



## Prof. Dr Hani M. K. Alnawafleh

Nationality: Jordanian

Date and place of birth: 1<sup>st</sup> of Jan. 1973, Wadi Musa, Petra - Jordan

---

### **Contact**

Phone: 00962 3 2179000 ext 7550.

Mobile: 00962 777 836323.

Fax: 00962 3 2179000 ext 7579.

email: [hanialnawafleh@ahu.edu.jo](mailto:hanialnawafleh@ahu.edu.jo) ; [hani1995@yahoo.com](mailto:hani1995@yahoo.com)

Uni. Website: [www.ahu.edu.jo](http://www.ahu.edu.jo)

### **Address for Correspondence**

Faculty of Engineering

Department of Mining and Mineral Engineering

Uni. PO.Box 20

Al-Hussein Bin Talal University

Postal Code 71111

Ma'an, Jordan

### **Education**

- **PhD in Mining Engineering/ Exploration and Mineral Processing.** Integrated PhD program (New Route) in Mining Engineering. School of Chemical, Environmental and Mining Engineering, the University of Nottingham, the United Kingdom, 2007. PhD Thesis Title: "Evaluation of the Geological Factors that Control the Formation of Maastrichtian Bituminous Rocks in Jordan".
- **B.Sc in Geology.** 1995. Department of Earth & Environmental Sciences, Yarmouk University, Jordan.
- **GSECE** (1991); **3PC** (1988). Ministry of Education, Jordan.

### **Professional Experiences**

- Full Professor in Exploration and Mineral Processing/Mining Engineering at Al-Hussein Bin Talal University, Ma'an – Jordan (July, 2017 – Now).
- Acting Dean of Engineering Faculty, Al-Hussein Bin Talal University – June, 2017 – August, 2017.
- Vice Dean of Engineering Faculty, Al-Hussein Bin Talal University – Started September, 2015 – September, 2017.
- Associate Professor in Exploration and Mineral Processing/Mining Engineering at Al-Hussein Bin Talal University, Ma'an – Jordan (July, 2013 – July, 2017 + One year Advancement in this rank).
- Associate Professor, Department of Natural Resources & Chemical Engineering – Mining Engineering and Geological Engineering. Tafila Technical University. 7 September, 2014 till 6 September 2015.
- Head of Mining and Mineral Engineering Department at Al-Hussein Bin Talal University, Ma'an – Jordan (September, 2010 – September, 2013).
- Assistant Professor in Exploration and Mineral Processing/Mining Engineering at Al-Hussein Bin Talal University, Ma'an – Jordan (July, 2007 – July, 2013).
- Lecturer in Mining Engineering at the Department of Mining and Mineral Engineering, Al-Hussein Bin Talal University, Ma'an – Jordan (Jan, 2007 – July, 2007).
- PhD Researcher, Teaching Assistant and Demonstrator at School of Chemical, Environmental and Mining Engineering, Nottingham University, UK. (Feb, 2002 – July, 2007).
- General Scientific Laboratories Supervisor & Teacher for Earth and Environmental Sciences, Geology, General Sciences, Physics, Biology and Chemistry. Ministry of Education, Aqaba and Ma'an Directorates, South Jordan. (August, 1996 – September, 2001).

