

BELARUSIAN STATE UNIVERSITY

Establishment of Education
«International Sakharov Environmental Institute»



ACTUAL ENVIRONMENTAL PROBLEMS

Proceedings of the XI International
Scientific Conference of young scientists,
graduates, master and PhD students

December 2–3, 2021
Minsk, Republic of Belarus

Minsk, 2021

The general editorship:

Doctor of Sciences in Physics and Mathematics,
Professor Sergei Maskevich
Candidate of Technical Sciences, Associate professor
Maria Germenchuk

Reviewers:

Anatoly Batyan, Sergei Golovatiy, Victoria Luchina

The conference proceedings include the theses submitted at the XIth International scientific conference of young scientists, PhD students, Master`s degree students, and students «Actual environmental problems» in English, which was held in December 2–3, 2021 at the International Sakharov Environmental Institute of Belarusian State University.

The proceedings are referred to a wide range of expert, lecturers of higher and secondary educational establishments, PhD students, Master`s degree students and students.

The conference proceedings are published with the financial and information support
of the Ministry of Education of the Republic of Belarus
and with the financial support of the UNESCO National Project
«School-laboratory for pupils is the instrument for implementing the agenda 2030 in the Republic of Belarus»

EFFECTS OF ANTHROPOGENIC FACTORS ON THE GEOLOGICAL ENVIRONMENT OF SHANDONG PROVINCE

Xu. Yanhui¹, V. Lemiasheuski^{1,2}

¹Belarusian State University, ISEI BSU
Minsk, Republic of Belarus

²All-Russian research Institute of Physiology, Biochemistry and Nutrition of animals –
branch of the Federal Research Center for Animal Husbandry named after Academy Member L. K. Ernst
Borovsk, Russia
lem@iseu.by, 2826380336@qq.com

With economic and social development, scientific and technological progress and accelerated urbanization, human activities have become a major geological force on earth. As a province with a large population in China, Shandong province has a population of 102 million in 2021. Human factors have a great impact on the geological environment. These changes are subtly affecting people's lives, and these negative effects have attracted more and more attention.

Keywords: geological environment, anthropogenic effects, geological disasters.

Geological environment system is an organic whole within a certain range which responds to human economic and technological activities. It is a complex artificial and natural complex system.

Research Objective. To study the causes and countermeasures of geological environment destruction in Shandong Province.

I. Effects of anthropogenic factors on geology. Human activities have a profound impact on landforms and processes, both constructive and destructive, from the erosion of arable land to construction and mining. The man-made damage to geological environment is mainly caused by engineering excavation, loading, blasting, soil abandonment, land reclamation, excessive extraction of groundwater and so on.

II. Introduction of Shandong Province. Shandong province located in the northeast part of the east coast of China, the lower reaches of the Yellow River, and belongs to the North China Plain, between 114°47'30" ~ 122°42'18" E and 34°22'54" ~ 38°27'00" N. The total land area is 157,100 square kilometers, the sea area is 170,000 square kilometers, and the coastline is 3,345 kilometers.

Shandong is an economic powerhouse along the east coast of China. In 2020, Shandong's GDP reached 7,312.9 billion yuan, ranking the third in China. Shandong lies between Beijing and Shanghai, connecting the vast interior of China with the vast Western Pacific Ocean and facing Japan and South Korea across the sea.

Up to now, more than 150 kinds of mineral resources have been discovered in Shandong Province. Among them, there are more than 80 kinds of minerals whose total reserves have been identified.

III. The impact of human factors on the geological environment of Shandong. In China, most geological disasters occur in southern provinces, such as Hunan, Fujian, Jiangxi, Guizhou and Sichuan, etc.

The geological environment problems in Shandong are more prominent, such as mining-out collapse, ground subsidence, seawater intrusion, ground fissures and collapse. By 2002, the accumulated land subsidence in Dezhou, Jining and Heze has been more than 300mm, 200mm and 100mm. Saltwater intrusion occurred to varying degrees in the coastal areas of Laizhou Bay and some downstream rivers of coastal cities such as Qingdao, Yantai and Weihai, as well as ground fissure in the southwest and east Shandong [5].

The main reasons are as follows:

1. Demographic factors. Shandong province has a large population base and rapid population growth, which causes pressure on the environment, such as the expansion of cultivated land area and housing space, which causes great damage to the ecological environment.

2. Industrial production factors. In the process of industrial production, if the measures are not appropriate, it is easy to destroy the geological environment. Mining, road construction, building and other indiscriminate digging of soil, waste slag, abandoned soil, will cause surface water and soil pollution, sometimes also cause groundwater pollution.

3. Urban planning and construction factors. In the municipal planning and construction of improper, geological environment assessment is not comprehensive enough to carry out construction, such as foundation engineering geological exploration in accordance with the provisions, foundation design does not adapt to geological environment conditions, easy to induce geological disasters.

4. Excessive groundwater harvesting. Due to the rapid development of industrial enterprises, the pollution of water resources is large, the normal water source has been unable to ensure the living water of enterprises and residents, can only increase the use of groundwater.

IV. Prevention and control countermeasures. Geological environment is the basis for human survival and provides many production materials for human beings, so we must pay attention to the protection of geological environment to ensure ecological sustainable development.

1. Government departments shall strengthen the detection and control of geological environment, strengthen management of relevant departments, enterprises, and individuals, and do a good job in planning services. It can be arranged from the perspective of Shandong's economic structure and productivity development to do a good job in overall control and government services.

2. Correctly handle the relationship between ecological and geological environment protection and economic development and reduce man-made damage. There has always been a contradiction between environmental protection and economic development, but in fact, protection and development are not opposite.

3. Strengthen the publicity of geological environment protection, raise the public awareness of protection, and jointly safeguard the sustainable development of ecological environment.

Conclusions. Shandong is part of China, and China is part of the world. We are working hard to create a sound ecological environment, establish environmental protection awareness, strengthen the protection of the geological environment, and actively repair or stop destroying the damaged geological environment. Maintain the safety of eco-geological environment and contribute to the sustainable development of mankind.

