

Curriculum Vitae

Bety Al-Saqarat, Ph.D.

Sedimentary Rocks / Paleolakes / Paleoclimate / Quaternary Sediments/Environment /

Personal Information

Full name:

Date and place of Birth:

Nationality:

Gender:

Spoken languages:

- **ORCID:** <https://orcid.org/0000-0002-6933-0150>

(Bety S. Al-Saqarat)

April, 1974, Zarqa, Jordan

Jordanian

female

Arabic, English



Work Address

Department of Geology

Faculty of Science

The University of Jordan

Amman-11942

Jordan

Phone: 009626- 5535000 Ext: 22282

Fax: 009626 -5300253

E-mail: b.saqarat@ju.edu.jo

Bsagar_2006@yahoo.com

Home Address (Jordan)

Building No.6

Huda Al-Sharawi

street Dahiyaet Al

Rasheed

Amman 11942 Jordan

Cell: 00962777936735

00962792006646

R^G:

Google Scholar <https://scholar.google.com/citations?user=Q-FVKZ8AAAAJ&hl=en>

Dr. Al-Saqarat holds a Ph.D. in Applied Geology/Sedimentary Rocks. she has more than 15 years of national, regional, and international experience in Applied Geology/Sedimentary Rocks. Dr. Al Saqarat's research aims to link Sedimentary rocks, Hydrogeological Records, paleolakes, paleoenvironments to reconstruct the Paleoclimate in different place in or outside Jordan. She works in a research group consists of experts from diverse backgrounds and geographical locations, all united by a

shared passion for understanding Earth's geological history and its implications for the present and future, she also works with a local research group interested in Preparation and characterization of metals and minerals (Applied Geology).

1. Academic Qualifications and Degrees

Degree	Period	Field/Subject	Institution	Thesis
PhD.	2005-2009	Applied Geology	The University of Jordan Department of Geology, Amman, Jordan	Microstructures in the Upper cretaceous rocks of Jordan and their deformation using mineralogical and geotechnical methods
M.Sc.,	1995-1997	Hydrogeology/Groundwater	The University of Jordan Department of Geology, Amman, Jordan	"Determination of the concentrations of heavy metals in the ground water of Amman-Zarka Area and their different sources"
B.Sc.,	1991-1995	Applied Geology & Environment	The University of Jordan Department of Geology, Amman, Jordan	

2. CLASSES TAUGHT

- Undergraduate courses (University of Jordan):

BSc.:

Environmental Science, General Geology, Environmental Geology, Applied Sedimentary rocks, Field techniques, Geology of Jordan, Stratigraphy, Structural Geology, Engineering Geology, Earth sciences, water resources,

- Graduate courses (University of Jordan):

MSc.: (Special Topics)

Ph.D.: Sedimentary Rocks

3. Academic Experience

3.1 Academic ranks and experience

Period	Position	Institution	Duties
May 2019- present	Associate Professor	University of Jordan Department of Applied and Environmental Geology, Amman, Jordan	Teaching load of 12 credit hours -B.Sc., and Ph.D. Applied Geology and environmental courses- Graduate student supervision
2014- 2019	Assistant Professor	University of Jordan Department of Applied and Environmental Geology, Amman, Jordan	Teaching load of 12 credit hours -B.Sc. Applied Geology and environmental courses - Graduate student supervision
2012-2014	Assistant Professor	Al- Albayt University	Teaching load of 12 credit hours -B.Sc., M.Sc. Applied Geology and environmental courses -Graduate student supervision
2011-2012	Lecturer	Al- Albayt University	Teaching load of 12 credit. Applied and environmental courses
2010-2011	Part Time lecturer	Al- Albayt University	Teaching
2006-2009	Teaching Assistant	University of Jordan Department of Applied and Environmental Geology, Amman, Jordan	Teaching and student supervision in Structure and field techniques