## **Job Experiences & Committees**

- Sabbatical leave at Tafila Technical University, 7 September, 2014 till 6 September, 2015.
- Chairman of the Organizing Committee of Workshop Entitled "Jordan's Mining Sector and the Mining Profession Practice System". Held at Al-Hussein Bin Talal University. 06/03/2013.
- Member of the Organizing and Scientific Committee of the 6<sup>th</sup> Jordanian International Mining Conference (JIMC). Held by Jordan Engineers Association/ Mining, Geological and Petroleum Engineering Branch. 1- 3 November 2011. Amman, Jordan.
- Chairman of the Organizing Committee of Workshop Entitled "Safety in Engineering Establishments". Held at Al-Hussein Bin Talal University, 10/05/2011.
- Chairman of Radio Exploration Systems for Geophysics Session. Jordanian Russian Week for Communications Engineering and Its Applications. Held at Al-Hussein Bin Talal University, 27-31/03/2011. Ma'an, Jordan.
- Teaching and Instruction – Faculty of Engineering, Al-Hussein Bin Talal University.
- Scientific Research in the Field of Interest.
- Faculty of Engineering Website Supervisor, September, 2015 – September, 2017.
- Secretary for the Engineering Faculty Council (four academic sessions).
- Secretary for the Mining and Mineral Engineering Department Council (four academic sessions).
- Graduation Projects: Supervisor, Coordinator, and Organizer.
- Mining Engineering Students Fieldwork Supervision.
- Supervisor of Mining and Mineral Engineering Department Field Trips.
- **Department of Mining and Mineral Engineering committees:**
  - Lab Preparation and Equipment Selection and Specification Committee. Scientific and Social Committee. Lab Equipment Receiving Committee. Scientific Research Tender Receiving Committees. Employment Interview Committee.
- **Engineering Faculty Committees:**
  - Member of the Higher Education Committee at the FoE. Lab Supervisors and Technicians Employment Interview Committee. Engineering Faculty Strategic Plan Committee. Secretary of the Faculty Council. Accreditation and Study Plans Committee. Faculty Sabbatical Leave Committee. Faculty Members Upgrade Committee. Academic Proficiency Exam, Follow-up Committee. Incomplete Exam Committee. Social Committee. Scientific Committee. Problems Investigation Committee. Faculty Employment Committee. Faculty Lab Preparation and Equipment Selection, and Tender Preparation Committee (e.g. C.T#12/2011). Faculty Lab Accreditation Committee.
- **AHU University Committees:**
  - Member of the Higher Education Council 2018. Faculty Members Problems Investigation Committee. University Artesian Well Committee, head (Central Tender # 03/2007). AHU Employee Club Committee Member.

## **Training Courses and Social Activities**

- Reality of Mining Sector in Jordan: Facts and Figures. Oral Presentation. Organized by Jordan Engineers Association - Ma'an Branch. 15/11/2015.
- Geologic Tourism in Jordan - Training Course. (Three Sessions: 2010, 2011, 2013). Course is part of Tourism Guides Training Program offered by the Faculty of Archaeology, Tourism and Hotel Management at Al-Hussein Bin Talal University.
- Oil Shale in Jordan. Oral Presentation. Organized by Jordan Engineers Association - Ma'an Branch. 12/06/2012.
- Lectures in the Fields of Mining Engineering, Geology, Geologic Tourism, Archaeo-geology, and Environmental Protection.

## **Key Qualifications & Research Interest**

- Energy and Minerals: Exploration, Processing, Oil Shale and Industrial Minerals.
- Environmental Geochemistry.
- Solid Waste Management and Recycling.
- Geoarchaeology.
- Consultation in the Fields of Geology, Environment, and Mining Engineering.

## **Funded Projects**

- Recovery of Jordanian Shale Oil – Phase I: Solvent Extraction, Funded by AHU. PI-Investigator.
- Utilization of Oil Shale as a Source of Energy in Jordan; Direct Burning and Shale Oil Extraction Phase I. Funded by SRF. Co-Investigator.
- Developing a Solid Recycling System to Recover Valuable Materials from Electric and Electronic Waste (e-waste) Using Vibration. Funded by SRF. Co-Investigator.
- Impacts of Dust Sediments Accumulation on the Rock Cut Facades of Petra. Funded by AHU, Co-Investigator.
- The Effect of Ferruginous Aggregate and Kaolinite Filler on the Mechanical Properties of Concrete. Funded by King Abdullah II Fund for Development (KAJD). Supervised and Managed by KADDB.

## **Training Courses**

- Training courses at the University of Nottingham, UK: (Getting on your thesis and getting your work published, 2005/06. Introduction to Image Editing, 2003/04. Building a Bibliography, 2002/03. Power Point for Presentations, 2002/03. Planning Research and Time Management, 2002/03. Nature of PhD and Supervision, 2002/03. Excel Intermediate, 2002/03. Writing Successful Fellowship Applications, 2001/02. Analytical Instrumentation (SEM, XRD, XRF, ICP, GC, GC-MS, GC-IRMS, AAS & Coulometry). First Aid & Hazardous Acids. CELE English language insessional courses).
- Scanning Electron Microscopy (SEM). The Natural History Museum, London, UK. July-Sept, 2004.
- Intensive English Language Course. CELE, the University of Nottingham, UK. Sept-Dec, 2001.
- Teacher Training Courses. The Ministry of Education and the Education Directorate of Ma'an, Jordan. 1996/97, 1998/99, 1999/00.
- Computer Training Course (Dos and Windows). The Rosy Bird Cultural Centre, Wadi Musa, Jordan. March-April/1999.