CONTENT

SECTION 1

SOCIO-ECOLOGICAL, ETHICAL AND PEDAGOGICAL PROBLEMS OF OUR TIME

THE IMPACT OF PSYCHOLOGY AND BIOLOGY ON THE IDENTITY CRISIS OF ADOLESCENCE.....	3
<i>E. Akshevskaya, A. Kozorez, I. Olevsknaya</i>	
POSTHUMANISM: ALTERNATIVE REALITIES AND ARTIFICIAL INTELLIGENCE IN GREG EGAN'S SCIENCE FICTION.....	4
<i>I. Boyarkina</i>	
SCHOOL ENVIRONMENTAL EDUCATION IS THE BASIS OF ENVIRONMENTAL EDUCATION.....	5
<i>G. Bunel, O. Davydova-Loiko</i>	
PROBLEMS OF INTRODUCTION OF CIRCULAR ECONOMY IN BELARUS	6
<i>L. Chayka, L. Kuzina</i>	
THE IMPACT OF FOOD WASTE ON THE ENVIRONMENT	7
<i>D. Chkurakova, L. Kuzina</i>	
DIFFERENCES IN THE VERBAL DEFINITION OF THE CHARACTERISTICS OF THE ECOLOGICAL QUALITY OF PRODUCTS IN SOME LANGUAGES AS A BASIS FOR THE UNIFICATION OF THEIR ENVIRONMENTAL LABELING.....	8
<i>V. Gudovich, A. Fralou</i>	
ROLE OF AN ACTIVE LIFESTYLE ON HUMAN PHYSICAL HEALTH	9
<i>O. Hadasevic</i>	
INFLUENCE OF STRESS ON MENTAL AND PHYSICAL HEALTH OF THE HUMAN.....	10
<i>I. Olevskaya, R. Kazakov</i>	
TECHNOLOGY OF MANUFACTURING ORGANIC CARDS IN SECONDARY EDUCATIONAL INSTITUTION	11
<i>N. Kirchuk</i>	
ESG PRINCIPLES AS THE MAIN COMPONENT OF THE STRATEGY OF A MODERN COMPANY.....	12
<i>M. Kirikovich, O. Moyseenok</i>	
ENVIRONMENTAL IDEAS OF THE PHILOSOPHY OF TAOISM	13
<i>D. Kolesnikovich, N. Lepskaya</i>	
CONSUMING SOCIETY	13
<i>A. Korotkevich, A. Budko</i>	
THE PROBLEM OF EXPIRED DRUGS	14
<i>Y. Kuratnik, L. Kuzina</i>	
BRAIN CAPACITY OF YOUNG BASKETBALL PLAYERS IN TRAINING AND COMPETITIVE ACTIVITIES	15
<i>M. O. Lashchevskaya, N. A. Buzlyakov, I. Z. Olevskaya</i>	
PSYCHOPHYSIOLOGICAL STATE OF HEALTH OF THE RESIDENTS OF MODERN MEGAPOLISES IN THE CONDITIONS OF URBANIZATION.....	16
<i>V. Luchina, V. Sivukha</i>	
THE MAIN PROBLEMS OF INVASIVE ANIMAL SPECIES IN BELARUS	17
<i>E. Makarevich, I. Khandohiy</i>	
FACTORS OF TOURISM DEVELOPMENT – DIVERSITY AND CLASSIFICATION	18
<i>A. Makavitski</i>	
DEVIAN'T BEHAVIOR IN ADOLESCENTS	19
<i>A. Melnichonok, S. Pekarskaya, I. Olevskaya</i>	
THE PSYCHOLOGY OF STRESS	20
<i>D. Mozheiko, D. Zhukouskaya, I. Olevskaya</i>	
ECONOMIC ASPECTS OF THE IMPLEMENTATION OF ORGANIC AGRICULTURE IN THE REPUBLIC OF BELARUS.....	21
<i>A. Nazarovich</i>	

INSTRUCTIONAL DESIGN: THE ESSENCE OF THE ISSUE	22
<i>A. Osinovskaya</i>	
DEVELOPMENT OF A BICYCLE ROUTE PROJECT IN BARANOVICH DISTRICT AS A WAY TO IMPROVE TOURISTIC AND RECREATION POTENTIAL	23
<i>A. E. Rasskazova</i>	
INFLUENCE OF HYPOTHYROIDISM ON HUMAN MENTAL HEALTH	24
<i>D. Sikita, A. Derachits, I. Olevskaya</i>	
PSYCHOLOGICAL FEATURES OF PANIC DISORDER.	25
<i>L. A. Sultanova , I. Z. Olevskaya</i>	
THE PROBLEM OF INFLATED EXPECTATIONS.....	26
<i>V. Timchenko, M. Yakauleva</i>	
PROBLEMS OF ECOLOGICAL CONSCIOUSNESS AND BEHAVIOR OF STUDENTS	27
<i>A. Vabishchevich, T. Kapustina</i>	
ENVIRONMENTAL EDUCATION OF SCHOOLCHILDREN WITHIN THE FRAMEWORK OF THE ACADEMIC SUBJECT "MAN AND THE WORLD"	28
<i>S. Vergeichik, E. Zhuk</i>	
EXPERIENCE IN ORGANIZING DISTANCE LEARNING STUDENTS	29
<i>A. Yatskovskaya, D. Churakova, T. Kapustina E. Zhuk</i>	
"GREEN ECONOMY" IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT	29
<i>A. Yatskovskaya, L. Kuzina</i>	

SECTION 2

MEDICAL ECOLOGY

THE EFFECT OF SOME MONOSACCHARIDES ON INSULIN FIBRILLATION	31
<i>V. Abakumets, R. Baranovskiy, N. Bogdanova, K. Bulanova</i>	
THE RARE MUTANTS OF BARLEY PRODUCED IN CONDITIONS OF MOUNTAINS.....	32
<i>I. Abdulov, I. Amanturtiev</i>	
THE EFFECT OF ANTIMICROBIAL THERAPY OF ORAL MUCOSA IN NORMAL AND PATHOLOGICAL CONDITION.....	32
<i>Abdulrazzak Mohammad Sabah Abdulrazzak, N. Ikonnikova</i>	
THE ANALYSIS OF THE POSSIBILITIES OF ACCUMULATION OF ALUMINUM IONS BY ERYTHROCYTES AND LYMPHOCYTES OF HUMAN PERIPHERAL BLOOD	33
<i>P. Adashova, A. Skorobohatova, E. Slobozhanina, E. Smirnova</i>	
EFFECT OF HELMAR 1 POLYPHENOL EXTRACT ON GLUTATHIONE PEROXIDASE ENZYME ACTIVITY IN RAT LIVER MITOCHONDRIA IN TOXIC HEPATITIS	34
<i>S. Ahmedova, M. Asrarov, S. Mirzakulov, M. Pozilov</i>	
IMPORTANCE OF MEDICAL ECOLOGY IN THE RECOVERY PERIOD FROM COVID-19.....	35
<i>G. Akhmedova, B. Zaripov, B. Kakhorov</i>	
INTERACTION BETWEEN NANOTUBE (8,10) AND RESVERATROL	37
<i>A. Augustinovich</i>	
DETERMINATION OF THE CONTENT OF ZINC IONS IN THE BLOOD IN PREECLAMPSIA.....	38
<i>R. Baranovsky, A. Zhiv, K. Bulanova</i>	
ANALYSIS OF LONG-TERM DYNAMICS OF CAUSES OF MORTALITY OF THE POPULATION OF THE REPUBLIC OF BELARUS	39
<i>A. Bobrova, N. Porada</i>	
INFLUENCE OF BONE MARROW – DERIVED MULTIPOTENT MESENCHYMAL STROMAL CELLS ON THE PROLIFERATIVE POTENTIAL OF LEUKEMIA K562 CELL LINE	40
<i>V. Bondarenko, M. Yurkevich</i>	
RETROSPECTIVE ANALYSIS OF THE INCIDENCE OF CIRCULATORY SYSTEM DISEASES OF ADULT POPULATION OF CHASHNIKI REGION IN 2015–2019.....	41
<i>E. Bulyno, A. Sysa</i>	
ASSESSMENT OF THE EFFECT OF CO ₂ ON THE LEVEL OF SORPTION OF FURANOCOUMARINS.....	42
<i>V. Cheplya, S. Shahab</i>	