3.2 Graduate Student supervision

Student Name	Degree	Institution	Thesis Title	Graduation Year
Tala Qutaishat	M.Sc.	University of Jordan Department of Geology	ACTIVE TECTONIC MOVEMENT OF THE DEAD SEA TRANSFORM FAULT INDUCED SOFT-SEDIMENTS DEFORMATION: INSTANCES FROM THE QUATERNARY DEPOSITS AT WADI AL-KHARAZEH	Dec, 2022
Yazeed Al Jbour	M.Sc.	University of Jordan Department of Physics	Hydrochemistry And The Water Quality Changes Of The Upper Aquifer Complex In Khan Al-Zabib Area/ South Amman	August, 2020
Mahmoud Abbas	Ph.D.	China University of Geosciences/Wuhan, China	"Late Quaternary hydrological records in Jordan and Egypt inferred from OSL dating on lacustrine sediments and its implications to paleoclimate and Human dispersal in the Middle East	May, 2020
Sana' Khaleel Alsayed	M.Sc.	University of Jordan Department of Geology	Educational Sustainable Development (ESD) at Higher Education Institutions in Jordan: Current Status and Future Policies	2016

Silvia Basil Hanna Dhawahir	M.Sc.	University of Jordan Department of Mechanical Engineering	Policies Towards Energy Security in Jordan	2016
Abdallah Bani Fawwaz	M.Sc.	University of Jordan Department of Physics	Assessing the Awareness Levels Regarding Water Conservation among school Students in Jordan.	2016
Ahmad Ibrahim Shdaifat	M.Sc.	Al-Albait University	A Geological and Paleoenvironmental Study of the Pleistocene Deposits in Hamra Faddan Area -Jordan	December ,2014
Qasem Mohammad Al Masaeed,	M.Sc.	Al-Albait University	Geological and Paleoenvironmental Investigation for Quaternary Deposits in Gharandal Area Using GIS and Remote Sensing.	December ,2014
Mahmoud Mohammad Abbas	M.Sc.	Al-Albait University	Investigation and Reconstruction of the Paleoclimate of the Quaternary Sediments Near the Gulf of Aqaba, Southern Jordan	December ,2014

4. Research and Work Experience

4.1 Research positions and scientific experience

Period	Position	Institution	Duties
2018- 2020	member	University of Jordan	Flash-flood hydrology and aquifer-recharge in Wadi Umm Sidr, Eastern Desert, Egypt
2017- 2020	Team Leader	University of Jordan	Past climate regimes of wadi Grandal area, University of Jordan
May 2011- 2014	Team Leader	Al Al-Bayt University	PI with Deutsche Forschungsgemeinschaft (DFG) Paleoclimate and the Lakes in southern of Jordan.
June 2010	Team Leader	Al Al-Bayt University	"Pleistocene lakes in southern Jordan: the environmental conditions of the first step out of Africa"
-1st Oct. 2009 –1st Apr. 2010.	member	University of Jordan Department of Applied and Environmental Geology, Amman, Jordan	Projects in Hydrology with a team for Ministry of Water and Irrigation. Underground Water Storage along King Abdullah Canal.
-1st Oct. 2009 –1st Apr. 2010	member	University of Jordan Department of Applied and Environmental Geology, Amman, Jordan	Projects in Hydrology with a team for Ministry of Water and Irrigation. Ground water protection in the area between Queen Alia International Airport, Qatranah and east of the Highlands to Swaqa hazardous waste disposal site.
20th Apr. 2007 – 30th Dec. 2009	member	University of Jordan Department of Applied and Environmental Geology, Amman, Jordan	Research projects, National/international collaboration-member in "SMART" Project/Germany as a Ph.D. student

4.2 Consultation:

Period	Company	Duties
May 2021-2023	Ministry of Energy and Mineral Resources	member of the Geological Reserves and Geological Parks Management Committee /
May 2023	Al- Al-Bayt University	Presenting an integrated project for the possibility of studying medical tourism in the basalt areas located east of Mafraq, studying the economic feasibility and presenting appropriate proposals for the possibility of supporting it internationally through international projects.

