CURRICULUM VITAE



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| **-Name : Tayel Mahmoud El-HASAN****طايل محمود عليان الحسن****-Position : Full Professor (Since April. 11. 2009)****-Place and Date of Birth : Sahab - Jordan, January 1st 1965****-Nationality : Jordan****-Martial Status : Married (5 sons)****-Language Proficiency : Arabic (Native), English (Good command** **in reading, writing, and conversation),with little Japanese.****- Mailing Address: Department of Chemistry, Faculty of science,**  **Mutah University 61710, P.O.Box (7), Al-Karak, Jordan****- Mobile : (+962) (0) 799915463****- Fax: +962(3)2375540** **- E-mail:** **tayel@mutah.edu.jo****; E-mail:** **tayel.elhasan@gmail.com****- URL:** [**http://www.mutah.edu.jo/userhomepages/Prof.Tayel-EL-Hasan.pdf**](http://www.mutah.edu.jo/userhomepages/Prof.Tayel-EL-Hasan.pdf)**- Profile at google scholar:** [**http://scholar.google.com/citations?user=cXf\_O2YAAAAJ&hl=en**](http://scholar.google.com/citations?user=cXf_O2YAAAAJ&hl=en)**- Profile at ReasearchGate :** [**https://www.researchgate.net/profile/Tayel\_El-Hasan/**](https://www.researchgate.net/profile/Tayel_El-Hasan/)**- Profile at academia.edu:** [**https://mutah.academia.edu/TayelElHasan**](https://mutah.academia.edu/TayelElHasan)**- LinkedIn:**[**https://www.linkedin.com/profile/view?id=167416688&trk=nav\_responsive\_tab\_profile\_pic**](https://www.linkedin.com/profile/view?id=167416688&trk=nav_responsive_tab_profile_pic)**- liveDNA:** [**http://livedna.net/?dna=966.5346**](http://livedna.net/?dna=966.5346)**-Frontiers:** [**http://loop.frontiersin.org/people/205136/overview**](http://loop.frontiersin.org/people/205136/overview) |
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| Period | Institute Name | Degree | Remarks |
| **1996 – 1999** | **Institute of Geosciences – University of Tsukuba. Tsukuba – Japan** | **Ph.D.** | **Geochemistry****(Credit Hours and Thesis)** |
| **1987 – 1992** | **Faculty of Science – University of Jordan. Amman - Jordan.** | **M.Sc.** | **Geochemistry****(Credit Hours and Thesis)** |
| **1983 – 1987** | **Faculty of Science – Yarmouk University. Irbid - Jordan.** | **B.Sc.** | **General Geology****(Credit Hours)** |
| **1980 – 1983** | **Sahab Secondary School****Sahab – Jordan** | **Secondary Certificate** |  |

**Educational History:** |

**Working Profile:**

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| **Work Period** | Place of Work | Nature of Work |
| **Sep. 2015** | Prince Faisal Center, Mutah University | Director |
| **Summer 2015** | Tafila Technical University | Lecturer |
| **Sep. 2014 -** | PHA for Civil protection | Lecturer |
| **Sep. 2014 -** | Dept. of Chemistry, Mu’tah University, Jordan. | Professor |
| **Sep. 2011 –Sep. 2014** | Department of Geology, TaibahUniversity, KSA | Visiting Professor |
| **April 2009 – Sep. 2011** | Dept. of Chemistry, Mu’tah University, Jordan. | Professor |
| **Sep. 2006 – April 2009** | Dept. of Chemistry, Mu’tah University, Jordan. | Associate Professor |
| **Sep. 2005 – Sep. 2006** | Dept. Applied Geology, Univ. of Jordan, Jordan | Visiting Professor |
| **April 2004 – Sep. 2005** | Dept. of Chemistry, Mu’tah University, Jordan. | Associate Professor |
| **April 1999 – April 2004** | Dept. of Chemistry, Mu’tah University, Jordan. | Assistant Professor |
| **July 1993 – Oct. 1995** | Dept. of Geology, Mu’tah University, Jordan. | Teaching Assistant |
| **July 1992 – July 1993** | Geochemistry Division, NRA, Jordan. | Geochemist Trainee |
| **July 1991 – Feb. 1992** | Marbco (Marble Manufacturing Co.), Jordan | Geology Supervisor |
| **Jan. 1987 – Jan. 1991** | Dept. of Geology, Univ. of Jordan, Jordan | Teaching Assistant |

**Publications:**

**El-Hasan, T.M.** (1992):Geochemistry and Genesis of Wadi Umm GhadahMn Mineralization/ South Jordan. M.Sc. Thesis. Universityof Jordan, Amman. P135.

Saffarini, Gh. and **El-Hasan, T.** (1995): Wadi Umm Ghadah Manganese Occurrence/ South Jordan: Hydrothermal Mineralization?.Mu'tah Journal For Research and Studies Vol. 10, No. 4: 43-63.

# El-Hasan, T.M. (1999) Geology, Mineralogy, and Geochemistry of the Cambrian manganese deposits of central Wadi Araba region, Jordan. Tsukuba Univ. Ph.D. Thesis, P133.

# El-Hasan, T., Al-Malabah, A., Kajiwara, Y., and Komuro, K. (2000): Petrology, Mineralogy, and genesis of Wadi Dana Cambrian Manganese Deposit, Central Wadi Araba Region, Jordan. El-Sayed (Eds): Geology of the Arab world, Proceedings of the 5th Int. Conf. on the Geology of the Arab world, Cairo Univ. 2000. Volume 1: 391 – 404.

# El-Hasan, T., Al-Malabah, A.; Kajiwara, Y., and Komuro, K. (2001): Geochemical Characteristics of the Cambrian Manganese Deposits of Central Wadi Araba, South Jordan. Iraqi J. Sci., Vol 42A (3) : 1-39.

# El-Hasan, T., Al-Malabah, A., and Kumoro, K.: (2008) Rare Earth Elements Geochemistry of the Cambrian shallow marine manganese deposits at Wadi Dana, South Jordan. Jordan Journal of Earth and Environmental Sciences (JJEES). 1(1):45-52.

# El-Hasan, T., and Jiries, A. (2001): Heavy Metal Distribution in Valley Sediments in Wadi Al-Karak Catchment Area, South Jordan. Environmental Geochemistry and Health (IF 1.532), Vol 23 (2): 105-116.

# El-Hasan, T., and Lataifeh, M.(2001): Differentiation between various manganese deposits of Jordan using magnetization measurments. AL-Manarah, Vol. 7(1): 71-86.

# Al-Malabeh, A., Al-Fugha, H. and El-Hasan, T. (2004) Petrology and Geochemistry of Late Precambrian Magmatic  Rocks from Southern Jordan. Neues Jahrbuch fuer Geologie und Palaeontologie (IF 0.663), 233 (3) 333-350.

# El-Hasan, T., and Al-Malabeh, A. (2008): Geochemistry and pertology of Al-Lajjoun Basaltic flows, South Jordan. Jordan. Journal of Earth and Environmental Sciences (JJEES). 1(2): 53-62.

# Al-Malabeh, A., Al-Fugha, H., and El-Hasan, T. (2003): Volcanogenesis of Welded Pyrocalstic Rocks in Jabal Aritain volcano, Jordan. Abhath Al-Yarmouk, 12(2A): 345-361.

# El-Hasan, T., and Lataifeh, M. (2003): Environmental Magnetism: The Implication of Initial Magnetic Susceptibility and Saturation Magnetization for Detecting Roadside Pollution in Arid Regions. Dirasat, Pure Sciences, 30 (2):191-202.

