## CONTENTS

## **MINING SCIENCE**

1.	Adamchuk A., Shustov O. Justification of the unloading scheme of trucks with through passage for the purpose of land saving in deep open-cast mines7
2.	<b>Kuvaiev V., Mladetskyi I., Kuvaiev M., Berezniak O.</b> Hydraulic separation in spiral classifiers. Part 2. Methodology for calculating technological indicators of a spiral classifier overflow15
3.	Medvedieva O., Blyuss B., Medianyk V., Tatarko L. Development of technologies of hydraulic mechanization to extend the operation life of enrichment waste storage 29
	<b>Rudniev Ye., Galchenko V., Filatieva E., Antoshchenko M.</b> Coal grade as an indicator of metamorphism and hazardous properties of coal seams40
5.	<b>Rudniev Ye., Galchenko V., Filatieva E., Antoshchenko M.</b> Elemental hydrogen content and forecast of hazardous properties of coal seams53
MATERIALS SCIENCE AND INDUSTRIAL MACHINE-BUILDING	
	Kravchenko Yu., Patsera S. Stress distribution along the flank wear surface of the blade during cutting operation65 Shcherbyna Y., Derbaba V., Kozechko V. Resistance criteria of a cutting
	tool for high-speed processing 77
APPLIED MECHANICS, CONSTRUCTION AND CIVIL ENGINEERING	
	Ivanova H., Zhabchyk K. Prospects of using metallized pellets as aggregates for heavy concretes 96
	Laukhin D., Zaiats Y., Dadiverina L., Beketov O. Rationalization of combination of individual production processes as a factor of reduction of duration of implementation of innovative building products104
10.	Nalysko M., Belikov A., Maladyika L., Bartashevska L. Control of flowby shock air waves in underground structures112
EARTH AND PLANETARY SCIENCES	
11.	Baranov P., Slyvna O., Shevchenko S., Kirin R. Criteria for amber quality assessment basing on the principle of comparison with consumer properties125
	OIL AND GAS ENGINEERING AND TECHNOLOGY
12.	<b>Pavlychenko A., Ihnatov A., Koroviaka Ye., Bartashevskyi S.,</b> <b>Korotka I., Mekshun M.</b> Fundamentals of organizing a hydraulic well cleaning system
13.	Shyrin L., Bartashevsky S., Yehorchenko R. Specific features of monitoring and maintaining of technical conditions of mine degassing pipelines in terms of mining intensification 153

## ELECTROTECHNICS AND ELECTROMECHANICS

 Malienko A., Diachenko G., Lutsenko I., Fedoriachenko S., Ziborov K., Koshelenko I. Energy efficient structure and hardware of bucket excavator subsystem and hydraulic control system 165

## AUTOMATION AND COMPUTER-INTEGRATED TECHNOLOGIES

15. Uzhelovsky A., Uzhelovsky V., Tkachov V., Kravets G. Simulation model of device for automatic orientation optimization in solar battery space\_\_\_\_\_179