

CURRICULUM VITAE

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Homepage:



1. Personal Data

Date of Birth: 07/05/1986

Nationality: Jordanian

2. Education

- Ph.D. (Chemistry) 2017, Friedrich-Schiller University, Jena, Germany.
- M.Sc. (Applied chemistry) 2011, Jordan University of Science and Technology, Irbid, Jordan.
- B.Sc. (Applied chemistry) 2008, Jordan University of Science and Technology, Irbid, Jordan.

3. Ph.D. Dissertation

“Architectural Mimics of [FeFe]-Hydrogenase H-Cluster: Synthesis, Characterization, and Electrochemical Studies”, Friedrich-Schiller University, Jena, Germany.

4. Employment

Academic Positions



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- **2018-now**, Assistant Professor, Faculty of Pharmacy, Al-Zaytoonah University, Amman
- **2017-2018**, Postdoctoral researcher, Institute of Organic Chemistry and Macromolecular Chemistry, Friedrich-Schiller University, Jena, Germany.
- **2012-2013**, Teacher, Umm Al-Qura University, Al-Qunfudah, Saudi Arabia.
- **2011-2012**, Teacher, Jordan University of Science and Technology, Irbid, Jordan.
- **2011-2012**, Teacher, Jordan Academy for Maritime Studies, Amman, Jordan.

Academic Positions

- Not applicable

5. Research Interests

- interested in all aspects of the synthesis and reactivity of inorganic, organo-metallic, and main-group compounds and materials. A major interest for my research is environmentally-motivated organometallic chemistry. I'm interested in fundamental studies leading to clean fuels. One aspect of this research is the elucidation of nature's methods for making H₂, which involves the use of unusual enzymes called *hydrogenases*. Other interests are in the field of organic chemistry, which include rylene dyes as a photosensitizer and antenna systems.

6. Membership in Scientific Societies and Associations

- Not applicable

7. Honors and Awards

- Doctoral prize in chemistry, **2018**, Faculty of Chemistry and Earth Sciences, Friedrich-Schiller University, Jena, Germany.

8. Fellowships and Scholarships

- Deutscher Akademischer Austausch Dienst, "DAAD" (2013-2017).
- Graduate Academy scholarship of Friedrich-Schiller University, Jena, Germany (2017).

9. Teaching Experience

- *Graduate Courses*
 - Not applicable



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- *Undergraduate Courses*

- General Chemistry
- General Chemistry lab

10. Supervision of Graduate Research

- Not applicable

11. Grants

- Not applicable

12. Patents

- Not applicable

13. Membership of Committees

- Not applicable

14. Professional and Scientific Meetings

Scientific Meetings Organized

- Poster: **1st Ulm Symposium on Solar-Driven Chemistry**, Ulm / Germany (8th - 10th Oct. 2017): [FeFe]-Hydrogenase H-Cluster Mimics Mediated by Naphthalene Monoimide Derivatives of Peri-Substituted Dichalcogenides.
- Talk: **Xth International Mini-Symposium: Selenium Containing Compounds on the Borderline of Chemistry, Biology and Medicine**, Lodz / Poland (25th May 2017): Selenium Makes the Difference: Protonation of [FeFe]-Hydrogenase Mimics with Diselenolato Ligands.
- Talk: **27th International Symposium on Organic Chemistry of Sulfur**, Jena / Germany (24-29. Jul. 2016): Tuning the Effect of the Dithiolate Linker “[μ-(S(CH₂)_nS)] (n = 6-8) on the Stabilization or Destabilization of the Rotated Structure in [FeFe]-Hydrogenase Models.
- Participant: **International Conference on Advanced Materials**, Irbid / Jordan (27-29. Apr. 2015).
- Talk: **MANS-12**, Freiberg / Germany (11. Sep. 2014): Electrochemical and Electrocatalytical Features of [Fe₂S₃]-Hydrogenases Model Complexes.
- Participant: **DAAD Stipendiatentreffen**, Jena / Germany (27-29. Mar. 2015).
- Participant: **DAAD Stipendiatentreffen**, Würzburg / Germany (11-13. Apr. 2014).



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- Member of the organizing committees: **10th Jordanian Chemical Conference**, Irbid / Jordan (May, 2010).
- Participant: **Eurasia Conference on Chemical Sciences-11**, Dead Sea / Jordan (6-10. Oct. 2010).
- Participant in the workshop at Service Center Research and Transfer: **How to apply for research funding in Germany**, Jena, Germany.
- Guest researcher at University of Lodz in Poland: Synthesis of germanium-containing compounds as starting materials for [FeFe]-hydrogenase models.
- Trainee at Tatweer (Business and export development project for Jordanian enterprises): Training sessions on customer relationship management, Amman / Jordan.
- Participant at Chemical Security Engagement Program (CSP): Chemical safety and security workshop, Amman / Jordan.