CREATION OF A GENETIC CONSTRUCT CARRYING THE DNA POLYMERASE GENE OF THE BACTERIOPHAGE <i>PHI29</i>	43
<i>V. Chichina, A. Bulatovsky</i>	
MODERNIZATION OF THE EQUIPMENT OF THE RADIOLOGICAL DEPARTMENT OF THE STATE INSTITUTION «N. N. ALEXANDROV NATIONAL CANCER CENTRE OF BELARUS»	44
<i>I. Chirkova, T. Chikova</i>	
MODERN HIGH-TECH EQUIPMENT OF THE RADIOLOGY DEPARTMENT OF THE STATE INSTITUTION «N. N. ALEXANDROV NATIONAL CANCER CENTRE OF BELARUS».....	45
<i>I. Chirkova, T. Chikova</i>	
CHANGES IN THE CONTENT OF LPO PRODUCTS IN A RAT LIVER MITOCHONDRIA OF THE "RAPID AGING" MODEL AND THE EFFECT OF SUPROMOLECULAR COMPOUNDS ON THEM	46
<i>S. Dalimova, Sh. Kuziev, G. Umarova, G. Mukhammadjanova, M. Yunusova, N. Khamdamova, S. Khamroev, M. Mustafakulov, D. Azimova</i>	
STUDY OF CARDIOPROTECTIVE PROPERTIES SUPRAMOLECULAR COMPOUNDS WITH GLYCIRRIZIC ACID	46
<i>S. Dalimova, M. Yunusova, G. Umarova, Sh. Kuziyev, G. Mukhamadjanova, N. Khamdamova, S. Khamroyev, M. Mukhamedova, M. Dadakhonova</i>	
SYNTHESIS OF TRIOL N-METHYLMORPHOLINO INOSINE.....	47
<i>E. Deusova, M. Khanchevskiy, V. Pashkovich, E. Kvasyuk</i>	
EPIDEMIOLOGICAL ANALYSIS OF THE INCIDENCE OF THE POPULATION OF THE KRUPSKY DISTRICT WITH RESPIRATORY DISEASES FOR 2014–2019	48
<i>K. Dragun, A. Sysa</i>	
GENES OF SEROTONINERGIC SYSTEM AND ITS INFLUENCE ON HUMAN PSYCHOEMOTIONAL STATE.....	49
<i>I. Drozdov, I. Mosse</i>	
EXPLORING THE POSSIBILITIES OF CREATING A GENETIC CONSTRUCT FOR A DNA VACCINE AGAINST SARS-COV-2.....	50
<i>A. Dubinskaya, I. Kazlovsky, J. Venskaya</i>	
FUNCTIONAL ACTIVITY OF NEUTROPHILS IN FUNGAL DISEASES OF NAILS, SKIN AND MUCOUS MEMBRANES	51
<i>N. V. Emelianenko, T. R. Romanovskaya</i>	
ANTITUMOR ACTIVITY OF ZOLEDRONIC ACID	52
<i>V. Gamenyuk, M. Khanchevski, M. Labai</i>	
ANALYSIS OF INCIDENCE AND TERRITORIAL DISTRIBUTION OF INFECTIOUS MONONUCLEOSIS IN BELARUS	53
<i>V. Garonina, Yu. Lyakh</i>	
THE IMMUNE SYSTEM DURING PHYSICAL ACTIVITY	54
<i>B. Kakhov, M. Khojamkulova</i>	
PHYSICAL ADSORPTION OF 6-THIO-2-DESOXYGUANOSINE AND 6-METHYL-2-ETHYL-PYRIDIN-3-OL WITH NANOTUBE CNT (10,10-8)	55
<i>R. Kazakov, M. Khanchevski, S. Shahab, L. Filippovich</i>	
PREVALENCE OF CONGENITAL DEFECTS IN THE DEVELOPMENT OF THE MAXILLOFACIAL REGION	56
<i>V. Kazyuchits, N. Kokorina, A. Ershova-Pavlova</i>	
PHYSIOLOGICAL ALTERATIONS OF MITOCHONDRIA UNDER DIABETES CONDITION AND ITS CORRECTION BY POLYPHENOL GOSSITAN	57
<i>Sh. Khalilov, M. Pozilov, U. Gayibov, X. Ruziboyev, M. Asrarov, N. Abdulladjanova</i>	
ENZYMATIC SYNTHESIS OF 6-THIOGUANOSINE	58
<i>M. Khanchevski, L. Birichevskaya, A. Bulatovski, A. Trifonova, A. Zinchenko</i>	
ELISA DIAGNOSTICS OF CORONAVIRUS INFECTION.....	59
<i>P. S. Khariton, E. E. Tarasova, N. S. Khariton</i>	
EFFECT OF INORGANIC POLYPHOSPHATES AND ADP ON THE ACTIVITY OF ENDOPLASMATIC RETICULUM CALCIUM ATPASE.....	60
<i>F. Khasanov, A. Baev, S. Dalimova</i>	

COMPARATIVE ANALYSIS OF THE ANOMALIES OF THE STRUCTURE OF THE ANNUAL SCOTS PINE LAYERS IN DIFFERENT FOREST TYPES	61
<i>A. Khokh</i>	
VARIABILITY OF LATE AND EARLY WOOD CONTENT IN THE ANNUAL SCOTS PINE LAYER UNDER ANTHROPOGENIC LOAD	62
<i>A. Khokh</i>	
STUDY OF THE INFLUENCE OF POLYCATION POLYELECTROLYTES ON THE STATE OF IMMUNOGLOBULIN IMMOBILIZED ON NANOSTRUCTURED SILVER FILMS	63
<i>I. Koktysh, Ya. Melnikova, T. Pitsko (Kaluhina), O. Matusevich, S. Maskevich</i>	
ASSESSMENT OF BIOLOGICAL PROPERTIES OF SPECIES <i>Achillea</i> L. PERSPECTIVE FOR THE PRODUCTION OF DERMATOLOGICAL AND COSMETOLOGICAL PREPARATIONS	64
<i>A. Kolos</i>	
NEUROPROTECTIVE EFFECTS OF METABOLIC ACTIVATED MITOPHAGY FOR THE PATIENT'S WITH HEREDITARY FORMS OF PARKINSON'S DISEASE.....	65
<i>Nafisa R. Komilova¹, Zukhra Ya. Kuchkarova², Ulugbek Z. Mirkhodjaev</i>	
RELATION OF THE ACTIVITY OF THE COMPLEMENT SYSTEM AND THE LEVEL OF ANTICLEBSIELOUS ANTIBODIES IN ADULTS	66
<i>A. Kostyuk, T. Romanovskaya</i>	
ANTIBIOTIC RESISTANCE IN <i>LACTOBACILLUS</i> , <i>BIFIDOBACTERIUM</i> AND <i>BACILLUS</i>	67
<i>K. Kot</i>	
ANALYSIS OF THE INCIDENCE OF ALCOHOLISM AND ALCOHOLIC PSYCHOSES IN THE REPUBLIC OF BELARUS.....	67
<i>E. Kozlova, N. Gerasimovich</i>	
THE EFFECT OF VITAMIN D ON THE DEVELOPMENT OF TYPE 2 DIABETES MELLITUS	68
<i>D. Kozlovich, N. Bogdanova</i>	
ECOLOGICAL AND SOCIAL FACTORS AS A CAUSE OF MULTIPLE SCLEROSIS DEVELOPMENT	69
<i>A. Kozorez, E. Akshevskaya</i>	
PROGNOSTIC SIGNIFICANCE OF INTEGRAL INDICATORS OF CELLULAR REACTIVITY OF HOMEOSTASIS IN CORONAVIRUS INFECTION COVID-19.....	70
<i>E. Kozyreva, R. Smolyakova, N. Khokhlova, I. Antashkevich, E. Shpadaruk</i>	
ANTIOXIDANT PROPERTIES OF NATIVE, DEFATTED, FERMENTED AND HYDROLYZED BOVINE COLOSTRUM.....	72
<i>P. Krasovskaya, E. Tarun, E. Staselovich, T. Halavach, R. Romanovich</i>	
ANALYSIS OF THE CELLULAR COMPOSITION OF PERIPHERAL BLOOD OF PATIENTS WITH STROKE	73
<i>A. Krishtopenko, E. Shpadaruk, R. Smolyakova</i>	
ANALYSIS OF THE MORBIDITY OF THE POPULATION OF THE REPUBLIC OF BELARUS WITH SOCIALLY SIGNIFICANT INFECTIONS (2005–2019)	74
<i>L. Kurilova, N. Porada</i>	
INTRAVENOUS LASER BLOOD IRRADIATION OF DIABETES MELLITUS PATIENTS	75
<i>Y. Li, V. Lemiasheuski, K. Ostrenko, A. Ovcharova</i>	
FEATURES OF THROMBIN-INDUCED PLATELET AGGREGATION IN ARTERIAL HYPERTENSION	76
<i>V. Linnik, A. Bakunovich</i>	
STUDY OF WATER AND ALCOHOL EXTRACTS OF PLANTS BY THIN-LAYER CHROMATOGRAPHY	77
<i>Yu. Lozyuk, E. Tarasova</i>	
QUANTUM-CHEMICAL MODELING AND PHYSICO-CHEMICAL PROPERTIES OF CYCLOPYROX	78
<i>M. Lubchenko, A. Yurlevich, D. Novik, S. Shahab</i>	
THE ROLE OF MICROBIOTA IN THE DEVELOPMENT OF METABOLIC DISEASES.....	79
<i>A. Lukyanova, M. Statsi, M. Lobai</i>	
AGE AND GENDER STRUCTURE OF PATIENTSWHO COMPLETED RADICAL RADIOTHERAPY COURSE FORHEAD AND NECK CANCER AT THE BREST REGIONAL ONCOLOGICAL DISPENSARY FOR THE PERIOD 2016–2018	80
<i>R. Lukyanovsky, P. Demeshko, A. Batyan, E. Hancharova</i>	

