

Curriculum Vitae



Name : Ghaleb H. Jarrar
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Webpages:

- Google scholar

https://scholar.google.com/citations?hl=en&user=7ATINToAAAAJ&view_op=list_works&sortby=pubdate

- Researchgate

https://www.researchgate.net/profile/Ghaleb_Jarrar

- Scopus

<https://www.scopus.com/authid/detail.uri?authorId=6603047818>

Place & date of birth: Al-Hashimiyya –Jenin, West bank of Jordan,
August 25, 1954

Nationality: Jordanian.
Marital Status: Married.
Position: Faculty member

Specialization: Petrologist, Geochemist, and Geochronologist.

University Education :

B. Sc. in Geosciences, The University of Jordan, June 1977
M. Sc. in Geosciences, The University of Jordan, August 1979
(Dr. rer. Nat.) in Geosciences
Technische Universität zu Braunschweig,
Federal Republic of Germany, October, 1984

Employment:

- Professor at The University of Jordan, April 2002-present
- Associate Professor at The University of Jordan, June 1992-March 2002.
- Assistant Professor at The University of Jordan, September 1985 -May 1992
- Full-time lecturer, The University of Jordan, April 1985 - September 1985

Administration:

- Vice-Dean for School of Science, February-August 2022.
- Head of Department
 - Sept. 2016-Feb 2022
 - Jan 2003-Sept 2005
 - Sept 1997/Sept 1998
- Vice-Dean for Scientific Research, Sept. 2014-Sept. 2015
- Vice- Dean for Science, Engineering and Medical Faculties,
Faculty of Graduate Studies, Dec 2009 - Sept 2011

Scholarships and Fellowships:

- Deutscher Akademischer Austausch Dienst (DAAD)
 - PhD scholarship (Oct. 79 - Oct. 84) including 6 months German language courses
 - short-term scholarship (June - August 1988) Universitaet Muenster
 - short-term scholarship (June - August 1991) TU Braunschweig
 - short-term scholarship (June- August 1994)
 - short-term scholarship (June-August 1998)
 - short-term scholarship (July -September 2002)

- short-term scholarship (July-September 2006)
- short-term scholarship (June-July 2010)
- Deutsche Forschungs Gemeinschaft (DFG)
 - Short research visit July-August 2011
at Johannes Gutenberg University, Mainz, Germany
- Fulbright Fellowships:
 1. Fulbright Scholar at the Geosciences Department, University of Texas at Dallas, USA. October 1998 – July 1999
 2. **Fulbright Scholar at** Jackson School Geosciences, UT at Austin, Texas, USA November 2011-July 2012.

Attended Scientific Meetings and Workshops

1. 61 Jahrestagung der Deutschen Mineralogischen Gesellschaft und der Tagung der Socie'te Francaise de Mineralogie et de Cristallographie, in Münster / Germany, Sept. 1983
2. The first Jordanian geol. conf., Amman, September, 1982
3. The second Jordanian geol. conf., Amman, April, 1985
4. The third Jordanian geol. conf., Amman, April, 1988
5. A seminar on the Geodynamics of the Arabian plate, organized by the Dept. of Earth and Environment Sciences, Yarmouk University, August 1991.
6. The second International conf. on the Geology of the Arab World, Cairo 22-26th Jan. 1994. *presentation*
7. The fifth Jordanian Geological conference and the second meeting on the geology of the Middle East Geocom II, Amman, 3-5th Oct. 1994. *presentation*
8. The third Jordanian science week "The Earth resources towards a strategy of a better exploitation" Amman, 26-31, August 1995. *session chairman*
9. The third international conference on the Geology of the Arab World, Feb. 27-March 1, 1996, Cairo. *Presentation*
10. Fall meeting of the American Geophysical Union, convened in San Francisco, on December 6-10, 1998. *Poster*
11. The 33rd Annual Meeting of the Geological Society of America, South-Central section, in Lubbock, Texas, on March 15-16, 1999. *Poster*
12. The Fulbright Visiting Scholar Conference " The Global Environment : Challenges for the Future" held in Washington D.C., on March 24-27, 1999, sponsored by the USIA and administrated by the CIES. *discussions*
13. The Fall 2000 Meeting of the Geological Society of America, Reno, Nevada, USA; November 9-17, 2000. *presentation*

