

# Dr. Mohanad H.M. Masad

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## Personal Data:

- **Full Name:** Mohanad Husien Mohammed Masad.
- **Marital status:** Married.
- **Nationality:** Jordanian.
- **D & P of Birth:** Oct 23, 1974, Kuwait.

## Education:

- (2017) *Ph.D in Chemistry, Analytical Chemistry from Septemper, with title: “A comparative study of the persistent organic pollutants (POPs)(Chlorinated pesticides, PCBs and Dioxins/ Furans) concentrations in cancer affected human organs with those of healthy organs”.* Jordan University, Amman-Jordan.
- (2010) *Msc. degree in Chemistry, from Feb, 2007 to May, 2010. Merit: "Excellent" (90.25%).* Al al-Bayt University, Mafraq-Jordan.
- (1996) *B.Sc Science degree of General Chemistry, from Oct, 1992 to Jun, 1996. Merit : "Good"(71.69%).* Mua'tah University, Alkarak-Jordan.

## Experience:

- ( 1996 To date) at Al albayt university, Mafraq-Jordan.
- (2021- present) *Associate professor at Chemistry Department – Faculty of Science.*
  - (2017-2020) *Part timer Faculty Member at Chemistry Department. Teaching Academic Courses.*
  - (2018- present ) *Director of Environment Water and Energy Research Center.*
  - (2002- to 2017) *Research Supervisor in Environment Water and Energy Research Center (EWERC).*
  - (1996 – to 2002) *Supervisor at Chemistry Department.*

## Tasks & Duties:

- *Teaching the undergraduate students lab's: Instrumental Analysis Chemistry, Organic Chemistry, Systematic Identification of Organic Compounds, Inorganic Chemistry, Analytical Chemistry, General Chemistry and Industrial Chemistry.*
- *Working and training with the following instruments:*
  - *FTIR (Nicolet -Impact 400, USA)*
  - *GC (HP-5890 II, UK)*
  - *HPLC (Waters-600E, USA)*
  - *AAS spectrometer (Unicam-929, UK)*
  - *UV/VIS. Spectrometer (Unicam-uv2, UK)*
- ✓ *Assist with Some research projects by assignment of supervisor:*
  - *“Flow injection atomic absorption determination of metals in phosphate rock after a fusion preparation”; Al al-Bayt university, from 8/1997 to 5/1998, supervised by Assoc. Prof. Jamal A. Sweileh.*
  - *“Effect of root and foliar treatment of plants with heavy metals on growth, uptake and distribution of metals in treated plants”; Al al-Bayt university, from 3/2001 to 4/2002, supervised by Prof. Dr. Rajab Abu-El-Halawa.*
- ✓ *Technical manager (TM) for ISO/IEC 17025 at WEARRC since 2013 till now.*
- ✓ *Responsible for working and training on a new competitive instruments:*
  - *FT-NMR (Bruker-300MHz, Switzerland)*
  - *GCMS (Shimadzu-QP5050A, Japan)*
  - *EA (EuroVector-EA3000, Italy)*
  - *ICP (PerkinElmer, Optima 2000, USA)*
  - *IC (Dionex, 120, USA)*
- ✓ *Conduct with the following projects:*
  - *“Drinking water quality of some water wells at north-eastern Jordanian Badia”; from 5/2005 to 7/2006, Al al-Bayt University, supervised by Prof. Nadir A. Al-ansari.*
  - *“Investigation on fractional composition of shale oil obtained by pyrolysis of Ellajjun oil shale”; from 7/2007 to 7/2008, Al al-Bayt University, supervised by associated Prof. Adnan Al-Harabsheh.*
  - *“Environmental Impact Assessment of using shale oil as a source of energy”; from 9/2008 to 9/2009, Al al-Bayt University, supervised by associated Prof. Adnan Al-Harabsheh.*

## **Projects:**

- *Co-investigator with University of Sheffield-UK (2020). "GCRF\_NF100 PPE & Refugees: dealing with a crisis by building livelihoods".*
- *Primary investigator with Scientific Research and Innovation Support Fund (SRISF)-Jordan (2020). "Bioaccumulation Potential of Persistent Organic Pollutants (POPs) in human around the Refinery region in Zarka governorate".*