MATHEMATICAL MODELING OF THE DISTRIBUTION OF VIRAL INFECTIONS IN URBOECOSYSTEMS	81
<i>M. Madani, O. Garkovich, M. Turetsky</i>	
THE ROLE OF HYDROGELS IN THE ECOLOGICALLY CLEAN CROP OF <i>CICER ARETINUM L.</i> IN ARID REGIONS OF UZBEKISTAN	82
<i>S. Makhmadiyev, Sh. Abdullaev</i>	
EFFECT OF GUANOSINE AND GUANOSINE TRIPHOSPHATE ON THE PROCESS OF FIBRIL FORMATION OF INSULIN MOLECULES	83
<i>A. Makhnach, N. Bogdanova, J. Venskaya, V. Sagan, O. Sokolovich</i>	
EFFECT OF LOW-INTENSITY LASER RADIATION EXPOSURE TIME ON MICROORGANISMS	84
<i>A. Mandrik, E. Tarasova</i>	
THE PROBLEM OF "SMALL DOSES" IN RADIOBIOLOGY	85
<i>U. Martynenko, N. Gerasimovich</i>	
INFLUENCE OF γ -RADIATION ON DESTRUCTION AND CRYSTALLINE STARCH	86
<i>E. Maslyukov, A. Bulavko, V. Litvyak, V. Kravchenko, A. Batyan, M. Atroshko</i>	
MEDICINAL PROPERTIES OF <i>SALVIA OFFICINALIS L.</i>	87
<i>A. Matkarimova, G. Ergasheva</i>	
ESTIMATION OF THE DYNAMICS OF THE LEVEL OF ENDOGENIC INTOXICATION IN PATIENTS WITH TUBERCULOSIS DURING COMBINED THERAPY	87
<i>A. Mazurova, K. Shpadaruk, R. Smolyakova</i>	
EFFECT OF POLY-L-LYSINE ON THE FLUORESCENCE INTENSITY OF IgG-FITC CONJUGATES IMMOBILIZED ON THE SURFACE OF SILVER NANOFILMS	88
<i>Ya. Melnikova, I. Koktysh, T. Pitsko (Kaluhina), O. Matusevich, S. Maskevich</i>	
ESTABLISHING THE RELATIONSHIP BETWEEN THE CONCENTRATION OF SOLID PARTICLES IN THE ATMOSPHERIC AIR AND THE INCIDENCE OF ONCOLOGICAL DISEASES IN THE POPULATION OF THE REPUBLIC OF BELARUS	90
<i>M. Mikulich, I. Pukhteeva</i>	
COMPARATIVE ANALYSIS OF ECOLOGICAL EDUCATION IN THE REPUBLIC OF BELARUS AND THE REPUBLIC OF POLAND	91
<i>E. Misuno, E. Smirnova</i>	
BEHAVIORAL ACTIVITY AND BIOCHEMICAL PARAMETERS OF THE CENTRAL NERVOUS SYSTEM TISSUE ON THE MODEL OF THE NEURODEGENERATIVE STATE OF PARKINSON'S DISEASE	92
<i>M. Mustafakulov, T. Ishankhodzhaev, B. Zainutdinov, T. Saatov, Sh. Kuziev, S. Hamroyev</i>	
IMMUNOCHEMICAL CHARACTERIZATION OF FRAGMENTS OF ANTIBODIES TO FERRITIN	92
<i>B. Muzychenko, Y. Melnikova</i>	
BIOLOGICAL CHARACTERISTICS OF ADENOSINE MONOPHOSPHATE	93
<i>D. Novik, A. Yurlevich, M. Lubchenko, S. Shahab</i>	
DETERMINATION OF ERCC1 EXPRESSION LEVEL IN PATIENTS WITH COLORECTAL CANCER	94
<i>M. Oev, E. Shpadaruk, R. Smolyakova</i>	
SYNTHESIS OF 8-AZIDOFLUDARABINE	95
<i>E. Osipova, E. Deusova, M. Khancheuski, E. Kvasyuk</i>	
RETROSPECTIVE ANALYSIS OF MORBIDITY ADULT POPULATION OF THE CITY OF BYKHOV (2007–2018)	96
<i>V. Papruga, M. Dubina</i>	
INFLUENCE OF SOPHOROFLAVONOSIDE ON THE ACTIVITY OF THE CYTOCHROME C-OXIDASE ENZYME IN RAT LIVER MITOCHONDRIA UNDER INTOXICATION WITH HALOXIFOP-R-METHYL PESTICIDE	97
<i>M. Parpieva, H. Ruziboev, M. Pozilov, S. Nishanbaev</i>	
ION-EXCHANGE RESIN AS A REAGENT IN THE SYNTHESIS OF SECO-8-BROMOXANTHOSINE	98
<i>V. Pashkovich, M. Khancheuski, Y. Gretskeya, V. Yaroshevich</i>	
COMBINED ANTIHYPERTENSIVE THERAPY	99
<i>T. Piliushyna, A. Bakunovich</i>	