14. The Margins Red Sea/Gulf of Suez Education and Planning Workshop (March 17-23, 2001) organized by Margins office at Lamont-Doherty Earth Observatory, Columbia University, Palisades, New York. *presentation and discussions*
 15. The Seventh Jordanian Geologic Conference, April 2001, Amman. *presentation*
 16. The 8th Jordanian Geologic Conference, April 2004, Amman, Presentation.

 17. The organization of special session on the Neoproterozoic evolution of the Arabian-Nubian Shield at the 32nd International Geological Congress in Florence, Italy, August 2004 and a *presentation* on “the metamorphic evolution of Arabian-Nubian Shield in south Jordan” together with H. Khoury and Thomas Theye (Stuttgart Univeristy, Institut fuer Mineralogie.

 18. The Eastern Desert of Egypt Workshop (February 17-24, 2007) organized by Victoria Pease and Osama Kassem.
 19. The Goldschmidt Meeting 2007, August 17-24 in Colgne, Germany. The role of crustal assimilation and fractional crystallization in the generation of a hybrid composite dikes suite in the Arabian-Nubian Shield, SW Jordan.
 20. The JEBEL Workshop in the Sinai Peninsula, Egypt. October 24-30, 2008.
 21. The JEBEL-SGS (Saudi Geological Survey) workshop in Saudi Arabia. October 24-30, 2009.
 22. The JEBEL Workshop 15th – 19th October 2010 in the Eastern Desert of Egypt.
 23. The JEBEL Workshop 23rd -28th October 2011 in southwest Jordan.
 24. International Conference on the Geology of the Arabian Plate and the Oman Mountains, 7-9 January 2012; *two presentations*
 25. GSA South-Central Section Meeting .8-9 March, 2012. *Presentation.*
 26. Fulbright Regional Scholar Enrichment Seminar Diversity – A Chicago Work in Progress March 28-31, 2012 .**The Allerton Hotel, Chicago, Illinois**

 27. The JEBEL-SGS (Saudi Geological Survey) workshop in Saudi Arabia. November 4-11, 2012.
- *JEBEL stands for **J**ordanian **E**gyptian **B**asement **E**volution
and here is the link:
<http://www.jebel.geo.su.se/>
28. 25th Goldschmidt Conference in Prague, Czech Republic, August 22th – 24th, 2015.
 29. Field workshop, Eastern Desert of Egypt, February, 2016.
 30. 35th International Geological Congress, September 5-9th, 2016, Cape town, South Africa.
 31. 29th Goldschmidt Conference in Barcelona, August 13th – 23th, 2019.
 32. International Conference on Ophiolites and the Oceanic Lithosphere: Results of the Oman Drilling Project and Related Research 12-14th January, 2020, Sultan Qaboos University, Muscat, Sultanate of Oman

Memberships in Professional Associations:

- ◆ A member of the Jordanian Geological Association
- ◆ A member of the Mineralogical Society of America
- ◆ A member of the Geological Society of America
- ◆ A member of the European Association of Geochemistry
- ◆ A member of the editorial board of the Jordanian Journal for Earth and Environmental Sciences
<http://www.jjees.hu.edu.jo/>

- ◆ Acted as a reviewer for many manuscripts in the Journal of African Earth Sciences, International Journal of Earth Sciences, Precambrian Research, Lithos, Arabian Journal of Geosciences, Geological Magazine in addition to articles in local Journals.
- ◆ Acted as guest editor for Precambrian Research and currently acting as a guest editor for a special issue in Journal of African Earth Sciences.
- ◆ Scientific Research Fund and Innovation, Ministry of Higher Education, 2017-2020.

