

## CONTENT

### Enrichment of minerals

- Golik V.I., Alekseev I.A.** Mechanochemical activation of processing tailings to manufacture components for cemented backfill .....5
- Evdokimov S.I., Gerasimenko T.E., Kondratiev Y.I.** Surface forces of structural origin in micro-fine gold flotation.....17
- Bosikov I.I., Kozhiev Kh.Kh., Silaev I.V., Revazov V.Ch.** Integrated estimate of processing flowsheets for silver-bearing primary ore at Rubin deposit .....36
- Gabaraev O.Z., Evdokimov S.I., Gerasimenko T.E., Maksimov R.N.** Development of manmade mineral reserves using innovative technologies at Kvaisa deposit ..... 50

### Geoecology

- Evstegneeva N.A., Kolesnikov S.I., Minnikova T.V., Timoshenko A.N.** Toxicity estimate of heavy metals, metalloids and nonmetals contained in mineral mining waste.....73
- Shabanov M.V., Marichev M.S., Minkina T.M., etc.** Manmade flow impact on geochemical background of Se and Te in soil in copper-pyrite mining region in the Soimonov valley .....86
- Moshchenko D.I., Kolesnikov S.I., Kuzina A.A., etc.** Prognostic map charts of ecosystem functioning violation in soil in the Central Ciscaucasia and the Caucasus in contamination with different copper concentrations..... 104
- Shabanov M.V., Marichev M.S., Minkina T.M., etc.** Change in eco-geochemistry of bottom sediments in copper-pyrite mining area: A case-study of Karabash copper deposits..... 117

### Geotechnology

- Golik V.I., Alekseev I.A.** Metal leaching from low-grade raw materials in North Ossetia-Alania ..... 135

### Energetics and energy efficiency of mining industry

- Klyuev R.V., Khetagurov V.N., Gavrina O.A., Plieva M.T.** Integrated analysis of electric energy demand of autogenous grinding mills at concentration factories .....145
- Morgoeva A.D., Morgoev I.D., Klyuev R.V., etc.** Short-term prediction of energy consumption at concentration factory.....157

### Theoretical bases of designing of mining-technical systems

- Stadnik D.A., Stadnik N.M., Grigoryan K.L., Kozhiev Z.V.** Technological updating of mineral mining projects using computer technologies .....170
- Stadnik D.A., Stadnik N.M., Zhilin A.G., Lopushnyak E.V.** Methodological framework for implicit modeling of solid mineral deposits in automated design.....185