RELATIVE DOSIMETRY OF SMALL FIELDS.....	100
<i>V. Piskunou, S. Siamionau, T. Chikova</i>	
ANALYSIS OF THE INCIDENCE OF ARVI IN THE POPULATION OF MOLODECHNO DISTRICT IN 2011–2020	101
<i>V. Radzevich</i>	
ALZHEIMER'S DISEASE: BIOLOGICAL AND ECOLOGICAL PREREQUISITES, PROMISING DIAGNOSIS AND THERAPY METHODS.....	102
<i>A. Rafalskaya, L. Major</i>	
MICROARTHROPODS IN THE SOIL LAYERS OF SOUTH UZBEKISTAN	103
<i>M. Rakhimov, Z. Elmuratova, D. Majidova</i>	
RARE REPTILES OF THE KASHKADARYA REGION	104
<i>M. Rakhimov, E. Yangiboyev</i>	
INFLUENCE OF SOIL SALINATION ON THE EXCHANGE OF PHOSPHOLIPIDS IN PLANTS	105
<i>N. Rakhmonova, M. Abdullaeva</i>	
THYROID DISEASE IN ADOLESCENT GIRLS IN THE REPUBLIC OF BELARUS	106
<i>Y. Reznik, N. Kokorina, A. Avetisova</i>	
THE COMPOSITION OF FRUIT BODIES OF MUSHROOMS WITH MEDICINAL SIGNIFICANCE	106
<i>A. Rodzkin, N. Ikonnikova, M. Labai, E. Ateba</i>	
INDICATORS OF THE INFLAMMATORY SYNDROME IN ARVI AND INFLUENZA.....	107
<i>E. Romantsevich, T. Romanovskaya</i>	
EPIDEMIOLOGICAL ANALYSIS OF THE MORBIDITY OF THE ADULT POPULATION OF THE MINSK REGION WITH DISEASES OF THE ENDOCRINE SYSTEM FOR 2015–2019	109
<i>D. Rotova, V. Stelmakh</i>	
THE EFFECT OF ZINC IONS ON THE INSULIN MOLECULE	110
<i>V. Sagan, N. Bogdanova, A. Makhnach, O. Sokolovich</i>	
QUANTITATIVE ASSESSMENT OF THE HEALTH STATUS OF THE POPULATION OF DYATLOVO, GRODNO REGION IN 2014–2020	111
<i>J. Salash, N. Porada</i>	
FEATURES OF ADP- AND COLLAGEN-INDUCED PLATELET AGGREGATION IN ARTERIAL HYPERTENSION	112
<i>A. Saley, A. Bakunovich</i>	
SYNTHESIS OF 8-METOXYADENOSINE-DIALDEHYDE	113
<i>N. Serdjukova, M. Khancheuski, A. Trifonova, E. Kvasyuk</i>	
ANALYSIS OF THE PREVALENCE OF PANCREATIC CANCER MORPHOTYPES AND CLINICAL CHARACTERISTICS OF PATIENTS	114
<i>E. Serenkova, E. Shpadaruk, R. Smolyakova</i>	
EPIDEMIOLOGICAL ASPECTS OF THE INCIDENCE OF COLORECTAL CANCER OF THE POPULATION OF THE REPUBLIC OF BELARUS	115
<i>V. Sergeenko, A. Sysa</i>	
STUDY OF THE EFFECT OF MODIFICATIONS OF PYRIMIDINE NUCLEOTIDE ON THE ABILITY TO BIND TO HUMAN SERUM ALBUMIN BY FLUORESCENCE ANALYSIS	116
<i>M. Serpitovskaya, T. Zhukovets</i>	
ANALYSIS OF ANTIBACTERIAL ACTIVITY OF CYTIDINE 3',5'-CYCLIC MONOPHOSPHATE IN <i>PROTEUS MIRABILIS</i>	117
<i>A. Shihad, A. Sysa, E. Gritskevitch</i>	
IN VITRO ANTIBACTERIAL ACTIVITY OF NELARABINE PHOSPHATE AGAINST <i>SARCINA LUTEA</i> STRAIN.....	118
<i>A. Shihad, A. Sysa, E. Gritskevitch</i>	
CHANGES IN BLOOD BIOCHEMICAL INDICATORS IN PATIENTS WITH PREVIOUS CORONAVIRUS INFECTION	119
<i>O. Shinkevich, E. Tarasova</i>	
PHOTON AND ELECTRON OUTPUT CONSTANCY	120
<i>A. Shish, T. Chikova</i>	

RADIOCHROMIC FILM DOSIMETRY	121
<i>A. Shish, T. Chikova</i>	
PHOTODYNAMIC THERAPY DOSIMETRY	122
<i>A. Shish, T. Chikova</i>	
CONCEPT DEVELOPMENT OF A QUALITY GUARANTEE PROGRAM OF EXAMINATION IN THE DEPARTMENT OF RADIOISOTOPE DIAGNOSTICS OF MINSK CITY CLINICAL ONCOLOGY CENTER.....	123
<i>D. Shpak, T. Chikova</i>	
STAGES OF IMPLEMENTATION OF THE QUALITY ASSURANCE PROGRAM OF EXAMINATION IN MINSK CITY CLINICAL ONCOLOGY CENTER.....	124
<i>D. Shpak, T. Chikova</i>	
BIOLOGICAL ACTIVITY OF LOPINAVIR, RITONAVIR AND NELFINAVIR AS POTENTIAL INHIBITORS OF SARS-COV-2 MAIN PROTEASE M ^{PRO}	125
<i>A. Sidorova, A. Bakunovich</i>	
INFLUENCE OF NUCLEOSIDES ON FIBRILL FORMATION OF INSULIN	126
<i>O. Sokolovich, N. Bogdanova, V. Sagan, A. Mahnach</i>	
PHILLOSOPHER PATHOLOGIES OF DOMINANT PLANT SPECIES OF SMALL RECREATION ZONES IN MINSK ON THE EXAMPLE OF MIKHAILOVSKY SQUARE	127
<i>Y. Sorgovitskaya, A. Chernetskaya</i>	
SOME REGIONAL FEATURES OF MODERN THYROID PATHOLOGIES OF THE URBAN POPULATION OF THE REPUBLIC OF BELARUS	128
<i>A. Soropyatova</i>	
ANTIOXIDANT ACTIVITY OF WHEY AND COLOSTRUM HYDROLYZATES COMPLEXES WITH CYCLODEXTRIN.....	129
<i>E. Staselovich, E. Tarun, P. Krasovskaya, T. Halavach, R. Romanovich</i>	
MODELING OF THE BIOLOGICAL ACTIVITY OF THE ESSENTIAL OILS COMPONENTS	130
<i>A. Stasevich, A. Hryhoryeu, A. Bakunovich</i>	
FEATURES OF THE DIAGNOSIS OF FELINE VIRAL IMMUNODEFICIENCY AND FELINE VIRAL LEUKEMIA	131
<i>M. Statsi, Y. Melnikova</i>	
ANALYSIS OF THE DYNAMICS OF RESPIRATORY DISEASES OF THE POPULATION OF LARGE CITIES OF THE MINSK REGION	132
<i>O. Susha</i>	
COMPARATIVE ANALYSIS OF THE DYNAMICS OF THE INCIDENCE OF RESPIRATORY DISEASES OF THE POPULATION SERVED IN THE UZ "28TH CITY POLYCLINIC" OF PERVOMAIISKY AND UZ "17TH CITY POLYCLINIC" OF THE ZAVODSKY DISTRICT OF MINSK...	133
<i>O. Susha</i>	
A RETROSPECTIVE ANALYSIS MORBIDITY OF THE POPULATION MIORY DISTRICT VARICELLA.	133
<i>K. Sushko, M. Dubina</i>	
THE PRODUCTION OF SUPEROXIDE DISMUTASE 3 AND VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR BY MULTIPOTENT MESENCHYMAL STROMAL CELLS UNDER HYPOXIA CONDITION	134
<i>A. Svirskaya, M. Yakauleva, A. Dubko, D. Nizheharodava</i>	
MOLECULAR DOCKING OF 5-(2-HYDROXYBENZYLIDENE)PYRIMIDINE-2,4,6(1H,3H,5H)-TRIONE WITH A CRYSTAL STRUCTURE OF THE PROTEIN COMPLEX 7D2S	136
<i>I. Syrytskii, S. Shahab, V. Linnik, A. Pyrko, L. Filippovich</i>	
ANTIOXIDANT ACTIVITIES OF THE 5-(2-HYDROXYBENZYLIDENE)PYRIMIDINE-2,4,6(1H,3H,5H)- TRIONE.....	137
<i>I. Syrytskii, S. Shahab, A. Pyrko, L. Filippovich</i>	
ANTIOXIDANT ACTIVITY (Z)-4-(2-HYDROXYBENZILIDENE)-3-METHYLISOXAZOL-5 (4H)-ONE	138
<i>I. Syrytskii, S. Shahab, A. Pyrko L. Filippovich</i>	
SYNTHESIS OF 8-BROMOISOGUANINE	139
<i>A. Trifonova, M. Khanchevsky, E. Kvasyuk</i>	