## **Workshops & Conferences**

- The 8<sup>th</sup> Jordanian International Mining Conference. 19-21 September, 2017. Amman, Jordan.
- The 3<sup>rd</sup> Jordan International Oil Shale Symposium (3<sup>rd</sup> JIOSS) and the 36<sup>th</sup> Colorado School of Mines (36<sup>th</sup> CSM) Symposium: Converting Challenges into Opportunities in Oil Shale Industry. Dead Sea, Jordan. 21-22 November, 2016.
- One Day Workshop in Engineering. Organized by Jordan Engineers Association - Ma'an Branch. 25 November 2015.
- ICT Based Learning: Opportunities for Higher Education Learning and Teaching - HERE Seminar. 26-27 October 2015 – AHU, Petra, Jordan.
- The 7<sup>th</sup> Jordanian International Mining Conference. 21-23 October, 2014. Amman, Jordan.
- Jordan's Mining Sector and the Mining Profession Practice System. Held at Al-Hussein Bin Talal University, Ma'an, Jordan. 06 March 2013.
- Conducting an Integrated Risk Assessment for the Petra Development and Tourism Region. UNDP Jordan & Petra Development & Tourist Region Authority. Petra. 10 December 2012.
- The 32<sup>nd</sup> Oil Shale Symposium. Colorado School of Mines. Golden, Colorado, USA. 15-17 October 2012.
- One Day Workshop in Engineering. Organized by Jordan Engineers Association - Ma'an Branch. 12/06/2012.
- One Day Workshop on Geopolymers from Jordanian Raw Materials. Held at the University of Jordan, Amman, 27 March 2012.
- Man and the Deserts; Multidisciplinary Conference in Wadi Rum. 11-13 November 2011.
- The 6<sup>th</sup> Jordanian International Mining Conference. Amman, 1-3 November 2011.
- Safety in Engineering Establishments Workshop. Held at Al-Hussein Bin Talal University, 10/05/2011.
- The 10<sup>th</sup> International Conference of Jordanian Geologists Association in Association with the 7<sup>th</sup> International Symposium on Middle East Geology. Held at the University of Jordan, Amman, 3-5 April 2011.

- One Day Workshop on the German Project for Collaboration and Technology in the Field of Solid Waste Collection and Transportation in Jordan. Organized by Petra Region Authority. Held at Petra, 4/4/2011.
- Radio Exploration Systems for Geophysics. Jordanian Russian Week for Communications Engineering and Its Applications. Held at Al-Hussein Bin Talal University, 27-31/03/2011. Ma'an, Jordan.
- Piloting a Flash Floods Risk Management in Petra Region, Jordan. One Day Workshop Organized by Petra Region Authority. Held at Petra, 22/2/2011.
- The 7<sup>th</sup> International Conference on Science and Technology in Archaeology and Conservation & CIPA Workshop on Documentation and Conservation of Stone Deterioration in Heritage Places. Petra (Jordan), December 7 to 12, 2010.
- The 7<sup>th</sup> International Symposium on the Geology of the Eastern Mediterranean. Cukurova University, Adana, Turkey. 18<sup>th</sup>-22<sup>nd</sup> October 2010.
- Shell Oil shale Exploration in Jordan, Shell and the NRA Jordan, The NRA, Amman, Jordan. 23 June 2009.
- The International Conference on Materials in Jordan. Amman, Jordan. 4-6 March 2009.
- The 28<sup>th</sup> Oil Shale Symposium. Colorado School of Mines. Golden, Colorado, USA. 12-14 October 2008.
- The 4<sup>th</sup> Annual Conference of MIT's Learning International Networks Consortium (LINC), Technology Enabled Education: A Catalyst for Positive Change. Amman (Dead Sea), Jordan. 28-30 October 2007.
- Tentative Program of the Quarryscapes Technical Meeting and Steering Committee Meeting. CATHM, AHU, Wadi Musa, Petra - Jordan. 18-21 October 2007.
- The 5<sup>th</sup> Jordanian International Mining conference. Amman, 3 - 6 September 2007.
- Faculty for Factory, AHU - Ma'an, Jordan. 24 April 2007.
- BSRG Annual Meeting. Durham University, UK. 18-20<sup>th</sup> December 2005.
- Isotopes Studies of Palaeoclimate (IsoPAL-2) - Through Geological Time. Hosted by NERC, British Geological Survey, 23 November 2004.

