

# CONTENT

## Technical science

<i>Eremenko V.A., Aynbinder I.I., Patskevich P.G., Babkin E.A.</i> Assessment of the state of rocks in underground mines at the Polar Division of Norilsk Nickel .....	5
<i>Asonov S.A., Ivanova P.V., Ivanov S.L., Shishlyannikov D.I.</i> Validation of integrated diagnostic system for status evaluation of heading-and-winning machine drives .....	18
<i>Balkhanov V.K., Angarkhaeva L.Kh., Bashkuev Yu.B.</i> Impedance of the medium with inhomogeneous magnetic properties .....	27
<i>Balkhanov V.K., Bashkuev Yu.B., Advokatov V.R., Angarkhaeva L.Kh.</i> Distribution of surface electromagnetic wave over permafrost .....	32
<i>Barannikova I.V., Mazhibrada I.</i> Predicting the probability of failure of excavators based on artificial intelligence methods .....	37
<i>Boyko O.E.</i> Modelling of the information space of the enterprise in the design of information systems .....	47
<i>Bolobov V.I., Bochkov V.S., Mishin I.I., Nestruiev A.A.</i> Influence of thermomechanical treatment on the wear resistance of materials of wearing elements of ore dressing equipment .....	52
<i>Volkova L.P., Kostin V.N., Kalitin D.V., Pankrushin P.Yu.</i> The concept of database structure for CAD plow aggregates and installations .....	60
<i>Voloshinovskiy K.I.</i> Argument and argument with interference .....	66
<i>Efimov V.I., Sidorov R.V., Korchagina T.V.</i> The issue of waste production from the coal industry in Kuzbass .....	85
<i>Ilyushin Yu.V., Trushnikov V.E.</i> Transformation of accidental exposure linear elements vector system extraction of groundwater .....	97
<i>Karavaev Ya.S., Novikov V.Yu.</i> Increasing productivity by sieving not fit oversized cast billets by 3D scanning .....	104
<i>Karkashadze G.G., Babich A.V.</i> Study of the process of rock failure of disc cutters .....	109
<i>Komissarova M.A., Filatova E.V.</i> Innovation management in coal mining based on clustering .....	117
<i>Kusov G.V., Beketov S.B., Savenok O.V.</i> Assessment and ways to improve the reliability of automation systems and control of oil and gas production .....	127
<i>Lebedev O.F., Bulgakov I.S., Teryekhin Ey.P.</i> Experimental researches on improving the efficiency of high performance hydro-monitors .....	133

<b>Molev M.D., Zanina I.A., Stuzhenko N.I.</b> Scientifically-methodical bases of planning of environmentally friendly liquidation of coal mines .....	138
<b>Murzin A.D., Murzina S.M.</b> Criteria of economic efficiency environmental innovation.....	146
<b>Novoselov S.V.</b> Algorithm of system analysisand strategic development of regional coal and energy company .....	153
<b>Ponkrashkin R.A., Rempel' K.K., Bocherov M.O.</b> The rational way for using wastepaper of unrecyclable type.....	158
<b>Popov S.M., Il'in A.S.</b> Use of marginal analysis in coal mines production parameters under conditions of economical crisis.....	165
<b>Rogalis V.S., Pavlenko M.V., Shilov A.A., Khitrov O.P.</b> Radiation hazard in coal mines .....	175
<b>Stepanenko V.P.</b> Analysis of application prospects in the mining industry renewableand combined energy storage .....	185
<b>Khalkechev K.V.</b> Mathematical modeling of impact-resonance rupture of a microheterogeneous plate-like particle under crushing .....	195

## Earth sciences

<b>Abramkin N.I.</b> , Pham Duc Thang Selection of mechanizing coal win- ning technology in medium-thick inclined seams for Quang Hanh mine .....	202
<b>Anisimov V.N., Logachev I.I.</b> Applicability of high-gradient magnetic fields in ferruginous quartzite destruction in rock mass.....	210
<b>Akhmedov Kh., Bekpulatov Zh.M.</b> Material composition and prepara- tion characteristics of an ore sample in the Republic of Uzbekistan .....	217
<b>Belyakov N.N.</b> Comparison of methods of determining the boundaries of open pits.....	222
<b>Varenichev A.A., Komogortsev B.V., Gudzenko V.T.</b> The main directions of gold miningin Russia.....	231
<b>Versilov S.O., Maksimov A.A.</b> Shaping optimal mineral streams using adaptable feeders in ore mining .....	238
<b>Vorobyova S.V.</b> Key geological factors to gain an insight into geotectonics .....	243
<b>Gazaleeva G.I., Mamontov S.V., Bratygin E.V., Klyushnikov A.M.</b> Prob- lems and innovation solution in technogenic raw material beneficiation.....	257
<b>Gorbunova Je.M., Vinogradov E.A., Besedina A.N.</b> Underground water response to earthquakes and large-scale explosions .....	273
<b>Krapivskiy E.I., Sokolov Ts., Volkova A.V., Ryzhkova E.V.</b> Substantiation of expediency and the possibility of transporting compressed natu-	

ral gas by gas vessels across the Black Sea from Russia to Southern Europe .....	291
<b>Leont'eva E.V., Medyanik N.L., Kalugina N.L.</b> Thermochemical chlo-ro-ammonium processing of technogenic dump sulphide tailings .....	305
<b>Opanasenko P.I., Isaychenkov A.B.</b> New method for the determination of influence of grain size composition of rocks on excavation performance .....	317
<b>Sadovets V.Yu., Koperchuk A.V.</b> Development of constructive solutions for the construction of devices roof support in conditions geohodnoy technology .....	327
<b>Sekisov G.V.</b> Gold-bearing and gold-bearing education and facilities development in the far East .....	336
<b>Talgamer B.L., Semenov M.E.</b> Evaluation of the quality of the under-water excavation of minerals .....	350
<b>Kholodnyakov G.A., Loginov E.V., Vu Duc Tuan</b> Low-waste open-pit minings using hydraulic excavators .....	357
<b>Yaltanets I.M., Pastikhin D.V., Ivanov S.A., Kazakov V.A.</b> Evaluation of maximum capacity of dredge depending on soil pump penetration and digging depth .....	364
<b>Works of young scientist</b>	
<b>Dutova K.V., Zorin I.A.</b> Software Design of the plan of creation of packing cargo in the vehicle .....	377
<b>Lipina A.V., Manevich A.I.</b> Perspective trends in designing the networks to collect information of platform at engineering-geological studies of wave-built solid mass, sloping structures and their foundations .....	387
<b>Pashchenkov P.N.</b> Gas content of face area depending on coal humidity .....	396
<b>Situshkin A.K.</b> Measuring the sound level algorithm and analyze its characteristics .....	404
<b>Fedash V.A.</b> Rational use of waste coal in economic activity of subjects of RF using environmental and economic assessment of processing of the dumps .....	411
<b>Enkhtur Lonzhid</b> The history and current state of mining in Mongolia .....	419
<b>Special editions GIAB</b>	
<b>Fedorova E.R., Firsov A.Yu.</b> Modelling of red mud thickening process .....	126
<b>Artemyev V.B., Kilin A.B., Galkin V.A., Makarov A.M.</b> Mining company: the leader and the leadership .....	237