

Homayoun Fathollahzadeh

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Brief Summary

The world's smallest miners, microorganisms have been applied in the bioleaching of metals from ores for decades. There is a current lack of knowledge regarding REEs dissolution mechanisms and feasibility of applying biomining methods to the extraction of REEs from phosphate ores. This project is aimed at the development of novel and more sustainable biotechnical approaches to the extraction process of REE bearing minerals. Outcomes of the research will contribute to identify benign and low cost processing strategies for processing REE ores in addition the biomining to recover REE from waste and low grade by products.

Education: BSc Soil Science (University of Tehran), MSc Soil and Water Management (Swedish University of Agricultural Sciences)

Research interests: Bioleaching, Metals Speciation, Contaminants geochemistry, Assessment and remediation of contaminated sites

Thesis title: Biomining of Rare Earth Elements from Phosphate Ores and Minerals

Supervisors: Prof Elizabeth Watkin, Prof Jacques Eksteen, Dr. Anna Kaksonen, Dr. Melissa Corbett

Conferences: 22th International Biohydrometallurgy Symposium, 2017, Freiberg, Germany
Syntrophic effect of indigenous and inoculated microorganisms in the leaching of Rare Earth Elements from Western Australian Monazite

Links: <https://www.linkedin.com/in/homayouni/>