Dr. Mohammad Ghorshi Askandar

Personal Information

➢ **Date/ Place of Birth:** 01/07/ 1984, Mirgasor, Erbil, Iraq.
➢ **Gender:** Male
➢ **Nationality:** Iraqi
➢ **Marital Status:** Married
➢ **Address:** Soran City, Erbil, Kurdistan Region, Iraq
➢ **Phone**: +964(750) 8268224
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Education

- Ph.D. in Exploration Geochemistry at Soran University.
  Thesis title: Geochemistry, mineralogy, and mapping of newly discovered iron ores and stream sediments elements patterns associated with listvenites and fuchsites mineralizations in Rayat District, Iraqi Kurdistan. **GPA: 92/100.**
- M.Sc. in Economic Geology, Urmia University of Urmia, Iran. (09/2008 - 09/2011)
  Thesis title: Economic Geology of Mafic-Ultramafic of Bahleh Complex NW of Urmia NW of Iran. Under Supervision of: Dr. Samad Alipour & Dr. Ali Emamalipour.
  GPA: 97.5/100
- B.Sc. in Geology. University of Urmia, Iran. (09/2004-06/2008). **GPA: 85/100.**

Research Interest

➢ Earth and Interdisciplinary Sciences.

Publication

1. Latif, D., Mohammad, Y., Piroui, M., Hama, D., & Mohammad, F. (2025). Zardahal banded manganese mineralization: Implications for hydrothermal processes and late diagenetic overprinting in the Qulqula Radiolarian Formation, Halabja Province, Iraq. Journal of the Geological Society, jgs2025-060.
2. Mohammad, Y., Latif, D., Pirouei, M., & Omer, D. (2024). Mineralogical and geochemical features of the Sirna Mn-Fe deposit in the Kurdistan region, northeastern Iraq: Unveiling the formation of a Mn-Fe silica gel plume via serpentinization hydrothermal mechanisms. Resource Geology, 74(1), e12336.
3. Rajabi, A., Mahmoodi, P., Canet, C., Pirouei, M., Alfonso, P., Mahdavi, A., ... & Momenipour, S. (2023). Framboidal and spherulitic pyrite in sediment-hosted ore deposits of Iran. Geopersia.
4. Sadeq, Z. H., Kolo, K., & Pirouei, M. (2023). Geochemical and Economic Assessment of Iron-

Rich Bodies in Choman-Rayat Area, Kurdistan Region, Iraq. Tikrit Journal of Pure Science, 28(5), 74-106.

5. Azo, B. K., Kolo, K., & Pirouei, M. (2023). Differentiation of Multi-lithotypes Olistostromal Occurrences Associated with Iron Enrichment and Mineralization Within the Ophiolites of Choman Area, NE Iraq. Tikrit Journal of Pure Science, 28(2), 32–56.
6. Fazlnia, A., Pang, K.-N., Ji, W.-Q., & Pirouei, M. (2023). Geochemical constraints on Eocene ignimbrite flare-up in the Urumieh-Dokhtar magmatic arc, northwestern Iran. Lithos, 450, 107189.
7. Nematollahi MJ, Rastegari Mehr M, Shakeri A, et al (2022) Polycyclic aromatic hydrocarbons (PAHs) in soils around oil refineries; Case study: Erbil and Kirkuk refineries, Iraq- A modelling approach. J Environ Heal Sci Eng 20:699–716. https://doi.org/10.1007/s40201-022-00809-y
8. Abdula RA, Khailany RNS, Samin NW, Pirouei M (2022) Reconnaissance Study of Gypsum from the Fatha Formation as Raw Material for Production of Gypsum Powder in Shaqlawa Area, Erbil, Kurdistan Region, Iraq. Iraqi Geol J 55:32–38. https://doi.org/10.46717/igj.55.1C.3Ms-2022-03-22
9. Pirouei, M., Kolo, K., Kalaitzidis, S.P. et al. Mapping of geochemical anomalies in the Zagros ophiolites stream sediments by fractal and classical analyses: implication for mineral exploration in Iraqi Kurdistan. Arab J Geosci 15, 533 (2022). https://doi.org/10.1007/s12517-022-09778-w
10. Abdullah, S.M., Kolo, K., Konhauser, K.O., Pirouei, M. (2022). Microbial Domains and Their Role in the Formation of Minerals. In: Berenjian, A., Seifan, M. (eds) Mineral Formation by Microorganisms. Microbiology Monographs, vol 36. Springer, Cham. https://doi.org/10.1007/978-3-030-80807-5_1
11. Othman, A.A.; Obaid, A.K.; Al-Manmi, D.A.M.; Pirouei, M.; Salar, S.G.; Liesenberg, V.; Al-Maamar, A.F.; Shihab, A.T.; Al-Saady, Y.I.; Al-Attar, Z.T. Insights for Landfill Site Selection Using GIS: A Case Study in the Tanjero River Basin, Kurdistan Region, Iraq. *Sustainability* 2021, *13*, 12602. https://doi.org/10.3390/su132212602
12. Pirouei M, Kolo K, Kalaitzidis SP, Mustafa Abdullah S (2021) Newly discovered gossanite-like and sulfide ore bodies associated with microbial activity in the Zagros ophiolites from the Rayat area of NE Iraq. Ore Geol Rev 135:104–191. https://doi.org/10.1016/j. oregeorev.2021.104191
13. Pirouei, M., Kolo, K. and Kalaitzidis, S.P., 2020a. Chromium-rich muscovite mineralization in Zagros ophiolites in Iraqi Kurdistan : a study on fuchsite paragenetic association with listvenite types.
14. Pirouei, M., Kolo, K. and Kalaitzidis, S.P., 2020b. Hydrothermal listvenitization and associated mineralizations in Zagros Ophiolites: Implications for mineral exploration in Iraqi Kurdistan. Journal of Geochemical Exploration, 208.
15. Jahanjooy, S., Pirouei, M. and Kolo, K., 2020. High accuracy gravity terrain correction by Optimally Selecting Sectors algorithm based on Hammer charts method. Studia Geophysica et Geodaetica, 64(2), pp.172–185.
16. Edilbi, A.N.F., Mohammed, K.F., Sadeq, Z.H., Aldalawy, A.A., Zebari, B.G.A., Pirouei, M., Suramairy, R. and Ali, J.A., 2019. Source rock potential and reservoir characterization of the Lower Cretaceous Sarmord Formation in selected sections in Kurdistan Region-Iraq. Arabian Journal of Geosciences, 12(21).
17. Mohammad Sajadi, S., Kolo, K., Hamad, S.M., Mahmud, S.A., Pirouei, M., Amjadian, K. and Khalid, K.M., 2019. Biosynthesis of reusable and recyclable CuO@Magnetite@Hen Bone NCs and its antioxidant and antibacterial activities: A highly stable magnetically nanocatalyst for excellent reduction of organic dyes and adsorption of polycyclic aromatic hydrocarbons. IET