# Al-Malabah, A., El-Hasan, T., Lataifah, M., and O,Shea, M. (2002): Geochemical and mineralogical related magnetic characteristics of the Tertiary – Quaternary (Um Al-Qutein) Basaltic flows from the basaltic field of Hara El-Jabban, Northeast Jordan. Physica B: Physics of Condensed Matter (IF 0.853). 321(1-4): 396-403.

# El-Hasan, T. (2002): Urban Geochemistry: Heavy Metals Distribution on the Soils of Relatively Heavy Industrial City of Sahab, Central Jordan. Mu’tah Lil-Buhuth wad-Dirasat, Pure Sciences, Vol. 17 (3): 49-67.

# El-Hasan , T., Al-Omari, H., Jiries, A., and Al-Nasir, F., (2002): Cypress Tree (*Cupressus Semervirens* L*.*) Bark as an Indicator for Heavy Metal Pollution in the Atmosphere of Amman City, Jordan. Environment International (IF 4.786), 28 (2002): 513-519.

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# El-Hasan, T. (2006): Geochemical dissociation of major and trace elements in bed and suspended sediment phases of the phosphate mines effluent water, Jordan. Environmental Geology (IF 0.678). 51(4):621-629.

# Jiries, A., El-Hasan, T., and Manasrah, W., (2002): Qualitative Evaluation of the Mineralogical and Chemical Composition of the Settled Aeolian Dust Falling Over Central and Southern Highlands of Jordan. Comosphere. 48 (9):933-938.

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# Al-Malabeh, A.;El-Hasan, T.; Al Qadi, G.; and Al-Fugha, H. (2008): Geochemistry of some Opaque Mineral Oxides Contained Within The Andesitic Dikes, Southern Jordan. Abhath Al-Yarmouk "Basic Sci. & Eng." Vol. 17(1A): 111-126.

# Al-Malabeh, A.; El-Hasan, T.; and Lataifeh, M. (2009): Comparative Study Between Geochemical and Magnetic Characteristics Of Spinel Lherzolite Mantle Xenoliths From Jabal Remah Volcano, Jordan. American Journal of Applied Sciences. 6(7): 1308-1312.

# El-Hasan, T. (2008): Geochemistry of the redox-sensetive trace elements and its implication on the mode of formation of the Upper Cretaceous oil Shale, Central Jordan. Neues Jahrbuch fuer Geologie und Palaeontologie Abh (IF 0.663). 249(3): 333-344.

# El-Hasan, T.; Momani. K.; Al-Nawayseh, J. and Al-Nawayseh, K. (2008): The influence of Dead Sea on the chemistry and mineralogy characterestics of the dry deposition fallen over the eastern highlands, central Jordan. Environmental Geology (IF 0.678. 54(1):103-110.

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# El-Hasan, T., Al-Anbar, Z., Batarseh, M., Al-Naser, F., Al-Anbar, M, Ziadat, A., Kato, Y. and Jiries, A (2008): Removal of Zn+2 Cu+2 and Ni+2 ions from aqueous solutions via Tripoli: Simple component with single phase model. Current World Environment. 3(1): 1-14.

# El-Hasan, T.and Al-Malabeh, A.; (2009): Mineralogy and Chemistry of Coronadite from Middle Cambrian Manganese deposits at Wadi Dana, South Jordan. American Journal of Applied Sciences. 6(4): 576-581.

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# El-Hasan,T.;Szczerba, W.;Radtke, M.;Riesemeier, H.;Buzanich, G.;and Kersten, M.(2011): Cr(VI)/Cr(III) and As(V)/As(III) Ratio Assessments in ordanian Spent Oil Shale Produced by Aerobic Combustion and Anaerobic Pyrolysis. Environmental Science & Technology. 45(22): 9799-9805.

# El-Hasan, T., & Hamaideh, H. (2011): Occurrences, characteristics and possible industrial applications of Tripoli rock outcroping in Al-Karak province. 2nd International Confrence on Materials in Jordan. Amman. Abstract book.

# El-Hasan, T., (2012): Geological and environmental applications using synchrotron light beamlines techniques. 10th International Jordanian Geological Conference, Amman. Abstract book.

# Farah Al-Nasir, Tayel El-Hasan andAbdelAziz Amro (Under construction): Potassium adsorption behavior on the calcareous vertisol soils, Jordan

# Mohammed Matouq and Tayel EL-Hasan (2011): The Impact of Global Warming on the Middle East Region: Case Study on Hashemite Kingdom of Jordan during the period of 1955-2008. 22nd Pacific Science Congress (Meeting the challenges of Global Change); 14-17 June 2011; Kuala Lumpur, Malysia (Abstract book); P 183.

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# [Hassan Al-Fugha](http://link.springer.com/search?facet-author=%22Hassan+Al-Fugha%22),[Tayel El-Hasan](http://link.springer.com/search?facet-author=%22Tayel+El-Hasan%22), [Ahmad Al-Malabeh](http://link.springer.com/search?facet-author=%22Ahmad+Al-Malabeh%22), [Arwa Hamaideh](http://link.springer.com/search?facet-author=%22Arwa+Hamaideh%22), and  [Ahmad El-Mezayen](http://link.springer.com/search?facet-author=%22Ahmad+El-Mezayen%22) (2013): Mineralogy, geochemistry, and origin of felsic dike swarms in Aqaba complex (Wadi Al-Yutum), South Jordan. [Arabian Journal of Geosciences](http://link.springer.com/journal/12517). 6(10):3979-3987.

# El-Hasan, T., and Lataifeh, M. (2013): Field and Dual Magnetic Susceptibility Proxies Implication for Heavy Metal Pollution Assessment in the Urban Soil of Al-Karak City, South Jordan. EnvironmentalEarth Sciences. 69(7): 2299-2310.

# El-Hasan, T. and Kooli, F. (under construction): Phenol adsorpotion-desorption isotherms using Tripoli treated with organic surfactant.

Matouq, M.; **El-Hasan**, T.; Al-Bilbisi, H.; Abdelhadi, M.; Hindiyeh, M.; Eslamia, S. and Duheisat, S.(2013).The Climate change implication on Jordan: A case study using GIS and Artificial Neural Networks for weather forecasting. Journal of Taibah University for Science. 7:44-55.

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# [M. Batarseh](http://earthdoc.eage.org/publication/search/?pubauthorname=M.|Batarseh), [H. Khan](http://earthdoc.eage.org/publication/search/?pubauthorname=H.|Khan), [M. Goebel](http://earthdoc.eage.org/publication/search/?pubauthorname=M.|Goebel), [P. Dawe](http://earthdoc.eage.org/publication/search/?pubauthorname=P.|Dawe), [T. El-Hasan](http://earthdoc.eage.org/publication/search/?pubauthorname=T.|El-Hasan), [A. Jireis](http://earthdoc.eage.org/publication/search/?pubauthorname=A.|Jireis), [M.Y. Al Rawashdeh](http://earthdoc.eage.org/publication/search/?pubauthorname=M.Y.|Al%20Rawashdeh), [R. Paterson](http://earthdoc.eage.org/publication/search/?pubauthorname=R.|Paterson), [J. Pomeroy](http://earthdoc.eage.org/publication/search/?pubauthorname=J.|Pomeroy) and [O. Mohawsh](http://earthdoc.eage.org/publication/search/?pubauthorname=O.|Mohawsh) (2012): Transboundary Water Governance and Climate Change: Focus on Dead Sea, Jordan. [EAGE Workshop on Dead Sea Sinkholes – Causes, Effects & Solutions](http://earthdoc.eage.org/publication/search/?pubedition=310) (Extended Abstract).