December 2021	the ministry of tourism and antiques	Association representative in the technical committee of "berqesh cave" planning and suggestion for geological tourism development to be a resort.
March 2021	Royal Botanic Garden	Write the geological setting of Tal Al Rumman
April 2019	National Center for Security and Disaster Management	Participating as an expert in the Euro-Mediterranean Partnership Program in the areas of prevention, preparedness and response to disasters to strengthen regional cooperation

4.3 Invited Seminar Talks

Period	Conference Name	Location
May 2024	The 9 th youth Geoscience Forum 2024 The last glacial cycle window of human dispersal out of Africa through the Levant	Xiamen University, Xiamen, China
July 2019	Seminar for Arabian studies OSL chronology and paleoclimatic records of Late Quaternary lacustrine sediments in Jordan desert and its implications to early modern human dispersal	Leiden, Netherland
Nov. 1-4 2015	The Geological Society of America 127 th Annual Meeting	Baltimore, USA
Oct. 19-22 2014	The Geological Society of America 126 th Annual Meeting	Vancouver, British Columbia, Canada
April 3 - 5, 2014	International Conference / Humboldt Kolleg Building International Networks for Enhancement of Research in Jordan	Amman, Jordan
October 2013	GSA 125th Anniversary Annual Meeting "New Age Constraints for Pleistocene Environmental Conditions in Southern Jordan: The Jafr Basin and Wadis Burma And Gharandal", Volume: 45 (7), p. 680	At Denver, Colorado, U.S.A.,

