

Mohammad Reza Khalesi

Associate Professor of Mineral Processing

Address: No. 307, Block 6, Engineering Faculty, Tarbiat Modares University, Nasr Bridge, Jala-Al-Ahamad highway, Tehran, Iran

Tel.: 009821-82884365, Fax: 009821-82884324

mrkhalesi@modares.ac.ir

Education:

- PhD in metallurgical engineering, 2010, Laval University, Canada
- M.Sc. in mineral processing engineering, 2001, Tehran University, Iran
- B.Sc. in mine exploration engineering, 1999, Tehran University, Iran

Experiences:

- Vice president of Iranian Mining Engineering Society, 2015 up to now
- Vice president of Iranian Mineral Processing Research Center, 2015-2015
- Head of mineral processing group, Mining department of Tarbiat Modares University, 2013 up to now
- Assistant Professor, Tarbiat Modares University, 2010 up to now
- Member of the mineral processing committee, Program for preparation of regulations of mine industry, Ministry of Industry, Mine and Commerce, 2011 up to now
- Member of LOOP (Laboratoire d'Observation et d'Optimisation des Procédés), Quebec, Canada, 2006-2010
- Manager of mineral processing division, NGDIR (National Geosciences Database Of IRAN), Tehran, Iran, 2002-2004
- Engineer, Zarmehr Gold Company, Mashhad, Iran, 2001-2002
- Engineer, ParsCeram Company, Tehran, Iran, 1998-2001

Books:

- Managing uncertainty and risk in mineral exploration, 2004, Tehran University Publication
- Proceedings of fifth mining engineering conference of Iran, 2014, Editor

Some of the papers:

- Eskanlou, A., Huang, Q., Chegeni, M.H., Khalesi, M.R. and Abdollahy, M., 2020. Determination of the mass transfer rate constant in a laboratory column flotation using the bubble active surface coefficient. *Minerals Engineering*, 156, p.106521.

- Nasser, S., Khalesi, M.R., Ramezani, A., Abdollahi, M. and Mohseni, M., 2020. An Adaptive Decoupling Control Design for Flotation Column: A Comparative Study Against Model Predictive Control. *IETE Journal of Research*, pp.1-14.
- Ghiasi, M., Abdollahy, M. and Khalesi, M., 2020. Removal of iron from milk of lime to produce pure precipitated calcium carbonate. *Separation Science and Technology*, 55(8), pp.1425-1435.
- Foroutan, A., Naderi, H., Khalesi, M.R. and Dehghan, R., 2020. An improved model of continuous leaching systems using segregation approach. *International Journal of Mining and Geo-Engineering*, 54(2), pp.129-133.
- Ghiasi, M., Abdollahy, M., Khalesi, M.R. and Ghiasi, E., 2020. Control of the morphology, specific surface area and agglomeration of precipitated calcium carbonate crystals through a multiphase carbonation process. *CrystEngComm*, 22(11), pp.1970-1984.
- Eskinlou, A., Chegeni, M. H., Khalesi, M. R., Abdollahy, M., & Huang, Q. (2019). Modeling the bubble loading based on force balance on the particles attached to the bubble. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 582, 123892.
- Rezvani, A., Khalesi, M. R., Mirzaei, Z. S., & Albijanic, B. (2019). Image analysis of liberation spectrum of coarse particles. *Advanced Powder Technology*, 30(9), 1989-1993.
- Eskinlou, A., Khalesi, M. R., Mirmogaddam, M., Hemmati Chegeni, M., & Vaziri Hassas, B. (2019). Investigation of trajectory and rise velocity of loaded and bare single bubbles in flotation process using video processing technique. *Separation Science and Technology*, 54(11), 1795-1802.
- Mirzaei, Z. S., & Khalesi, M. R. (2019). Development of a Simulator for Random and Non-Random Breakage of Particles and Liberation of Grains Based on Voronoi Tessellation. *Minerals*, 9(6), 341.
- Habibi, M., Sayadi, A. R., & Khalesi, M. R. (2019). A parametric cost model for loading and hauling equipment in open pit mines. *Organizational Resources Management Researchs*, 8(4), 23-44.
- Kianinia, Y., Khalesi, M. R., Abdollahy, M., & Darban, A. K. (2018). Leaching of gold ores with high cyanicides: a physico-chemical modeling approach. *Journal of Mining and Environment*.
- Kianinia, Y., Hnedkovsky, L., Senanayake, G., Akilan, C., Khalesi, M. R., Abdollahy, M., ... & Hefter, G. (2018). Heat Capacities of Aqueous Solutions of K₄Fe (CN)₆, K₃Fe (CN)₆, K₃Co (CN)₆, K₂Ni (CN)₄, and KAg (CN)₂ at 298.15 K. *Journal of Chemical & Engineering Data*, 63(5), 1773-1779.
- Mohseni, M., Abdollahy, M., Poursalehi, R., & Khalesi, M. R. (2018). An insight into effect of surface functional groups on reactivity of Sphalerite (110) surface with Xanthate collector: a DFT study. *Journal of Mining and Environment*, 9(2), 431-439.
- Kianinia, Y., Khalesi, M. R., Abdollahy, M., Hefter, G., Senanayake, G., Hnedkovsky, L., ... & Shahbazi, M. (2018). Predicting cyanide consumption in gold leaching: A kinetic and thermodynamic modeling approach. *Minerals*, 8(3), 110.
- Razmjooei, S., Abdollahy, M., & Khalesi, M. R. (2018). Effect of impeller speed on properties of quiescent zone and entrainment in mechanical flotation cells. *Journal of Mining and Environment*.
- Ghasemi, S., Mohammadnejad, S., & Khalesi, M. R. (2018). A DFT study on the speciation of aqueous gold and copper cyanide complexes. *Computational and Theoretical Chemistry*, 1124, 23-31.
- Mohseni, M., Abdollahy, M., Poursalehi, R., & Khalesi, M. R. (2018). Quantifying the spreading factor to compare the wetting properties of minerals at molecular level—case study: sphalerite surface. *Physicochem. Probl. Miner. Process*, 54(3), 646-656.