## **Conferences:**

- *15<sup>th</sup> International Conference of Water Resources and Environment from 24-28 October 2019, Antalya – Turkey.*
- *First United Arab Emirates Conference on Pure and Applied Chemistry (ECPAC11) from 1-3 March, 2011, Sharjah, United Arab Emirates (UAE).*
- *11<sup>th</sup> Eurasia Conference on Chemical Sciences from 6-10 October 2010, The Dead Sea – Jordan.*

## **Training:**

- *"Awareness of ISO/IEC 17025:2017", from 13- 15 April 2019 in Amman, organized by Eng.Lina Qudah.*
- *"Specialized training for the criteria of the King Abdullah II Award for Excellence in Governmental Performance and Transparency", from 17- 18 February 2019 in Amman, organized by King Abdallah II for Excellence.*
- *"Root Cause Analysis according to ISO/IEC 17025:2005", from 26 January 2015 in Amman, organized by the USAID-water reuse and environmental conservation project.*
- *"Suppliers & Subcontractors Evaluation to ISO/IEC 17025:2005", from 26 January 2014 in Amman, organized by the USAID-water reuse and environmental conservation project.*
- *"Test Witnessing Internal Audit Course to ISO/IEC 17025:2005", from 23-24 December 2013 in Amman, organized by the USAID-water reuse and environmental conservation project.*
- *"Ensuring Quality of Test Methods according to ISO/IEC 17025:2005", from 7-9 October 2013 in (WEARRC) - Al al-Bayt University, organized by the USAID-water reuse and environmental conservation project.*
- *"Writing Nonconforming and Internal Audit Reports", on 29 August 2013 in Amman, organized by the USAID-water reuse and environmental conservation project.*
- *"Training on Newly Designed Laboratory Management System", from 6-7 June 2012 in Al al-Bayt University (Al-Mafraq, Jordan), organized by the USAID-water reuse and environmental conservation project.*
- *"internal auditing for laboratories", from 4-6 december 2011 in Amman, organized by the USAID-water reuse and environmental conservation project.*

- **"implementation of ISO/IEC 17025:2005 and laboratory documentation system"**, from 25-29 september 2011 in Amman, organized by the USAID-water reuse and environmental conservation project.
- **"Advance NMR Methods for High Resolution Magnetic Resonance Spectroscopy"** at Bruker, Switzerland from September 30 to October 2, 2009.
- **"Laboratory Proficiency testing"** at Royal Scientific Society, Jordan on 30/5/2007.
- **"Advanced Wastewater Treatment"**, from June 25-29, 2006 in Al al-Bayt University (Al-Mafraq, Jordan), sponsored by European Community under the MEDA WATER PROGRAMME initiative and partially by the German Federal Ministry for Economic Cooperation and Development.
- **"Socioeconomics, Environment Aspect and Public Awareness of Wastewater Treatment"**, from September 25-29, 2005 in Al al-Bayt University (Al-Mafraq, Jordan), sponsored by European Community under the MEDA WATER PROGRAMME initiative and partially by the German Federal Ministry for Economic Cooperation and Development.
- **"Physical Environmental Impact Assessment of wastewater Treatment Plants and Water Reuse Duration"**, from July 11-15, 2004 in Al al-Bayt University (Al-Mafraq, Jordan), sponsored by European Union and partially by the Federal Ministry for Economic Cooperation and Development on behalf of the Government of the Federal Republic of Germany.
- **"microbiological tests for water, wastewater, food and cosmetics"** at Royal Scientific Society, Jordan from June 6-10, 2004.
- **"high-resolution Nuclear Magnetic Resonance (NMR) spectrometer service and maintenance"** at Bruker, Switzerland from March 15-19, 2004.
- **"ADVANCE 1D/2D training course on high resolution Nuclear Magnetic Resonance (NMR)"** at Bruker, Switzerland from March 8-12, 2004.
- **"using EuroEA3000 series on Elemental analysis application"** at EuroVector, Milan-Italy from 3-8/11/2002.
- **Euro-Mediterranean Master Classes on "Technologies, Services and Strategies for the development of a more sustainable and competitive Food Packaging Sector"** Italy-Naples from June 4 – July 4, 2001.
- **Participated in the symposium on Modern Lab Techniques in FTIR, IC, TLC, and TOC**, Amman University from 26-27 / 5 / 1999.
- **"Instrumentation used for Spectrophotometric analysis"** in Royal Scientific Society (ICP, AAS and Flame photometer) from the period between 14-16/6/1997.

