

Mohammed Ahmad Musa Alwahish, PhD. Sc.

Amman- Jordan

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PERSONAL INFORMATION

Date of birth 11 June 1979.
Place of birth Kuwait.
Nationality Jordanian.

EDUCATION

PhD. in **Inorganic and Materials Chemistry, University of Jordan**, 2017-2021. Supervisor: **Prof. Hamdallah A. Hodali and Prof. Firas Awwadi**. Dissertation title: Preparation and Evaluation of Ru(II) Complexes with Monomeric Bidentate Ligands and with Polymeric Multidentate Ligands for Solar Cell Applications.

M. Sc. in **Inorganic Chemistry, University of Jordan**, 2012-2016. Thesis advisor: **Prof. Hamdallah A. Hodali**. Thesis title: Preparation and Characterization of Some Ruthenium(II) Complexes with the Mixed-donor Ligands: N-P and N-S.

B. Sc. in **General Chemistry, University of Jordan**, 1997- 2001,

ACADEMIC EXPERIENCES

2021-present **Teaching (Lecturer)**. Basic Scientific Science Department / Prince Al-Hussein Bin Abdullah II Academy of Civil Protection/ Civil Defense, General Directorate of General Security.

2018-2019 **Teaching Assistant**, Department of Chemistry/ University of Jordan

2016-2017 **Research assistant** at Department of Chemistry /University of Jordan.

1998-2001 **Supervising general chemistry laboratories**, Department of Chemistry/ University of Jordan

Thorough knowledge of teaching the following courses

- **General chemistry I.**
- **General chemistry II.**
- **Practical general chemistry.**
- **Practical analytical chemistry.**

FIELD OF STUDY

- Coordination chemistry of ruthenium compounds with mixed-donor ligands.
- Chemistry of ruthenium compounds with bipyridyl ligands.
- Ruthenium compounds as dye sensitizers in solar cells.
- The chemistry of hazardous materials and the chemistry of fire.

PUBLICATIONS

Refereed International Journal

4. Akel, S. Sharif, M. A. Al-Esseily, R. **Mohammad A. Al-Wahish**, Hodali, H. A. Muller-Buschbaum, P. Schmidt-Mende, L. and Al-Hussein M. (2021), Photovoltaic Cells Based on Ternary P3HT:PCBM:Ruthenium(II) Complexes with 8-(diphenylphosphino)quinoline Active Layer. **Colloids and Surfaces A: Physicochemical and Engineering Aspects**, 622, 126685.
3. **Mohammad A. Al-Wahish**, Firas F. Awwadi and Hamdallah A. Hodali (2021). "Synthesis, Characterization, Computational Studies and Single Crystal Structures of $[\text{Ru}(\text{N-P})_2(\text{O-O})]$ Complexes" **Journal of Structural Chemistry**.
2. Eyad S. M. Abu-Nameh, Naela Al Absi, **Mohammad A. Al-Wahish**, Hamdallah A. Hodali and Mohammad F. Khanfar. " Electrochemical Detection of Tadalafil at Glassy Carbon Electrodes Modified with Ruthenium(II) Complex " **International Journal of Electrochemical Science**, 15 (2020) 6396 – 6404.
1. **Mohammad A. Al-Wahish**, Firas F. Awwadi, Rasha K. Al-Shwieki & Hamdallah A. Hodali. " Ruthenium(II) Complexes with 8-(Diphenylphosphino)quinoline: Synthesis, Spectroscopic Properties and Single Crystal X-ray Structures" **Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry**, 47 (2016) 655 – 660.

Local and International Conferences

- 1) **Mohammad A. Al-Wahish**, **Int. Conf. Chemistry and Biosciences**, Al al-Bayt University, Mafraq, Jordan. April 5-6, 2017.
- 2) **Mohammad A. Al-Wahish**, **Int. Conf. NANO-TECH**, Technische Universität Chemnitz, German. 2016.

- 3) **Mohammad A. Al-Wahish, Int. Conf. NANO-TECH**, Hamdi Mango Center for Scientific Research, University of Jordan, Amman-Jordan. **2016.**

OTHER EXPERIENCES

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|---------------------|---|
| 2021-present | Assistant Professor in chemistry/ Prince Al-Hussein Bin Abdullah II Academy of Civil Protection/ Civil Defense, General Directorate of General Security. |
| 2020-2021 | Head of the Civil Defense Center of Prince Hamzah Hospital and Tareq |
| 2018-2020 | Operations Officer, Site Commander/ dealing with Chemicals and Hazardous materials accidents/ Zarqa area. |
| 2011-2018 | Commander of hazardous materials team/ middle region, dealing with hazardous materials accidents including; Amman, Madaba and Balqa areas. |
| 2009-2011 | Hazardous materials officer/ supervising transportation of hazardous materials from Aqaba to Amman. |
| 2004-2009 | Public safety officer/ dealing with several accidents including; first aid, rescue, fighting and dealing with chemical and hazardous materials accidents . |
| March 13, 2002-2004 | Joining the civil defense Directorate/ Training for civil defense activities. |

SKILLS

1. Languages:

- **Arabic** (Excellent).
- **English** (Good).

2. Official Posts:

- **Leadership for the hazardous materials team** of the middle zone (Amman, Madaba, Zarqa and Balqa) / 2 years .
- **Leadership for the hazardous materials team** of Aqaba / 3 years.
- **Preparing and offering training courses** in hazardous materials.
- **Supervising exercises** to deal with hazardous materials accidents.

3. Computer:

- Good command of:
 - **Microsoft Office tools** (Word, Excel and PowerPoint).
 - **ChemOffice** (ChemDraw Ultra 8.0, ...)

- **WISER** (Wireless Information System for Emergency Responders) application.
- **HazMat ERG** (Hazardous Materials Emergency Response Guidebook) applications.
- **The CAMEO software suite** (ALOHA, CAMEO Chemicals, CAMEO Data Manager and MARPLOT).

References:

1. Prof. Hamdallah Hodali (Inorganic Chemistry and Material Chemistry)
University of Jordan/Jordan h-hodali@ju.edu.jo
Tel: 0797284012
2. Prof. Jalal Zahra (Organic Chemistry)
University of Jordan/Jordan zahra@ju.edu.jo
Tel: 0791998431
3. Prof. Sharif Arar (Analytical Chemistry)
University of Jordan/Jordan s.arar@ju.edu.jo
Tel: 0796142835
4. Prof. Firas Awwadi (Physical Chemistry)
University of Jordan/Jordan f.awwadi@ju.edu.jo
Tel: 0798137584