ANALYSIS OF DISABILITY AND MORTALITY OF THE POPULATION OF THE REPUBLIC OF BELARUS DUE TO DIABETES MELLITUS FOR 2015–2019	140
<i>V. Trosko, Yu. Lyakh</i>	
THE PHENOTYPE OF $\gamma\delta$ T-LYMPHOCYTES IN PATIENTS WITH INFLAMMATORY BOWEL DISEASES	141
<i>D. Tsekhanovich, A. Starastin, A. Dybau, D. Nizheharodava</i>	
EPIDEMIOLOGICAL ANALYSIS OF MORBIDITY OF MENTAL AND BEHAVIORAL DISORDERS IN 2010–2019	142
<i>E. Tserlyukevich, N. Porada</i>	
MEDICAL REHABILITATION AFTER POSTED CORONAVIRAL COVID-19 INFECTION	143
<i>A. Tsvetkova</i>	
ANALYSIS OF ANTIOXIDANT ACTIVITY OF GROOVE MUSHROOMS COLLECTED IN RUSSIA, BELARUS AND CHINA.....	144
<i>A. Tuboleva, Y. Pavlovskaya, E. Tarun</i>	
PHYSICAL SORPTION BETWEEN NANOTUBE (8,10) AND RESVERATROL	145
<i>A. Tushinskaya</i>	
ANTIOXIDANT ACTIVITY OF PYRIMIDINE DYES	146
<i>A. Tushinskaya, A. Augustinovich, A. Hryhoryeu, D. Ustymchuk</i>	
FORMATION OF A COMPLEX IN A SYSTEM: NANOTUBE (8,10) AND RESVERATROL	147
<i>D. Ustymchuk</i>	
LABORATORY DIAGNOSTICS OF CORONAVIRUS INFECTION SARS-COV-2.....	148
<i>J. Venskaya, A. Makhnach, A. Dubinskaya</i>	
THE DIAGNOSTIC VALUE OF DETERMINING THE TITERS OF ANTIBODIES TO HEPATITIS B AND C IN SERUM SAMPLES	149
<i>A. Voroshnina, E. Tarasova</i>	
DESIGN AND SYNTHESIS OF A BIOLUMINESCENT PROBE PRECURSOR (AMPPD)	150
<i>Wanghui, S. Shahab</i>	
EFFECT OF MESENCHYMAL STROMAL CELLS ON IL-18 PRODUCTION IN CROHN'S DISEASE	151
<i>M. Yakauleva, M. Zafranskaya, V. Timchenko</i>	
«ANALYSIS OF INCIDENCE WITH PRIMARY LOSS OF EMPLOYMENT DUE TO INJURY AT JSC «SKBZ «AIBERTIN» (2016–2020)	152
<i>S. Yakovchik, V. Stelmakh</i>	
STUDY OF THE GENE EXPRESSION OF GHRELIN AND NESFATIN-1 GENES IN RAT ORGANS	153
<i>I. Yakubov, A. Kuliboev</i>	
EFFECTS OF ANTHROPOGENIC FACTORS ON THE GEOLOGICAL ENVIRONMENT OF SHANDONG PROVINCE	154
<i>Xu. Yanhui, V. Lemiasheuski</i>	
SYNTHESIS OF DISODIUM SALT OF DI-BISULFITADENOSINE	155
<i>V. Yaroshevich, J. Gretzkaya, M. Khancheuski, E. Kvasyuk</i>	
SYNTHESIS OF SECO DERIVATIVES OF ADENOSINE AND URIDINE	156
<i>V. Yaroshevich, J. Gretskaya, V. Pashkovich</i>	
THE INFLUENCE OF THE URBAN ENVIRONMENT ON THE DIAGNOSIS ON THE OF MALE AND FEMALE INFERTILITY IN THE POPULATION OF THE REPUBLIC OF BELARUS.....	157
<i>M. Yaskevich, P. Kirvel</i>	
STATISTICAL ANALYSIS OF THE DATA OF REGISTRATION OF CONGENITAL DEVELOPMENTAL FAULTS.....	158
<i>A. Yatskov, A. Ershova-Pavlova, N. Kokorina</i>	
DETERMINATION OF THE MOLECULAR BIOLOGICAL PROFILE AMONG PATIENTS WITH ESTABLISHED BREAST CANCER CARCINOMA AND HORMONE EXCRETION IMBALANCE	159
<i>K. Yurchenkova, A. Prokopuk, E. Shpadaruk, R. Smolyakova</i>	
BIOLOGICAL CHARACTERISTICS OF FLUDARABINE	161
<i>A. Yurlevich, D. Novik, M. Lubchenko, S. Shahab</i>	

FREQUENCY OF OCCURRENCE OF THE OPEN DUCTUS ARTERIOSUS IN NEWBORNS OF THE CITY OF MINSK	162
<i>E. Zheleznaya, N. Kokorina, A. Ershova-Pavlova</i>	
ANALYSIS OF PANCREAS CANCER INCIDENCE IN MINSK AND THE REPUBLIC OF BELARUS IN THE PERIOD FROM 2000 TO 2018	163
<i>L. Zhuk, Y. Malinovskaya, Y. Zhuk</i>	

SECTION 3

PROBLEMS OF MODERN ENVIRONMENTAL SAFETY (BIOMONITORING, BIOINDICATION, BIOREMEDIATION, RADIOECOLOGY AND RADIATION SAFETY, ENVIRONMENTAL MONITORING, MANAGEMENT AND AUDIT. INFORMATION SYSTEMS AND TECHNOLOGIES IN ECOLOGY)

LAND DEGRADATION IS A SERIOUS ECONOMIC AND ENVIRONMENTAL PROBLEM	165
<i>M. Abdurakhmanova</i>	
EFFECTS OF DRYING PROCESS ON BIOLOGICAL PROPERTIES OF SOILS	166
<i>T. Abdurakhmonov, M. Karimboeva</i>	
ECOLOGICAL, PHARMACOLOGICAL AND BIOCHEMICAL ASSESSMENT OF THE FRUITS OF CLOUDBERRY SQUAT (RUBUS CHAMAEMORUS L.) OF NORTHERN BELARUS	168
<i>E. Akshevskaya, A. Kozorez</i>	
ENVIRONMENTAL DIRECTION OF THE "A1" ENTERPRISE.....	169
<i>M. Artemchuk, V. Krasovsky, P. Krishchanovich</i>	
THE PROBLEMS OF ECOLOGICAL SAFETY IN REPUBLIC OF ARMENIA IN RECENT DISTILLATES AND THEIR IMPACT ON CHILD MORBIDITY	170
<i>T. M. Astabatsyan</i>	
ANALYSIS OF THE HANDLING OF CONTAMINATED TEXTILES IN THE REPUBLIC OF BELARUS....	171
<i>E. Baeva, V. Misiuchenka</i>	
CURRENT TRENDS IN THE GENERATION OF INDUSTRIAL WASTE AND WASTE MANAGEMENT AT THE ENTERPRISE «TREPLAST»	172
<i>K. Baradynich, A. Fralou</i>	
VARIABILITY OF CERTAIN TRAITS UNDER THE INFLUENCE OF ELECTROMAGNETIC IMPULSES TO THE VEGETATIVE ORGAN OF CULTIVARS AND LINE PLANTS DEVELOPED IN CONDITIONS OF WATER SCARCITY	173
<i>A. Bekmukhamedov, A. Khasanova, N. Khusanov</i>	
INHERITANCE OF FIBER OUTPUT IN COTTON HYBRIDS.....	174
<i>S. Boboyev, M. Mirakhmedov, G. Narkizilova, J. Ruziev</i>	
SUMMER POPULATION OF VRANOVY BIRDS IN BORISOV	175
<i>M. Bogachova, A. Khandohiy, Y. Kisialiova</i>	
MODERN PROBLEMS OF MORPHOMETRIC ANALYSIS	176
<i>N. Bushkevich</i>	
LICHENOINDICATION OF AIR POLLUTION OF M. Ya. PAVLOV'S PARK	177
<i>S. Chadovich, I. Lapshevich, A. Titov, A. Lunovich, Y. Zhyltsova</i>	
THE IMPACT OF FOOD WASTE ON THE ENVIRONMENT	178
<i>D. Churakova, L. Kuzina</i>	
ANALYSIS OF THE SPECTRAL REFLECTIVITY OF AGRICULTURAL VEGETATION	179
<i>Y. Davidovich</i>	
ASSESSMENT OF THE ECOLOGICAL STATE OF TREE PLANTS OF PAVLOV PARK	180
<i>U. Dubatoyka, E. Zhuk</i>	
IMPLEMENTATION OF THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS IN THE REPUBLIC OF BELARUS	180
<i>V. Duzinchuk, S. Golovaty</i>	

