

**Arezoo Abedi**  
**Assistant Professor**

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### **Education**

- 1996-1999 **Ph.D.**, Geology & Mineralogy, Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry, (IGEM) RAS, Moscow, Russia  
**Thesis title:** Ore mineralization in ophiolite and volcanic rocks of the Lut block, East of Iran, (Sahl-abad and Feyz-abad areas)
- 1994-1996 **M.Sc.**, Economic Geology, Kharazmy (Tarbiat Moallem) University, Tehran, Iran  
**Thesis title:** Geochemical investigation on the listwaenites of Sahl-abad area in order to make exploration model, SE Birjand, Iran
- 1990-1994 **B.Sc.**, Geology, Ferdowsi University, Mashhad, Iran  
**Thesis title:** Investigation on the quality of kaolin deposit at Halak-abad area, Sabzevar

### **Research Interest**

1- Critical Minerals (Based on USGS critical minerals are necessary for the manufacture of high technology devices, national defense applications, and green growth-related industries)

2- Medical geology, Environmental science and mining

3- Gemstone

### **Scientific membership**

Iranian Society of Crystallography and Mineralogy, Iranian Society of Economic Geology, International Medical Geology Association

### **Job Experiences**

1999-2004      Assistant Professor and lecturer at Mining department, Birjand University, Birjand, Iran.

2004-present      Assistant Professor and lecturer at School of Mining, Petroleum & Geophysics Engineering, Shahrood University of Technology, Shahrood, Iran.

Teaching      Mineralogy, Ore microscopy, Exploration of metal and nonmetal deposit, Mining and Environmental Engineering, Environmental Geochemistry, Economic Geology of Iran

Supervising      Supervising and Counseling of 26 M.Sc. and one Ph.D. thesis

### **Publication**

### **Journal Papers**

- 1- Shakooui, M., **Abedi, A.** and Seyyed-Reza Mirbagheri, S.R., 2020. Silica (agate-jasper) mineralization in the Chah Andoo plain, SW Damqan by Micro-Raman spectroscopy. *Iranian Journal of Crystallography and Mineralogy*, 28(2), pp.475-488. (In Persian with English abstract)
- 2- Seifpanahi-Shabani, K., **Abedi, A.** and Tabary, M., 2019. Application of bauxite waste as a nano-absorbent mineral to removal of copper and manganese metallic contaminants from the acid mine drainage. *Journal of Mineral Resources Engineering*, 4(3), pp.105-115. (In Persian with English extended abstract)
- 3- **Abedi, A.**, Fardoost, F. and Saidi, S., 2018. Process mineralogical studies on iron ore of Ojat-Abad mine in Semnan. *Iranian Journal of Mining Engineering*, 13(39), pp.54-67. (In Persian with English extended abstract)
- 4- Safari, S.S., **Abedi, A.**, Asghari, H.R. and Safari, S.A., 2015. Using *Trifolium Alexanderium* for Phytoremediation of some heavy metals in tailings dam in Anjir-Tange coal washing plant, Mazandaran, Iran. *Journal of Mining & Environment*, 6(2), pp.141-150.
- 5- Yousefi, S., Doulati, F., Ziaii, M., **Abedi, A.** and Esmail Zadeh, E., 2015. Investigation on the origin and behavior of toxic elements within the waste dumps using statistical analyses: case study at waste dumps of Sarcheshmeh copper mine, SE of Iran. *Environmental Earth Sciences*, 73(4), pp.1555–1572.
- 6- Yousefi, S., Doulati, F., **Abedi, A.**, Ziaii, M. and Esmail Zadeh, E., 2015. Investigation on the oxygen transport mechanisms in the Sarcheshmeh waste rock dumps, *Journal of Economic Geology*, 7(10), pp.129-146. (in Persian with English extended abstract)
- 7- Safari Sinegani, S., **Abedi, A.**, Asghari, H. and Safari Sinegani, A.A., 2013. The impact of Anjir-tangeh coal washing plant on concentration of some heavy metals in the native vegetation, Mazandaran Province, Iran. *International Journal of Mining and Geo-Engineering*, 47(2), pp.151-161.
- 8- Yousefi, S., Doulati, F., Ziaii, M., Esmail Zadeh, E., **Abedi, A.** and Karamoozian, M., 2013. Identification of the origin and behavior of arsenic in mine waste dumps using correlation analysis: A case study Sarcheshmeh copper mine. *International Journal of Mining and Geo-Engineering*, 47(2), pp.139-149.
- 9- Tabasi, S., **Abedi, A.**, 2012. A medical geology study of an arsenic-contaminated area in Kouhsorkh, NE Iran. *Environmental Geochemistry and Health*, 34(2), pp.171-179.
- 10- Ziaii M., **Abedi, A.**, Ziaei, M., Kamkar-Rouhani, A. and Zendahdel, A., 2010. GIS modeling for Au-Pb-Zn potential mapping in Torud-Chahshirin area-Iran. *Journal of Mining and Environment*, 1, pp.17-29.
- 11- Ziaii, M., **Abedi, A.** and Ziaei, M., 2009. Geochemical and mineralogical pattern recognition and modeling with a Bayesian approach to hydrothermal gold deposits, *Applied geochemistry*, 24, pp.1142-1146.
- 12- **Abedi A.** and Ziaii M., 2004. Cu (Au) mineralization in the Kuhe-Zar area, NE of Iran, *Romanian Journal of Mineral Deposits*, 81, pp.61- 62.

