CURRICULUM VITAE

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1. Personal Data

Date of Birth: --------
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

- **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

Administrative Positions

- Not Applicable.

5. Research Interests

- interested in all aspects of the synthesis and reactivity of inorganic, organometallic, 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 H_2, 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).
- German Research Foundation "*Dautsche Forschungsgemeinschaft* (DFG)" Scholarship: Germany, Summer (2019).

9. Teaching Experience

- ***Graduate Courses***

  Not Applicable.

- ***Undergraduate Courses***

  General Chemistry
  General Chemistry lab
  General Chemistry for Engineering
  General Chemistry Lab for Engineering
  Physical Pharmacy

10. Supervision of Graduate Research

Provide numbered list with the name of student, title of thesis, year

11. Grants

- *"Electrochemical investigations and density functional calculations on proton reduction cycle catalyzed by [FeFe]-hydrogenase models"*, 2019, Al-Zaytoonah University of Jordan, 28000 JD.

- *"Toward a Tunable Synthetic [FeFe]-Hydrogenase H-Cluster Mimic Mediated by Aromatic Thioketones and their Substitution Reaction Using Bidentate Phosphine Ligands"*, 2019, University of Petra, 12000 JD

12. Patents

Not Applicable.

13. Membership of Committees

- **National and International**
  - *Not Applicable*
- **University**
  - *Curriculum and learning resources Committee (Chairman)*
  - *Quality Assurance Committee (Member)*

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-($S(CH_2)_nS$)] (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 [Fe_2S_3]-Hydrogenases Model Complexes.
- Participant: DAAD Stipendiatentreffen, Jena / Germany (27-29. Mar. 2015).
- Participant: DAAD Stipendiatentreffen, Würzburg / Germany (11-13. Apr. 2014).
- 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, 2018.
- Guest researcher at University of Lodz in Poland: Synthesis of germaniumcontaining 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.

Participation in Scientific meetings

Not Applicable.

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

Not Applicable.

16. Publications

[1] Half-sandwich Iron Complexes Bearing Vinyl-Selenocarboxylato Ligands: T. Al-Jazzazi, M. El-khateeb, L. Quraan, **H. Abul-Futouh**, H. Görls, W. Weigand, *J. Chem. Sci*., **2019**, *Accepted Manuscript*.

[2] Vinylic-thiocarboxylate complexes of iron: Synthesis, characterization and reactions: M. El-khateeb, K. J. Asali, B. Junidi, **H. Abul-Futouh**, H. Görls, W. Weigand, *J. Chem. Sci.*, **2019**, *Accepted Manuscript.*

[3] Synthesis and characterization of [FeFe]-hydrogenase models mediated by 1,2,4-trithiolanes derivative: Insight into molecular structures and electrochemical characteristics: **H. Abul-Futouh**, A. Q. Daraosheh, J. Windhager, H. Görls, W. Weigand, *Polyhedron*, **2019**, *174*, 114155.

[4] Dithiocarbonato nickel, palladium and platinum complexes bearing bis(diphenylphosphino)ferrocene: synthesis and X-ray structure determination: M. El-khateeb, Q. Tanash, **H. Abul-Futouh**, H. Görls, W. Weigand, *J. Chem. Sci.*, **2019**, *131*, 103.

[5] Sulphur-Sulphur, Sulphur-Selenium, Selenium-Selenium and Selenium-Carbon Bond Activation Using $Fe_3(CO)_{12}$: An Unexpected Formation of a $Fe_2(CO)_6$ Complex Containing a μ_2,κ_3-C,O,Se-Ligand: R. Trautwein, **H. Abul-Futouh**, H. Görls, W. Imhof, L. R. Almazahreh, W. Weigand, *New J. Chem*., **2019**, *43*, 12580-12593.

[6] Towards the Synthesis of Piano-Stool Iron Complexes Mediated by *S*-Alkyl Selenothiocarbonato Ligands and their Substitution Reactions: M. El-khateeb, **H. Abul-Futouh**, H. Görls, W. Weigand, *Monatsh. Chem*., **2019**, *150,* 1461-1467.

[7] Cyclopentadienyl ruthenium complexes of mixed heterocyclic thiol and Bis (diphenylphosphino) ferrocene ligands: H. Alshurafa, M. El-Khateeb, **H. Abul-Futouh**, H. Görls, W. Weigand, *J. Mol. Struct.* **2019**, *1191*, 1-5.

[8] Electrochemical and Computational Insights into the Reduction of $[Fe_2(CO)_6\{\mu$-$(SCH_2)_2GeMe_2\}]$ Hydrogenase H-Cluster Mimic: **H. Abul-Futouh**, W. Imhof, W. Weigand, L. R. Almazahreh, *Inorganics*, **2019**, *7*, 50.