ANALYSIS OF THE POSSIBILITIES OF RECYCLING DISUSED FURNITURE IN THE REPUBLIC OF BELARUS	181
<i>P. Dzelianko, V. Misiuchenka</i>	
ANALYSIS OF THE TREATMENT OF CULLET IN THE REPUBLIC OF BELARUS	183
<i>M. Evsievich, V. Misyuchenko</i>	
EFFECT OF BIOSOLVENT DRUGS ON THE WASHING EFFECTIVENESS OF SALTS IN ALLUVIAL SOILS WITH DIFFERENT SALT	184
<i>M. Fakhrutdinova, O. Imomov</i>	
INFLUENCE OF MOLD FUNGI OF THE GENUS <i>ASPERGILLUS</i> ON A NATURAL CELLULOSE POLYMER IN MACROVISUAL OBSERVATION.....	185
<i>L. Gavriluyk, N. Ikonnikova</i>	
DIFFERENCES IN THE VERBAL DEFINITION OF THE CHARACTERISTICS OF THE ECOLOGICAL QUALITY OF PRODUCTS IN SOME LANGUAGES AS A BASIS FOR THE UNIFICATION OF THEIR ENVIRONMENTAL LABELING	186
<i>V. Gudovich, A. Fralou</i>	
Natural analogues in physics and mechanics	187
<i>D. Ignatovskiy, V. Krasovskiy</i>	
ADVANTAGES OF PHITOREMEDIATION CLEANSING SOILS CONTAMINATED WITH HEAVY METALS	188
<i>Z. Jabbarov, N. Sultonova</i>	
FEATURES OF RADIAL DISTRIBUTION OF NICKEL IN FOREST SOILS IN ZONES OF INFLUENCE OF ELECTRICAL PRODUCTION	189
<i>P. Kachanovich</i>	
AGRICULTURAL CROPS IN THE STRUCTURE OF THE DIET OF RESOURCE ANIMAL SPECIES IN BELARUS	190
<i>A. Kapskaya, Yu. Lyakh, M. Lezhdey</i>	
COMPREHENSIVE EVALUATION AND OPTIMIZATION OF ECOLOGICAL TRANSFORMATION OF COAL MINING SUBSIDENCE LAND – A CASE STUDY OF PAN'AN LAKE URBAN WETLAND PARK IN XUZHOU	191
<i>Ju. Kechun</i>	
COMPARATIVE ANALYSIS OF METHODS FOR CALCULATING STATIONARY RADIATION PROTECTION APPLIED TO PREMISES FOR RADIATION THERAPY	192
<i>E. Kemeshe, E. Preobrazhenskaya, M. Piatkevich</i>	
STUDY OF THE PROPAGATION OF CILIATE BANANA-EATEN GECKOS IN THE MINSK ZOO	193
<i>N. Kovalchuk, I. Khandohiy</i>	
COMMITMENT TO THE ALARA CONCEPT AT THE BELARUSIAN NUCLEAR POWER PLANT AS ONE OF THE KEY FACTORS IN PROVIDING THE RADIATION SAFETY OF PERSONNEL	194
<i>V. Kutas</i>	
TROPHIC STRUCTURE IN THE HYDROGEN SULFIDE LAKE BARKOVSHCHINA	195
<i>I. Lapuka</i>	
MONITORING OF SARCOCYSTOSIS AMONG HUNTING SPECIES OF WATERING BIRDS OF MINSK REGION	197
<i>S. Latushko, Yu. Lyakh</i>	
ANALYSIS OF THE INITIAL MATERIALS FOR THE "ENVIRONMENTAL PROTECTION" SECTION OF THE FLAX FIBER BLEACHING WORKSHOP RECONSTRUCTION PROJECT	198
<i>V. Lesik, V. Misyuchenko</i>	
ECONOMIC POTENTIAL OF WIND POWER INDUSTRY IN BELARUS	199
<i>L. Lipnitski, M. Treyvas, E. Cherevan</i>	
THE NEED TO DEVELOP MEASURES FOR ENERGY SAVING AND IMPROVING ENERGY EFFICIENCY IN HEALTHCARE INSTITUTIONS	200
<i>L. Lipnitski, A. Kutas, K. Solenok</i>	
URBAN AIR POLLUTION AND ITS COUNTERMEASURES IN HEBEI, CHINA	201
<i>Liu Jiu 'an, V. Lemiasheuski, Mehmet Musa Özcan</i>	