### **Conference Papers & Abstracts**

- 1. Alnawafleh, H.;** Tarawneh, K.; Jordanidis, A.; Siavalas, G.; and Christanis, K. The Jordanian Sultani Oil shale: a geochemical and petrographic study. 13<sup>th</sup> International Congress of the Geological Society of Greece with the title: "Exploration & Exploitation of Mineral Resources". 5-8 September 2013. Chania , Crete. *Abstract Accepted (Oral Presentation)*.
- 2. Hani Alnawafleh;** Khalid Al-Tarawneh; Ali Ghannam; and Lutfi Abu-Sa'ad. Preliminary study of a newly discovered subsurface oil shale deposit in southern Jordan. 32<sup>nd</sup> Oil Shale Symposium. Colorado, USA. October 2012. *Abstract Accepted (Oral Presentation)*.
- 3. Fraige, F. Y., Al-Khatib, L. A., Alnawafleh, H. M.** Solvent Extraction of Jordanian Oil Shale, Kinetics and Thermodynamic study. 32<sup>nd</sup> Oil Shale Symposium. Colorado, USA. October 2012. *Abstract Accepted (Poster Presentation)*.
- 4. Khalid Tarawneh; Hani Alnawafleh;** Osama Shakkour; Jamal Dana. Exploration, Evaluation Investment Opportunities of Feldspar Ore in Jordan. *Annual of Mining and Geology "ST.IVAN RILSKI" - Sofia. Part I: Geology and Geophysics.* Bulgaria, Sofia. October 2012. *Abstract Submitted (Oral Presentation)*.
- 5. Fraige, F.Y., Al-Khatib, L.A., Alnawafleh, H.M., Dweirj, M.K., Al-Hwaiti, M., and Al-Khashman, O.,** 2012, Separation of Shredded E-waste Using Vibration, 4th e- Health and Environment Conference in the Middle East. 30th Jan - 2 Feb, 2012. Dubai, UAE. *Abstract Accepted (Oral Presentation)*.
- 6. Hani M. Alnawafleh;** Saad A. Twaissi; and Thomas R. Paradise. Geology, Environmental setting, and Natural Impacts on Petra and Wadi Rum, Southern Desert of Jordan. Man and the Deserts; Multidisciplinary Conference in Wadi Rum. 11-13 November 2011. *Abstract Submitted (Oral Presentation)*.
- 7. Alnawafleh, H.M.,** and Tarawneh, K.E. Investigation on Bituminous Dolomitic Limestone (Oil Shale) Horizon from Wadi Al-Bustan, Southern Jordan. The 6<sup>th</sup> Jordanian International Mining Conference, Amman. 1-3 November 2011. *Abstract submitted (Oral Presentation)*.