- Eskanlou, A., Khalesi, M. R., & Abdollahy, M. (2018). Bubble loading profiles in a flotation column. *Physicochem. Probl. Miner. Process*, 54(2), 355-362.
- Eskanlou, A., Khalesi, M. R., Abdollahy, M., & Hemmati Chegeni, M. (2018). Interactional effects of bubble size, particle size, and collector dosage on bubble loading in column flotation. *Journal of Mining and Environment*, 9(1), 107-116.
- Basirifar, F., Khalesi, M. R., Ramezanizadeh, M., Abdollahy, M., & Hajizadeh, A. (2017). Prediction of effect of fine particle removal on efficiency of a spiral circuit by size-by-size partition curves. *Journal of Mining and Environment*, 8(4), 567-571.
- Kianinia, Y., Khalesi, M. R., Seyedhakimi, A., & Soltani, F. (2017). Flotation of mercury from the tailings of the Agh-Darreh gold processing plant, Iran. *Journal of the Southern African Institute of Mining and Metallurgy*, 117(1), 83-88.
- Arfania, S., Sayadi, A. R., & Khalesi, M. R. (2017). Cost modelling for flotation machines. *Journal of the Southern African Institute of Mining and Metallurgy*, 117(1), 89-96.
- Foroughi, S., Monjezi, M., & Khalesi, M. (2016). Determination of Optimal Size of Blending Piles Using Geostatistical Simulation-A Real Case Study.
- Chegeni, M. H., Abdollahy, M., & Khalesi, M. R. (2016). Bubble loading measurement in a continuous flotation column. *Minerals Engineering*, 85, 49-54.
- Khalesi, M. R., Zarei, M. J., Sayadi, A. R., Khoshnam, F., & Chegeni, M. H. (2015). Development of a techno-economic simulation tool for an improved mineral processing plant design. *Minerals Engineering*, 81, 103-108.
- Ebrahimi, E., Monjezi, M., Khalesi, M. R., & Armaghani, D. J. (2016). Prediction and optimization of back-break and rock fragmentation using an artificial neural network and a bee colony algorithm. *Bulletin of Engineering Geology and the Environment*, 75(1), 27-36.
- Chegeni, M. H., Abdollahy, M., & Khalesi, M. R. (2015). Column flotation cell design by drift flux and axial dispersion models. *International Journal of Mineral Processing*, 145, 83-86.
- Sayadi, A. R., Khalesi, M. R., & Borji, M. K. (2014). A parametric cost model for mineral grinding mills. *Minerals Engineering*, 55, 96-102.
- Radmehr, V., Koleini, S. M. J., Khalesi, M. R., & Mohammadi, M. R. T. (2013). Ammonia Leaching: A new approach of copper industry in hydrometallurgical processes. *Journal of The Institution of Engineers (India): Series D*, 94(2), 95-104.
- Khalesi, M. R., Bazin, C., Hodouin, D., & Bellec, S. (2011, October). Modelling of the gold content within the size intervals of a grinding mill product. In *World Gold Conference*.
- Bellec, S., Hodouin, D., Bazin, C., Khalesi, M. R., & Duchesne, C. (2011, October). Hydrocyclone classification modeling for gold ore grinding circuit simulation. In *Proceedings of the 50th World Gold Conference, Montreal, QC, Canada* (pp. 2-5).
- Khalesi, M. R., Bazin, C., Hodouin, D., & Bellec, S. (2009, October). A liberation model for the integrated simulation of grinding and leaching of gold ore. In *World Gold Conference* (pp. 61-73).
- Khalesi, M. R., Bazin, C., Hodouin, D., & Bellec, S. (2009). Simulation of gold grain exposure of ground ore using Voronoi tessellation. *IFAC Proceedings Volumes*, 42(23), 43-48.
- Bellec, S., Hodouin, D., Bazin, C., Khalesi, M. R., & Duchesne, C. (2009, October). Modelling and simulation of gold ore leaching. In *World Gold Conference* (pp. 51-60).
- Bazin, C., Hodouin, D., Khalesi, M. R., Bellec, S., Egan, J. & Duchesne, C. (2008). Training to process analysis methods using a gold leaching simulator. In *40th Annual Meeting of the Canadian Mineral Processors*. Ottawa, Canada.
- Bazin, C., Hodouin, D., Khalesi, M. R., Bellec, S., Egan, J., & Duchesne, C. (2007). A Gold leaching simulator for training to process analysis methods. In *IFAC Proceedings Volumes*, 40(11), 369-374.