Nanobiotechnology, 13(2).

18. Amjadian, K., Pirouei, M., Rastegari Mehr, M., Shakeri, A., Khurshid Rasool, S. and Ibrahim Haji, D., 2018. Contamination, health risk, mineralogical and morphological status of street dusts- case study: Erbil metropolis, Kurdistan Region-Iraq. Environmental Pollution, [online] 243, pp.1568–1578. Available at: <https://doi.org/10.1016/j.envpol.2018.09.116>.
19. Sajadi, S.M.M., Kolo, K., Pirouei, M., Mahmud, S.A.S.A., Ali, J.A.J.A. and Hamad, S.M., 2018. Natural iron ore as a novel substrate for the biosynthesis of bioactive-stable ZnO@CuO@iron ore NCs: a magnetically recyclable and reusable superior nanocatalyst for the degradation of organic dyes, reduction of Cr(vi) and adsorption of crude oil aromatic. RSC Advances, 8(62), pp.35557–35570.
20. Sajadi, S. M., Kolo, K., Hamad, S. M., Mahmud, S. A., Pirouei, M., Amjadian, K., & Khalid, K. M. (2018). Biosynthesis of reusable and recyclable CuO@Magnetite@Hen Bone NCs and its antioxidant and antibacterial activities: a highly stable magnetically nanocatalyst for excellent reduction of organic dyes and adsorption of polycyclic aromatic hydrocarbons. IET Nanobiotechnology. https://doi.org/10.1049/iet-nbt.2018.5014.
21. Abdula, A. A., Balaky, S. M., Nourmohammadi, M. S., and Piroui, M, 2015, Microfacies Analysis and Depositional Environment of the Sargelu Formation (Middle Jurassic) from Kurdistan Region, Northern Iraq: Donnish Journal of Geology and Mining Research Vol 1 (1) PP. 001- 026.

Work experience

1- Lecturer at Department of Petroleum Geosciences, Faculty of Sciences, Soran University since 2012- present.
2- Coordinator of Department of petroleum geosciences, faculty of science, Soran University, 2013 – 2015.
3- Head of Department of petroleum geosciences, faculty of science, Soran University, 2018 – 2022.

Training and Professional Experience

1. Ground Water study of Mahabad Plain, West Azarbayjan, NW of Iran (2010).

2. Member of the Executive Committee Meeting of Geological Society of Iran, 17-25 September 2010, University of Urmia.

3. Mine technical manager of Barazhok chromite mine, Khoy City, NW of Iran

Software Skills

Good in: Adobe Photoshop, Adobe Illustrator, Correl, Surfer

Skillful in: Microsoft Office Package, Log Plot, ArcGIS, and Envi.

Academic Experiences

- Teaching Mineralogy and Petrography at the Department of Petroleum Geosciences, Soran University from 2012 to 2014.
- Teaching Introduction to Geochemistry at the Department of Petroleum Geosciences, Soran University from 2012- present.
- Teaching Igneous and Metamorphic Petrology at the Department of Petroleum Geosciences, Soran University from 2012 to 2015.
- Teaching Economic Geology at the Department of Petroleum Geosciences, Soran University from 2021- 2023.
- Thin Section Lab Technician, Urmia University.
- XRD, Rock Eval6, and SEM operator at Soran University 2014 - present.

Personal Interests and Activities

- **Sports**: Football; Mountain Climbing; walking.
- **Hobbies:** Reading Books; Listening Music; Travelling; Watching Movies

Language Proficiency

- **English (**Good)
- **Kurdish** (native)
- **Persian** (native)

Referees

- **Dr. Kamal Yousef Odisho** *Professor in petroleum geosciences and Biogeosciences.*
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