# Farah Al-Nasir, Tayel El-Hasan andAbdelaziz Amr (under construction): Potasium adsorption-desorption isotherms on the calcareous vertisol soils from Jordan.

Mohammed Matouq, **Tayel El-Hasan**, Hussam Al-Bilbisi, MontherAbdelhadi (2013): The Implication of GIS Technique in Tracing and Prediction the Climate Change in the Hashemite Kingdom of Jordan during the Period of 1979-2008. The Geography Conference and Contemporary Global Changes.Taibah University, KSA, Abstract book, P52.

**El-Hasan, Tayel (2013):** The Geochemical Characteristics of the Central JordanUpper Cretaceous Oil Shale Deposits and Its Possible Industrial Products. 10th Meeting of the Saudi Society for Geosciences “Geosciences for sustainable development”. KFUPM, Dhahran, Saudi Arabia, Abstract book P107.

Bamousa, Abdullah & **El-Hasan, Tayel (2013):** Establishment of New Accredited Bachelor Program in Geology at Taibah University, Al-Madinah Al-Munawarah. . 10th Meeting of the Saudi Society for Geosciences “Geosciences for sustainable development”. KFUPM, Dhahran, Saudi Arabia, Abstract book P202.

# Mohammed Matouqm,Hussam Al-Bilbisi,Tayel El-Hasanand Saeid Eslamian (2014): GIS Applications in a Changing Climate. In: [Saeid Eslamian](http://www.taylorandfrancis.com/books/search/author/saeid_eslamian/)(Eds.):[Handbook of Engineering Hydrology (Modeling, Climate Change and Variability).](http://www.taylorandfrancis.com/books/details/9781466552357/) CRC Press, Newyork. Volume (II): 1500 pages.

**Tayel El-Hasan,** Amjad Shraim & Bilal Ameirah (Under construction): Orientation study: Stratigraphy, Mineralogy and Geochemical yields for stream sediment survey at Wadi A-Aqeeq, Al-Madinah, KSA.

**Tayel El-Hasan,** Amjad Shraim (Under Construction): Heavy metal pollution in settled dust at indoor parking under Al-Haram Al-Sharief, Al-Madinah, KSA.

**Tayel El-Hasan** & Ahmed Al-Malabeh (Under construction): Petrography, mineralogy and geochemistry of Jabal Uhud, Al-Madinah, KSA.

Abdelhadi, N.; Abdelhadi, M. & **El-Hasan, T.** (2014):The Characteristics of Cement Mortars Utilizes the Untreated Phosphogypsum Wastes Generated From Fertilizer Plant, Aqaba- Jordan. Jordan Journal For Earth and Environmental Sciences JJEES. 6(2):61-66.

**El-Hasan, T.;** Amro, A.; Kooli, F. and Al-Qudah, Z. (Under construction): Removal of Cd and Pb using the activated and non-activated Pyrolitic ashes.

Awwad, A., Habeeballah, T. & **El-Hasan,T.**(2014): Environmental and Health Assessment of the Land Pilgrims Reception Centre in Al-Madinah Al-Munawarah. King Abdulaziz University Journal for Environment and Arid Region Sciences. 25(2): 197-221.

عبدالحميد عبدالحميد عوض وتركي محمد حبيب االله، وطايل محمود الحسن :(2014)التقييم البيئي والصحي لمركز استقبال حجاج البر بالمدينة المنورة.مجلة جامعة الملك عبدالعزيز علوم الأرصاد والبيئة وزراعة المناطق الجافة,Vol:25(2): 221-197(English Abstract).

Al-Quda, Z. Amro, A. and **El-Hasan**, T. (Under construction): Biosorption of Copper from Aqueous Solution Using Algal Biomass.

**El-Hasan**, T. Amro, A., Kooli, F. and Al-Quda, Z. (Under construction): Characterization and adsorption isotherms of spent shale produced from pyrolysis process.

Osama Mohawesh, Mufeed Batarseh, Anwar Jiries, **Tayal El-Hasan**, Husam Al-Hamideh, Haseen Khan(2014): Transboundary Water Governance and Climate Change in the Hashemite Kingdom of Jordan. Poster. Aqaba International Conference on Marine and Coastal Environment, Status and Challenges in the Arab World, Aqaba.

**Tayel El-Hasan,** Basam Mahasneh**;** Nafeth Abdelhadi and Monther Abdelhadi (2015): High Calcium Ash Incorporating Into Clay, Sand and Cement Mortars Used for Encapsulation of Some Heavy Metals**.** Jordan Journal For Earth and Environmental Sciences (JJEES).Volume 6, (Special Publication, Number 3: 23- 28.

**Tayel El-Hasan**, Osama Mohawesh, Mufeed Batarseh, Haseen Khan, Anwar Jiries,(2015): Transboundary Water Governance and Climate Change in the Lower Jordan River Basin, Jordan. Submitted to Jordanian Society for Scientific Research.

**Tayel El-Hasan** (2106): Industrial Wastewater Resources In Jordan for the Period (1999-2006). In Hamaideh et al. (Eds): Proceedings of the Expert workshop Water Challenges in MENA region 2016-2050. April 24-29 – Aqaba –Aqaba Jordan; 36 - 46.

Al-Tarawneh, A.; Jiries, A. and **El-Hasan, T**. (2016): Reuse of industrial wastewater produced from phosphate mines in grain and crops production. Water Security & Climate Change: Challenges and Opportunities in Asia. Abstract book, Page 62.

**El-Hasan, T.;** Abdelhadi, N.; Abdelhadi, M and Rabba', I. (2017): Optimization of phosphogypsum co-production using orthophosphoric acid as leaching solvent with different temperatures and leaching time periods. International conference on Jordanian life sciences for sustainable development. Abstract book, P73.

**El-Hasan, T.** (2017): Characteristics and Environmental Impact of the Oil Shale Ashes Produced by Aerobic and Anaerobic Combustion Processes. 16th Iraqi Geological Conference, Baghdad, Abstract Book, P53.

Anwar Jiries, Farah Al-Nasir and **Tayel El-Hasan** (2017): Pasture land in a desert area at Al-Karak province – Jordan. In: Abou-Elnaga & Aydin (eds.): Proceedings of the regional workshop: Solutions to water challenges in MENA region. April 25-30 – 2017; Cairo- Egypt. 10-17.

**El-Hasan, Tayel** ; Khan, Haseen; Batarseh, Mufeed ; Rawashdeh, Malek; Jiries, Anwer. (2017). Real Time Monitoring System for Transboundary Water Governance and Climate Change in Jordan. Water Security &climate Change Conference- Cologne 2017. Abstract book; P 65.

**El-Hasan, Tayel**; abdelhadi, Nafeth and Abu Jaber; Nizar, (2017): Hazardous Toxic Elements Mobility in Burned Oil Shale (BOS) Ash, and the Possibility of Attaining Short and Long Term Solidification. International Conference on Advanced Technology in Waste Water and Waste management For Extractive Industries. October- 23-24/2017 Bali – Indonesia, Extended Abstract book: 108-112.

**Tayel El-Hasan;** Nafeth Abdelhadi and Monther Abdelhadi (2017): Optimization of phosphogypsum by-production using orthophosphoricacid as leaching solvent with different temperatures and leaching time periods. The 8th international chemical engineering conference, Amman 7-9/11/207, abstract book, P45.

**Tayel El-Hasan (**2018**):** Environmental impact assessment of the combustion process of Oil shale from central Jordan. Oil Shale. 35(1):70-83.

