

CURRICULUM VITAE

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1. Personal Data

Date of Birth: 28th of June, 1980

Nationality: Jordanian

2. Education

- Ph.D. (organometallic chemistry) 2009, Friedrich-Schiller University, Jena, Thuringia, Germany
- M.Sc. (Analytical chemistry) 2005, Jordan university of science and technology, Irbid, Irbid, Jordan
- B.Sc. (Applied chemistry) 2002, Jordan university of science and technology, Irbid, Irbid, Jordan

3. Ph.D. Dissertation

Novel Diiron Dichalcogenolato Complexes: Models for Active Site of [FeFe]-Hydrogenase, Friedrich-Schiller University, Jena, Thuringia, Germany.

4. Employment

Academic Positions

- Assistant Professor, Pharmacy department, Al-Zaytoonah University of Jordan, Amman, Jordan.
September 1, 2015 – now.



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- Associate Professor, Al-Qunfudhah University College, Umm Al-Qura University, Mecca, Saudi Arabia.
September, 2012 – September, 2015.
- Researcher and lecturer, Jordan University of science and technology, Irbid, Irbid, Jordan.
September, 2010 – September, 2012.
- Teacher assistant, Jordan University of science and technology, Irbid, Jordan.
September, 2010 – September, 2012.

Administrative Positions

- Not Applicable

5. Research Interests

- My research is based on alternative and green energy. This research is of high interest to scientists as well as energy sector. This kind of research stems interest from the ability of the model complexes to produce hydrogen which is a strong candidate as future fuel that causes no deleterious products for the environment.

6. Membership in Scientific Societies and Associations

- A member in the Jordan Chemical Society, 2002.

7. Honors and Awards

- The Centre for International Migration and Development (CIM). (2010-2012)

8. Fellowships and Scholarships

- DAAD fellowship from 04/2008 till 07/2010

9. Teaching Experience

- *Undergraduate Courses*

General Chemistry I and II
Inorganic Chemistry I



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Organometallics Course
Analytical Chemistry Lab
Separation Methods
Coordination Chemistry
Spectroscopic Analysis

10. Supervision of Graduate Research

1. Amal Yousef Bargash, Characterization of Medical Platforms to Reduce the Bacterial Adhesion Associated with Dental Implants, 2018.

11. Grants

- Aya. M. Al-zuheiri, Synthesis and biological evaluation of new N-substituted-7-chloro-4-hydroxyl-2-quinolone-3-carboxamide and metal complexes for those derivatives and their ester analogue as potential anticancer agents, 2018.
- Hadil Mahmoud Alshurafa Synthesis and characterization of [FeFe]-hydrogenase model complexes containing diselenolato long alkane linkers, 2018.

12. Patents

- Not Applicable

13. Membership of Committees

- **National and International**
- *A member in the Jordan Chemical Society, 2002.*
- **University:**
- *The Committee for Scientific Research, a Faculty committee (member).*

14. Professional and Scientific Meetings

Participation in Scientific meetings

- 6th International Pharmaceutical Conference (ZTIPC), Al-Zaytoonah University of Jordan, Amman, 29-30 November 2017.
- The First Jordanian-Tunisian Scientific Forum, Jordan University of Science and Technology, Irbid, 29-31 March 2016.
- International conference of advanced material, Jordan University of Science and Technology, Irbid, 27-29 April 2015.



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- International Exhibition and Conference on Higher Education, Riyadh, KSA, 15-17 April 2014,
- ArabLab2014, Dubai, United Arab Emeritus, 17-20 March 2014.
- 11th Eurasia conference on chemical sciences, The Dead Sea, Jordan, October 2010.
- 59th meeting of Nobel Laureates Lindau, Germany, 2009.
- Irbid Jena relationship conference Irbid, Jordan, 2008,
- Meeting of DAAD scholarship holders in the field of chemistry, Heidelberg, Germany, 2008.
- 12th Arab Chemistry Conference and 5th Jordan Chemistry conference, Amman, Jordan, 2003.

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

- Training course entitled by using and managing E-learning system, Al-Zaytoonah University of Jordan, Amman, 1-4 October 2017.
- Training course of atomic absorption (AA) spectroscopy at Shimadzu Middle East and Africa FZE. Istanbul-Turkey, December 2013.
- Training course of HPLC at Shimadzu Middle East and Africa FZE., Istanbul-Turkey, December 2013.

