CONTENT

Geotechnology (underground, open and construction)

Yanchenko G.A. Procedure of engineering calculation of conditional specific air enthalpy by Ramzin during drying of rocks and rock processing products ........................................... 5

Bashkov V.I., Khristolyubov E.A., Eremenko A.A., etc. Substantiation of mining system parameters for rock-burst hazardous blind iron ore bodies in Gornaya Shoria........................................................................................................................................ 18

Valuev A.M. Technologies of generating and selecting logistics scenario in operational open pit mine management ................................................................................................. 32

Kubrin S.S., Zhuravlev E.I. Intelligent dynamic hazard prediction system for production areas in coal mines.............................................................................................................. 40

Lyashenko V.I., Andreev B.N., Kucha P.M. Technological development of in-situ block leaching of metals from hard ore................................................................................................ 46

Malyukov V.P., Starovoytova Yu.I. Improving technologies that limit production of solids in hydrocarbon recovery........................................................................................................... 61

Novoselov S.V., Panikhidnikov S.A. Method of differential calculation of process idle time in production cycle of high-output faces in gas-hazardous mines with regard to threshold concentrations of methane ........................................................................... 69

Patutin A.V., Rybalkin L.A., Shilova T.V., Serdyukov S.V. Device for making transverse fractures in mines .................................................................................................................. 75

Shevyrev Yu.V., Fedorov O.V., Sarvarov A.S. Technology state-of-the-art and supply of resources........................................................................................................................................... 82

Mine aerogasdynamics

Pavlenko M.V. Substantiation of gas-bearing coal preparation technology based on integrated treatment....................................................................................................................................... 91

Geoecology of mining industry

Alborov I.D., Tedeeva F.G., Madaeva M.Z., etc. Transformation of natural environment under mining and processing impact in the middle mountains of the North Caucasus................................................................................................................................. 98

Lisina K.O. Eco-risk mitigation outline at Zhezkazgan processing plant................................................ 106

Chmykhalova S.V., Sibagatullina S.S. Assessment of technogenic environmental capacity of Bashkortostan................................................................................................................................. 112

Mining geophysics

Pashchenkov P.N. Method to determine parameters of Langmuir isotherm and gas permeability of dispersed coal particles........................................................................................................ 120

Mining machinery and equipment

Sklyanov V.I., Ufatovar Z.G. Sinusoidal–ball rotary–multiplying drill — a fundamentally new design to increase deep exploration drilling speed with diamond rock-breaking tool ........................................................................................................................................ 129

Tarasov P.I., Zyryanov I.V., Khazin M.L. New special-purpose transport for the Arctic.............. 136
Enrichment of minerals

Melnikov Z.G., Konoplev V.N. Preserving stability of produced oil properties during transport by removal of bottom sediments using flat flexible electrical heaters as the method of oil processing ................................................................. 148

Production organization and management in mining

Lozovskaya Ya.N., Mikhailov M.V. Modern production management philosophies: strengths and weaknesses ........................................................................................................... 159

Palianova N.A. Improvement of regulatory and legal framework to ensure ecologically and economically sustainable development in the coal mining industry in Russia........ 168

Fedorin V.A., Tatarinova O.A. Principles of the method of getting access to georesources in transportation optimization problems in underground coal mining ........................................... 176

Frankevich Zh.A., Gagarina A.Yu. Investment project risks: analysis and evaluation .......... 183

Industrial safety and labor protection in mining

Eliseeva M.A. Developing methodical framework for enhanced-quality risk management at hazardous industrial objects ........................................................................................................ 193

Kupriyanov V.V., Matskevich O.A., Bondarenko I.S. Parametric and nonparametric models for predicting off-normal situations in underground mines .............................................. 200

Computer science, Automated control systems

Bukeykhanov S.D., Bukeykhanova S.S., Kanagatova A.A., Sapakov E.A. Application of the object-oriented analysis method to creating an automated open pit mine planning and design system .................................................................................. 208

Markaryan L.V. Monitoring and modeling compression of geophysical data .......... 218

Special editions GIAB

Team of authors Collection of scientific works of teachers and graduate students of North Caucasus Mining-and-Metallurgy Institute ................................................................. 45

Team of authors Kamchatka-5 ........................................................................................................... 111

Fedorova M.A., Agafonov V.V., Yakunchikov E.N. Development of scientific approaches to the justification of design decisions development geosource potential gas-and-coal deposits ................................................................. 147

Gorinov S.A., Maslov I.Yu. Features of application of ammonium nitrate explosives in sulfidogenic rocks ............................................................................................................... 192

The deposited manuscripts

Pushkin N.V. Development of technical solutions to reduce arc overvoltage in the 6 Kv network of the branch «Krasnobrodsky coal mine»............................................................................. 97

Yarotsky G.P. Geo-ecological grounds for Kamchatksy krai natural resources development in seismic conditions (southwest of the Koryak highland) ............................................ 119

Zlobin D.A. Energy and energy efficiency mining industry ............................................................................................................... 158