.org/10.1016/j.ejps.2021.105865>.
17. **Dalia K. Ali** "Green Ion-Exchange Bisfuranic Polyamides by Polycondensation with Bio-Based Diamines." Green Materials vol. 8, no. 1 (2020): 24–31. <https://doi.org/10.1680/jgrma.18.00091>.
18. Abdallah Y. Naser, Eman Zmaily Dahmash, Rabaa Al-Rousan, Hassan Alwafi, Hamzeh Mohammad Alrawashdeh, Imene Ghoul, Anwer Abidine, Mohammed A Bokhary, Hadeel T Al-Hadithi, **Dalia K. Ali**, Rasha Abuthawabeh, Ghada Mohammad Abdelwahab, Yosra J Alhartani, Haneen Al Muhaisen, Ayah Dagash, Hamad S Alyami. "Mental Health Status of the General Population, Healthcare Professionals, and University Students during 2019 Coronavirus Disease Outbreak in Jordan: A Cross-Sectional Study." Brain and Behavior vol. 10, no. 8 (2020): e01730. <https://doi.org/https://doi.org/10.1002/brb3.1730>.

19. **Dalia K. Ali** and Bassam A. Sweileh. "Novel Bio-Based Bisfuranic Polyesters by Interchange Reactions Between Bisfuranic Diester Bearing Pendent Carboxylic Acid Group and Bio-Based Dihydroxy Compounds." *Journal of Polymers and the Environment*. vol. 26 (2018): 1940–1949. <https://doi.org/10.1007/s10924-017-1091-5>.
20. **Dalia K. Ali**, Aya M. Al-zuheiri, and Bassam A Sweileh. "International Journal of Polymer Analysis and PH and Reduction Sensitive Bio-Based Polyamides Derived from Renewable Dicarboxylic Acid Monomers and Cystine Amino Acid." *International Journal of Polymer Analysis and Characterization*. vol. 22 (2017): 361–373. <https://doi.org/10.1080/1023666X.2017.1298012>.



Awards, Grants, and funds

Grants

- Teaching assistance scholarship from the University of Jordan during my Ms degree.

Funds

- Scientific Research Support fund- Isra University: (2018-2019) (8,500 JOD).
- Scientific Research Support fund- Isra University: (2019-2020) (3,000 JOD).
- Scientific Research Support fund- Isra University: (2021-2022) (1,500 JOD).
- Scientific Research Support fund- Isra University: (2022-2025) (112,000 JOD).



Organizational Membership

- **Jordanian Chemical Society**
- **Women in Tech® is an international non-profit organization.**