16. Publications

- Papers in refereed journals:
 1. El-khateeb, Mohammad; **Harb, Mohammad**; Mansour, Alaa; Yousuf, Sammer; Photochemical Substitution of a Single CO Ligand of $CpFe(CO)_2SeC(Y)Y'Ar$ [(Y)Y' = (O)O, (S)O and (S)S] by EPh_3 (E = P, As, Sb), *Inorganica Chimica Acta*, <https://doi.org/10.1016/j.ica.2018.09.063>.
 2. **Harb, Mohammad**; Alshurafa, Hadeel; El-khateeb, Mohammad; Al-Zuheiri, Aya; Görls, Helmer; Abul-Futouh, Hassan; & Weigand, Wolfgang; [FeFe]-



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- Hydrogenase Models Containing Long Diselenolato Linkers, *ChemistrySelect*, 3 (31), 2018, 8867–8873.
3. Abul-Futouh, Hassan; Laith R. Almazahreh; **Harb, Mohammad**; Görls, Helmar; El-khateeb, Mohammad; Weigand, Wolfgang; *[FeFe]-Hydrogenase H-Cluster Mimics with Various $-S(CH_2)_nS-$ Linker Lengths ($n = 2-8$): A Systematic Study*, *Inorganic Chemistry*, 56, 2017, 10437-10451.
 4. Al-Rashdi1, Awad; Ebqa'ai1, Mohammad; **Harb, Mohammad**; Faidi, Faisal; *A solid phase extraction procedure for the determination of heavy metals in street dust from Dammam, Kingdom of Saudi Arabia and Estimation of the health risk*, *Journal of Materials and Environmental Sciences*, 8 (6), 2017, 2050-2061.
 5. **Harb, Mohammad**; Ebqa'ai1, Mohammad; Al-Rashdi1, Awad; Alaziqi, Bakri; Al Rashdi, Mohammed; Ibrahim, Bashar; *Investigation of selected heavy metals in street and house dust from Al-Qunfudah, KSA*, *Environmental earth sciences*, 74 (2), 2015, 1755-1763.
 6. **Harb, Mohammad**; *Assessment of selected heavy metals in street dust samples from Jazan City, Kingdom of Saudi Arabia (KSA)*, *Journal of Environmental Science and Engineering A*, 3, 2014, 211-218.
 7. **Harb, Mohammad**; Daraosheh, Ahmad; Görls, Helmar; Smith, Elliott; Swenson, Matthew; Sakamoto, Takahiro; Glass, Richard; Lichtenberger, Dennis; Evans, Dennis; El-khateeb, Mohammad; Weigand, Wolfgang; *Effects of Alkane Linker Length and Chalcogen Character in [FeFe]-Hydrogenase Inspired Compounds*, *Heteroatom Chemistry* 25 (6), 2014, 592-606.
 8. Abu-Salem, Qutaiba; **Harb, Mohammad**; Maichle-Mößmer, Cäcilia; Steimann, Manfred; Voelter, Wolfgang; *Synthesis and Structural Characterization of a Gold(I) Complex Containing 1,3-Dimethylcyanurate Ligand*, *Arabian Journal of Chemistry*, 10, 2017, S3883-S3888.
 9. **Harb, Mohammad**; *Preparation and Characterization of Diiron Diselenolato Complexes Containing a Dioxane Ring as Models for [FeFe]-Hydrogenases*, *Transition Met Chem* 39 (6), 2014, 647-651.