**Tayel El-Hasan,** Nizar Abu-Jaber (2019): Geochemistry, mineralogy and origin of the shallow water sediments collected along the eastern shore of the northern part of the Dead Sea. Carbonate and Evaporites.34:975-985.

Monther Abdelhadi, Nafeth Abdelhadi and **Tayel El-Hasan.** (2018): Optimization of phosphogypsum by-production using orthophosphoric acid as leaching solvent with different temperatures and leaching time periods, Earth Science Research. 7(2):320-328.

**Tayel El-Hasan**, Messaoud Harfouche, Allayth Aldrabee, and Diane Eichert(accepted) : SYNCHROTRON BASED MICRO-MAPPING AND XAFS INVESTIGATION OF Fe-Mn AND EPIGENETIC INTERGROWTH WITHIN THE CAMBRIAN SHALLOW MANGANESE DEPOSITS, SOUTH JORDAN. Iraq Geological Journal. 53(A1)

**Tayel** **El**-**Hasan**, Jamal Amera, Amjad Al-Tarawneh, Emad Talafhah, Alaa Omari, Hashem Al-Zubi, Khaled Abu Samhadaneh (Submitted): Dead Sea Brine Water Chemical and Physical Stratification Features Influenced by the Continuous Drop in Sea Level, (under construction).

**Tayel El-Hasan,** Nizar Abu-Jaber and Nafeth Abdelhadi (2019): Hazardous Toxic Elements Mobility in Burned Oil Shale Ash, and Attempts to Attain Short- and Long- Term Solidification. Oil Shale. 36(2S):226-249.

Salah H. Aljbour, **Tayel El-Hasan**, Hussam Al-Hamideh, Bassam Hayek, Kalid Abu-Samhadaneh (submitted): Anaerobic co-digestion of domestic sewage sludge and food waste for biogas production: A decentralized integrated management of sludge in Jordan. (Energy Sources).

Monther Abdelhadi and **Tayel El-Hasan** (under construction): Utilizing fly ash linear materials in the adsorption of hazardous chemical compounds.

Salah H. Aljbour, **Tayel El-Hasan**, Hussam Al-Hamideh, Bassam Hayek, Kalid Abu-Samhadaneh (Under construction): Anaerobic Co-digestion of Domestic Sewage Sludge with Food Waste: Incorporating food waste as a co-substrate under semi-continuous operation.

**Tayel El-Hasan,** Husam Hamaidah, Salah Al-Jbour, Nabeel Bani Hani, Faddel Ismail, Yahya Shakhatreh, Dua'a Al Majali (2019): THE RESULTS OF IMPLEMENTATION OF TREATED WASTEWATER AND BIO-SOLIDS GENERATED FROM WWTP ON THE PLANTATION OF FODDER AT MARGINAL AREAS AT AL-KARAK, SOUTH JORDAN. In Araruna et al. eds. Water Perspectives in emerging countries: water in agricultural practices.Cuviller Verlag 2019, Gottingen. P 292.

**Conferences:**

* June 1996: Ore Resource Geology Annual Meeting, Tokyo.
* June 1998: Ore Resource Geology Annual Meeting, Tokyo.
* Dec. 1998: American Geophysical Union (AGU) Fall Meeting, San Francisco.
* Sep. 7 – 20. 1999: Geochemical workshop “GEOCHIM’99”, Czech Republic, Prague.
* Feb. 2000: The 5th Int. Conf. of the Geology of the Arab world, Egypt (GAW5), Cairo.
* April. 2001: The 7th Jordanian Geological Conference, Amman, Jordan.
* Oct., 2002: Workshop in Geology and Tourism, Yarmouk University, Irbid.
* Feb., 2004: The 7th Int. Conf. of the Geology of the Arab world (GAW7), Cairo, Egypt.
* April, 2004: The 8th International Conference for the Jordanian Geological

Association, Amman, Jordan.

* April, 2004: The First International Engineering Conference, Faculty of Engineering,

Mu’tah Univ., Al-Karak, Jordan.

* April 2007: The 9th international Jordanian Geological Conference.

The Royal Cultural Center, Amman, Jordan.

* Nov. 2007: Re-union conference, Ministry of Foreign Affairs, Tokyo, Japan.
* Nov. 2007: The 4th Jordanian Conference on Environment. Mu’tah University, Al-Karak, Jordan.
* May 2008: 1stscientific week of the Faculty of Science / Mu’tah University.
* November 2008: Synchrotron users meeting and JSPS school, Cairo, Egypt.
* March 4-6 2009: Int. Conf. On Materials in Jordan: Amman, Jordan.
* May 3-4 2009: Dialogue Through Scientific Co-operation: Wastewater Reuse and Soil

Amendments in Jordanian Agriculture, Mutah Univ. Karak Jordan.

* May 7 2009: Fifth national meeting for synchrotron users, Al-Zaytounah University, Amman, Jordan.
* May 13 –14 2009: The 5th Jordanian Conference in Environment, University of Jordan. Amman – Jordan.
* June 14-19, 2009: 9th Int. Multidisciplinary Scientific Conf.SGEM 2009, Albena, Bulgaria.
* 19 - 21/Nov./2009: 8th Synchrotron user’s meetings. Petra / Jordan.
* 1-5-March. 2010: SESAME-JSPS-Sabanci Synchrotron School, Antalya, Turkey.
* 21-24. March.2010: 4th Saudi Conference for Science, Al-Madinah Al-Munawarah, KSA.
* 10-12 April, 2010: Workshop “Material on Jordan”, Amman, Jordan.
* 26-28/10/2010: Wastewater Sustainable Management Symposium, KONYA, Turkey.
* 3-5/4/2011: 2nd International Conference on Materials in Jordan, Amman.
* 9-11/4/2011: 10th International Jordanian Geological Conference, Amman.
* 5/5/2011: 7th National Synchrotron Users Meeting, Amman.
* 29/5/ - 4/6/2011: Inter. J. of Arts & Sciences Conference (IJAS), Bad Hofgastien, Austria.
* 22nd Pacific Science Congress (Meeting the challenges of Global Change); 14-17 June

2011; Kuala Lumpur, Malaysia.

