Underground mining

Eremenko V.A. Safety instructions on rockburst-hazardous underground mining in Gornaya Shoria...........................................................................................................5

Krupnik L.A., Shaposhnik Yu.N., Shaposhnik S.N. The development of backfilling technology in terms of tellur mine, Akmola Gold........................................10

Maslennikov S.A. Optimization of parameters of construction technology shafts .............17

Open-cast

Cheskidov V.V. Engineering-geological zoning of the projected south-western overburden dump OF «Stoilensky GOK» .............................................................................24

Shpakov P.S., Yunakov Yu.L., Shpakova M.V., Chumliakov V.A. Influence on stability fractured pit and its variability in size and depth on Gorevsky field........32

Shtirts V.A., Koltyshev V.N. Development blocks and the distribution of aftershocks after massive explosions in the conditions of the Tashtagol deposit ..........41

Enrichment of minerals

Golberg G.Yu., Lavrinenko A.A. Formation, existence and breakup of flocculation structures ................................................................................................................47

Mesyats S.P., Ostapenko S.P., Skorokhodov V.F., Nikitin R.M. Study of sorption characteristics of solid phase thickener overflow in apatite processing circuit .........55

Opalev A.S., Birukov V.V., Scherbakov A.V. Stadial obtaining of the magnetite concentrate during the development of power resource-saving technology of beneficitation of ferruginous quartzites on JSC «Olcon» ........................................60

Skorokhodov V.F., Nikitin R.M., Stepannikova A.S., Yakushkin V.P. Initialization of close-cut separation fractions in modeling exercise on heterogeneous flotation system ........................................................................................................63

Geology

Bolobov V.I., Bochkov V.S., Chupin S.A., Stepanov S.Yu. Dependence of the abrasive properties of rocks from their fortresses ........................................74

Verkhoturov A.G. The influence of cryolitozone degradation on the complexity of geological conditions of non-ferrous and rare metals of Transbaikalie ................80

Moseykin V.V., Musaev N.M. Clustering of physical and mechanical properties of saw limestone quarry Pervomaisky .................................................................88

Yanchenko G.A. Indicators of content of ice and water unfrozen in the frozen rocks and soils .............................................................................................................93

Mining cars, the equipment and transport

Busygin A.M. Kinematic analysis of mechanism of shovel crawler arm with three degrees of freedom using analytical method ........................................102

Malafeev S.I., Tikonov Yu.V. Intellectualization of a career excavator ..................107

428
Muluhov K.K., Beslekoeva Z.N. Increase of the reliability of the design of steeply angle elevating belt-wheeled conveyor for handling bulk lumpy mining loads .................116

Fomin K.V., Zhigul’skaya A.I. The definition of the spectral density of the moment on the working body of the machine deep milling in the preparation of peat deposits exploitation..................................................123

Goryunov S.V., Sharipov V.M. The prediction of durability of the pneumatic tire dump trucks........................................................................................................127

Shigin A.O. Rolling cutter bit life gain in complex structure rock masses.....................131

Building of underground constructions and mines

Kulickov Yu.N. The definition of external loads seal on concrete mix when laying into the secondary lining of the underground constructions..................................................137

Physicotechnical control of processes mountain manufacture

Nikolenko P.V., Kormnov A.A. Stress state monitoring of rock mass using acoustic emission effects in anisotropic comosite materials ..................................................143

Sultanalieva R.M. Determination of the specific energy intensity and optimum temper-ature of the strong ores after influence of microwaves..................................................148


Nemchin N.P., Terentyev P.Yu. Application of numerical methods to calculate the rock pressure in the horizontal excavations in the presence of technological influences ..................................................162

Aerology, methane, safety

Gendler S.G., Sinyavina S.V. Features of control of the new Baykalsk railway tunnel ventilating mode........................................................................................................173

Economics and management

Komissarova M.A., Komissarov V.D. Working models of adaptation coal mining companies to their innovational development ..................................................180

Ryabova T.F., Fomina V.P. The system of environmental and economic indicators of sustainable development.................................................................189

Holodnyakov D.G., Dzendzik A.A. Output value accounting in distribution of general input per different minerals at an open pit mine ..................................................196

Yastrebinskiy M.A., Guseva N.M. Marginal approach to gold price management in jewellery and mining ..................................................201

Mathematical modeling

Valuev A.M. Problem of Pareto optimization of a trajectory on a network as a meta-model of multiobjective choice of project parameters for mining enterprises .................215

