CONTENTS

PROSPECTS OF METALLURGY AND MATERIALS SCIENCE

THE ORGANIZATION OF IRON ORE AGGLOMERATE	
AND PELLETS PRODUCTION WITH REDUCED ENVIRONMENTA	AL
IMPACT (Boiko M. M., Petrenko V. O.)	
1. Analysis of the potential use of fuel biomass in the production	
of iron ore agglomerate	2
2. Iron ore pellets production with partial replacement of natural gas	
with biomaterials	8
STUDY OF THE PROCESS OF BREAKING ROLLED STEEL	
BY BENDING FOR STAMPING UNDER IMPACT	
	20
AND COMBINED LOADING (Karnaukh S. G., Markov O. Ye.)	
Mathematical modeling of the dynamic and static-dynamic breaking of ro	
stock according to the three-point bending scheme	
3. Experimental studies of the separating long products according to the three	
point bending scheme under dynamic and static-dynamic loadingl	
	29
IMPLEMENTATION OF QUALITY MANAGEMENT SYSTEM	
FOR PRODUCTION OF TMCP TREATED 10MN2VNBAL STEEL	
HEAVY PLATES (Kukhar V. V., Kurpe O. H., Malii K. V.)	
1. Literature Review	
2. Methodology of Research	
3. Result of Research	50
SIMULATION SYSTEM FOR THE THERMAL OPERATION	
PROCESSES OF IRON LADLE LININGS	
(Levytska T. O., Dubovkina M. Yu.)	63
1. Identifying Problem Preconditions and Problem Formulation	
2. Mathematical Model	67
3. Design Model	
4. Software Development	
ENERGY AND TECHNOLOGICAL MODELLING	
OF METALLURGICAL PROCESSES FROM OUT-OF-FURNACE	
IRON PROCESSING TO CONTINUOUS CASTING	
(Stoianov O. M., Petrenko V. O., Niziajev K. G.)	84
COLUMNION OF INF. LEHEHRO A. O. MIZIAIGA V. O. M. J	04

PRIORITIES FOR IMPROVING THE OPERATIONAL EFFICIENCY OF MINING COMPANIES

DETERMINATION OF DRILL ROD VIBRATION OSCILLATIONS IN AUTOMATED ELECTRIC DRIVE SYSTEMS (Khilov V. S.) 1. Natural frequencies of drill rig oscillations at the beginning of drilling with one rod	
Longitudinal and torsional frequencies of the drill rod vibrations	98 .100
INTELLIGENT CONTROL SYSTEMS, ROBOTIC AND MECHATRONIC SYSTEMS	
ANALYTICAL STUDY OF METHODS OF IDENTIFICATION OF CONTROL OBJECT (Koyfman O. O., Miroshnychenko V. I.,	
Simkin O. I.)	.114
3. Analysis of results of the research of a sample of process step response	.130
MODERN ECO-FRIENDLY PRACTICES AND PROSPECTS FOR ENVIRONMENTAL PROTECTION	
RECYCLING OF ORE PROCESSING WASTE USING GLASS TECHNOLOGY (Zhdaniuk N. V., Plemiannikov M. M.)	.150 .155 .158
INNOVATIVE TECHNOLOGY FOR JOINT PURIFICATION OF HIGHLY MINERALIZED MINE WATER AND BOILER-ROOM EMISSIONS (Kovrov O. S., Kulikova D. V.)	166 168 170 171
6. Qualitative composition of mine waters	

EVALUATION OF THE TECHNICAL CONDITION	
OF THE ENCLOSING DAM OF THE DNIPROVSKE TAILINGS	
DUMP BY GEOPHYSICAL METHODS	
(Pikarenia D. S., Orlinska O. V., Rudakov L. M.)	182
1. Characterization of the research object	182
2. Study of the technical condition of the tailing dams	187
3. Comprehensive interpretation of the selected zones	195
MODERN TOOLS IN BUSINESS PERFORMANCE MANAGEMI	ENT
TEAM FORMATION FEATURES AT IMPLEMENTATION	
OF OPERATIONAL EFFICIENCY INCREASE PROGRAMS	
AND PROJECTS (Rovenska V. V., Smyrnova I. I., Latysheva O. V.)	200
1. The problem's prerequisites emergenceand the problem's formulation.	200
2. The analysis of existing methods for solving the problem	
and formulating a task for the optimal technique development	200
THEORETICAL FOUNDATIONS OF THE DEVELOPMENT	
OF THE IRON ORE INDUSTRY IN UKRAINE (Romanenko A. O.)	257
1. Methods	
2. Theoretical part	
3. Results	
3. Results	263