* 20-22 April 2012; 5th Saudi Science Conference, Um Alqura University, KSA.
* Expert Workshop Water Losses Management In Water Supply Systems. 25-29 Sep.2012 ANTALYA-TURKEY.
* 1/2 - 5/2/2013;Naif Arab University for Security Sciences, Riyadh. Lecturing on Effective Factors in Chemical Terrorism.
* 1-4/4/2013: Geography Conference and Contemporary Global Changes. Taibah University, AL-Madinah Al-Munawarah; KSA.
* Taibah University International Conference On Advances in Information Technology For the Holy Quran and Its Sciences, NOORIC, 22-24/12/2013, Al-Madinah – KSA.
* 20/1/2013; Al-Ejaz Al-Qurani; Geological Illustrations in The Holly Quran, Bir Othman Society, Al-Madinah Al-Munawarah, KSA.
* 8/4/2014: Scientific Workshop on Hydrodynamic Geology and Geophysics of Arabian Gulf, Taibah University, Al-Madinah Al-Munawarah.
* 27 – 29/10/2014, Aqaba International Conference on Marine and Coastal Environment, Status and Challenges in the Arab World, Aqaba – Jordan.
* 12th Synchrotron users meeting, Nov. 26 -27/2014, Amman.
* 25 -29/1/2015: First Swedish-Jordanian Workshop on Science and Research Using Synchrotron Radiation”. Hashemite University, Jordan.
* **23-24/3/2015: Orientation, Networking & Brokerage Workshop for Researchers in Jordan,** HCST, Amman.
* 22/4/2015: Global Warming and its Consequences; Environmental Day, Ministry of Education, Al-Karak – Jordan.
* 10th Annual International Symposium On Environment; 25-28/5/2015; Athens –Greece.
* Closing workshop for the Tarnsboundary Water Resources Governance and climate Change Monitoring, Dead Sea, 9/11/2015.
* 7th conference on Scientific Research In Jordan, Middle East University, 14/11/2015, Amman.
* 4th international conference on climate change adaptation, Colombo 22-23 Nov. 2015.
* 13th SESAME users meeting, Amman 25 -26 Nov. 2015.
* Feb 29th 2016, kick off meeting: Decentralized Integrated Sludge Management Project (DISM) and first stakeholders, Amman.
* 13-16/March/2016; International Water Conference 2016 (IWC2016) on “Water Resources in Arid Area: The Way Forward; Muscat – Oman.
* 13-14/April/2016: Workshop of ecosystem sustainable design; Wadi Rum; Jordan.
* 9-16/October/2016: workshop in Sustainable waste management (MSW) in developing countries and emerging economics; Braunschweig – Germany.
* Consultation workshop on the Environmental and social impact assessment (ESIA) for the Red Sea – Dead Sea project phase 1. 6th of April 2017, Aqaba – Jordan.
* 27-29/April/2017: International conference on Jordanian life sciences for sustainable development, Amman – Jordan.
* 4/May/2017: 9th Scientific Workshop for Jordanian Synchrotron Users Network, University of Jordan, Amman.
* 3-5 July 2017; Waste-to-Energy: Assessment & Solutions for Vulnerable Communities workshop, University of Jordan, Amman – Jordan.
* 12-14 August 2017; TAIEX Workshop on Synchrotron Applications, Amman.
* 12-14/September/2017: The First International Conference in Geospatial Information Management (Mapping the Future). Amman – Jordan.
* 10- September-2017; International Workshop on Ancient Terraces, GJU, Amman.
* Water Security and Climate Change International conference 2017, Cologne – Germany.
* October- 23-24/2017: International Conference on Advanced Technology in Waste Water and Waste Management for Extractive Industries (EXCEED-SWINDON project). Bali – Indonesia.
* November 7-9/ 2017: The 8thInternational Chemical Engineering Conference, Amman.
* November 7-11/11/217: World Science Forum 2017 Jordan. Dead Sea – Jordan.
* EXCEED-SWINON EXPERT workshop (Water Scarcity: challenges and solutions); Tunisia, Souse 23-28/April 2018.
* OPEN-SESAME Training and Networking Programme for Science Managers and Administrators, held from 7-10 May 2018 at the Cyprus Institute (CyI) in Nicosia, Cyprus.
* JANA 4th international Conference. Mutah – Jordan, 1st August 2018.
* Goldschmidt 2018, 12-17/8/2018. Boston, USA.
* OPEN-SESAME Training and Networking Programme for Science Managers and Administrators, held from 7-11 October 2018 at the Izmir - Turkey.
* Water Security and Climate Change International conference 2018 (EXCEED-SWINDON project), Nairobi – Kenya, 3-5/12/2018.
* 16th SESAME users meeting; Amman 15-16/Dec. 2018.
* 11th Jordanian Scientific Workshop on Synchrotron light applications; Amman 11/4/2019.
* 2nd annual meeting for SUPREME project, Nicosia – Cyprus, 10-14/6/2019.
* Erasmus International Scientific Workshop, Iasi University, Romania, 18/6/2019.
* German-Jordanian symposium on waste management and recycling, 9/9/2019, Amman.
* International Expert Workshop onWater on Agricultural Practices: Training the Trainers, 15-21/9/2019; Rio De Janeiro – Brazil.
* 28-29/10/2019: SESAME 1st Industry and Applied Science Workshop (Open SESAME project), Allan – Jordan.
* 3-7/11/2019; Water resources and climate Change: Impacts, Mitigation and Adaptation, (EXCEED-SWINDON project); Amman – Jordan.

**Associations Membership:**

|  |  |  |
| --- | --- | --- |
| Association Name | Country | **Duration** |
| Jordanian Geological Association (JGA) | Jordan | Since 1987 |
| Society of Ore Resource Geology | Japan | Since 1996 |
| American Geophysical Union (AGU) | USA | 1997-2000 |
| Geochemical Society | USA | 1997-1999, 2018-2019 |
| Jordanian – Japanese Academic Society (JJAS) | Jordan | 2003  |
| Jordan National Synchrotron Users Network | Jordan | 2007 |
| Athens Institute for Education & Resaerch  | Greece | 2015 |
| Jordan Society for Scientific Research JSSR | Jordan | 2016 |
| East Amman Environmental Society | Jordan | 2018 |

**Taught Courses:**

General Geology

General Geology labs (Crystallography, Mineralogy & Rocks).

General Geology labs (Maps & Fossils).

Rocks and Minerals.

Earth Resources & Environment

Industrial Earth Resources

Advanced Industrial Earth Resources (Ph.D. Students)

Economic Geology

Natural Sciences

Essentials of Environmental Sciences

Earth & Universe

Research Project

Introduction to Astronomy

Environmental Impact Assessment (EIA)

Environment and Pollution (PHA for civil Protection)

Environmental Risk Management (PHA for civil Protection)

Modern Environmental Issues (PHA for civil Protection)

Official Trainer: How to Write a Successful Research Proposal (Certified from HCST)

Official Trainer: How to Write & publish scientific paper (Certified from HCST)

Official Trainer: How to present paper on conference & workshop (Certified fromHCST).

Official Trainer: How to Establish Your Entrepreneur(Certified from Centennial Fund, KSA).

Official Trainer: How to use the scientific research engines (Mutah University).

Geology for Engineers (Tafila Technical University)

Introduction to Environmental Sciences(Tafila Technical University)

Geology for Engineers (Engineering Faculty; Mutah University)

**Scholarships & Fellowships**

* MONBUSHO Scholarship for Completing the Ph.D. Study – the Government Of Japan, 1995 – 1999.
* DFG Consultative visit scholarship (Host institute: Erlangen University/Germany), June – September 2007.
* Sabbatical Leave at the Department of Geology and Mineralogy/ University of Jordan for the year (2005/2006).
* DFG preparatory short visit scholarship (Host institute: Erlangen University/Germany), June – 2006.
* DFG short fellowship (Helmholtz Zentrum Berlin Fur Materialien und Energie)

 (16 – January to 6 – Feb. 2010).

* Faculty For Factory Grant (2009).
* DFG short fellowship (Bundesanstalt für Materialforschung und-Prüfung (BAM), Berlin, Germany. (9– 30 January 2011). Synchrotron XANES analysis of oil shale samples.
* IAEA Training fellowship (Bundesanstalt für Materialforschung und-Prüfung (BAM), Berlin, Germany. (04/July – 04/August 2011). Synchrotron application training program.
* Centennial Fund, KSA Training course: Training of Trainee (TOT)onHow to establish the new Entrepreneur, Taibah University, Al-Madinah, Feb, 2013.
* Erasmus Mundus Staff Mobility Scholarship (2013), Faculty of Geology, University of Barcelona, Spain.
* ICTP Fellowship under ICTP-Elettra users program, for carryout a project at Synchrotron facility at Trieste Italy. Feb. 2017
* ICTP Fellowship under ICTP-Elettra users program, for carryout a project at Synchrotron facility at Trieste Italy. May. 2018.
* ICTP Fellowship under ICTP-Elettra users program, for carryout a project at Synchrotron facility at Trieste Italy. May. 2019.
* Erasmus Plus ICM program with Iasi University – Romania, lecturing mission, 15- 28/6/2019.

