

Refresher course program on "Technology of bacterial-chemical leaching of uranium" discipline

Bacterial leaching is chemical elements' selective extraction from multicomponent compounds through their dissolution by microorganisms in the aqueous medium. Thanks to this process, it becomes possible to extract valuable components from ores and industrial wastes, such as uranium, or harmful impurities, and thus to increase valuable metals extraction.

The technology of bacterial cells' interaction with mineral particles is the basis of theory and technology of sulfide minerals bacterial leaching. The study of interaction of microorganisms with the mineral surface and its mechanism is the basis for intensifying the leaching process and their management.

Course program:

- Visibility of the process and world experience in bacterial leaching of oxidized ore;
- Growing and using bacteria to leach uranium;
- Equipment for industrial bacterial leaching of uranium;
- Calculation of heat and material balance and technological scheme modeling;
- Process control, parameters of solutions for bacterial leaching;
- Management of technological process of uranium bacterial leaching;
- Practical participation in technological process of uranium leaching;
- Visiting a biological laboratory, participating in laboratory studies of bacterial leaching;
- Analysis of technological process of uranium bacterial leaching.