8. Al-Rawashdeh, R.O., and **Alnawafleh, H.M.** Why Do Oil and Mineral Resources Continue to be Mixed Blessings in the Middle East and North Africa (MENA) Region?. The 6<sup>th</sup> Jordanian International Mining Conference, Amman. 1-3 November 2011. *Abstract submitted (Oral Presentation)*.
9. Khalid Tarawneh, **H. Alnawafleh**, M. Harahsheh, S. Shreideh, N. Radaideh, Kh. Moumani, B. Tarawneh, M. Abdelghafoor. Characterization of the Ferruginous Sandstone in Batn Al Ghul area/south Jordan. The 6<sup>th</sup> Jordanian International Mining Conference, Amman. 1-3 November 2011. *Abstract submitted (Oral Presentation)*.
10. Feras Fraige, Laila Al-Khatib, **Hani Alnawafleh**, Mohammad Dweirj. E-waste Separation Using Mechanical Vibration. The 6<sup>th</sup> Jordanian International Mining Conference, Amman. 1-3 November 2011. *Abstract submitted (Oral Presentation)*.
11. **Hani M. Alnawafleh** and Feras Y. Fraige. Characterization and Shale Oil Yield Evaluation of Jordanian Oil Shales. 31<sup>st</sup> Oil Shale Symposium. Colorado, USA. October 2011. *Abstract Accepted (Poster Presentation)*.
12. **Hani M. Alnawafleh**; Feras Y. Fraige; Mohd K. Dwerij. Solvation Variability of Jordanian Oil Shales. 31<sup>st</sup> Oil Shale Symposium. Colorado, USA. October 2011. *Abstract Accepted (Oral Presentation)*.
13. Khalid Tarawneh, **Hani Alnawafleh**, Mohamed Harahsheh, Nazem Radaideh, Saeb Shreideh, Khalid Moumani, Bassam Tarawneh, Muhammad Abdelghafoor. Mineralogy, Geochemistry and Genesis of the Ferruginous Sandstones in Batn Al Ghul Area/South Jordan. International scientific session 19-20 Oct 2011. University of Mining and Geology. Sofia, Bulgaria. *Abstract Accepted (Oral Presentation)*.
14. **Hani M Alnawafleh** and Khalid E Tarawneh. Overview on the Geology of Petra Region. The 10<sup>th</sup> International Conference of Jordanian Geologists Association in Association with the 7<sup>th</sup> International Symposium on Middle East Geology. Held at the University of Jordan, Amman, 3-5 April 2011. *Abstract Accepted (Oral Presentation)*.
15. **Hani Alnawafleh**; Saad Twaissi; and Thomas Paradise. Identifying New Threats Facing the World Heritage Site of Petra, Jordan. 7<sup>th</sup> International Conference on Science and Technology in Archaeology and Conservation. Petra, Jordan. 7 - 12 December 2010. *Abstract Accepted (Oral Presentation)*.
16. Khalid Tarawneh; **Hani Alnawafleh**; Khalid Moumani; Mohamed Harahsheh; Bassam Tarawneh; and Mohammad Abdelghafour. Mineralogy, Geochemistry and Genesis of The Ferruginous Sandstone in Batn Al Ghul Area/Southern Jordan. 7<sup>th</sup> International Symposium On Eastern Mediterranean Geology. Adana, Turkey. *Abstract Accepted (Oral Presentation)*.
17. Fraige, F. Y., Al-Khatib, L. A., Dweirj, M. K., **Alnawafleh, H. M.**, Langston, P.A.. E-waste Assessment in the Arab Region. The 4<sup>th</sup> International Environmental Conference. 28 - 29 October 2009. Mansoura University. *Abstract Accepted (Oral Presentation)*.
18. **Alnawafleh, H.M.**, Houry, H., Large, D., Spiro, B., Tarawneh, K. Characterization of Jordanian Oil Shale from Khushaeym Matrouk Area, Central-east Jordan. 29<sup>th</sup> Oil Shale Symposium. Colorado, USA. *Abstract Submitted (Oral Presentation)*.
19. **Alnawafleh, H. M.**, Large, D., Spiro, B., Fraige, F. Assessment of the Level of Maturity of Jordanian Oil Shale Using Simple Organochemical Markers. 29<sup>th</sup> Oil Shale Symposium. Colorado, USA. *Abstract Submitted (Oral Presentation)*.
20. **Alnawafleh, H. M.**, Al-Hwaiti, M. Geochemical and Geomathematical Studies on El-Lajjun Oil Shale Deposit and Its Environmental Impacts, Central Jordan. 29<sup>th</sup> Oil Shale Symposium. Colorado, USA. *Abstract Submitted (Oral Presentation)*.
21. **Alnawafleh, H.M.**, Tarawneh, K.A., Houry, H.N. Bituminous Rocks (Oil Shales) in Jordan. The International Conference on Materials in Jordan. Amman, Jordan. 4-6 March 2009. *Abstract Accepted (Oral Presentation)*.
22. **Alnawafleh, H.M.**, Large, D.J., Spiro, B. Thickness, Compositional and Textural Variability, and Genesis of El-Lajjun Oil Shale, Central Jordan. 28<sup>th</sup> Oil Shale Symposium. Colorado, 14 October 2008. *Abstract Accepted (Oral Presentation)*.
23. Fraige, F., **Alnawafleh, H.M.**, Al-Khatib, L., Dweirj, M. Variability of Jordanian Oil Shale and Processing Technologies. 28<sup>th</sup> Oil Shale Symposium. Colorado, 13-14 October 2008. *Abstract Accepted (Poster Presentation)*.

24. Al-Harashsheh, M., Kingman, S., Abdurrahman, S., Robinson, J., Dimitrakakis, G., **Alnawafleh, H.M.** Dielectric Properties of Jordanian Oil Shales. 28<sup>th</sup> Oil Shale Symposium. Colorado, 14 October 2008. *Abstract Accepted (Oral Presentation)*.
25. **Alnawafleh, H.M.**, Large, D.J., Spiro, B. Control on the Formation of Bituminous Limestone (Oil Shale) Succession from El-Lajjun Basin, Central Jordan. The 5<sup>th</sup> Jordanian International Mining Conference, Amman, September 2007. *Abstract Accepted (Oral Presentation)*.
26. **Alnawafleh, H.M.**, Large, D.J., Spiro, B. and Somerfield, C. Controls on the concentration of organic matter in bituminous limestones from the El-Lajjun Basin, Central Jordan. BSRG Annual Meeting, Durham, December 2005. *Abstract Accepted (Poster Presentation)*.