Teaching:

Undergraduate courses (B.Sc.-level):

- General geology
- Petrology
- Mineralogy
- Igneous and metamorphic petrology
- Principles of geochemistry
- Environmental isotopes.

Graduate courses (M.Sc. and Ph.D. levels):

- Igneous petrology
- Igneous and metamorphic petrology
- Geochemistry
- Mineralogy
- Isotope geochemistry

Supervision of M.Sc. Students

1. Dina Abduljaber (1989): Petrology and geochemistry of the Quaternary basalts of Wadi Al-Mujib and Wadi Al-Heidan, Central Jordan.
2. Najel Abdullah (1989): Geology, geochemistry and petrology of the Precambrian rocks of Wadi Rahma (Darba), Wadi Araba, SW Jordan.

3. Mahmoud Hassuneh (1994): The petrology and geochemistry of Janub metamorphic suite, S-Jordan.
4. Amjad Abu-Hilal (1995): The genesis of the Qunaia monzodiorite and its associated megaphorphyry.
5. Muna El-Hilue (1995): The geochemistry and petrogenesis of the Humrat Granite (A-type granite), in the Quweira area, NE of Aqaba.
6. Suha El-Dajani (1995) :The petrology and geochemistry of El-Suchna Nepheline basanite, Central Jordan.
7. Mahmoud Hboush (1996): Al-Muhtadi quartz diorite and its enclaves: Petrography, geochemistry and petrogenesis.
8. Khaled Sha'aban (1996): Rahma Synplutonic diorite dikes: Geology, petrography and geochemistry.
9. Dhirar Maso'ud (1996): Ferric/ferrous ratios of biotite and garnet from the andalusite-staurolite and sillimanite zones and their implications on thermobarometric evaluations (In Arabic).
10. Hashem Al-Zu'bi (1996, co-supervisor):Geology, Petrology and geochemistry of the granitoids of Wadi es-Sabil area, southwest Jordan.
11. Mustafa H. Berjawi 1998. Geochemistry and mineralogy of the radioactive elements in the Cambrian sandstone, Ain Al-Hashim, South Jordan.
12. Ayman Abu Eid (2003): Water quality and the environmental status of Wadi Al-Fari'a area/ Nablus / Palestinian Authority.
13. Hind Abdul Qader Ghanem (2009): Petrology, Geochemistry, and thermobarometry of the contact metamorphic aureole in the Saramuj Conglomerate, Southeast Dead Sea, Jordan
14. Rasha Al Zubi, 2015. A suite of upper mantle and lower crustal xenoliths from Harrat ash Shaam NE- Jordan: Mineralogy, geochemistry, and petrogenesis. MSc thesis.
15. Mohamad Al Omari, 2015. Geochemistry and petrogenesis of Ediacaran dikes swarms in the area of Quweira, NE Jordan. M.Sc. Thesis.
16. Mohammad K Al Khawaldeh (2016): Mineralogy, Petrology and geochemistry of the Aheimir volcanic suite in Wadi Qeseib and Wadi Abu-Sakakin, Central Wadi Araba, SW Jordan.

Supervision of Ph.D students:

1. Mahmoud Haboush (2004): The metasediments of the Janub Metamorphic Suite: Their geochemistry, petrogenesis and economic potential with special emphasis on the opaque minerals.
2. Ibrahim Bany Yaseen (2009): (co-supervisor): Geochemistry, Mineralogy, and Petrology of the Calc-alkaline granitoids of Wadi Huwar area, SW Jordan and their economic potential.
3. Reema Moshtaha (2012): Age, Petrogenesis, and Tectonic Setting of the Humrat-Feinan Suite of the Araba Complex, in the northernmost segment of the Arabian-Nubian Shield in SW Jordan.

4. Ali Ben Sireh, (2018): Petrogenesis , Geochemistry, and Geochronology of granitic and granodioritic suites of the Aqaba Complex , southern Jordan ; constraints from U-Pb zircon ages.