## References:

- 1- Prof. Dr. Mahmoud Alawi ([alawima@ju.edu.jo](mailto:alawima@ju.edu.jo))
- 2- Prof. Dr. Fawwaz Alkalili ([fkhalili@ju.edu.jo](mailto:fkhalili@ju.edu.jo))
- 3- Prof. Dr. Rida Adamat ([ridaali@aabu.edu.jo](mailto:ridaali@aabu.edu.jo))

## Publications:

- Albalasmeh, A., Gharaibeh, M. A., Mohawesh, O., Alajlouni, M., Quzaih, M., Masad, M., & El Hanandeh, A. (2020). Characterization and Artificial Neural Networks Modelling of methylene blue adsorption of biochar derived from agricultural residues: Effect of biomass type, pyrolysis temperature, particle size. *Journal of Saudi Chemical Society*. 24(11), 811-823; <https://doi.org/10.1016/j.jscs.2020.07.005>.
- Sura Al-Harashsheh, **Mohanad Masad\***, Majed Ibrahim, Samer Al-Awaideh (2020) Study of Municipal Landfill Site For Dioxin/Furan and Chlorinated Pesticides for Al-Husainiyat landfill in Al-Mafraq Jordan. *fresenius environmental bulletin*. 29 (7A)6090-6101.
- Sharif Arar, Afnan Al-Hunaiti, **Mohanad H. Masad**, Androniki Maragkidou, Darren Wraith and Tareq Hussein (2019) Elemental Contamination in Indoor Floor Dust and Its Correlation with PAHs, Fungi, and Gram+/- Bacteria. *Int. J. Environ. Res. Public Health* 2019, 16, 3552; doi:10.3390/ijerph16193552.
- Arar, S., Alawi, M., Alnawaiseh, A. & **Masad, M.** Toxin Reviews (2019) Levels of Polyaromatic hydrocarbons (PAHs) in sediment Samples from Selected Jordanian Dams. *accepted*. <https://doi.org/10.1080/15569543.2019.1614066>.
- Alawi, M., **Masaad, M.** & Al-Hussaini, M. *Environ Monit Assess* (2018) A comparative study of the persistent organic pollutants (POPs) (Chlorinated pesticides, PCBs and Dioxins/ Furans) concentrations in cancer affected human organs with those of healthy organs. 190: 470. <https://doi.org/10.1007/s10661-018-6856-3>.
- Mohammad M. Ibrahim, Mahmoud Al-Refai, Jamal N. Dawoud, Rajab Abu-El-Halawa, **Mohanad Masad**, Zaher Judeh and Basem F. Ali. "Crystal structure and Density functional calculation of (E)-4-hydroxy-3-methyl-N'-thiophen-2-ylmethylene)-1,4-dihydroquinoxaline-2-carbohydrazide radical. *Asian Journal of Chemistry* (2012), 24.
- Mohammad M. Ibrahim, Mahmoud Al-Refai, Rajab Abu-El-Halawa, , Sohail Al-Sohaily, and **Mohanad Masad**. "Synthesis and evaluation of antimicrobial activities of some new chalcone and 4,5-dihydro-1H-pyrazole derivatives. *Jordan Journal of Chemistry*" (2011).
- Abu-El-Halawa, R, **Masad M**, Bathich, Y, Al-Refai, M, Ibrahim, M. M.; El-Abadelah, M. M.; Voelter, W. "Concise Synthesis and Displacement Reactions of Model 3-(Alkylthio)-6-chloro- and 2,6-dichlorothieno[2,3-e]-1,4,2-dithiazine-1,1-Dioxides. *Z. Naturforsch*", (2011), 66b,715-720.
- Mahmoud Al-Refai, **Mohanad H. Masad**, Rajab Abu-El-Halawa, Jamal N. Dawoud, Mohammad M. Ibrahim, Zaher Judeh, Basem F. Ali. "6-Chlorothieno[2,3-e]-1,4,2-dithiazine-3(2H)-thione-1,1-ioxide, Ammonium Salt Sesquihydrate: Synthesis, Crystal Structure and Density Functional Calculations". *J. Chem. Crystallogr.* (2011). 41, 1335-1341.
- Farouq E.Hawaiz, Essa I. Ahmad and **Mohanad H.Masad**. "Synthesis and Spectrometric Investigation of Some New Chalcone Derived Azo Dyes and Their Use in Dyeing Processes". *ZJPAS*, (2010), 22(6),78-87.