

CONTENTS

Solid State Physics, Mineral Processing	5
L. V. Muzyka, N. S. Pryadko, H. O. Strelnikov, A. F. Grinev. Mass flow control in a jet mill based on acoustic monitoring	5
O. L. Kyrychenko, V. V. Kulivar, O. V. Skobenko, O. V. Khalymendyk. A technique to measure sensitivity of explosives to the effect of laser pulse radiation	11
H. Azzouz Rached, S. Yahyaoui. Application of the tensile strength to rock blasting	16
Geotechnical and Mining Mechanical Engineering, Machine Building	22
I. S. Aftanaziv, L. I. Shevchuk, O. I. Strohan, A. M. Kuk, I. L. Samsin. Improving reliability of drill pipe by strengthening of thread connections of its elements	22
V. V. Bondarenko, D. I. Skurikhin, R. I. Vizniak, V. H. Ravlyuk, V. I. Skurikhin. Experimental study of the method and device for wheel-sets acoustic monitoring of railway cars in motion	30
B. V. Vynohradov, D. O. Fedin, V. V. Ved. Impact of flexibility of support on gear mesh dynamics	37
A. Yu. Dreus, A. A. Kozhevnykov, Baochang Liu, D. A. Sudakova. Approximate analytical model of rock thermal cyclical disintegration under convective cooling	42
R. Boukarm, A. Houam, M. Fredj, R. Boucif. Geotechnical risk assessment of rock slope stability using non-linear strength criterion ..	48
Electrical Complexes and Systems	55
V. A. Volkov. Energy-saving tachograms of acceleration (deceleration) of a frequency-regulated asynchronous engine	55
D. O. Kulagin, D. V. Fedosha, V. V. Nitsenko, S. Yu. Shevchenko, D. O. Danylchenko. Using a phase-differential busbar protection for switchgears of power system facilities	63
O. A. Plakhtii, V. P. Nerubatskyi, D. A. Hordiienko, V. R. Tsybulnyk. Analysis of the energy efficiency of a two-level voltage source inverter in the overmodulation mode	68
Power Supply Technologies	73
Yu. S. Bezverkhnia. A voltage loss preliminary estimation in ac busbars	73
Ye. M. Lutyi, I. V. Kuzio, V. V. Baryliak, O. M. Udovytskyi. Dynamics of the two-drum electromechanical drive of suspended timbertransporting cable system	79
Environmental Safety, Labour Protection	86
Yu. O. Abramov, O. Ye. Basmanov, V. I. Krivtsova, J. Salamov. Modeling of spilling and extinguishing of burning fuel on horizontal surface	86
V. V. Bachynnyi, N. R. Antoniuk. Technology of obtaining intumescent fire retardant mastics	91
A. O. Bondarenko, R. P. Naumenko. Comprehensive solution of recycling waste from stone processing industry	96
Economy and Management	102
O. Vasylenko, O. Lotiuk, O. Kudriavtseva, Z. Kravtsova. Public control over the actions of government in the field of research and rational use of mineral resources	102
N. Y. Podolchak, L. M. Prokopyshyn-Rashkevych, V. Y. Karkovska. The influence of coaching on the development of manager's leadership skills	107
Yu. Petrunia, V. Petrunia, V. Shvets. Business environment of the country: approaches to evaluation in the context of management processes	114
Yu. Pylypenko, H. Pylypenko, N. Lytvynenko, O. Tryfonova, E. Prushkivska. Pathway of the institutional development: practice of liberal transformation in Ukraine and Belarus	120
N. I. Chukhrai, O. Z. Sorochak, I. V. Bokhonko. Methodical approaches to distribution of resources of an energy supplying company to reduce operational losses	128
O. Yankovyi, Yu. Goncharov, V. Koval, T. Lositska. Optimization of the capital-labor ratio on the basis of production functions in the economic model of production	134
L. Soroka, O. Riabchenko, A. Zamryha, O. Korotun. State policy in the field of energy efficiency	141
Yu. V. Dubiei. Management of reproduction of current assets of machine-building enterprises of Ukraine	147