

Linda Al-Hmoud

Associate Professor

Contact

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Education

August 2014

Georgia Institute of Technology
Atlanta, GA, USA
Ph.D. in Chemical Engineering
Thesis Title: Understanding
Heterogeneous Copper Catalysts for
Coupling Reactions in Organic
Synthesis, *Jones Research Group*
GPA: (3.95 out of 4.00)

June 2000

The University of Jordan
Amman, Jordan
M.Sc. in Chemical Engineering
Thesis Title: Stability of Cosmetics
produced from Dead Sea Salt and Mud
GPA: (4.00 out of 4.00)

June 1997

The University of Jordan,
Amman, Jordan
B.Sc. in Chemical Engineering
Graduation Project: Production of
Ethylene Glycol and Dimethyl
Terephthalate from Waster PET
Bottles by Methanolysis
GPA: (3.76 out of 4.00), ranking the
1st among 48 classmates

Professional Summary

Results-driven Associate Professor of Chemical Engineering with expertise in academia, research, and industry consulting. Demonstrated expertise in chemical reaction engineering and catalysis and their applications in wastewater treatment and pharmaceutical industry. Recognized for leadership as a Technical Committee Member at the Jordan Institute for Standards and Metrology and as the former elected President of the Chemical Engineering Division at the Jordan Engineers Association. Adept at fostering innovation, leading teams, and providing impactful solutions, recently showcased through successful collaboration with a paint manufacturing company in developing specialized paint formulations. Seeking a dynamic role to integrate teaching, research, and impactful industry contributions.

Experience

Mar 2021 – Present

Associate Professor • The University of Jordan • Amman, Jordan

- Employing learner-based teaching techniques across Chemical Engineering courses, encompassing Chemical Reaction Engineering (Undergrad and Graduate level), Chemical Engineering Principles, Biochemical Engineering, Pharmaceutical Industry, Local Chemical Industries, Fluid Mechanics, Transport Phenomena, Mathematical Methods in Chemical Engineering, and Computer Applications for Chemical Engineering.
- Conducting *research in* the applications of chemical engineering in pharmaceutical industries, including catalysis and solid particle processing technologies
- Specialized in the chemical treatment of wastewater, particularly using catalytic routes, and supervised two master's theses with significant contributions:
 - Catalytic removal of tetracycline residues from pharmaceutical wastewater via LED photocatalytic oxidation using bimetallic oxide nanoparticles.
 - Removal of polyphenols from olive mill wastewater through catalytic oxidation.
- Head of Accreditation committee, helping the Chemical Engineering Department to comply with ABET Accreditation requirements.

Aug 2014 – Feb 2021

Assistant Professor • The University of Jordan • Amman, Jordan

Aug 2008 – May 2014

Graduate Teaching/Research Assistant • Georgia Institute of Technology • Atlanta, GA, USA

Oct 2006 – Jul 2008

Lecturer • The University of Jordan • Amman, Jordan

Jul 2002 – Oct 2007

Jordan Standards and Metrology Organization (JSMO) • Amman, Jordan

Standardization Officer (*Nov 2005 – Oct 2007*)

Developing Standards and Technical Regulations for all chemical detergents, chemicals, and batteries

Control and Inspection Officer (*Jul 2002 – Oct 2005*)

Controlling and inspecting the quality of locally produced and imported goods in plastics sector

Other Roles and Responsibilities at JSMO:

- Member of the Quality Auditing Committee (2 yrs)
- Member of King Abdullah II Prize team (3 yrs)
- Quality System Coordinator at Control and Inspection Department (3 yrs)
- Responsible for restructuring and automating the Working System in the Control and Inspection Department (2 yrs)

Sep 1998 – Nov 1999

Production Manager • Jordan Co. for Dead Sea Products • Amman, Jordan

- Planning and supervising cosmetics production lines including shampoo, creams, mud mask, and Dead Sea salts
- Management representative of ISO 9001 Quality Management System; implementing and auditing the company QMS

Aug 1997 – Aug 1998

Quality Control Engineer • Agricultural Plastic Ind. Co. • Sahab, Jordan

- Establishing quality control laboratory for plastics
- Performing the mechanical tests required for controlling the quality of produced agricultural plastic

Key Skills

Teaching and Instruction
Management and Leadership
Research and Technical Expertise
Communication and Collaboration
Analytical and Problem-Solving
English Proficiency

Certifications

- **Tech to Teaching Certificate**, Center for the Enhancement of Teaching and Learning, Georgia Tech, partial completion.
- **Graduate Communication Certificate**, Georgia Institute of Technology, partial completion.
- IRCA certified **ISO 9000:2000 Series Lead Auditor**, September 2005.
- IRCA certified Information **Security Management Systems Lead Auditor**, September 2005.
- IRCA certified **Occupational Health & Safety Management Systems Lead Auditor**, April 2005.
- IRCA certified **Environmental Management Systems Lead Auditor**, January 2003.
- Certified **Neuro-Linguistic Programming (NLP) Practitioner**, Canadian Training Center, August 2002.