15. Participation in or organization of curricular and/or extra-curricular activities

- Not applicable

16. Publications

1. **H. Abul-Futouh**, M. El-khateeb, H. Görls, W. Weigand; [FeFe]-Hydrogenase H-Cluster Mimics Mediated by Mixed (S, Se) and (S, Te) Bridging Moieties: Insight into Molecular Structures and Electrochemical Characteristics, *Heteroatom Chem.*, **2018**, Accepted manuscript, DOI: 10.1002/hc.21446.
2. **H. Abul-Futouh**, A. Skabeev, D. Botteri, Y. Zagranyarski, H. Görls, W. Weigand, K. Peneva; Toward a Tunable Synthetic [FeFe]-Hydrogenase H-Cluster Mimics Mediated by Perylene Monoimide Model Complexes: Insight into Molecular Structures and Electrochemical Characteristics, *Organometallics*, **2018**, 37, 3278-3285.
3. M. K. Harb, H. Alshurafa, M. El-khateeb, A. Al-Zuheiri, H. Görls, **H. Abul-Futouh**,* W. Weigand; [FeFe]-hydrogenase Models Containing Long Diselenolato Linkers, *ChemistrySelect*, **2018**, 3, 8867-8873.
4. **H. Abul-Futouh**, H. Görls, W. Weigand; Electrochemical Proton Reduction Catalyzed by [Fe₂(CO)₆{μ-(TeCH₂Te)}] Model that Mimics the Structure of the Active Site of [FeFe]-Hydrogenase, *Z. Anorg. Allg. Chem.*, **2018**, DOI: 10.1002/zaac.201800070, Accepted Manuscript.
5. **H. Abul-Futouh**, L. R. Almazahreh, T. Sakamoto, N. Y. T. Stessman, D. L. Lichtenberger, R. S. Glass, H. Görls, M. El-khateeb, P. Schollhammer, G. Mloston, W. Weigand; [FeFe]-Hydrogenase H-cluster mimics with unique planar μ-(SCH₂)₂ER₂ linkers (E= Ge and Sn), *Chem. Eur. J.*, **2017**, 23, 346-359.
6. **H. Abul-Futouh**, L. R. Almazahreh, M. K. Harb, H. Görls, M. El-khateeb, W. Weigand; [FeFe]-Hydrogenase H-Cluster Mimics with Various -S(CH₂)_nS- Linker Lengths (n = 2-8): A Systematic Study, *Inorg. Chem.* **2017**, 56, 10437-10451.



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7. **H. Abul-Futouh**, M. El-khateeb, H. Görls, K. J. Asali, W. Weigand; Selenium makes the difference: protonation of [FeFe]-hydrogenase mimics with diselenolato ligands, *Dalton Trans.*, **2017**, *46*, 2937-2947.
8. **H. Abul-Futouh**, Y. Zagranyski, C. Müller, M. Schulz, S. Kupfer, H. Görls, M. El-khateeb, S. Gräfe, B. Dietzek, K. Peneva, W. Weigand; [FeFe]-Hydrogenase H-Cluster Mimics Mediated by Naphthalene Monoimide Derivatives of *Peri*-Substituted Dichalcogenides, *Dalton Trans.* **2017**, *46*, 11180-11191.
9. K. J. Asali, M. El-khateeb, Y. Foudeh, **H. Abul-Futouh**; Kinetics and Mechanism of Ligand Substitution Reactions in [*cis*-M(CO)₄(amine)(EPh₃)] Complexes (M = Mo, W; amine = pyridine, piperidine; E= As, Sb), *J. Coord. Chem.* **2017**, *22*, 3810-3822.
10. **H. Abul-Futouh**, H. Görls, W. Weigand; Synthesis and Electrochemical Investigation of Mono- and Di-phosphite substituted [FeFe]-Hydrogenase H-Cluster Mimics, *Zeitschrift für anorganische und allgemeine Chemie*, **2017**, *643*, 1615-1620.
11. **H. Abul-Futouh**, H. Görls, W. Weigand; A new macrocyclic [FeFe]-hydrogenase H cluster model, *Phosphorus, Sulfur Silicon Relat. Elem.*, **2017**, *192*, 634-637.
12. M. El-khateeb, **H. Abul-Futouh**, H. Görls, W. Weigand, L. R. Almazahreh; Synthesis, characterization and electrochemical investigations of heterocyclic-selenocarboxylate iron complexes, *Inorg. Chim. Acta*, **2016**, *449*, 14-19.
13. R. M. Al-Zoubi, **H. Abul Futouh**, R. McDonald; A Mild and Convenient Synthesis of 1,2,3-Triiodoarenes via Consecutive Iodination/Diazotization/Iodination Strategy, *Aust. J. Chem.*, **2014**, *66*, 1570-1575.
14. M. El-khateeb, M. Al-Noaimi, N. Al-Rejjal, **H. Abul Fetouh**, H. Görls, W. Weigand; Mono- and bi-iron chalcogenocarboxylate complexes, *Trans. Met. Chem.*, **2013**, *38*, 529-534.
15. M. El-khateeb, **H. Abul Futouh**, K. Asali, W. Weigand; O-Alkylthiooxalato and dithiocarboxylato complexes of molybdenum and tungsten, *Polyhedron*, **2012**, *38*, 185-189.