A member of selected examining committees of 30 M.Sc. and Ph.D. students at the Department of Geology.

- Al-Hawari, Z. (1986): Clay minerals associated with the Jordanian phosphates and their possible industrial utilization
- Ibrahim, Kh. (1987): Geochemistry and petrology of some of the basaltic outcrops in central Jordan
- Salameh, S. (1987): Petrology and geochemistry of the dike swarm in wadi Turban, south Jordan
- Dina Abduljaber (1989): Petrology and geochemistry of the Quaternary basalts of Wadi Al-Mujib and Wadi Al-Heidan, Central Jordan
- Najel Abdullah (1989): Geology, geochemistry and petrology of the Precambrian rocks of Wadi Rahma (Darba), Wadi Araba, SW Jordan
- Nadia Al-Bakri (1990): Geochemistry and petrography of the feinan porphyrite stock, central Wadi Araba, Jordan.
- William T. Al-Bajjali (1990): Isotopic and hydrochemical characteristics of precipitation in Jordan
- Alia Bayook (1992): Batn el-Ghoul clay deposits as a potential source for aluminium.
- Hasan M. Katbeh Bader (1992): Hydrogeology and hydrochemistry of the area located between wadi Mujib and wadi Zerqa Main
- Ahmad Abu-Jeyyab (1992): Distribution and characterization of the Jordanian Volkonskoite
- Hakam M. Al-Alami (1992): The potential of weir use as Dam substitute for surface water storage and artificial recharge in the Kerak area.
- Tareq Shohadeh (1993): Geochemical exploration for uranium and thorium in the ordovician sandstone (sabellarifex unit), southern Jordan
- Mohammed Abu-El Haj (1993): Geochemical soil survey in the vicinity of warda iron occurrence, Ajlun district, Jordan
- Mohammed Al-Hwaiti (1993): Spatial and geochemical variability in Wadi Khalid stream sediment (Feinan district), southern Jordan.
- Mahmoud Hassuneh (1994): The petrology and geochemistry of Janub metamorphic suite, S-Jordan (M.Sc Thesis).
- Ayman Nassar. 1994. Petrographical and sedimentological study of subsurface upper Ordovician sandstone Risha Gas Field. NE Jordan. (M.Sc Thesis).
- Omar Al Khushman. 1994. Geochemistry of Mn-nodules from Wadi Ed-dalu, south Jordan and their genetic bearing. (M.Sc Thesis).
- Amjad Abu-Hilal (1995): The genesis of the Qunaia monzodiorite and its associated megaphorphy (M.Sc Thesis)
- Muna El-Hilue (1995): The geochemistry and petrogenesis of the Humrat Granite (A-type granite), in the Quweira area, NE of Aqaba