Consulting Experience

Consultant, Universal Paints Technology, Amman, Jordan

- Developed formulations for specialized paint, providing expertise in paint manufacturing processes.
- Collaborated with the client team to analyze and optimize formulations, ensuring compliance with JSMO standards and regulations

Industrial Sector Collaboration, Amman Chamber of Industry Program: “**Connecting Engineering Graduation Projects with Industrial Sector**”

- Collaborated with the Industrial Sector, addressing challenges and fostering innovation. Supervised three impactful projects:
 - Production of Sulfur-Coated Urea – Fall 2022
A candidate project at JEA Graduation Projects Competition, 2024
 - Production of Glyphosate (Herbicide Active Ingredient) – Spring 2020
 - Production of Imidacloprid (Pesticide Active Ingredient) – Fall 2019
1st prize-winning project at JEA Graduation Projects Competition, 2020

Additional Professional Involvements

Technical Committee Membership, Jordan Standards and Metrology Organization (JSMO), Amman, Jordan

Aug 2015 – Present

- Representing the University of Jordan, actively participating in four technical committees; Detergents, Paints, Chemicals, and Sanitary Papers committees.
- Recognized for significant contributions; nominated by the committee to represent the university.

Jordan Engineers Association Membership, Amman, Jordan

Jun 1997 – Present

- Elected President of the Chemical Engineering Division, actively contributing and served as a Board Member (*May 2015 – May 2018*)
- Demonstrated leadership through active participation in numerous committees and boards, showcasing strong professional communication skills.

Awards

- Kokes Travel Award for the 23rd North American Catalysis Society (NACS) meeting, June 2013.
- Student travel Grant to the 24th ORCS Conference, April 2012.
- Outstanding Performance Award on the Written Qualifying Exam, School of Chemical & Biomolecular Engineering, Georgia Tech, January 2009.
- Award of Academic Excellence for Graduate Students, University of Jordan, June 2000.
- Award of Academic Excellence for Undergraduate Students, University of Jordan, June 1997.

Publications and Conferences

Published Articles:

- Al-Hmoud, L.; Al-saida, B.; Sandouqa, A. "Olive Mill Wastewater Treatment: A Review", **Jordanian Journal of Engineering and Chemical Industries**. (2020), accepted for publishing.
- Al-Hmoud, L.; Abu Fara, D.; Rashid, I.; Chowdhry, B.Z.; Badwan, A.A. "Influence of Chitin Source and Polymorphism on Powder Compression and Compaction: Application in Drug Delivery", **Molecules** (2020), 25, 5269.
- Abu Fara, D.; Rashid, I.; Al-Hmoud, L.; Chowdhry, B.Z.; Badwan, A.A. "A New Perspective of Multiple Roller Compaction of Microcrystalline Cellulose for Overcoming Re-Compression Drawbacks in Tableting Processing", **Appl. Sci.** (2020), 10, 4787.
- Abu Fara, D.; Rashid, I.; Al-Hmoud, L.; Al-Qatamin, S.; Chowdhry, B.Z.; Badwan, A. "Enhancement of compression and compaction properties of calcium carbonate powder by granulation with HPC, HPMC and sodium- alginate as binders for pharmaceutical applications: an optimization case study", **J. Excipients and Food Chem.** (2020), 11(2), 8-28.
- Abu Fara, D.; Al-Hmoud, L.; Rashid, I.; Chowdhry, B.Z.; Badwan, A. "Understanding the Performance of a Novel Direct Compression Excipient Comprising Roller Compacted Chitin", **Mar. Drugs** (2020), 18, 115.
- Linda Al-Hmoud, Sumit Bali, Shilpa Mahamulkar, Joseph Culligan & Christopher Jones, "On the Homogeneity/Heterogeneity of Solid Copper Oxide Precatalysts in the Oxidative Homocoupling of Ethynylbenzene", **J. Mol. Catal. A** (2014), 395, 514-522.
- Linda Al-Hmoud & Christopher Jones, "Reaction Pathways over Copper and Cerium Oxide Catalysts for Direct Synthesis of Imines from Amines under Aerobic Conditions", **J. Catal.** (2013) 301, 116-124. (Also, orally presented at the **23rd North American Meeting of the Catalysis Society**, Louisville, KY, June 2013).

Conference Presentations:

- Linda Al-Hmoud & Christopher Jones, "CuO Supported on Mesoporous CeO₂ as a Catalyst for Direct Synthesis of Imines from Amines under Neat Conditions", Poster Presentation, **ORCS 24th Biennial Conference**, Annapolis, MA, April 2012.
- Linda Al-Hmoud, Lan Chen & Christopher Jones, "Copper oxide supported on mesoporous CeO₂ as a catalyst for N-arylation reaction", Poster Presentation, **ACS 243rd National Meeting**, San Diego, CA, March 2012.
- Linda Al-Hmoud & Christopher Jones, "Heterogeneity of N-Arylation Reactions Catalyzed by Cu(II) Exchanged Zeolite", Poster Presentation, **AIChE Annual Meeting**, Salt Lake City, UT, November 2010.