## **Journal Papers**

### **Published Papers:**

1. **Hani M. Alnawafleh** (2018) The Geology of Petra Region. *Al-Hussein Bin Talal University's Journal for Research and Studies*. Vol. 4. NO. 1. Pp. 196-233. *(In Arabic)*.
2. Awwad H. Titi, **Hani M. Alnawafleh**, Mohammad K. Dweirj, Rami Alrawashdeh (2018) Royalty of Using Jordanian Oil Shale as an Alternative Fuel in Cement Industry. *The Jordan Journal of Earth and Environmental Sciences (JJEES)*. Vol. 9. NO 1. Pp. 57-61.
3. Al-Khashman, O.A., **Alnawafleh, H.M.**, Abu Jrai, A.M. and Al-Muhtaseb, A.H. (2017) Monitoring and Assessing of Spring Water Quality in Southwestern Basin of Jordan. *Open Journal of Modern Hydrology*, 7, 331-349. <https://doi.org/10.4236/ojmh.2017.74019>
4. Dweirj, M., Fraige, F., **Alnawafleh, H.** and Titi, A. (2017) Geotechnical Characterization of Jordanian Limestone. *Geomaterials*, 7, 1-12. <http://dx.doi.org/10.4236/gm.2017.7100>
5. **Hani Alnawafleh**, Khalid Tarawneh, George Siavalas, Kimon Christanis, Andreas Iordanidis (2016) Geochemistry and Organic Petrography of Jordanian Sultani Oil Shale. *Open Journal of Geology*. Vol. 6. Pp 1209-1220. <http://dx.doi.org/10.4236/ojg.2016.610089>
6. **Alnawafleh, H.M.**, Al-Harashsheh, M.S., Adnan M. Al-Harashsheh, A.M. (2016) Leachability of Oil Shale Ash from Isfir Al-Mahata Oil Shale, Southern Jordan. *Journal of Minerals and Materials Characterization and Engineering*. Vol 4. Pp 292-303. <http://dx.doi.org/10.4236/jmmce.2016.45026>
7. **Alnawafleh, H.M.**, Fraige, F.Y., Tarawneh, K.E., Sarairah, I.A. and Al-Khatib, L.A. (2016) Fractional Yield, Extract Composition and Variability from Jordanian Oil Shales. *Journal of Analytical Sciences, Methods and Instrumentation*. Vol.6 No.3. Pp 51-63. <http://dx.doi.org/10.4236/jasmi.2016.63007>
8. Khalid Tarawneh, Ibrahim Rabba, Mohammad Nawasreh, Khalil Ibrahim, **Hani Al Nawafleh**. 2016. Characterization Of Zeolitic Tuff From Northeast Jordan Using Boreholes Data. *Annual Of The University Of Mining And Geology "ST. IVAN RILSKI"*, Vol. 59, Part I, *Geology and Geophysics*. Pp 105-111.
9. **Hani M. Alnawafleh**; Khalid E. Tarawneh, Hani N. Khoury; Nafeth A. Abdelhadi; Osama Y. Shakkoury, Reyad A. Dwairi, and Mazen N. Amaireh. 2015. Dolomitization in Campanian Oil Shale Rocks from South-western Jordan. *Open Journal of Geology*. Vol. 5. Pp 689-700. <http://dx.doi.org/10.4236/ojg.2015.510061>
10. **Alnawafleh, H.M.** and Fraige, F.Y. (2015) Shale Oil Solvent Extraction of Central Jordan El-Lajjun Oil Shale. *Journal of Analytical Sciences, Methods and Instrumentation*, 5, 35-43. <http://dx.doi.org/10.4236/jasmi.2015.53004>
11. **Alnawafleh, H.M.** and Fraige, F.Y. 2015. Analysis of Selected Oil Shale Samples from El-Lajjun, Central Jordan. *Geomaterials*, 5, 77-84. <http://dx.doi.org/10.4236/gm.2015.53008>
12. **Hani Alnawafleh**, Khaled Tarawneh, Khalil Ibrahim, Khitam Zghoul, Awad Titi, Rami Rawashdeh, Khaled Moumani, Ahmad Masri. 2015. Characterization and Origin of the Miocene Mudawwara-Quwayra Basaltic Dike, Southern Jordan. *International Journal of Geosciences*. Vol. 6, 869-881. <http://dx.doi.org/10.4236/ijg.2015.68071>
13. **Hani M. Alnawafleh**, Feras Y. Fraige, Laila A. Al-khatib, Mohammad K. Dweirj. 2015. Jordanian Oil Shales: Variability, Processing Technologies, and Utilization Options. *Journal of Energy and Natural Resources*. Vol 4(4): 52-55. <http://dx.doi.org/10.11648/j.jenr.20150404.11>