- Suha El-Dajani (1995) :The petrology and geochemistry of El-Suchna Nepheline basanite, Central Jordan. (M.Sc Thesis)
- Younes Al_Omary 1995. Mineralogical and Engineering properties of clayey beds at failure areas along the Irbid Jerash Amman and Amman Naur Highways. (M.Sc Thesis).
- Mnawer Atiyyat 1996. Depositional Environment, mineralogy, and paleogeography of the subsurface Early Cretaceous Kurnub sandstone in Jordan (M.Sc Thesis)
- Fawazi Al Qadi. 1996. Subsurface microfacies analysis of Cenomanian formations (Naur Shueib) in Azraq basin. (M.Sc Thesis)
- Hashem Al-Zubi 1996. Geology, Petrology and geochemistry of the granitoids of Wadi Es Sabil area, SW Jordan. (M.Sc Thesis).
- Mustafa Berjawi 1998. Geochemistry and mineralogy of the radioactive elements in the Cambrian sandstone in Ain Al Hashim area, south Jordan. (M.Sc. Thesis)
- Rushdi Sadaqah. 2000 Phosphogenesis, geochemistry, stable isotopes and depositional sequences of the upper Cretaceous phosphorite formation in Jordan. (PhD Thesis).
- Talal Al Momani. 2000. Characterization, industrial utilization and environmental Impact of the Hiswa Clay Deposits, south Jordan. (PhD Thesis).
- Zain Tadros. 2001. Groundwater vulnerability in the area surrounding the solidwastes disposal site of Ruseifa, Jordan. (PhD Thesis).
- Ahmad Abu Jeyyab 2001. Mineralogical and geochemical properties and industrial applications of Azraq gypsum deposits, Jordan (Ph. D. Thesis).
- Mohammed Qaadani. 2004. Performance effectiveness of As Samra stabilization ponds and its impact on the surface and groundwater resources of lower reaches of Wadi Dhuleil. (PhD Thesis).
- Mahmoud Haboush (2004): The metasediments of the Janub Metamorphic Suite: Their geochemistry, petrogenesis and economic potential with special emphasis on the opaque minerals.
- Amal Al Zoubi . 2005 Characterization of unusual green Cr rich clays from Suweilih area. (M.Sc Thesis).
- Khadidja Balkhir 2005. Hydrogeology and hydrochemistry of groundwater of sahal ghriss of mascara northwestern Algeria (M.Sc. Thesis)
- Abeer Salman. 2009. Geo-environmental quality assessment of Wadi El-Mujib Groundwater resources using advanced statistical and geographical information systems. (PhD Thesis)
- Ibrahim Bany Yaseen (2009): (co-supervisor): Geochemistry, Mineralogy, and Petrology of the Calc-alkaline granitoids of Wadi Huwar area, SW Jordan and their economic potential.
- Hind Abdul Qader Ghanem (2009): Petrology, Geochemistry, and thermobarometry of the contact metamorphic aureole in the Saramuj Conglomerate, Southeast Dead Sea, Jordan.
- Reema Moshtaha (2012): Age, Petrogenesis, and Tectonic Setting of the Humrat-Feinan Suite of the Araba Complex, in the northernmost segment of the Arabian-Nubian Shield in SW Jordan.

Significant Consulting Services:

1. Petrographic analysis of sand and gravel samples from the site of the Karameh Dam (submitted to the Engineering Studies Company for testing of soils and materials and foundations, 1987) and many other similar investigations since then.
2. Rusting problems in concrete foundations. A joint study with Dr. Saffarini (submitted to the Royal Scientific Society, June 1986).
3. Scanning electron microscope and chemical study of wool rock samples (submitted to the Jordanian wool-rock company 1986).
4. Petrography and geochemistry of metamorphic rocks from south Jordan (submitted to the Natural Resources Authority (NRA), 1989).
5. Petrographic and geochemical evaluation of igneous and metamorphic samples from the South Yemen Republic (submitted to the Arab Mining Company, 1990).
6. A member of the project " Water quality of dam waters in Jordan ", which is executed at the Water Research and Study Center, University of Jordan (1990-1992).
7. Petrographic characterization of gravel and sand samples according to the American standards for testing materials (submitted to the Engineering Company for Testing of Soils, Materials and Foundations, 1993, 94,95,96).
8. Mineralogical investigation of sand samples from the vicinity of the phosphoric acid plant, Aqaba (submitted to Engineering office, Touqan & Al-Saket, 1994).
9. Scanning Electron Microscope study of rock wool samples (submitted to the Jordanian Rock Wool Company, 1994).
10. Examination of brake, pipes and ceiling tiles for their content in asbestos minerals for the Department of customs, and Ministry of Health.
11. A member of research team on the project "Sinkholes of Ghor Al-Haditha " submitted to the Ministry of Water and Irrigation 1995.