**Scientific Research Grants**

* Mu’tah University Scientific Research Grant, 2001/2002, Heavy metal pollution in urban soils of Sahab city (750 JOD).
* AbdelhamedShouman Foundation Grant For Scientific Research, 2001 – 2002. Characterization of Phosphate mines at Al-Hisa and Al-Abyad effluent water, (10000 JOD).
* Ministry of Higher Education Scientific Grant (2009): Environmental magnetism (63,000 $).
* Ministry of Higher Education Scientific Grant (2009): GIS in Tracing Climate Change in Jordan (38,000 $).
* UNESCO (Jordan) Scientific grant (2009): Wastewater Resources Management in Rural Areas in Jordan. (20,000 $).
* Mu’tah University Scientific Research Grant, 2010/2011. Travel Allowance to BESSY synchrotron facility –Germany, 600 JOD.
* Helmholtz-Zentrum Berlin fürMaterialien und Energie (HZB): Cr+3 and Cr+6 assessments in the ash produced from oil shale combustion process using synchrotron XRF technique**.** Tayel El-Hasan, (Mutah University – Jordan); Heinrich Resermier& Martin Radtke(BundesanstaltfürMaterialforschung und-prüfung (BAM), Berlin, Germany**)**
* NATO Science for Peace and Security Programme Grant 2011-2014 " Transboundary Water Governance and Environmental Security of the lower Jordan River", 250,000 Euro.
* Program and Curriculum Development for Geology Department project, Grant by Faculty of University Development/TaibahUniversity, KSA, (56,000 $).
* Metallogenesis of ophiolite rocks of BirUmq area, Al-Madinah Province, West Saudi Arabia; using ASTER image processing technique. Cooperation between TaibahUniversity and Saudi Geological Survey (SGS), Approved project; October 2012.
* Metals Distribution in Urban Street Dust of Al-Madinah Al-Munawarah City, Saudi Arabia. The Custodian of the Two Holy Mosques Institute of Hajj Research, Umm AlquraUniversity, Makkah, Saudi Arabia. (Submitted Project), 2012. (150,000 SR).
* Air quality monitoring in the indoor car parking under Al-Haram Al-Shareef at Al-Madinah Al-Munawarah City, Saudi Arabia. The Custodian of the Two Holy Mosques Institute of Hajj Research, Umm Alqura University, Makkah, Saudi Arabia. (Submitted Project), 2012. (160,000 SR).
* Development project for Department of Geology; Taibah University, Approved project, Deanship of Scientific Research – Taibah University; (400000 SR). 2012.
* Environmental Magnetism: Heavy metal pollution in urban soils of Al-Madinah Al-Munawarah, KSA. Proposal submitted to KACST (1532400 SR).
* Geochemical, petrographicaland heavy mineral exploration of stream sediments in the Al-Madinah Al-Munawarah city, Saudi Arabia. (Submitted) Deanship of Scientific Research – Taibah University; (79000 SR). 2013.
* Mineralogical, Geochemical Characterization, and Industrial Evaluation of WeatheredFeldsparDepositsfromRyolitic, Granitic and PegmatiticRocks in Al-Madinah Al-MunawarahArea, Saudi Arabia. (Approved) Deanship of Scientific Research – Taibah University; (400000 SR); 2013.
* Environmental and Health Assessment of the Pilgrims receiving center at Al-Madinah Al-Munawarah City, Saudi Arabia. The Custodian of the Two Holy Mosques Institute of Hajj Research, Umm Alqura University, Makkah, Saudi Arabia. (Approved Project), 2013. (160,000 SR).
* Amelioration of Pasture Land in a Desert Area at Al-Karak Province/ Jordan. SRTD-HCST initiative, January 2015; (25000 Euro).
* Hazardous Toxic Elements Mobility in Burned Oil Shale (BOS) Ash, and the Possibility of Attaining Short and Long Term Solidification; Proposal submitted to Scientific Research Support Fund (SRSF), Ministry of Higher Education, Jordan. (38955 JOD). (Approved).
* Synchrotron Based XRF and XAFS Techniques in studying the oxidation states of Mn& Fe intergrowth within shallow Manganese deposits, Southern Jordan; proposal submitted to **Elettra - Sincrotrone Trieste, Italy**. **(Approved)**
* **Synchrotron based XRF, XRD and XAFS techniques to determine the abundances and mineral phases of REE, Hf and Zr contained in** Dubaydib **Sandstone Formation (Southern Jordan)**, Proposal submitted to Scientific Research Support Fund (SRSF), Ministry of Higher Education, Jordan. (50000 JOD).
* ECOsystem-Based Approaches for the Eastern Mediterranean basin: Reconciling WATER resource management with environmental and societal needs to enhance vulnerable communities (Eco-Water); submitted to ERANETMED2-MAY 2016; (794.000 Euros).
* Developing tools for SUstainable food PRoduction in mEditerranean area using MicrobEs (SUPREME); submitted to ERANETMED2-May 2016; (1,100.000 Euros). Approved.
* Formulation of alkali activated materials for civil engineering purposes by valorizing and inertizing local raw materials and waste (Alka-Waste); submitted to ERANETMED2-May 2016; (1,006,000 Euros).
* Pilot and Demonstration Project Capacity Building in Za’atari Refugee Camp by Implementing Sustainable Waste and Water Management, the total cost is 4.3 million Euro, DAAD (2016).
* Heavy metal and toxic element pollution in the urban soil of Mutah and Mazar area, Deanship of Scientific Research, Mu'tah University, 2016. (54000 JOD) Approved.
* Dead Sea Water Chemistry and Physical Parameters Stratification, 2017. Approved; APC (27000 JOD).
* Sustainability of the Dead Sea and Wadi Al-Mujeib Dam Real-time monitoring stations for Sea level, water quality and weather for two years’ period (2017 – 2019), Submitted to APC (27150 JOD).
* Toxic element (Cr, As & V) characterization within potential contaminated soils around steel

factory, Jordan, proposal submitted to **Elettra - Sincrotrone Trieste, Italy (2017).**

* Title of Proposal: enhancing Crop productivity under stressed cOnditions with a multi-tierApproaCH (COACH)/ PRIMA 2018 (2.24 Million Euro).
* Waste to positive Energy Wto(P)E. Coalition between German and Jordanian Universities, leaded by Rostock University. GIZ- supported scientific research project. 2018-2020. (1,000,000 Euro).
* Women Empowerment in the Southern Region of Jordan in Applied and Vocational Sciences. Submitted; KOICA; 2018 (6 Million US$).
* Establishment of Water Saving and Reuse program at Mutah University; Water Care International (WCI), 2018; (150000 JOD).
* Title of proposal: FTIR micro-spectroscopy of ancient bones samples collected form Roman-Egyptian ancient cemetery Continuous - In house (2018072892), CELLS - ALBA Synchrotron Carrer de la Llum 2-26 08290 CerdanyoladelVallès - Barcelona Spain.
* Title of proposal: FTIR Analysis of Human Bone-Cancer from Roman Age and the Byzantine Period in Jordan- (2018093119), CELLS – ALBA Synchrotron Carrer de la Llum 2-26 08290 CerdanyoladelVallès - Barcelona Spain.
* Title of Proposal: SUSTainable Agricultural NETwork (SUSTANET), COST (uNDER PREPARATIONS.
* H2020 (Submitted; 2019): **MEtal Recovery from MArIne muDs (MERMAID)**. Call SC5-09-2018-2019 New solutions for the sustainable production of raw materials, for the specific sub-topic c) Recovery of metals and minerals from sea resources.
* PRIMA (II) (2019: Using low-quality water to overcome water shortage and possible climate change (**LOUVER WATCH**), Submitted; budget (500000 Euro).