[9] [FeFe]-hydrogenase H-cluster mimics mediated by mixed (S, Se) and (S, Te) bridging moieties: Insight into molecular structures and electrochemical characteristics: **H. Abul-Futouh**, M. El-khateeb, H. Görls, W. Weigand, *Heteroatom Chem.* **2018**, *29*, (5-6), e21446.

[10] Toward a Tunable Synthetic [FeFe]-Hydrogenase H-Cluster Mimics Mediated by Perylene Monoimide Model Complexes: Insight into Molecular Structures and Electrochemical Characteristics: **H. Abul-Futouh**, A. Skabeev, D. Botteri, Y. Zagranyarski, H. Görls, W. Weigand, K. Peneva, *Organometallics*, **2018**, *37*, 3278-3285.

[11] [FeFe]-hydrogenase Models Containing Long Diselenolato Linkers: M. K. Harb, H. Alshurafa, M. El-khateeb, A. Al-Zuheiri, H. Görls, **H. Abul-Futouh**,* W. Weigand, *ChemistrySelect*, **2018**, *3*, 8867-8873.

[12] Electrochemical Proton Reduction Catalyzed by $[Fe_2(CO)_6\{\mu$-$(TeCH_2Te)\}]$ Model that Mimics the Structure of the Active Site of [FeFe]-Hydrogense: **H. Abul-Futouh**, H. Görls, W. Weigand, *Z. Anorg. Allg. Chem.*, **2018**, *644*, 1697-1701.

[13] [FeFe]-Hydrogenase H-cluster mimics with unique planar μ-$(SCH_2)_2ER_2$ linkers (E= Ge and Sn): **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, *Chem. Eur. J.,* **2017**, *23*, 346-359.

[14] [FeFe]-Hydrogenase H-Cluster Mimics with Various -S(CH_2)$_n$S- Linker Lengths (n = 2-8): A Systematic Study: **H. Abul-Futouh**, L. R. Almazahreh, M. K. Harb, H. Görls, M. El-khateeb, W. Weigand, *Inorg. Chem*., **2017**, *56*, 10437-10451.

[15] Selenium makes the difference: protonation of [FeFe]-hydrogenase mimics with diselenolato ligands: **H. Abul-Futouh**, M. El-khateeb, H. Görls, K. J. Asali, W. Weigand, *Dalton Trans.*, **2017**, *46*, 2937-2947.

[16] [FeFe]-Hydrogenase H-Cluster Mimics Mediated by Naphthalene Monoimide Derivatives of Peri-Substituted Dichalcogenides: **H. Abul-Futouh**, Y. Zagranyarski, C. Müller, M. Schulz, S. Kupfer, H. Görls, M. El-khateeb, S. Gräfe, B. Dietzek, K. Peneva, W. Weigand, *Dalton Trans*., **2017**, **46**, 11180-11191.

[17] Kinetics and Mechanism of Ligand Substitution Reactions in [cis-$M(CO)_4$(amine)(EPh_3)] Complexes (M = Mo, W; amine = pyridine, piperidine; E= As, Sb): K. J. Asali, M. El-khateeb, Y. Foudeh, **H. Abul-Futouh**, *J. Coord. Chem*., **2017**, *22*, 3810-3822.

[18] Synthesis and Electrochemical Investigation of Mono- and Di-phosphite substituted [FeFe]-Hydrogenase H-Cluster Mimics: **H. Abul-Futouh**, H. Görls, W. Weigand, *Z. Anorg. Allg. Chem.*, **2017**, *643*, 1615-1620.

[19] A new macrocyclic [FeFe]-hydrogenase H cluster model: **H. Abul-Futouh**, H. Görls, W. Weigand, *Phosphorus, Sulfur Silicon Relat. Elem*., **2017**, *192*, 634-637.

[20] Synthesis, characterization and electrochemical investigations of heterocyclic-selenocarboxylate iron complexes: M. El-khateeb, **H. Abul-Futouh**, H. Görls, W. Weigand, L. R. Almazahreh, *Inorg. Chim. Acta*, **2016**, *449*, 14-19.

[21] A Mild and Convenient Synthesis of 1,2,3-Triiodoarenes via Consecutive Iodination/Diazotization/Iodination Strategy: R. M. Al-Zoubi, **H. Abul Futouh**, R. McDonald, *Aust. J. Chem.*, **2014**, *66*, 1570-1575.

[22] Mono-and bi-iron chalcogenocarboxylate complexes: M. El-khateeb, M. Al-Noaimi, N. Al-Rejjal, **H. Abul Fetouh**, H. Görls, W. Weigand, *Trans. Met. Chem*., **2013**, *38*, 529-534.

[23] *O*-Alkylthiooxalato and dithiocarboxylato complexes of molybdenum and tungsten: M. El-khateeb, **H. Abul Futouh**, K. Asali, W. Weigand, *Polyhedron*, **2012**, *38*, 185-189.