5. List of Publications

- (1) S Mischke, H Ginat, **Bety Al-Saqarat**, A Almogi-Labin “Ostracods from water bodies in hyperarid Israel and Jordan as habitat and water chemistry indicators” *Ecological Indicators*. 14:82-86,2011.
- (2) **Bety Al Saqarat**, Sura al harahsheh, Anwar jiries "Inorganic Chemical Composition of Swimming pools in Amman- Jordan”, *Research Journal of Environmental and Earth Sciences* 4(10): 890-894, 2012.
- (3) Steffen Mischke,Ahuva Almogi-Labin, **Bety Al-Saqarat**, Arik Rosenfelde, Hadar Elyashiv, Ian Boomer, Mordechai Stein, Lilach Lev, Emi Ito.An expanded ostracod-based conductivity transfer function for climate reconstruction in the Levant. *Quaternary science reviews* 2014
- (4) Steffen Mischke, Stephan Opitz, Johannes kalbe, Hanan Ginat, **Bety Al Saqarat**. Paleoenvironmental inferences from late Quaternary sediments of the Al Jafr Basin, Jordan .*Quaternary International* 2015.
- (5) Mahmoud Abbas, **Bety Al-Saqarat** and , Ahmad Al-Shdaifat Paleoclimate Reconstruction of the Quaternary Sediments near the Gulf of Aqaba (Southern Jordan). *Arabian Journal of Geosciences* 9(5) · May 2016 DOI: 10.1007/s12517-016-2346-5
- (6) Mohammad A. Al-Ghouti, Ayman A. Issa, **Bety S. Al-Saqarat**, Anas Y. Al-Reyahi & Yahya S. Al-Degs Multivariate analysis of competitive adsorption of food dyes by activated pine wood. Article in *Desalination and water treatment* · April 2016, DOI: 10.1080/19443994.2016.1174742
- (7) **Bety Al Saqarat**, Rakad Al Ta'ani, Nidal Al Oran. Characterization of the Upper Aquifer System in Wadi El-Lajun Catchment Area, Jordan *Ass. Univ. Bull. Environ. Res. Vol. 19 No. 1 March 2016*
- (8) Ahmad Al-Shdaifat, **Bety Al-Saqarat** and, Mahmoud Abbas An Ancient Wetland in the Presently Arid Region of Southern Jordan: A Sedimentological and Paleoenvironmental study *Research Journal of Environmental and Earth Sciences* 8(2): 1324, 2016 DOI:10.19026/rjees.8.2862 ISSN: 2041-0484; e-SSN: 2041-0492
- (9) **Bety Al-Saqarat**, Mahmoud Abbas, Taghreed Ma'aytah, Ahmad Al Shdaifat, Wadah Mahmoud Southern Jordan Coastal Sediments Quality Assessment at Aqaba Special Economic Zone/Red Sea DOI: 10.4236/jwarp.2017.91005 pp. 52-64
- (10) **B.S. Al-Saqarat**, K.M. Ibrahim, F.M. Musleh, Y. S. Al-Degs.Characterization and utilization of solid residues generated upon oil and heat production from carbonate –rich oil shale *Environmental earth science*(2017) 76:264 DOI 10.1007/s12665-017-6578-9
- (11) Reyad A. Al Dwairi, **Bety Al Saqarat**, Fathi Shaqour, and Mohmd Sarireh Characterization of Jordanian Volcanic Tuff and its Potential Use as Lightweight Aggregate. *Jordan Journal of Earth and Environmental Sciences (JJEES)*. Volume 9 (Number 2). 127-133, August, 2018.
- (12) Aiman Eid Al-Rawajfeh, **Betty Al-Saqarat**, Alaa Al-Ma'abreh, Hossam Al-Itawi , Albara Alrawashdeh, Ehab AlShamaileh, Mika Sillanpaa Utilization of Calcined Gypsum in Water and Wastewater Treatment: Removal of Ibuprofen, *Jordan Journal of Engineering and Chemical Industries (JJECI)*(December 2018).
- (13) **B.S. Al-Saqarat**, a , Y.S. Al-Degs , F.M. Musleh , H.S. Najjar , M.Z. Al-Noaimi , J.N Dawoudb, M.S. Sunjukb ,Structural Characterization of Shale Oil Obtained by Soxhlet Extraction, *Environmental Progress and sustainable energy*, accepted 30/3/2019
- (14) Abdalla M. B. Abu Hamad,**Bety Al Saqarat**, Catia V. Goncalves, Andre Jasper& Dieter Uh. The first record of Dicroidium from the Triassic palaeotropics based on dispersed cuticles from the Anisian Mukheiris Formation of Jordan.2019 *Paläontologische Zeitschrift*, Published by Springer Nature, Online ISSN: 1867-6812, Print ISSN: 0031-022
- (15) Mahmoud Abbas, Paul A. Carling*, John D. Jansen, **Bety S. Al-Saqarat** Flash-flood hydrology and aquifer-recharge in Wadi Umm Sidr, Eastern Desert, Egypt Received 8 November 2019, Revised 4 March 2020, Accepted 20 March 2020, Available online 3 April 2020, Version of Record 3 ,*Journal of Arid Environments*,178:104170 , DOI: 10.1016/j.jaridenv.2020.104170