Funded Projects:

1. Geochemistry and isotope dating with special reference to volcanic activity and mineralization potential [joint project with Dr. Ghazi Saffarini and German colleagues from TU Braunschweig, University of Muenster] 1987-1991 Deutsche Forschungs Gemeinschaft (DFG) and the Deanship of Scientific Research, The University of Jordan. ca. 8500 Jordanian Dinars.
2. The sulphide-bearing basaltic dike swarm in Quweira area, South Jordan; Higher Council of Scientific Research, 2500 Jordanian Dinars, together with Prof. Ghazi Saffarini

3. Anorogenic rift zone magmatism with special emphasis on the genesis of A-type granites; 1996-2000, Deanship of Scientific Research, The University of Jordan, 4500 Jordanian Dinar
4. Geotechnical and Mineralogical aspects of Shueib Formation Jordan. 2004-2007 Deanship of Scientific Research, The University of Jordan, 4300 Jordanian Dinar; Together with Prof. Dr. Fathi Shaqour
5. The role of magma mixing and assimilation in the formation of hybrid composite dikes of basaltic andesite to trachyandesite composition in the Neoproterozoic of SW Jordan. **2007-2013**, Deanship of Scientific Research, The University of Jordan, 5050 Jordanian Dinars
6. Neoproterozoic Evolution and economic potential of the Arabian-Nubian Shield in southwest Jordan, May 2008-2014, Deanship of Scientific Research, The University of Jordan, 8400 Jordanian Dinar
 Jordanian and Egyptian Basement Evolution "JEBEL" November 2008 - November 2012, The Swedish Science Council. **Victoria Pease, Principal Investigator**, University of Stockholm
Martin Whitehouse, Laboratory for Isotope Geology, Swedish Museum of Natural History
Osama Kassem (Egyptian Coordinator), National Research Center, Egypt
Ghaleb Jarrar, University of Jordan (**Jordanian Coordinator**)
Mohamed Atallah (Yarmouk University)
Najel Yaseen (University of Jordan)
Mahmood Shalaby and Hossam Khamies (Egypt), in collaboration with Saudi Geological Survey, and a team of self-supported international geoscientists: Robert Stern (University of Texas at Dallas); **Iain Pitcairn** (University of Stockholm) ca. 82 000 Jordanian Dinar.
7. The Neoproterozoic dykes in the basement complex of southwest Jordan: Types, geochemistry, petrogenesis and tectono-magmatic evolution. 2015-2019. The Deanship of Academic Research /The University of Jordan. 15,000 JD.
8. Age and Evolution of the Janub Metamorphic Complex, south Jordan. 2020-2023. Deanship of Academic Research /The University of Jordan. 12,000 JD
9. Petrology of the Miocene-Quaternary volcanism along the Dead Sea Fault System: Probing the Jordan lithospheric mantle. December 2023-present. 17, 600 JD. This is partially supported by the Higher Council of Science and Technology.

References:

1. Prof. Dr. Hani Khoury
Geology Department (retired Professor), The University of Jordan.
Email: ghasaff@ju.edu.jo
2. Dr. Peter Johnson (retired Geologist) served for almost thirty years at the SGS.
3. Prof. Dr. Robert Stern,
University of Texas at Dallas, Department of Geosciences, Dallas, Texas, USA.
Email: rjstern@utdallas.edu
4. Prof. Dr. Cees Passchier ,
Institute fuer Geowissenschaften, Johannes Gutenberg University, Mainz, Germany
Email: cpasschi@uni-mainz.de
5. Dr. Martin Whitehouse, Swedish Museum of Natural History, Box 50007SE-104 05
Stockholm, Sweden
Email: Martin.Whitehouse@nrm.se

List of Publications

Hind Ghanem, **Ghaleb H. Jarrar**, Ryan J. McAleer, Cees W. Passchier, Thomas Theye, Martin J. Whitehouse, Robert P. Wintsch 2022: Drowned in granite - retrieving the tectono-metamorphic history of the Janub metamorphic complex, the northernmost part of the Arabian-Nubian Shield. *Precambrian Research* 106903, vol 383.
<https://doi.org/10.1016/j.precamres.2022>

