

# Dr. Hind Ghanem

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## *Education*

- Ph.D. in Geological Sciences August, 2015  
Indiana University, Bloomington, IN.  
Dissertation Title: Thermal and Tectonic History of east-central Maine:  
Insights from  $^{40}\text{Ar}/^{39}\text{Ar}$  Geochronology  
Advisor: Prof. Robert P. Wintsch
- M.Sc. in Geology January, 2009  
University of Jordan, Amman, Jordan.  
Thesis Title: Petrology, Geochemistry, and Thermobarometry of the Contact  
Metamorphic Aureole in the Saramuj Conglomerate, SE Dead Sea, Jordan  
Advisor: Prof. Ghaleb Jarrar
- B.Sc. in Environmental and Applied Geology June, 2006  
University of Jordan, Amman, Jordan.

## *Professional Experience*

- Associate Professor January, 2023 – present  
Dept. of Geology, The University of Jordan
- Assistant Professor February, 2016 – January 2023  
Dept. of Geology, The University of Jordan
- Lecturer October 2015 – February 2016  
Dept. of Geology, The University of Jordan
- Lab Assistant May-August 2014  
Indiana Geological Survey
- Volunteer Associate Instructor January-May 2014  
Dept. of Geological Sciences, Indiana  
University
- Teaching Assistant February– August 2010  
Dept. of Geology, The University of Jordan
- Adjunct Lecturer: Environmental Geology June-August 2009  
Dept. of Geology, The University of Jordan

Teaching Assistant  
Dept. of Geology, The University of Jordan

January - June 2007

Volunteer Undergraduate Teaching Assistant  
Dept. of Geology, The University of Jordan

September 2003 – June 2004

### ***Selected Attended Workshops***

Communicating science successfully /  
Organized by German Academic Exchange  
Service (DAAD) / Amman, Jordan

October 12<sup>th</sup>, 2023

Grant Proposal Writing Workshop /  
Organized by German Academic Exchange  
Service (DAAD) and held by ProWiss  
Consulting Services for Researchers/ at the  
Royal Scientific Society / Amman, Jordan

15<sup>th</sup>-16<sup>th</sup> March, 2023

Advances in Laser Ablation Carbonate U-Pb  
Geochronology/ Goldschmidt 2019,  
Barcelona, Spain

August 17<sup>th</sup>-18<sup>th</sup>, 2019

ABET as a Tool for Quality Improvement /  
AROQA 10<sup>th</sup> Annual Conference 2018 –  
Amman, Jordan

December 3<sup>rd</sup>, 2018

International Geochronology School/ at  
Korea Basic Science Institute - South Korea

November 9<sup>th</sup>-20<sup>th</sup>, 2015

ASU SIMS Workshop / at Arizona State  
University / USA

January 7<sup>th</sup>-9<sup>th</sup>, 2015

Alpha-MELTS workshop / at California  
Institute of Technology (Caltech) / USA

December 10<sup>th</sup>-14<sup>th</sup>, 2014

### ***Memberships & Affiliations***

Member, Jordanian Astronomical Society JAS (2006-present)  
Member, Geological Society of America GSA (2011-present)  
Member, Mineralogical Society of America MSA (2011-present)  
Member, American Geophysical Union AGU (2014-present)  
Member, Association for Women Geoscientists (2019-present)  
Member, The National Association of Geoscience Teachers (2022-present)

### ***Awards and Grants***

#### **As a student:**

Undergraduate Student Scholarship (full tuition) - University of Jordan

2004-2005  
2005-2006

International Students Research Scholarship - German Research Center for Geosciences (GFZ)	January – February 2008
Full Sponsorship for a Ph.D. Degree in Geology – The University of Jordan	2010-2014
Student Travel Grants - Dept. of Geological Sciences at IU	March 2013 May 2011 October 2013 January, 2015
Student Travel Grant - Office for Women's Affairs at IU	April 2013.
The Marland Pratt Billings and Katharine Fowler-Billings Fund for Research in New England Geology	May 2013
Grant for Summer Field Work - Dept. of Geological Sciences at IU	Summer 2011 Summer 2013
On To the Future (OTF) Scholar Travel Grant/GSA	October 2013
Student Travel Grant, GSA-Northeastern section	March, 2014
Attendee Travel Grant - alphaMELTS workshop / funded by NSF	December, 2014
Provost's Travel Award for Women in Science – Indiana University	January, 2015

**As a professor:**

DAAD scholarship for a visiting researcher / Program of Bilateral Exchange of Academics, 2017 (ID:57313677)	May-July, 2017
Deanship of Scientific Research Financial Fund / 14,400 JD. Project: Age and Evolution of the Janub Metamorphic Complex.	January 2021 - July 2023

**Published Abstracts:**

1. Deasy, R. T., **Ghanem, H.**, McAleer, R, McWilliams, C., Stokes, R., and Wintsch, R. (2022). The geological contributions of Dave Bish: not just in soils but also in crystalline rocks. Geological Society of America Abstracts with Programs. Vol 54, No. 5, 2022  
<https://doi.org/10.1130/abs/2022AM-379884>
2. **Ghanem H.**, Bish D., Kunk M., Ludman A. and Wintsch R (2022). The hidden world of K-feldspars: Do we really know what we are dating? Geological Society of America Abstracts with Programs. Vol. 54, No. 3. <https://doi.org/10.1130/abs/2022NE-374620>
3. **Ghanem H.**, Jarrar G.H., Theye T., and Whitehouse M. (2020). Constraints on the age of the Janub Metamorphic Complex, South Jordan: International Conference on Ophiolites and the Oceanic Lithosphere: Results of the Oman Drilling Project and Related Research.
4. **Ghanem H.**, McAleer R.J., Jarrar G.H., Al Hseinat M., Whitehouse M. (2019),  $^{40}\text{Ar}/^{39}\text{Ar}$  and U-Pb SIMS zircon ages of Ediacaran dikes from the Arabian-Nubian Shield of South Jordan: *Goldschmidt Abstracts*, 2019 1127

