

## CURRICULUM VITAE

### Fatimah Abdullah Aldakheel

#### CONTACT INFORMATION:

KAUST, Thuwal,  
KSA 23955  
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#### EDUCATION:

August 2018 – currently	King Abdullah University of Science and Technology	Thuwal, western Region, KSA
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#### **PhD. Chemistry**

- Major: chemistry polymer filed
- Adviser Prof. nikos hadjichristidis

September 2015 – November 2017	DePaul University	Chicago, IL, USA
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#### **M.S. Chemistry/ Thesis**

Advisor: Dr. Lihua Jin

- Major: Chemistry
- Honor Degree
- GPA: 3.762/4
- Thesis: ITC study of mimetic compound of copper and manganese enzymes and their binding with inhibitors.

*Related Coursework:* Advanced Organic Chemistry, Statistical Thermodynamics, Computational Chemistry, Polymer Technology, Polymer Synthesis, Group theory and Inorganic structure and reactivity)

Fatimah Aldakheel

September 2010 – May 2013

University of Dammam  
(Colleges of Science for  
Girls in Dammam)

Dammam, Eastern  
Region, KSA

### **B.S. Chemistry**

- Major: General Chemistry
- Honor Degree
- GPA: 4.54/5

### **Laboratory Skills Training:**

- Instrumental Experience  
XRD, ITC, UV-Vis, Nano UV-Vis, EXAFS, XANES, FT-IR, NMR ( $H^1$ ,  $C^{13}$  and  $P^{31}$ ), DSC, TGA, HPLC, pH

Additional skills

- Polymer synthesis.
- Inorganic Synthesis.
- Nano Particles (hydrothermal and sol-gel) Synthesis.

### **Scientific Trip:**

Argonne National Laboratory's Advanced Photon Source synchrotron, Argonne, IL 2016

- I had the opportunity to go within a group to collect Zinc K-edge EXAFS and XANES on the zinc mimetic structures.

### **PROFESSIONAL MEMBERSHIPS:**

- King Abdul-Aziz & His Companions Foundation for Giftedness Dammam, Saudi Arabia 2009

### **ACADEMIC HONORS AND AWARDS:**

Saudi Arabian Cultural Mission (SACM) Chicago, U.S.A 2014-2017

- Awarded scholarship to study in the United States based on high academic achievement

Deanship Agency of Students' Affairs of Dammam University

- More than five awards for participation in nonacademic activities during the four academic years.

Colleges of Science for Girls in Dammam

- Award for the candidates whose GPA is 3.500 or higher, in the academic year 2013.

Sultan Bin Abdulaziz Science & Technology Center, Scitech

Khobar, Saudi Arabia 2009

- Win a first place on produce a creative program by using Visual basic.

### **CONFERENCE ATTENDANCE:**

- American Chemical Society (Computer in Chemistry), San Diego, USA March 2016
- 10<sup>th</sup> Yao Yuan Biotech-Pharma Symposium, Chicago, USA April 2016

### **VOLUNTEER EXPERIENCE:**

Student Scientific Conference

Al-Khobar, Saudi Arabia

Fatimah Aldakheel

February 2012

- Assisted attendees by helping them to navigate the conference

King Abdul-Aziz & His Companions Foundation for Giftedness

Dammam, Saudi Arabia  
2007 – 2008

- Provided customer service, assisted back stage, and monitored concerts
- Introduced guests of honor to large group of attendees

### **RESEARCH VOLUNTEER EXPERIENCE:**

Institute for Research and Medical Consultations (IRMC)

Al-Khobar, Saudi Arabia  
April 2018

- I involved as a research assistant (volunteer) at the Institute for Research and Medical Consultations (IRMC) in the Nano-Medicine Research Department.
- In this institute, I am maintaining my research lab skills and learning new techniques such as XRD, TEM and SEM, FT-IR, and many other tools.
- In addition, being a research assistant, I analyzed data and worked on papers that have been published or in the process for publication.
- In this research, we mainly focusing on synthesis nano particles materials under Dr. Abdulhadi Baykal.

### **ADDITIONAL RESEARCH EXPERIENCE:**

- Computational Chemistry research under Dr. Ruben Parra
  - Binding energy studies of  $\text{Cu}^{2+}$  with mimicking amino acid (Ligands) via computational methods with Gaussian 09 software.
- Polymer synthesis research under Dr. Gregory Kharas
  - Synthesis and analysis of novel copolymers of styrene with substituted benzaldehydes

### **PUBLICATION:**

- Fatimah Aldakheel (2017) Toward improving metalloenzyme inhibitor design: a thermodynamic study of small molecule interactions with copper(II), cobalt(II) and manganese(II). The Institutional Repository at DePaul University.
- Kharas, G. B., Schjerven, W. S., Aldakheel, F. A., Crespo, E. J., Gaskell, Z. M., Jordan, K. J., ... & Niyazi, A. H. (2017). Novel copolymers of styrene. 9. Chloro and fluoro ring-disubstituted propyl 2-cyano-3-phenyl-2-propenoates. *Journal of Macromolecular Science, Part A*, 54(2), 67-70.
- Grice, K. A., Griffin, G. B., Cao, P. S., Saucedo, C., Niyazi, A. H., Aldakheel, F. A., Sterbinsky, G.E. & LeSuer, R. J. (2018). Elucidating the Solution-Phase Structure and Behavior of 8-Hydroxyquinoline Zinc in DMSO. *The Journal of Physical Chemistry A*, 122(11), 2906-2914.
- Md Amir, H. Gungunes, Y. Slimani, N. Tashkandi, H.S. El Sayed, F. Aldakheel, M. Sertkol, H. Sozeri, M. Manikandan, I. Ercan, A. Baykal. (2018). Mossbauer studies and magnetic properties of cubic  $\text{CuFe}_2\text{O}_4$  nanoparticles. *Journal of Superconductivity and Novel Magnetism*, D-18-00383R1.
- The energetic contribution of metalloenzyme active site cobalt(II) to inhibitor interaction. Philip Burns, Fatimah Aldakheel, Francis Suh and Lihua Jin. (In press)

Fatimah Aldakheel

**PRESENTATION:**

- Present a poster in (10<sup>th</sup> Yao Yuan Biotech-Pharma Symposium, Chicago, USA) for “The Energetic Contribution of Metalloenzyme Active Site Cobalt(II) to Inhibitor Interaction” April 2016

**SKILLS:**

- Computer Proficient:
  - Microsoft Office Word, PowerPoint, Excel
  - Gaussian 09, ChemDraw, PYMOL.
- Photoshop, Visual basic.

**LANGUAGE:**

- Fluent in both Arabic and English.