STORMWATER RUNOFF POLLUTION CONTROL – THE COMPREHENSIVE IMPROVEMENT PROJECT OF WATER ENVIRONMENT IN ZHANGJIAKOU CITY, HEBEI PROVINCE.....	202
<i>Liu Zhi gang, V. Lemiasheuski</i>	
PARASITIC NEMATODES LOCALIZED UNDER THE CUTICLE OF THE MUSCULAR STOMACH OF WILD AND DOMESTIC WATER BIRDS AND THEIR DIAGNOSTICS	204
<i>Yu. Lyakh, A. Bormotov</i>	
IXODIC TICKS IN THE RECREATIONAL ZONE OF MINSK AND THE ROLE OF HUMANS IN ENHANCING THEIR NEGATIVE INFLUENCE	205
<i>Yu. Lyakh, L. Isachenko</i>	
NATURAL RECREATIONAL POTENTIAL OF GOMEL REGION OF REPUBLIC OF BELARUS	206
<i>A. Makarenko</i>	
THE IMPACT OF THE THERMAL TREATMENT OF THE SUBSTRATE ON THE BIOLOGICAL EFFICIENCY OF GILLED MUSHROOMS (PLEUROTUS OSTREATUS).....	207
<i>A. Makas, G. Krusir</i>	
ANALYSIS OF BIOCHEMICAL PROPERTIES OF <i>BACILLUS CEREUS</i> PURE CULTURES UNDER PROLONGED EXPOSURE TO IONIZING RADIATION.....	208
<i>S. Maltsava, A. Yakubovich, E. Gritskevitch</i>	
INFLUENCE OF LOW-INTENSITY LASER RADIATION ON THE GROWTH OF PURE <i>BACILLUS SUBTILIS</i> CROPS ISOLATED FROM THE SOILS OF THE POLESYE STATE RADIATION AND ECOLOGICAL RESERVE	209
<i>E. Maslyukov, L. Gavriluyk, E. Gritskevich, A. Vabishchevich</i>	
ON A NATIONAL GLOSSARY OF NUCLEAR AND RADIATION SAFETY AS AN INSTRUMENT OF TERMINOLOGY HARMONIZATION	210
<i>K. Mazanik, T. Artsemyeva, N. Tushin, M. Michalevic</i>	
NANOSCALE PHOTOCATALYSTS BASED ON ZINC OXIDE (ZnO) FOR THE REMOVAL OF PHARMACOLOGICAL WASTE IN AQUEOUS MEDIA UNDER THE INFLUENCE OF ULTRAVIOLET RADIATION	211
<i>A. Miadzevetski, A. Shcherbovich, V. Plakhodzka, N. Savastenko, I. Filatova, V. Lushkevich, S. Maskevich</i>	
EVALUATION OF BY-PRODUCTS THAT CAUSE ENVIRONMENTAL PROBLEMS IN OLIVE OIL PRODUCTION.....	212
<i>Mehmet Musa Özcan, V. Lemiasheuski</i>	
ELECTRIC CARS IN THE CONTEXT OF ENVIRONMENTAL IMPROVEMENT.....	213
<i>V. Pleskanev, E. Yablonsky, D. Mishlakov, P. Shalkevich</i>	
IMPROVEMENT OF TECHNOLOGY OF WASTE PROCESSING OF MILK PROCESSING ENTERPRISES.....	214
<i>V. Prilutskiy, G. Krusir, O. Sagdeeva, I. Kuznetsova</i>	
PASSIVE IMMUNITY DEFENSE SYSTEM OF PLANTS AGAINST PHYTOPATHOGENIC FUNGI.....	215
<i>D. Pristavkina, A. Chernetskaya</i>	
PROBLEMS OF POLLUTION BY SOLID AND HOUSEHOLD WASTE IN THE REPUBLIC OF BELARUS.....	216
<i>I. Reich</i>	
EXPRESS METHODS FOR WATER POLLUTION IDENTIFICATION	217
<i>D. Samokhina, A. Zhukova, U. Kapitsa</i>	
ENVIRONMENTAL CRISIS IN CHINA	218
<i>H. Siqin, O. Nilova</i>	
ATMOSPHERIC AIR POLLUTION AND POSSIBLE EFFECTS FOR HUMAN HEALTH IN THE REPUBLIC OF BELARUS.....	219
<i>V. Sivukha, A. Rodzkin</i>	
ENERGY EFFICIENT TECHNOLOGIES OF PRE-SOWING PREPARATION OF SALAD SEEDS	220
<i>V. Sivukha, V. Pashynski</i>	
INFLUENCE OF HUMIDITY ON THE BIOLOGICAL EFFICIENCY OF RAIN WORM (<i>EISENIA FETIDA</i>) IN THE COMPOSTING OF FOOD WASTE	221
<i>T. Sokolova, G. Krusir, V. Sokolova O. Sagdeeva</i>	

INFOSPHERE AND FUNDAMENTAL VALUES IN THE AGE OF HYBRID WARS.....	222
<i>A. Sokolova, S. Sokolova</i>	
ANALYSIS OF RADIATION EFFECT ON INDIVIDUAL BIOTA COMPONENTS BY THE LEVEL OF CONTAMINATION BY RADIONUCLIDES ^{90}Sr и ^{137}Cs OF LAKES IN THE BELARUSIAN SECTOR OF THE CHERNOBYL EXCLUSION ZONE.....	223
<i>E. Sologub, E. Busko</i>	
BIOINDICATION ASSESSMENT OF SOILS ANTHROPOGENIC LOAD OF THE M. Ya. PAVLOV'S PARK.....	224
<i>A. Strakh, V. Shashkova, A. Tuz, O. Pisarenko, Yu. Zhyltsova</i>	
SEASONAL CHANGES IN THE COMPOSITION OF THE AVIFAUNA OF PARKS IN MINSK	225
<i>E. Svistun, A. Khandohiy, N. Anishchanka</i>	
ANALYSIS OF THE POSSIBILITIES OF PROCESSING OIL SLUDGE IN THE REPUBLIC OF BELARUS.....	226
<i>O. Targovich, V. Misiuchenka</i>	
STREAMING SERVICE AS MUSIC THERAPY	227
<i>A. Tsikhonchyk, U. Ivaniukovich</i>	
USAGE OF MIXED WASTE OIL IN THE MIXTURE WITH ETHANOL FOR MICROBIAL EXOPOLYSACCHARIDE ETHAPOLAN BIOSYNTHESIS	228
<i>A. Voronenko, T. Pirog</i>	
THE PROSPECT OF GARBAGE RECYCLING IN NANTONG, JIANGSU PROVINCE, CHINA	229
<i>Li Xiaolong, V. Lemiasheuski</i>	
HYDROGEN ENERGY	230
<i>M. Yakauleva, V. Timchenko</i>	
INVASIVE PROPERTIES OF <i>ROBINIA PSEUDOACACIA</i> IN BELARUSIAN PALESSE.....	231
<i>M. Yakhnovets, E. Yurchenko</i>	
ANALYSIS OF THE PHYSIOLOGICAL AND BIOCHEMICAL PROPERTIES OF SANITARY-INDICATIVE MICROORGANISMS ISOLATED FROM SOILS EXPOSED TO LONG-TERM EXPOSURE TO IONIZING RADIATION.....	232
<i>H. Yakubovich, S. Maltsava, E. Gritskevitch</i>	
SYNTHESIS OF PLANT GROWTH STIMULANTS BY <i>NOCARDIA VACCINII</i> IMV B-7405 STRAIN IN THE PRESENCE OF ERYTHRITOL	233
<i>V. Zhdaniuk, D. Piatetska, T. Pirog</i>	
COMPARATIVE CHARACTERISTICS WATER MONITORING METHODS	234
<i>A. Zhukova, I. Volodko, U. Kapitsa</i>	

Научное издание

АКТУАЛЬНЫЕ ЭКОЛОГИЧЕСКИЕ ПРОБЛЕМЫ

ТЕЗИСЫ XI МЕЖДУНАРОДНОЙ НАУЧНОЙ КОНФЕРЕНЦИИ
МОЛОДЫХ УЧЕНЫХ, АСПИРАНТОВ, МАГИСТРАНТОВ, СТУДЕНТОВ

2–3 декабря 2021 г.

г. Минск, Республика Беларусь

На английском языке

Редакторы *Т. В. Беляева, Ю. И. Буткевич,
Н. А. Грицай, Д. М. Громыко, Т. И. Жегало,
О. А. Климова, Н. М. Левданская, П. С. Литвинчук,
Л. Н. Никитина, Е. И. Суббота, Г. В. Третьяк, А. И. Тюрдеева*
Компьютерная верстка *М. Ю. Мошкова*

Подписано в печать 22.11.2021.

Формат 60×90 ¹/₈.

Бумага офсетная. Печать цифровая.

Усл. печ. л. 31,00. Уч.-изд. л. 25,29.

Тираж 100 экз. Заказ №

Республиканское унитарное предприятие «Информационно-
вычислительный центр Министерства финансов Республики Беларусь».

Свидетельство о государственной регистрации

издателя, изготовителя, распространителя печатных изданий

№ 1/161 от 27.01.2014, № 2/41 от 29.01.2014.

Ул. Кальварийская, 17, 220004, г. Минск.