MODELLING SYSTEM OF ENVIRONMENTALLY FRIENDLY TECHNOLOGY FOR METALS LEACHING IN SITU ORE OCCURRENCE

Description
Designed special experimental installation for modelling of leaching processes the requirement metals from various types of ores with the analytical control in a real-time mode. The system allows definite ore objects the more optimal and ecologically harmless leaching modes, both for conditions of contact to atmosphere, and for oxygen free environments. The leaching technology can be suggested for selective extraction of some metals or for complex extraction of metals group with their further separation by hydrometallurgical methods.

Results of technological development can be used for mining in heap or in situ leaching.

Innovative Aspects and Main Advantages
Novelty of experimental modelling system is in its universality and possibility adaptation to any type and kind of ore fields. Due to the fact that each deposit in terms of its geology-morphological, mineralogy-geochemical and other parameters, the technology for leaching for each field is of specific and individual nature.

Advantage of system consists in its multifunctional, flexible properties and possible using of feedback process for selection of more optimal technological parameters.

Areas of application
Mining operations using ecologically harmless and environmentally safe methods.

Extraction of heavy metals from anthropogenic sailings, technological tails and other waste.

Stage of development
Experimental modelling of leaching.

Fig.1. Block diagram of modelling system.

Contact details
Institute of Geology of ANAS
Contact person: Professor Kashkay Chingiz M.
Head of "Geotechnology" laboratory
Address: 29 A, H. Javid Avenue
AZ1143, Azerbaijan, Baku
Tel: (+994 12) 510 56 18
Fax: (+994 12) 494 48 24
Mobil: (+994 50) 350 03 36
E-mail: chkashkay@gia.ab.az; eldarkashkay@bk.ru