Amireh B. S., Ghazi A. SAFFARINI¹, Mazen N. AMAIREH², **Ghaleb H. JARRAR**¹ & Abdulkader M. ABED^{1,3} (2022): Rare earth and trace elements of the NE Gondwana Lower Cambrian - Lower Cretaceous siliciclastic succession of Jordan: from provenance to metasomatism. *Annales Societatis Geologorum Poloniae* 92 (2), 109-158, doi: [10.14241/asgp](https://doi.org/10.14241/asgp)

Jarrar, Ghaleb H. & Ghanem, Hind. (2021): Neoproterozoic Crustal Evolution of the Northernmost Arabian-Nubian Shield, South Jordan. Chapter five in a book *The Geology of the Arabian-Nubian Shield, Regional geology reviews*, Springer Verlag. 109-137; <https://doi.org/10.1007/978-3-03>

Mu'ayyad Al Hseinat, Abdulla Al-Rawabdeh, Malek Al-Zidaneen, Hind Ghanem, Masdouq Al-Taj, Abdullah Diabat, **Ghaleb H Jarrar**, Mohammad Atallah (2020). New Insights for Understanding the Structural Deformation Style of the Strike-Slip Regime along the Wadi Shueib and Amman-Hallabat Structures in Jordan Based on Remote Sensing Data Analysis. *MDPI Geosciences* Volume 10 Issue 7 10.3390/geosciences10070253_

Hind Ghanem, Ryan J McAleer, **Ghaleb H Jarrar**, Martin Whitehouse (2020): $^{40}\text{Ar}/^{39}\text{Ar}$ and U-Pb SIMS zircon ages of Ediacaran dikes from the Arabian-Nubian Shield of south Jordan. *Precambrian Research* vol. 343. 105714. <https://doi.org/10.1016/j.precamres.2020.105714>

Ahmad M. Abudayeh, Najel Yaseen & Ghaleb H. **Jarrar (2019)**: Petrography, identification of metasomatic textures and isochemical reactions from Darba Suite, SW Jordan. *International Journal of Natural and Applied Science (IJANS)*. Vol. 8, Issue 3, Apr - May 2019; 23-38

Ben Sera, Ali, and Ghaleb H. **Jarrar (2018)**. Petrography and Geochemistry of Urf suite from Aqaba complex, Southern Jordan. *International Journal of Applied Engineering Research*, 13, 5772-5787.

Meyer , S. E., C. Passchier, Ghaleb H. **Jarrar**, Hind Ghanem , N. Yaseen. (2017). Mimicking shear zones: An example from Wadi Filk, Jordan. *Journal of Strutural Geology*, 98, 83-94.

Jarrar, G.H., Stern, R.J., Theye, T., Yaseen, N., Pease, V., Miller, N., Ibrahim, K.M., Passchier, C.W. and Whitehouse, M., 2017. Neoproterozoic Rosetta Gabbro from northernmost Arabian-Nubian Shield, south Jordan: Geochemistry and Petrogenesis. *Lithos*, 285, 545-559.

Saffarini, G., **Jarrar, G. H.**, Dill, H. G., Ghanem, H., & Yaseen, N. (2016). Data analysis of a revisited exploration geochemical dataset of quartz porphyrites from SW Jordan using GIS techniques. *Chemie der Erde-Geochemistry*, 76(4), 519-527.

Kh Minghua, R., Stern, RJ, Ali, K., **Jarrar, G.H.** Romer, R.L., Leybourne, M.I, Whitehouse, M., Ibrahim (2016) Potassium-rich fluid induced partial melting in the lower continental crust beneath northern Arabia. Abstracts with programs GSA. Geological Society of America.

Stern, R.J., Ali, K.A., Ren, M., **Jarrar, G.H.**, Romer, R.L., Leybourne, M.I., Whitehouse, M.J. and Ibrahim, K.M., (2016). Cadomian (~ 560 Ma) crust buried beneath the northern Arabian Peninsula: Mineral, chemical, geochronological, and isotopic constraints from NE Jordan xenoliths. *Earth and Planetary Science Letters*, 436, pp.31-42.