13- **Abedi, A.**, 2002. Mineralo-geochemical investigation on Kuhe-zar gold mineralization area, Torbate-Heydariyeh, Iran. *Iranian Journal of Crystallography and Mineralogy*, 10(1), pp.17-32. (in Persian with English abstract)

14- **Abedi, A.**, 1999. Ore minerals in serpentinized rocks of the ophiolites in southeastern Birjand, Iran. *Geology of ore deposit*, 41(5), pp. 455-461.

## **Conference papers**

1-Safar nezhad, Z , **Abedi,A** , Aghagani,H , Musivand,F (2020) .Investigation on Manganese carbonate mineralization phase at Halalan Mine, South Damqan. The 28<sup>th</sup> Symposium of Crystallograph and Mineralogy of Iran, Mashhad, Iran. (in Persian)

2- Ebrahimi, M., **Abedi, A.**, Kamkar Rouhani, A. and Saadat, S., 2018. The color factors in the amethyst gemstones in the south of Toroud, The 21<sup>st</sup> Symposium of Geological Society of Iran, Qom, Iran. (In Persian)

3- Shakoei, M. and **Abedi, A.**, 2017. Investigation on the Jasper minerals at Chah Andoo area, SW Moalleman, from the gemological point of view. The 4<sup>th</sup> National Conference on Gemology and Crystallography of Iranian Society of Crystallography and Mineralogy, Hamedan, Iran. (In Persian)

4- Sohrabnezhad, M., **Abedi, A.** and shafiei, B., 2017. Investigation on the concentration of indium in the chalcopyrites of Qale-Zary copper mine, SE Birjand. The 9<sup>th</sup> Symposium of Society of Economic Geology of Iran, Birjand, Iran. (in Persian)

5- Sohrabnezhad, M., **Abedi, A.** and shafiei, B., 2017. Investigation on the trace element contents in chalcopyrite from Qale-Zary copper mine, SE Birjand. The 4<sup>th</sup> YES Congress, Tehran, Iran.

6- Abdollahi, E., Aghajani, H. and **Abedi, A.**, 2017. Remote sensing studies in order to detect the argillic,potassic and propylitic alterations at the SE of Qom salt lake. The 9<sup>th</sup> Symposium of Society of Economic Geology of Iran, Birjand, Iran. (in Persian)

7- Abdollahi, E., Aghajani, H. and **Abedi, A.**, 2017. Using ETM+ sensor data to identify argillic alteration in the kuhe yakhab sheet. The 24<sup>th</sup> Symposium of Crystallography and Mineralogy of Iran, Shahrood, Iran. (in Persian)

8- Sohrabnezhad, M. and **Abedi, A.**, 2017. Investigation on selenium distribution in sulfide minerals at base-metals deposit. The 35<sup>th</sup> National Geosciences Conference, Tehran, Iran.