5. **Ghanem H.**, Kunk M., Ludman A., Bish D., and Wintsch R. (2016), Dating slate belts using  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology and zircon ages from crosscutting plutons: A case study from east-central Maine, USA: European Geosciences Union General Assembly 2016.
6. Zhang Q., Branam T, and Olyphant G., **Ghanem H.** (2015), Geochemical characterization of coal-combustion byproducts and numerical simulations of the long-term effects as capping materials at coal mine reclamation sites: World of Coal Ash Conference, At Nashville, TN
7. **Ghanem H.**, Kunk M. and Wintsch R. (2014), P-T-Time paths in east-central Maine: insights from thermochronology and geobarometry of Devonian plutons and their metamorphic host rocks. GSA Abstracts with Programs Vol. 46, No. 2.
8. **Ghanem H.**, Kunk M., Ludman A., Bish D., and Wintsch R. (2013), Multiple Deformation and Cleavage Development by Dissolution-Precipitation in The Metasedimentary Rocks of the Chester Shear Zone, Central Maine, USA: GSA Abstracts with Programs Vol. 45, No. 7.
9. **Ghanem H.**, Kunk M., Ludman A., Bish D., and Wintsch R. (2013), A Late Devonian Age for The Chester Shear Zone, Central Maine: Evidence from  $^{40}\text{Ar}/^{39}\text{Ar}$  Age Spectra: GSA Abstracts with Programs Vol. 45, No. 1

#### ***Peer-reviewed Papers:***

1. **Ghanem, H.**, Jarrar, G.H., McAleer, R.J., Passchier, C.W., Theye, T., Whitehouse, M.J., Wintsch, R.P., 2022. Drowned in granite - retrieving the tectono-metamorphic history of the Janub metamorphic complex, the northernmost part of the Arabian-Nubian Shield. Precambrian Research 383:106903 <https://doi.org/10.1016/j.precamres.2022.106903>
2. Jarrar G.H.; **Ghanem H.** 2021. Neoproterozoic Crustal Evolution of the Northernmost Arabian-Nubian Shield, South Jordan. In: Hamimi Z., Fowler AR., Liégeois JP., Collins A., Abdelsalam M.G., Abd EI-Wahed M. (eds) The Geology of the Arabian-Nubian Shield. Regional Geology Reviews. Springer, Cham. [https://doi.org/10.1007/978-3-030-72995-0\\_5](https://doi.org/10.1007/978-3-030-72995-0_5)
3. Al Hseinat, M.; Al-Rawabdeh, A.; Al-Zidaneen, M.; **Ghanem, H.**; Al-Taj, M.; Diabat, A.; Jarrar, G.; Atallah, M., 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. Geosciences 10(7):253 <https://doi.org/10.3390/geosciences10070253>.
4. **Ghanem H.**, McAleer R.J., Jarrar G.H., Al Hseinat M., Whitehouse M., 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 343:105714 <https://doi.org/10.1016/j.precamres.2020.105714>.
5. Meyer, S. E., Passchier, C., Jarrar, G. H., **Ghanem H.**, and Yaseen, N., 2017. Mimicking shear zones: An example from Wadi Filk, Jordan: Journal of Structural Geology 98:83-94 <https://doi.org/10.1016/j.jsg.2017.03.010>.

6. **Ghanem H.**, Kunk M., Ludman A., Bish D., and Wintsch R., 2016. Dating slate belts using  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology and zircon ages from crosscutting plutons: A case study from east-central Maine, USA. *Journal of Structural Geology* 93:51-66  
<https://doi.org/10.1016/j.jsg.2016.10.004>
7. Saffarini G., Jarrar G.H., Dill H., **Ghanem H.**, and 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  
<https://doi.org/10.1016/j.chemer.2016.09.003>
8. Zhang, Q., **Ghanem, H.**, Branam, T.D., Elswick, E.R., Olyphant, G.A., 2016. Geochemical characterization of engineered coal-combustion byproducts (CCBs): Occurrence and mobility of trace elements, implications for interactions with acidic and ambient groundwater. *Fuel* 177: 304-314 <https://doi.org/10.1016/j.fuel.2016.02.083>.
9. **Ghanem, H.**, Jarrar, G.H., 2013. Geochemistry and petrogenesis of the 595Ma shoshonitic Qunai monzogabbro, Jordan. *Journal of African Earth Sciences* 88:1-14  
<https://doi.org/10.1016/j.jafrearsci.2013.08.006>.

**Others:**

1. **Ghanem, H.**, Kunk, M.J., Ludman, A., Bish, D.L., Wintsch, R.P., Biasi, J., 2013.  $^{40}\text{Ar}/^{39}\text{Ar}$  Evidence for Late Devonian deformation in the Chester shear zone, east central Maine, in: Hanson, L.S. (Ed.), 2013 Guidebook for field trips in North Central Maine 105th Annual New England Intercollegiate Geological Conference pp. B 1-26.

**Taught courses (undergraduate level):**

1. Physical Geology / General Geology
2. Environmental Geology
3. Environmental Science
4. General Geology Lab / Physical Geology Lab
5. Petrology Lab
6. Mineralogy
7. Petrology
8. Igneous and Metamorphic Petrology
9. Industrial Geomaterials
10. Mineral Exploration
11. Graduation Project