Workshops & Training Courses:

* Geochemical workshop “GEOCHIM’99”: The implications of geochemical methods in exploration and environment. Czech Republic, Prague. 1999.
* JICA Advanced Training Course in “The Evaluation System of National Research & Development Projects”, Tokyo, 2005.
* Jordan representative in Re-Union Conference of MONBUSHO graduates; Tokyo 11-17/2007.
* International Workshop: Water, wastewater and the environment – Urgent issues for sustainability. Technical University of Braunschweig, Germany (26, Oct. 2009 – 6, Nov. 2009).
* Special training course How to Write a Successful Research Proposal HCST; Amman- 2009.
* International Atomic Energy Agency Fellowship, July – 2011, Training in the field of Accelerators and applications.
* PANalytical & ProLab Systems 2 days XRF & XRD Workshop, April 16-17, 2012, Jeddah, KSA.
* Naizak/Thermo Seminar, Advanced instrumentation & applications by THERMO Scientific in Elemental analysis by Spectroscopy & X-Ray Technology: AAS, ICP, ICP-MS, XRF & XRD. May 4, 2013, Al-Madinah, KSA.
* KIO oil shale Project in El-Lajjoun: Environmental and Social Impact Assessment session. Amman January 2006.
* Intensive course in Karst Hydrogeology at Franconia/ Neurnberg – Germany. Applied Geosciences Department, Friedrich-Alexander-Universität Erlangen-Nürnberg, 2007.
* Ecosystem sustainable design, organized by GIZ; Wadi Rum; Jordan; 13-14/4/2016.
* Introduction to Risk Planning and Management of Sewage Sludge in Jordan: 6-9/August 2017, Dana, Tafilah, Jordan.
* Training and Networking programme for young research administrators and managers- Open SESAME –H2020 programme. Cyprus - 2018.
* ALBA synchrotron facility, IR beamline application on cultural heritage materials. 20-23/7/2018.
* Intensive workshop in setting a Risk Management Plan of DISM project (Decentralized Integrated Sludge Management), Amman 8-10/January 2018.

**Committees:**

* Member of Prince Faisal center for Dead Sea Studies council, Mn’tah University, 2003.
* Member of organizing committee of the 8th Jordanian Geological conference, Amman, 2004
* Member of many internal committee of the faculty of science, Mu’tah University.
* Member of committee for establishing Applied Geology Department, Mu’tah, Univ. 2000.
* Member of the committee for establishing Dead Sea Study Center, Mu’tah, University, 2002
* Member of the editorial board of Furasn Mu’tah Magazine, Mu’tah University, 2003.
* Member of the Social and Sport committee, Faculty of Science, Mu’tah University, 2004.
* Member of the Student behavior committee, Faculty of Science, Mu’tah University, 2004.
* Member of the Water and Research Study Center Council, Mu’tah University, 2004.
* Chairman of organizing committee for the 4thJ.Conf.on Environment, Mu’tah Univ. 2007.
* Advisor for the scientific club, Deanship of Students Affairs, Mu’tah University, 2007/2008.
* Member of the National Reference Sample Materials (RSM) project, 2007- 2008.
* Coordinator of the First Scientific Week of the Faculty of Science/ Mu’tah Univ. May 2008.
* Member of the National Synchrotron Light Users since 2004.
* Member of Science Faculty council / Mu’tah University, 2008/2009.
* Member of the scientific committee of the International Conference on Materials in Jordan, 4-6 March 2009, German –Jordanian University.
* Member of the Second Scientific Week of the Faculty of Science/ Mu’tah Univ. May 2009.
* Member of Mu’tah University Council 2010/2011**.**
* Member organizing committee of the 10th International Jordanian Geological Conference and 7th International Symposium of Middle East Geology; Amman, April 3-5; 2010.
* Member of Prince Faisal center for Environment, Energy and Dead Sea Studies council, Mn’tah University, 2010/2011.
* Member of the Higher Student Behavior Committee, Mu'tah University, 2010/2011.
* Member of the organizing committee of the 2nd International conference on Materials in Jordan, 9-11, April 2011, German – Jordanian University.
* Member of the Fourth Scientific Week of the Faculty of Science/ Mu’tah Univ. May 2011.
* Editorial Board member of Jordanian Journal of Earth and Environmental Sciences (JJEES) (National Specialized Journal), 2011 – 2013.
* Member of the e-learning unit at the Faculty of Science/Taibah University. 2012
* Member of Curricula and Accreditation Committee/Faculty of Science/Taibah Univ. 2012
* Member of the Annual report committee the Faculty of Science/Taibah University. 2012
* Member of the Homepage updating committee/the Faculty of Science/Taibah Univ. 2012.
* Editorial Board member of Editorial Board member for the International Journal of Economic and Environment Geology, 2012.
* Advisor to Vice President for Graduate Studies and Scientific Research, Taibah Univ. KSA, 2012.
* Editor of the Environmental Security Section; Life & Security Magazine; Naif Arab University for Security Sciences. For the year 2013-2014.
* Member of Specialty Editorial Boardfor the (International Journal of Magnetism and Magnetic Materials) 2014.
* Lead Guest Editor to publish a special issue in The Scientific World Journal"Air Pollution: Causes, Effects, and Solutions."
* Head of Student's behavior committee, Faculty of Science; Mutah University, 2014/2015.
* Editorial Board member of Mutah Journal Llibuhuth wa Al-Dirasat (Natural Sciences), 2014 – 2015.
* Mutah University representative at the HCST & liaison for EU research programs. 2014/2015.
* Chairman of Scientific Research Committee, Department of Chemistry, Mutah University 2014 – 2015.
* Member of higher committee of faculty member court, Mu'tah University, 2014-2015.
* Member of organizing committee of the 11th International Conference Of Jordanian Geologists Association incorporating the 8th Middle East Geology Conference.
* Member of the higher committee for establishing Intellectual Property & Technology Transfer Office at Mu'tah University.
* Member of the internal committee for establishing Nanotechnology Research center, Faculty of Science; Mu'tah University, 2015.
* Member of the higher committee for establishing Technology Transfer & Intellectual Property Office at Mu'tah University, 2015.
* Member of the Higher Student Behavior Committee, Mu’tah University, 2015/2016.
* Editorial Board member of Mu'tah Journal Llibuhuthwa Al-Dirasat (Natural Sciences), 2015 – 2016.
* Director of Prince Faisal center for Environment, Energy and Dead Sea Researches, Mu’tah University, Sep. 2015.
* Member of Prince Faisal center for Environment, Energy and Dead Sea Studies council, Mu’tah University, 2015/2016.
* Member of steering committee for the Decentralized Integrated Sludge Management Project (DISM) 2016-2019.
* Member of the Steering committee for the Sustainable Environmental Strategy in Al-Karak Governorate, 2016.
* Member of the Basic Sciences Committee at the Scientific Research Support Fund (SRSF) – Ministry of Higher Education and Scientific Research - for the year 2106-2017.
* Member of the Encyclopedia of Jordanian Oil Shale Scientific Committee 2015.
* Member of Water & Environment Committee of Jordan Society for Scientific Research JSSR, 2016
* Member of the Higher Student Behavior Committee, Mu’tah University, 2016/2017.
* Editorial Board member of Mu'tah Journal Llibuhuthwa Al-Dirasat (Natural Sciences), 2016 – 2017.
* Member of steering committee of the Academic Development and Quality Assurance Center, Mutah university; 2016- 2018.
* Member of Scientific Research Council / Aqaba University of Technology; 2016-2017.
* Member of The scientific committee of the Jordanian Life Sciences Conference for Sustainable Development, April – 2017; Al-Al-Bayt University.
* Member of the organization committee of the Integrated Solid Waste Management workshop, Amman, November 2016.
* Member of the Risk Assessment Committee for Co-digestion sludge project.
* Head of Technical committee for establishing 5 Mega Watt solar Photovoltaic farm at Mutah University Compass.
* Head of Technical committee of Commercial 10 Mega Watt solar Photovoltaic farm project owned by Mutah University.
* Member of connection committee for the environmental advocating on Wadi Al-Karak, 2017.
* Member of higher Committee for Faculty Member Court, Mutah University, 2016/2017.
* Member of the Higher Student Behavior Committee, Mu’tah University, 2017/2018.
* Track Chair for Fractional Earth Science in the International Conference on Fractional Differentiation and its Applications, Amman - 2018.
* Head of the Synchrotron XRF research group, 2018.
* Head of the committee applying for the KOICA grant, 2018.
* Member of the organizing of the 5th IWA International Symposium on Water and Wastewater Technologies in Ancient Civilizations: Evolution of Technologies from Prehistory to Modern Times, will be held in Jordan 11-13 September, 2019.
* Member of Academic Selection Panel for the Chinese Geological University Scholarships.
* Head of General Safety committee – Faculty of Science – Mutah University, 2020/2021.