14. Al-Thyabat, S.; Al-Zoubi, E.; **Alnawafleh, H.**; and Al-Tarawneh, K. (2014). Beneficiation of Oil Shale by Froth Flotation: Critical Review. *The Open Mineral Processing Journal*. Vol. 7, Pp1-12. <http://dx.doi.org/10.2174/1874841401407010001>
15. Saeb Al- Shereideh, Walid Saqqa, Nazem El-Radaideh, Khalid Tarawneh and **Hani Alnawafleh**. (2013). Calcitization and Bulk Chemistry of Phosphate Grains from the Upper Part of Amman Formation, Southeast Irbid, Jordan. *Journal of Geography and Geology*. Vol. 5 (4). Pp 16-28. <http://dx.doi.org/10.5539/jgg.v5n4p16>
16. Rami Al-Rawashdeh, **Hani Al-Nawafleh**, Mohammad Al-Shboul. (2013). Understanding oil and mineral resources in a political economy context: the case of the Middle East and North Africa (MENA). *Mineral Economics*. Vol 26. No 1-2. Pp 13-28. Available at: <http://dx.doi.org/10.1007/s13563-013-0035-3>
17. **Hani Alnawafleh**; Khalid Tarawneh; and Rami Rawashdeh. (2013). Geologic and Economic Potentials of Minerals and Industrial Rocks in Jordan. *Natural Science*. Vol 5. No 6. Pp. 756-769. <http://dx.doi.org/10.4236/ns.2013.56092>
18. **Hani Alnawafleh**, Khaled Tarawneh, Ali Ghannam, and Lutfi Abu-Sa'ad. (2013). Isfir Al-Mahata: A Newly Discovered Subsurface Oil Shale Deposit in Southern Jordan. *the Journal of Geography and Geology*. Vol 5, No. 3. Pp 12-21. <http://dx.doi.org/10.5539/jgg.v5n3p12>
19. **Hani M. Alnawafleh**; Feras Y. Fraige. Characterization of South and Central Jordan Oil Shales. (2013). *the European Journal of Scientific Research*. Vol. 102 Issue 4. 2013. Pp 589-595.
20. Khalid Tarawneh; **Hani Alnawafleh**; Osama Shakkour; Jamal Dana. (2012). Exploration, Evaluation Investment Opportunities of Feldspar Ore in Jordan. *Annual of the University of Mining And Geology*. "ST. IVAN RILSKI", Vol. 55, Part I, Geology and Geophysics. Pp 80-86.
21. Fraige, F. Y., Al-Khatib, L. A., **Alnawafleh, H. M.**, Dweirj, M. K., Langston, P.A. (2012). Waste Electric and Electronic Equipment in Jordan – Willingness and Generation Rates. *Journal of Environmental Planning and Management*. Vol. 55, No. 2, pp161-175. <http://dx.doi.org/10.1080/09640568.2011.586492>
22. Shqiarat, M.; Abudanh, F.; **Alnawafleh, H.M.** (2011). The Chemical Composition and Manufacturing Technology of Pottery Types at Udhruh, Southern Jordan. *Mediterranean Archaeology & Archaeometry*. Vol. 11, No. 2, pp. 99-106. ISSN 1108-9628.
23. Khalid Tarawneh; **Hani Alnawafleh**; Mohamed Harahsheh; Nazem Radaideh; ; Saeb Shreideh Khalid Moumani; Bassam Tarawneh; and Muhammad Abdelghafoor. (2011). Mineralogy, Geochemistry and Genesis of the Ferruginous Sandstone in Batn Al Ghul Area, Southern Jordan. *Annual of Mining and Geology "ST.IVAN RILSKI" – Sofia. Part I: Geology and Geophysics*. Vol. 54. Pp. 89-94.
24. **Hani M. Alnawafleh** (2011) Geology of Petra District – General Overview [*in Arabic*]. In "The Princess Basma Bint Talal encyclopaedia for Intangible Cultural Heritgae". Al-Hussein Bin Talal University. *The Princess Basma Bint Talal Center for Intangible Cultural Heritgae*. Petra, Jordan.
25. Saeb Shreideh; Khalid Tarawneh; **Hani Alnawafleh**; Nazem Radaideh; and Khaled Moumani. (2010). Geology and Mineralogy of Jabal Kabid Phosphorite Deposits, Southeastern Jordan. *Jordan Journal of Earth and Environmental Sciences (JJEES)*. Vol. 3. NO 2. Pp 99-110.
26. Al-Harahsheh, M., Kingman, S., Abdurrahman, S., Robinson, J., **Alnawafleh, H. M.** (2009). Dielectric Properties of Jordanian oil Shales. *Fuel Processing Technology*. Vol. 90, no 10, pp. 1259-1264. <http://dx.doi.org/10.1016/j.fuproc.2009.06.012>