- (16) **Bety S. Al-Saqarat**, Mahmoud Abbas , Zhongping Lai, Songlin Gong, Mustafa M. Alkuisi, Abdalla M.B. Abu Hamad, Paul A. Carling , John D. Jansen A wetland oasis at Wadi Gharandal spanning 125-70 ka on the human migration trail in southern Jordan Quaternary Research, 100:154-169, DOI: 10.1017/qua.2020.82
- (17) Ehab AlShamaileh , Iessa Sabbe Moosa , Heba Al-Fayyad , Bashar Lahlouh , Hussein A. Kazem , Qusay Abu-Afifeh , **Bety S. Al-Saqarat** , Muayad Esaifan and Imad Hamadneh .Performance Comparison and Light Reflectance of Al, Cu, and Fe Metals in Direct Contact Flat Solar Heating Systems, Energies, 15(23):1-16 ,DOI: 10.3390/en15238888
- (18) **Bety S. Al-Saqarat** , Ahmed Al-Mobydeen , Ahmed N. AL-Masri , Muayad Esaifan , Imad Hamadneh , Iessa Sabbe Moosa and Ehab AlShamaileh Facile Production Method of PbS Nanoparticles via Mechanical Milling of Galena Ore , Micromachines,14(3):564 ,DOI: 10.3390/mi14030564
- (19) Muayad Esaifan , Ahmed Al-Mobydeen , Ahmed N. Al-Masri , Abdelnaim M. Altwaiq , **Bety S. Al-Saqarat** , Wadah Mahmoud , Arwa Hamaideh , Iessa Sabbe Moosa , Imad Hamadneh and Ehab AlShamaileh Synthesis of Nanostructured Alumina from Byproduct Aluminum Filings: Production and Characterization Inorganics,11(9):1- 14 ,DOI: 10.3390/inorganics11090355
- (20) AlShamaileh, E.; Altwaiq, A.M.; Al-Mobydeen, A.; Hamadneh, I.; **Al-Saqarat, B.S.**; Hamaideh, A.; Moosa, I.S, The Corrosion Inhibition of Montmorillonite Nanoclay for Steel in Acidic Solution, Materials,16(18):6291 DOI: 10.3390/ma16186291
- (21) Mahmoud Abbas, Zhongping Lai¹, John D. Jansen, Hua Tu, Mohammad Alqudah, Xiaolin Xu, **Bety S. Al-Saqarat**, Mu'ayyad Al Hseinat, Xianjiao Ou, Michael D. Petraglia, Paul A. Carling, Human dispersals out of Africa via the Levant, Science Advances, 9(40):eadi6838, DOI: 10.1126/sciadv.adi6838
- (22) **Al-Saqarat, B.S.**; Al-Mobydeen, A.; Al-Dalahmeh, Y.; AL-Masri, A.N.; Altwaiq, A.M.; Hamadneh, I.; Abu-Afifeh, Q.; Zoubi, M.M.; Esaifan, M.; Moosa, I.S.; et al Study of Galena Ore Powder Sintering and Its Microstructure, Metals ,14(439), DOI: 10.3390/met14040439

6. MEMBERSHIP

- Jordan Geological Association
- International Association of Sedimentologists
- Jordanian Academicians Society
- Association of Jordanian Academician woman

7. Professional training and courses

- Engineering techniques, Germany, 2007
- Climate changes summer school, Potsdam university – Germany, 2013.
- Paleoclimate intensive course, Germany, 2014
- Environmental Risk Management, TOT training course, Free Berlin University, Berlin, Germany, 2015
- advanced workshops and training courses (TTT) on Innovation and Entrepreneurship with Accreditation and Quality Assurance Center, Impact Mean company, Erasmus, Foundation care, DAAD and Orange company, Care Jordan, 2022
- Project writing, innovation center, Amman - Jordan, 2018

8. PERSONAL/INTER-PERSONAL SKILLS AND LEADERSHIP ABILITIES

- Hard working and have the potential to be the leader
 - Friendly, team work oriented, and productive
 - Fluent in Arabic and English
 - Can work under pressure and show the skills of very good management
 - Good understanding of cross-cultural interpersonal and cross-religion
-
- Field work is the place I prefer for teaching as the students can gain the knowledge and experience.

9. REFERENCES

1- Prof. Dr. Saber Al-Rosan

Department of Geology
University of Jordan
Amman 11942
Jordan
(+962-6) 5355000 ext. 22253

E-mail: s.rousan@ju.edu.jo

2. Prof. Dr. Eng. Najib Abou Karaki

Department of Geology
University of Jordan
Amman 11942
Jordan
(+962-6) 5355000 ext. 22273

E-mail: naja@ju.edu.jo

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في السياسة

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