9- Safari Sinegani, S., **Abedi, A.**, Asghari, H. and Safari Sinegani, A.A., 2016. Accumulation of metals in plant grown in the tailing of Anjir-Tange coal washing factory. The 3<sup>rd</sup> National Iranian Coal Congress, Shahrood, Iran.

10- **Abedi, A.** and Shafaie, S.Z., 2016. The role of mineralogy in ore processing (Process Mineralogy), The 23<sup>rd</sup> Symposium of Crystallography and Mineralogy of Iran, Damqan, Iran. (in Persian)

- 11- Nikzad, T., **Abedi, A.**, Yousefi., S. and Esmaeil zadeh, E., 2015. Assessment of arsenic concentration in pyrite samples of waste dumps, Case study: Waste 19 and 31 in Sacheshmeh mine. The 7<sup>th</sup> Symposium of Society of Economic Geology of Iran, Damqan, Iran. (in Persian)
- 12- Tabasi, S., Hassani, H. and **Abedi, A.**, 2015. Environmental impacts of arsenic on the health of residents of Kuhsorkh area, Kashmar. The 3<sup>rd</sup> National Conference on Environment, Energy and Biological Defense, Tehran, Iran. (in Persian)
- 13- Tabary, M., **Abedi, A.** and Seifpanahi-Shabani, K., 2015. Equilibrium and Kinetic adsorption Study of Basic Violet-10 by Bauxite Nanoparticles. The 2<sup>nd</sup> Conference on New finding in Environment and Agricultural Ecosystems, Tehran, Iran.
- 14- Rahmani, M., **Abedi, A.**, karamoozian, M. and Mirbagheri, S.R., 2015. Evaluation of Mining ore and guange at the No.2 face of Amirabad Cu mine, SE Rafsanjan. The 7<sup>th</sup> Symposium of Society of Economic Geology of Iran, Damqan, Iran. (in Persian)
- 15- Khazaii, M., **Abedi, A.** and Tabasi, S., 2015. Environmental assessment of arsenic in sediments of the Chahar-Farsakh catchment basin, Nehbandan. The 2<sup>nd</sup> International Applied Geological Congress. Mashad, Iran. (in Persian)
- 16-Tabary, M., Seifpanahi-shabani, K. and **Abedi, A.**, 2015. Removal of basic red 46 from contaminated wastewater using bauxite Nano particles. The 7<sup>th</sup> Symposium of Society of Economic Geology of Iran, Damqan, Iran. (in Persian)
- 17- Nikzad, T., Yousefi, S., **Abedi, A.** and Esmaeil zadeh, S., 2015. Mineralogical studies as a useful method to determine toxic elements within the pyrites of the waste dumps, Case study: Waste 19 and 31 in Sacheshmeh mine. The 2<sup>nd</sup> International Applied Geological Congress. Mashad, Iran. (in Persian)
- 18- Rahmani, M., **Abedi, A.**, Karamoozian, M. and Mirbagheri, S.R., 2015. Mineralogical, investigation on the copper ore at Amir –abad Cu mine, SE Rafsanjan. The 2<sup>nd</sup> International Applied Geological Congress, Mashhad, Iran. (in Persian)
- 19- Abedini, M. and **Abedi, A.**, 2015. A review on exploration methods of lapis lazuli deposits around the world, The 22<sup>nd</sup> Symposium of Crystallography and Mineralogy of Iran, Shiraz, Iran. (in Persian)
- 20- Safari, S., **Abedi, A.** and Asghari, H., 2014. Contamination assessment of Cd, Pb and Cr elements in the plants around the Anjir-Tangheh coal washing plant, Mazandaran, Iran. The 32<sup>nd</sup> National and the 1<sup>st</sup> International Geosciences Congress, Tehran, Iran. (in Persian)
- 21-Safari, S., **Abedi, A.** and Asghari., H., 2012. Accumulation of Cd, Cu and Mo in plants around the Anjir-Tangheh coal washing plant, Mazandaran, Iran. The 15<sup>th</sup> symposium of the Geological Society of Iran, Tehran. (in Persian)
- 22-Safari, S., **Abedi, A.** and Asghari, H., 2012. Application of plants in order to reduce and control of pollutions made by coal mining. The 1<sup>st</sup> National Conference on Phytoremediation, Kerman, Iran. (in Persian)