#### **Submitted Papers:**

1. Mansour Shqiarat, **Hani Alnawafleh**, Fawzi Abudanh. CHARACTERIZATION AND PROVENANCE STUDY OF MARBLE FROM UDHRUH, SOUTHERN JORDAN. Paper submitted to MEDITERRANEAN ARCHAEOLOGY AND ARCHAEOOMETRY.

#### **Promotions, Achievements & Prizes**

- Mining Engineering Graduation projects Supervision Prizes offered by Jordan Engineers Association:

- ◆ Season 2010.



- ◆ Season 2012.
- ◆ Season 2014.
- PhD scholarship in Mining Engineering, 2001. Offered by Al-Hussein Bin Talal University.

### **Memberships & Associations**

- AAPG, USA, 2005-7.
- The Geologists Association, UK, 2005-2007.
- The Nabatean Centre for Archaeological Studies, Petra, 2007.
- Jordan Geologists Association, Amman, since March 1995 – Now.
- Jordan Engineers Association, Amman, since January 2009 - Now.

### **Teaching Fields & Interest**

- Mining Engineering: Processing, Exploration, Geotechnics, Methods & Transportation.
- Geoarchaeology & Geology.
- Environmental Engineering.

### **Courses Taught**

• **Courses Taught at Al-Hussein Bin Talal University (AHU):** Mineral Exploration, Mineral Processing I (Mineral Beneficiation), Mineral Processing II (Extractive Metallurgy), Mineral Processing Lab., Unit Operation Lab., Mine Transport and Material Handling, Mining Methods, Surface Mining, Rock Mechanics Lab., Mine Environmental Engineering, Introductory Mining Engineering, Engineering Geology, Engineering Geology Lab. & Geological Maps Interpretation, Ore Geology (Economic Geology), Structural Geology and Geology of Jordan, Introductory Geology, General Geology (eqv. Geo 101, Geo 102), Geo-Archaeology, Industrial Minerals in Jordan, Special Topics in Mining (various subjects), Introductory Engineering, Mineralogy, Mineralogy Lab., Geotechnical Engineering Lab., Oil Shale Mining & Processing Technology, in addition to Geologic Tourism in Jordan.

• **Courses supervised at AHU:** Engineering Workshop, Field Training, Strength of Material Lab, Graduation Projects (I, II), and Field Practical Training.

• **Courses Taught at Tafila Technical University (TTU):** Mining Geology, Site Investigation, Mineral Resources: Exploration & Evaluation, Rock and Soil Mechanics Lab, Mining Elements, Mineral Processing 2, Mineral Resources Evaluation, Industrial Minerals, Mineral Extraction, and Mineral Industries.

• **Other Courses:** I am able to teach many other courses in the field of Mining Engineering, Mineral Engineering, Environmental Engineering, Geology, Geo-Archaeology, and Environmental Sciences.

### **Computer Skills**

- Microsoft Software: MS Office, PowerPoint and others.
- Geological and GIS Software.
- Statistical & Graphical Software: e.g. Surfer, SigmaPlot, Paint Shop Pro, Adobe Photoshop among many others.
- Network Professions: Internet and e-mail.

### **References**

- Dr David J Large, Faculty of Engineering, the University of Nottingham, UK.
- Prof. Thomas R. Paradise. Department of Geosciences, University of Arkansas, USA.
- Prof. Hani Houry, Geology Department, Jordan University. Amman, Jordan.
- Prof. Khalid Tarawneh, Faculty of Engineering, Al-Hussein Bin Talal University.