

# CONTENT

## Technical science

<i>Kaplunov D.R., Yukov V.A., Lavenkov V.S.</i> Influence of annual production output on copper ore leaching efficiency.....	5
<i>Aguzarov V.O., Aguzarov G.V.</i> Centrifugal oil filtration in crankpins of ZIL-130 truck engines.....	12
<i>Antonov V.A.</i> Methodology of geoinformation display experimental mining-technological regularities .....	17
<i>Afnas'ev A.I., Stozhkov D.C., Potapov V.Ya., Potapov V.V.</i> Energy consumption of impact fracture of low-grade copper–zinc ore .....	25
<i>Afnas'ev A.I., Stozhkov D.C., Potapov V.Ya., Potapov V.V.</i> Basic determinants for parameters of low-grade sulfide ore separation equipment.....	30
<i>Golubev D.A., Melkonyan R.G., Rastanina N.K., Abubekirov S.A.</i> Estimation of toxic waste at tailing storages in the Primorsky Krai and their application in some sectors of national economy.....	36
<i>Golynskaya F.A.</i> Influence of tectonic damage on autogenous ignition in coal beds.....	43
<i>Kokonkov A.A., Severikova D.D., Ivanov S.L.</i> Estimation of loads in rotary crushing of peat with natural moisture content.....	48
<i>Kubrin S.S., Reshetnyak S.N., Degterev V.V.</i> Remote monitoring of dust condition in coal mines.....	54
<i>Novoselov S.V., Panikhidnikov S.A.</i> Problems in prediction of number of emergencies by statistical methods.....	60
<i>Pobegaylo P.A., Kritskiy D.Yu.</i> State of research in the area of mechanical shovels in the ussr in the late 1960s.....	72
<i>Sinchuk O.N., Fedotov V.O., Debelyy V.L., Stepanenko V.P.</i> Essentiality of introduction of combination electric locomotives in iron ore mining.....	84
<i>Ushakov L.S., Klimov V.E.</i> Selecting key parameters for mathematical modeling of rock destruction by ram-type percussive tool .....	100
<i>Khalkechev R.K., Khalkechev K.V.</i> Frame-based approach to automated research system design in mining industry using method for the determination of mechanical and thermal properties of geomaterials .....	106

## Earth sciences

<i>Vitkalov V.G., Pham Duc Thang.</i> Validation of engineering solutions on pitch coal mining in the quang ninh coal basin .....	113
<i>Kutepov Yu.I., Vasil'eva A.D.</i> Geotechnical conditions of external dumping at open pit mines in Kuzbass.....	122
<i>Kutepova N.A., Korobanova T.N.</i> Features of deformation development in phosphogypsum dumps near the balakovo town in the Saratov Region.....	132
<i>Lavrinenko A.A., Makarov D.V., Shrader E.A., etc.</i> Substantiation of reagent regimes for flotation of pge-bearing copper–nickel ore of Monchegorsk field.....	141

<b>Lushpey V.P., Soboleva E.E.</b> Evaluation of environmental impact due to increase in design capacity at Pavlovsky open pit mine-2.....	149
<b>Pestrikova V.S., Tarasov V.V.</b> Calculating maximum permissible corrosive wear of button beams in operating shafts in potassium mines.....	157
<b>Sentyabov S.V.</b> Taking into account hierarchical block structure of rock mass when solving geomechanical problems.....	161
<b>Sergeev S.I., Sanina I.A., Korolyov S.A., Volosov S.G.</b> Early detection of seismic activity in mining areas with seismic arrays .....	167
<b>Sokolov I.V., Smirnov A.A., Rozhkov A.A.</b> Explosive breaking of quartz by concentrated charges in underground mining.....	178
<b>Tereshchenko S.V., Alekseeva S.A., Rukhlenko E.D., etc.</b> Phlogopite mining waste processibility .....	186
<b>Shamshev A.A., Kotlov S.N.</b> Improvement of estimation procedure for flow parameters in anisotropic weakly permeable deposits based on flow tests .....	194
<b>Shemetov R.S., Filippov Yu.A.</b> Validation of selected observation station location for geomonitoring deformation of structures .....	205
<b>Shilov A.V., Rusakov M.I.</b> Experience and prospects of clayey-salt slurry placement in salt dumps at potassium mines.....	212
 <b>Works of young scientist</b>	
<b>Bukreev S.V.</b> Effects of valve-and-induction motor drives on transient processes in exploration drilling string.....	219
<b>Ilatova R.K.</b> Continental weathering in the mesozoic era: features of mineral composition in geological sections and distribution of rare-earth elements .....	226
 <b>Special editions GIAB</b>	
<b>Team of authors.</b> Ecology and safety of mining minerals.....	185