Gendлина I.I., Kulikova E.G. About numerical modeling of dynamics of a vibration feeder for rock mass release.................................................................224
Isaev A.B., Khalabi S.M., Alnafka A. Algorithm for bias of coefficients of linear and parabolic regression relationships obtained using conventional least square method in metrological certification of instrumentation ........................................ 231

Lan Tianwei, Zhang Hongwei, Li Sheng, Tang Guoshui, Han Jun, Song Weihua, Batugin A.C., Batugina I.M. Study on coal and gas outburst regional prediction by pattern recognition ............................................................................... 237

Nikolaev P.V., Shuplik M.N. Mathematical modeling of artificial ground freezing with using solid carbon dioxide ........................................................................ 243

Pankratenko A.N., Nguyen Quang Huy, Samal’ A.S., Begalinov A.B., Amantolov D.B. Mathematical modeling of influence of microtunneling by punching on stress state of enclosing rock mass and on support of existing tunnel ............................................................ 252

Explosive work

Lyashenko V.I., Kislyy B.P., Alekhin A.I. Enhancement of blasting efficiency in mines ........................................................................................................... 259

Ecology

Bykadorov A.I., Larichkin P.M., Svirko S.V., Yagunova O.A. Analysis of dynamics of flooding in mine conservation in Kuzbass ......................................................... 269

Krylov D.A., Sidorova G.P. Ways reduce the environmental impact environmental coal plants Russia ........................................................................................................ 277

Yakovlev V.L., Laptev Yu.V., Yakovlev A.M. Methods qualitative characteristics geometrization Gusevogorskoye deposit of titanium ores ................................................ 286

Kalinin S.I., Pudov E.Yu., Kuzin E.Yu. Prospects of application of GPR to determine the condition of the roof shaft workings ........................................................................ 297

Venkova Y.A., Krapivsky E.I. Study of the stress state influence on induced pipelines magnetic field ........................................................................................................ 300

Popov S.M., Kozlov O.V. Methodological basis for the organization of innovative solutions for the protection of the atmospheric air in the underground technosphere city ........................................................................................................... 306

Automated control systems

Samarin N.N. Estimation of optimum length for chain of processor instructions for addresses in memory space to obtain the characteristic signature of a running program ........................................................................................................ 316

Sukhanov V.I., Alenichev V.M. Prospects for the introduction of geological information systems on the domestic mining enterprises .................................................. 320

Shek V.M., Morozov V.V., Litvinov A.G. Recognition of objects in mineral products ......................................................................................................................... 330

Oil and gas

Zakirov A.I., Nikolaev A.K., Pshenin V.V. Investigation of the rheological model mixtures of the bituminous and low-viscosity oils of ashalchinskoye oilfield............. 353
Chernykh N.G. Hydrocarbons, their formation methods and discovery of new reservoirs (sources of deep oil and gas products) .................................................................360

Works of young scientists

Gashigullin A.G. Innovative development and high technology in the Republic of Tatarstan ..........................................................................................................................378
Dzendzik A.A. Associated minerals storage capacity at complex deposit ..................389
Mamay A.V. Analysis and design of control for interconnected drives of shovel ..........395
Mel’nichenko A.M. About increasing the part of the small-scale and middle-scale deposits in mining sector of Russian Federation .........................................................400
Nguyen Tkhe Ha The main directions of improvement of coal mines Vietnam ventilation (in terms of Mao He’s mine) ........................................................................ 403
Reshetnokova O.S. Research of characteristics of movement of the hydraulic hammer’s peen ..............................................................................................................408

Special editions GIAB

Ligotskiy D.N., Kholodnyakov G.A., Abdullaev M.D. and others. Industrial safety mineral complex in the XXI century ..............................................................................142
Tkach S.M., Yakovlev V.L., Rasskazov I.Yu. and others. Geomechanical and geotechnical problems of development of mineral resources of the North ..............200
Anisimov V.N. Substantiation of iron ore mining and blasting, considering geological and geophysical characteristics and the rational subsoil use standards ..........399

The deposited manuscripts

Kondratenko V.E., Devyatyarova V.V., Pikel K.S. Calculation of trapezoidal frame by bolting forces ........................................................................................................130
Safonova E.G. Features of accounting and valuation of fixed assets in russian non-state universities ........................................................................................................172
Juraev R.M., Merkulov M.V. Modeling of the temperature regime during drilling in frozen rocks with the blast of air when using the vortex tube ..................................335