**Supervision, Refereeing& Evaluation:**

1. **Supervision of several Master student theses in Geological and Environmental Sciences.**
2. **Refereeing several Ph.D. & Master theses.**
3. **Referee for academic promotions for several regional universities.**
4. **Referee for several national and international journals:**
	* Environmental Earth Sciences (ENGE)- Elsevier
	* Environmental Geology- Elsevier
	* Journal of Environmental Engineering - Elsevier
	* Pedosphere- Elsevier
	* Journal of African Earth Sciences
	* International Journal of Earth Science (IJES)-Springer
	* Journal of Chemical Engineering and Materials Science (JCEMS)
	* Jordan Journal for Environmental and Earth Sciences (JJEES)-Jordan
	* Dirasat/ University of Jordan- Jordan
	* Abhath Al-Yarmouk/ Yarmouk University - Jordan
	* Mutah Journal for Pure Sciences/ Mutah university - Jordan
	* Taibah University Journal for Science/ Taibah University- KSA
	* International Journal of Economic and Environment Geology
	* Journal of Geochemical Exploration
	* Stochastic Environmental Research and Risk Assessment (SERR)
	* Ecotoxicology and Environmental Safety (EES)
	* International Journal of Magnetism and Magnetic Materials
	* International Journal of Agricultural Policy and Research
	* Desalination and Water Treatment
	* Jordan Journal of Physics
	* Arabian Journal Of Geosciences
	* Physics and Chemistry of the Earth
	* Archives of Agronomy and Soil Science.
	* Jordan Journal of Agricultural Sciences.
	* Climate Research
	* مجلة الدراسات الأمنية
	* Earth Sciences Research Journal
	* Oil Shale Journal
	* Jordan Journal of Engineering and Chemical Industries.
	* 2nd Euro-Mediterranean Conference for Environmental Integration (EMCEI-2), Souse – Tunisia.
5. **Evaluator for the following scientific grant agencies:**
	* Scientific Research Support Fund (SRSF)/Jordan
	* Kind Al-Hussein bin Talal University Scientific Research Fund.
	* Mutah University Scientific Research Deanship.
	* Yarmouk University Scientific Research Deanship.
	* Abdel Hameed Shouman Foundation Scientific Research Grant.
	* Higher Council for Science & Technology (HCST).
	* Deanship Of Scientific Research, King Abdelaziz University, KAU
	* Ministry of Higher Education 4th Conference. Makkah, KSA
	* Ministry of Higher Education 5th Conference. Riyadh, KSA.
	* Signified Researcher Award 2015, SRSF, MoHE, Jordan.
	* Deanship of Scientific Research, Al-Balqa Applied University
	* 5th IWA Symposium on Water and Wastewater Technologies in Ancient Civilizations

**Consultation:**

* + EL-LAJJUN OIL SHALE AREA-B: Feasibility study for the International Corporation for Natural Resources Investment (INCONRI); May 2011.
	+ Establishment of Multi-disciplinary master programs at Taibah University, Taibah University, Vice President for Graduate Studies and Scientific Research Office, 2013.
	+ Tourism Commission at Al-Madinah Al-Monawarah&Taibah University: Consultation regarding the establishment of volcanic garden at HaratRahat, East of Al-Madinah. 2012.
	+ Faculty For Factory (FFF) & Eshadah Mining Company: Consultation for choosing the suitable place for Carbonate factory at Al-Hisa Area, 2008.
	+ Faculty For Factory (FFF) &Eshadah Mining Company: Consultation about the usability of Al-Karak Tripoli as an additive for clinker in cement manufacturing.
	+ Rapid Environmental Appraisal for sludge co-digestion pilot project in Mutah WWTP/WAJ”. Project: Decentralized Integrated Sludge Management; (14.2483.7-001); GIZ-Jordan.
	+ Methane gas yield potential from Co-digestion of sewage sludge; Project: Decentralized Integrated Sludge Management; (14.2483.7-001); GIZ-Jordan.
	+ Geological and morphological study for Wadi Al-Karak area; Project organized and supported by GIZ and Prince Basmah Center of Al-Karak.
	+ Performing co-digestion experiments on prototype scale Part (A).”GIZ Decentralized Integrated Sludge Management Project (DISM): 14.2483.7.001; GIZ-Jordan.
	+ Extension co-digestion experiments on prototype scale Part (B). ”GIZ Decentralized Integrated Sludge Management Project (DISM): 14.2483.7.001; GIZ-Jordan.
	+ Performing Detailed Separation and Quantification of Food Waste at Mutah University Part (c). ”GIZ Decentralized Integrated Sludge Management Project (DISM): 14.2483.7.001; GIZ-Jordan.
	+ Dead Sea Brine Water Chemistry and Physical Parameters, Arab Potash Company, December 2017.
	+ Evaluation of socio-economic and environmental effects of wastewater at Al-Karak valley. Kalemat Al-Hayah for Sustainable Development, 2018.

**Research Interest:**

1. Geochemistry and genesis of ore deposits.
2. Geochemical Exploration
3. Archaeological Geochemistry.
4. Synchrotron light based soft X-rays application on Mineralogical and Geochemical studies.
5. Environmental Impact Assessment
6. Mineral chemistry of ore mineral phases.
7. Standard Reference Materials
8. Inorganic geochemistry of the Oil Shale.
9. K/T boundary geochemical and isotopic investigations.
10. PGE geochemistry particularly the black shale - hosted.
11. Environmental implication of the geochemical exploration methods.
12. Environmental purification design using natural materials.
13. Environmental Magnetism.
14. Lithium Geochemistry
15. Bio-gas generation by co-digestion process.
16. Solid wastes management researches.
17. Climate Change tracing and adaptation
18. Alkali activated materials
19. Dead Sea Water Stratification, and Sedimentation.
20. Brine Water Chemistry