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10. Mohammad El-khateeb, **Harb, Mohammad**; Abu-Salem, Qutaiba; Görls, Helmar; Weigand, Wolfgang; *Substitution Reactions of [FeFe]-Hydrogenase Model Complexes Containing Diselenolate Bridges*, Polyhedron 61, 2013, 1–5.
11. Almazahreh, Laith; El-khateeb, Mohammad; **Harb, Mohammad**; Görls, Helmar; Weigand, Wolfgang; *Synthesis and Characterization of Platinum and Palladium Pyrrolidinedithiocarbamate Complexes*, Transition Met Chem 38, 2013, 377–383.
12. **Harb, Mohammad**; Windhager, Jochen; Niksch, Tobias; Görls, Helmar; Sakamoto, Takahiro; Smith, Elliott; Glass, Richard; Lichtenberger, Dennis; Evans, Dennis; El-khateeb, Mohammad; Weigand, Wolfgang; *Comparison of S and Se Dichalcogenolato [FeFe]-Hydrogenase Models with Central S and Se Atoms in the Bridgehead Chain*, Tetrahedron, 68, 2012, 10592-10599.
13. **Harb, Mohammad**; Apfel, Ulf; Sakamoto, Takahiro; El-khateeb, Mohammad; Weigand, Wolfgang; *Diiron Dichalcogenolato (Se and Te) Complexes: Models for Active Site of [FeFe]-Hydrogenase*, Eur. J. Inorg. Chem. 7, 2011, 986-993.
14. **Harb, Mohammad**; Görls, Helmar; Sakamoto, Takahiro; Felton, Greg; Evans, Dennis; Glass, Richard; Lichtenberger, Dennis; El-khateeb, Mohammad; Weigand, Wolfgang; *Synthesis and Characterization of [FeFe]-Hydrogenases Models with Bridging Moieties Containing (S, Se) and (S, Te)*, Eur. J. Inorg. Chem. 25, 2010, 3976-3985.
15. Gharaibeh, Ahmad; El-Rjoob, Abdul-Wahab; **Harb, Mohammad**; *Determination of Selected Heavy Metals in Air Samples from Northern Part of Jordan, Environmental Monitoring and Assessment*, 160, 2010, 425-429.
16. **Harb, Mohammad**; Apfel, Ulf; Kubel, Joachim; Görls, Helmar; Sakamoto, Takahiro; Felton, Greg; Sakamoto, Taka; Evans, Dennis; Glass, Richard; Lichtenberger, Dennis; El-khateeb, Mohammad; Weigand, Wolfgang; *Preparation and Characterization of Homologous Diiron Dithiolato, Diselenato and Ditellurato Complexes: [FeFe] Hydrogenase Models*, Organometallics 28, 2009, 6666–6675.



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17. Daraosheh, Ahmad; **Harb, Mohammad**; Windhager, Jochen; Görls, Helmar; El-khateeb, Mohammad; Weigand, Wolfgang; *Substitution Reactions at [FeFe] Hydrogenase Models Containing [2Fe3S] Assembly by Phosphine or Phosphite Ligands*, *Organometallics* 28, 2009, 6275–6280.
18. **Harb, Mohammad**; Windhager, Jochen; Daraosheh, Ahmad; Görls, Helmar; Lockett, Tori; Okumura, Noriko; Evans, Dennis; Glass, Richard; Lichtenberger, Dennis; El-khateeb, Mohammad; Weigand, Wolfgang; *Phosphane- and Phosphite-Substituted Diiron Diselenolato Complexes as Models for [FeFe]-Hydrogenases*, *Eur. J. Inorg. Chem.* 2009, 3414–3420.
19. **Harb, Mohammad**; Nicksch, Tobias; Windhager, Jochen; Görls, Helmar; Holze, Rudolf; Lockett, Tori; Okumura, Noriko; Evans, Dennis; Glass, Richard; Lichtenberger, Dennis; El-khateeb, Mohammad; Weigand, Wolfgang; *Synthesis and Characterization of Diiron Diselenolato Complexes Including Iron Hydrogenase Models*, *Organometallics* 28, 2009, 1039-1048.
20. El-khateeb, Mohammad; Al-Noaimi, Mousa; **Harb, Mohammad**; Görls, Helmar; Weigand, Wolfgang; *Half-Sandwich Ruthenium Complexes of Heterocyclic-Dithiocarboxylato Ligands*, *Jordan Journal of Chemistry*, 3, 2008, 147-153.

- Conference Presentations

[FeFe]-hydrogenase Model Complexes Containing Dithiolate or Diselenolate Linker with S or Se Atom at the Bridgehead, The First Jordanian-Tunisian Scientific Forum, Jordan University of Science and Technology, Irbid, 2016.

Organometallic complexes containing S or Se Ligands, Irbid Jena relationship conference Irbid, Jordan, 2008.