

CONTENTS

MINING SCIENCE

1. **Sobko B., Lozhnikov O., Voronyi M.** Determination the influence of the rock mass density on the productivity of wheel loaders at the iron ore pit mining..... 7
2. **Sobko B., Kriachek V.** Establish of the optimum parameters of the Pynyazevytsky granite deposit mining system..... 17
3. **Anisimov O.O., Ivanyk O.Y.** Methods of creating a conveyor lift route in a deep pit..... 29
4. **Voitenko Yu., Vapnichna V., Krivtsov M., Voitenko O.** On the time of well transition to industrial production mode..... 42
5. **Joukov S., Hryhoriev Ju., Lutsenko S.** Analysis of technological approaches and development experience of Kryvbass tailings..... 53
6. **Kononenko M., Khomenko O., Kosenko A.** Improvement of the current methodology for calculating the parameters of drilling and blasting on the explosive force..... 62
7. **Musykhin M., Tuganov G.** Justification of the application of low-viscus polyurethane in conditions of poorly water-saturated soils..... 71
8. **Petlovanyi M., Sai K., Stoliarska O.** Problems of waste rock formation during mining of Western Donbass coal reserves: state-of-the-art and solutions..... 79
9. **Saik P., Lozynskiy V., Malachkevych D., Cherniaieva O.** To the issue of underground gasification of low-thickness unconditioned coal reserves... 91
10. **elonenko S., Gubkina V., Tverdokhlib O., Trofymova O.** Substantiating rational parameters for a stull-timbered device of the selective heading machine..... 104

ELECTROTECHNICS AND ELECTROMECHANICS

11. **Kuznetsov V., Tryputen M., Nikolenko A., Tsyplenkov D., Kuvaiev V., Savvin O.** Identification of the thermal process in an induction motor..... 116
12. **Yaroshenko Ya., Bobrov O., Tsyplenkov D., Kuznetsov V., Savvin O.** Electricity storage systems..... 131

EARTH AND PLANETARY SCIENCES

13. **Ishkov V., Kozii Ye., Chernobuk O., Kozar M., Dreshpak O.** About relationship between germanium concentration and the content of toxic elements and total sulfur in the coal seam c_8^H of the Dniprovaska mine..... 145
14. **Ruzina M., Tereshkova O., Dementieva Y., Zhyltsova I., Malova M.** Petrography composition and ore-bearing of ultrabasits from the South-Bilozersky massif of the Middle-Dniprean mega-block of the Ukrainian shield..... 160
15. **Shevchenko S., Tkachuk I.** Study of colour change factors for some varieties of gems..... 170

MATERIALS SCIENCE AND INDUSTRIAL MACHINE-BUILDING

16. **Aziukovskyi O., Gristchak V., Ziborov K., Fedoriachenko S., Kravchuk T.** On the problem of nonlinear dynamics of shell systems influenced by the internal pressure local impulse.....179
17. **Holovchenko O., Hrigorenko V.** Investigation of the influence on the cross-wall difference of tubes of the double-feed and return cold pillar rolling process at the present conditions.....186
18. **Kovalevskyy S., Kovalevska O., Sydiuk D.** To management of the properties of materials for the subsequent optimization of life cycles of products.....194

AUTOMATION AND COMPUTER-INTEGRATED TECHNOLOGIES

19. **Novitskyi I., Sliesariiev V., Shevchenko Y.** Self-adjusting filling control system for self-grinding drum mills.....203
20. **Novitskyi I., Sliesariiev V., Shevchenko Y.** System approach in optimal management problems for two-stage technological lines.....211

APPLIED MECHANICS, CONSTRUCTION AND CIVIL ENGINEERING

21. **Derbaba V., Patsera S., Hryhorenko V.** Features of mechanical processing of wear-resistant cast iron.....217