- 23- Eskandary, M., **Abedi, A.** and Porkhial, S., 2012. Therapeutic effects of geothermal waters at Meshkinshahr geothermal field, NW Iran. The 30<sup>th</sup> Symposium of earth sciences, Tehran, Iran. (in Persian)
- 24- Eskandary, M., **Abedi, A.** and Porkhial, S., 2012. Environmental impact of Cl (chloride) derived from the geothermal spring at Meshkinshahr geothermal field, NW Iran. The 31<sup>st</sup> Symposium of Earth Sciences, Tehran, Iran. (in Persian)
- 25- Eskandary, M., **Abedi, A.** and Porkhial, S., 2012. Environmental impact of As (arsenic) derived from the geothermal spring at Meshkinshahr geothermal field, NW Iran. The 31<sup>st</sup> Symposium of Earth Sciences, Tehran, Iran. (in Persian)
- 26- Safari, S., **Abedi, A.** and Asghari, H., 2011. Heavy metal contamination in the Trifolium and CynodonDactylon spices of plants around the Anjir-Tangh coal washing plant, Mazandaran, Iran. The 7<sup>th</sup> Symposium of engineering geology and environment of Iran, Shahrood, Iran. (in Persian)
- 27- Khazaii, M., **Abedi, A.** and Jalayery, H., 2011. Flour content in the groundwater samples of Chahar-Farsakh area, South Khorasan, Iran. Goldschmidt 2011 Conference, Czech.
- 28- Khazaii, M., **Abedi, A.** and Tabasi, S., 2011. Boron contamination in the groundwater of Chahar-Farsakh area, South Khorasan, Iran. Goldschmidt 2011 Conference, Czech
- 29- Tabasi, S., **Abedi, A.** and Banihashemi, M., 2010. Chronic exposure of arsenic and its health effect in Avandar and Chalpu villages of Kouhsorkh area, NE of Iran. The 1<sup>st</sup> International Symposium on Medical Geology, Tehran, Iran.
- 30- Saeb, M., **Abedi, A.** and Parvaresh, M., 2010. As contamination around Torghabeh gold mine deposit, Mashhad, Iran. Goldschmidt 2010 Conference, USA.
- 31- Golmohammadi, A., Khazaii, M. and **Abedi, A.**, 2010. Useful and harmful effects of radon on human health, specially Ramsar area, North of Iran. The 1<sup>st</sup> Symposium on Radon, Environmental Hazard and its Application in Different Science, Mashhad, Iran. (in Persian)
- 32- Tabasi, S., **Abedi, A.** and Parvaresh, M., 2009. Mineral-geochemical investigation in order to determine the arsenic bearing mineral in the stream sediments at the Kuhsorkh polluted area, NE Iran. Goldschmidt 2009 Conference, Switzerland.
- 33- Tabasi, S. and **Abedi, A.**, 2009. Iron oxides minerals (magnetite and hematite) as a probable absorbent of arsenic in the contaminated sediments at Kuhsorkh area, Kashmar, Iran. The 17<sup>th</sup> Symposium of the Society of Crystallography and Mineralogy of Iran, Hamedan, Iran. (in Persian)
- 34- Ziaii, M., **Abedi, A.** and Ziaei, M., 2008. Geochemical and mineralogical pattern recognition and modeling with a Bayesian approach to magmatic-hydrothermal tin deposits. Goldschmidt 2008 Conference, Canada.
- 35- Yaghubpur, A. and **Abedi, A.**, 2008. Preliminary investigation on the economic mineralization in listwaenites from Sahl-Abad Area, Southeast Birjand, Iran. Goldschmidt 2008 Conference, Canada.