John H. Powell, Abdulkader Abed, and Ghaleb H. **Jarrar** (2015). Ediacaran Araba Complex of Jordan. *GeoArabia*, 20, 99-156.

Jarrar, G. H., Theye, T., Yaseen, N., Whitehouse, M., Pease, V., & Passchier, C. (2013). Geochemistry and P–T–t evolution of the Abu-Barqa Metamorphic Suite, SW Jordan, and implications for the tectonics of the northern Arabian–Nubian Shield. *Precambrian Research*, 239, 56-78.

Ghanem, H. & **Jarrar., G.** 2013. Geochemistry and Petrogenesis of the 595 Ma Qunai Monzogabbro, Jordan. *Journal of African Earth Sciences* **88**, 1-14.

Jarrar , G. Yaseen ,N. Theye, T. 2013. A hybrid composite dike suite from the northern Arabian Nubian Shield, southwest Jordan: Implications for magma mixing and partial melting of granite by mafic magma . *Journal of Volcanology and Geothermal Research*. **254**,80-93.

A co-author of “Principles of Earth Science” in Arabic. 2011. Publisher: daralfiker.

Jarrar, G. 2011. Basement Complex of Southwest Jordan JEBEL Workshop. Field Excursion Guide, 42 pp.

Habboush, M and **Jarrar, G.** 2009. Petrology and Geochemistry of the metasediments of the Janub Metamorphic Suite, south of Jordan: Implications for tectonic setting, provenance, geothermobarometry, and economic potential. Published on-line in *Jordan Journal of Earth and Environmental Sciences* **2**: 7-17.

Jarrar, G. 2008. A guide for Sinai Field Excursion JEBEL Workshop Egypt, October 25-29, 57 pp.

Jarrar, G. W. Manton, & R. Stern & D. Zachmann 2008. Late Neoproterozoic A-type granites in the Northernmost Arabian-Nubian Shield formed by fractionation of basaltic melts. *Chemie der Erde*, 68: 295-312

Shaour, F, **Jarrar G.**, Hencher, S and Al Kuisi M. 2008. Geotechnical and mineralogical characteristics of marl deposits in Jordan. *Environmental geology* 55 (8), 1777-1783

Jarrar, G. , Saffarini, G., Wachendorf, H., A. Baumann. 2004. Origin, age and petrogenesis of Neoproterozoic composite dike from the Arabian-Nubian Shield, SW Jordan. *Geological Journal* **39**:157-178

A co-author of "Essentials of Environmental Science" in Arabic. 2nd edition 2004

Jarrar, G., Stern, R.J., Saffarini, G. & Al-Zubi. 2003. Late and post-orogenic intrusions of Jordan: Implications for crustal growth in the northernmost segment of the East African Orogen. *Precamb Res.* **123**: 295-319.

Saffarini, G. & **Jarrar, G.** 2002. Petrogenesis and tectonic setting of a two-mica granite from Wadi Huwar, SW Jordan. *Dirasat, Pure Sciences*, vol. 25, 105-126.

Jarrar, G. 2002. Duheila Hornblendic suite, Wadi Araba, SW Jordan : Geochemistry and petrogenesis. *Dirasat, Pure Sciences* vol. **29**, 89-104

Jarrar, G. 2001. The youngest Neoproterozoic Mafic Dike Suite in the Arabian Nubian Shield; mildly alkaline dolerites from south Jordan: their petrogenesis and geochemistry. *Geological Magazine*, **138**, 309-323.

A co-author of "Essentials of Environmental Science" in Arabic. 1st edition 2000

Jarrar, G. , Amireh, B. & Zachmann, D., 2000. The major, trace and rare earth elements geochemistry of glauconites from the early Cretaceous Kurnub Group of Jordan. *Geochemical Journal* **34**, 207-222.

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