- 36- Parvaresh, M., Saadat, S., Mehdizadeh, H. and **Abedi, A.**, 2008. Arsenic contamination in the water resources of Kousorkh (kashmar), NE Iran. The 2<sup>nd</sup> International Congress on Arsenic in the Environment, Arsenic from Nature to Humans, Valencia, Spain, Book of Abstract p.91.
- 37- **Abedi, A.** and Tabasi, S., 2008. Medical mineralogy and its application in medicine. The 16<sup>th</sup> Symposium of the Society of Crystallography and Mineralogy of Iran, Rasht, Iran. (in Persian)
- 38- **Abedi, A.**, Fardoost, F., Saeedi, S. and Khazaii, M., 2008. Investigation on Iron mineralization phases at Ojatt-abad iron mine, East of Semnan. The 16<sup>th</sup> Symposium of the Society of Crystallography and Mineralogy of Iran, Rasht, Iran. (in Persian)
- 39- Dahrazma, B. and **Abedi, A.**, 2008. Source of Arsenic, its distribution in environment and the new methods for arsenic removal. The 2<sup>nd</sup> symposium of environmental engineering, Tehran University, Tehran, Iran. (in Persian)
- 40- **Abedi, A.** and Sharifi, N., 2007. Geogenic and anthropogenic contaminations of mercury. The 11<sup>th</sup> symposium of the geological society of Iran, Mashhad. (in Persian)
- 41- Zendedel, A., Ziiai, M., **Abedi, A.** and Ziaei, M., 2007. The quantitative method to distinguish Au mineralization at regional scale, Toroud-Chahshirin metallogenic belt, Semnan province, Iran. The 11<sup>th</sup> symposium of the geological society of Iran, Mashhad. (in Persian)
- 42- Musavi, A., Kakaii.kh., **Abedi, A.** and Zarei nezhad, M., 2007. Application of statistical modeling to make potential mineral map by weight of evidence model in GIS. The 1<sup>st</sup> International Symposium of Mining and Mining Achievements, Isfahan, Iran. (in Persian)
- 43- Musavi, A., Kakaii, kh., **Abedi, A.** and Zarei inezhad, M., 2007. Application of statistical modeling to make potential mineral map by over lay weight model in GIS. The 11<sup>th</sup> Symposium of the Geological Society of Iran, Mashhad. (in Persian)
- 44- Ziiai, M. and **Abedi, A.**, 2003. Cu porphyry mineralization at the margin of Lut metallogenic belt. The 11<sup>th</sup> Symposium of the Society of Crystallography and Mineralogy of Iran, Yazd, Iran. (in Persian)
- 45- **Abedi, A.**, 2001. Investigation on the chemical composition of Ni-sulphide minerals in the serpentized peridotite rocks at Jannat-Abad area, SE Birjand, Iran. The 9<sup>th</sup> Symposium of the Society of Crystallography and Mineralogy of Iran, Rasht, Iran. (in Persian)
- 46- **Abedi, A.**, 2000. Investigation on the chemical composition of chrome spinel minerals in the serpentinte and listwaenite rocks at Jannat-Abad area, SE Birjand, Iran. The 8<sup>th</sup> Symposium of the Society of Crystallography and Mineralogy of Iran, Mashhad, Iran. (in Persian)
- 47- **Abedi, A.** and Ziiai, M., 2000. Exploration studies on the listwaenite at Jannat-abadarea, SE Birjand, Iran. The 1<sup>st</sup> Conference on Potential Mineral of East Iran, Birjand, Iran. (in Persian)

48 -**Abedi, A.**, Rusinov, V.L., 1999. Alteration of the accessory chromspinels in serpentinite and listwaenite of the ophiolite at the southeast Birjand, International symposium "physico-chemical aspects of endogenic geological processes" devoted to the 100-aniversary of D.S Korzhinskii, Moscow, Russia.

49- **Abedi, A.**, 1998. Chemical composition of ore minerals in the ophiolite complex of Souhwest Birjand, Iran, Russian society of mineralogy Symposium, Moscow, Russia. (in Russian)