

BELARUSIAN STATE UNIVERSITY

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Establishment of Education  
«International Sakharov Environmental Institute»



# ACTUAL ENVIRONMENTAL PROBLEMS

Proceeding of the VII International  
Scientific Conference of young scientists,  
graduates, master and PhD students



November 23–24, 2017  
Minsk, Republic of Belarus



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## PARASITIC SITUATION ON HORSE HELMINTHOSES ON THE TERRITORY OF THE POLESSKY RADIATION AND ECOLOGICAL RESERVE

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The conducted researches have allowed to reveal high intensity of intestinal strongylatosis, parascarisidosis and oxyuris invasions at different species of horse in the reserve. Among helminthoses of horses the most occurred one is intestinal strongylatosis. The eggs of strongylata are found in 95,2 % of fecal specimen of domestic horses and in 84,1 % of fecal specimen of wild horses. Parasitizing of *Anoplocephala perfoliata* is revealed at 9,5 % of the studied fecal specimen of Przewalski's horses.

*Keywords:* domestic horses, Przewalski's horses, helminthoscopic researches.

There are two types of ecospecies in the Polesky state radiation and ecological reserve (Gomel region, Belarus): domestic horses and wild Przewalski's horses (*Equus ferus przewalskii* Poljakov, 1881):

Comparative study of a species diversity of helminths communities at different types of horse ecospecies, contained together on one territory was carried out by a number of authors [1–3]. For the territory of the Polesky radiation and ecological reserve such researches are performed for the first time.

Helminthoscopic researches by the Fyulleborna flotation method for detection of parasites eggs have allowed to reveal only a nematodosis invasion at the horses who are contained on the horse-breeding farm. Parasites eggs of the families are found: Strongylidae, Trichonematidae, Ascaridae, Oxyuridae, Rhabdiasidae. During the study of 84 fecal specimen of the horses selected before carrying out a worming, all the specimen were infected (% EI-100). At 95,2 % of the studied specimen trichostrongylidae eggs were revealed. At 70,2 % of cases of the studied tests the combination of helminths was revealed – helminthoses (from 2 to 3 species for an animal). Parasitizing only of one species is registered at 32,1 % of horses. At the same time at the majority of animals there were two (63,2 %), more rare three (36,8 %) types of helminths.

From 63 of fecal specimen tests collected from the unrestricted living Przewalski's horses on the territory of the reserve there were 55 specimen of helminths infected by eggs (% EI-87,3). Except of a nematodosis invasion tapeworms are found in wild horses. As well as at domestic horses, at wild horses there were found helminths of Strongylidae/Trichonematidae, Ascaridae, Oxyuridae and Rhabdiasidae. Eggs of tape parasites (*Anoplocephalidae*) are revealed at 6 of 63 surveyed tests (9,5 %). In 74,6 % of cases the combination of helminths – helminthoses is revealed (from 2 to 3 species for an animal). Parasitizing only of one species is registered at 12,7 % of horses. At the majority of animals there a simultaneously found two (57,4 %), more rare – three (40,4 %) species of helminths. Four parasites (2,1 %) are found in one horse.

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# CONTENT

## SECTION 1

### SOCIAL AND ENVIRONMENTAL, ETHICAL AND PEDAGOGICAL PROBLEMS IN ACCORDANCE WITH A. D. SAKHAROV'S IDEAS

<i>E. Astapovich, N. Lepsкая</i> HUMAN AND MODERN ENVIRONMENTAL PROBLEMS .....	3
<i>Y. Blagodarova, A. Korotkevich</i> BIOLOGICAL AND SOCIAL EVOLUTION OF THE PERSON .....	3
<i>E. Dovydenko, L. Kuzina</i> ECONOMIC CONSEQUENCES OF THE WORLD OCEAN POLLUTION .....	4
<i>I. Drozdov, T. Shershniova</i> VIRTUAL REALITY AS A FACTOR OF DEVELOPMENT OF ADDICTIVE BEHAVIOR IN CONDITIONS OF MODERN ENVIRONMENT .....	5
<i>A. Dumcheva, V. Emelyanova, E. Bogdanyuk, A. Korotkevich</i> POSITIVE AND NEGATIVE FEATURES OF THE CONSUMER SOCIETY .....	6
<i>S. Ignatovich, V. Letvinova, L. Kuzina</i> ECOLOGICAL DANGER OF MEDICAL WASTAGE.....	7
<i>P. Khilimonchik, I. Olevskaya</i> THE INFLUENCE OF NATURAL TACTILE SENSATIONS ON THE HUMAN PSYCHE.....	8
<i>M. Kompaniets, L. Kuzina, L. Nikitina</i> THE PROBLEM OF HUNGER IN FOOD OVERPRODUCTION.....	9
<i>Y. Marchenko, V. Luchina</i> ON THE ISSUE OF THE ENVIRONMENTAL, LEGAL AND ECONOMIC CONSEQUENCES OF THE USA WITHDRAW FROM THE PARIS CLIMATE AGREEMENT .....	9
<i>E. Maslovskaya, B. Tonkonogov</i> DATABASE OF INTEGRATED INFORMATION SYSTEM FOR ANALYSIS OF POTENTIAL OF RENEWABLE ENERGY SOURCES.....	10
<i>A. Rebeeva, A. Korotkevich</i> V. I. VERNADSKY'S IDEA OF THE NOOSPHERE AS A WAY OF FORMING POSITIVE SPIRITUAL AND SOCIAL VALUES IN SOCIETY.....	11
<i>P. Parmon, L. Kuzina, L. Nikitina</i> THE PROBLEMS OF ORGANIC FOOD PRODUCTION.....	12
<i>M. Potapnev</i> NEW CHALLENGES FOR PEOPLE HEALTH IN XXI CENTURY AND CHANGE OF MEDICINE STRATEGY .....	13
<i>O. Selmanovich, V. Luchina</i> SOME PECULIARITIES OF THE REALIZATION OF GREEN ZONES POLICY IN THE REPUBLIC OF KOREA .....	14
<i>O. Selmanovich, M. Yasaite, E. Zhuk</i> APPLICATION OF INTERACTIVE METHODS OF TRAINING AT THE ORGANIZATION OF OUT-OF-CLASS WORK ON BIOLOGY .....	15
<i>R. Simonahina, V. Kazantseva, E. Zhuk</i> THE EXPERIENCE OF APPLICATION OF INNOVATIVE PEDAGOGICAL TECHNOLOGIES OF STUDENT-ECOLOGISTS TRAINING .....	15
<i>S. Tkachenko, I. Lefanova</i> PROBABILITY OF HUMANLIKE COMMUNICATION AMONG VIRTUAL ASSISTANTS – CHAT-BOTS .....	16
<i>P. Vaida</i> FORMATION OF AESTHETIC EDUCATION BY MEANS OF PROJECT ACTIVITY.....	17
<i>V. Vinnikava</i> USE OF DNA ANALYSIS IN PALEOANTHROPOLOGICAL RESEARCH. HISTORY AND STATE OF THE PROBLEM.....	18
<i>A. Voloshenko, N. Lepsкая</i> THE PROCESS OF THE FORMATION OF THE NOOSPHERE.....	19

<i>M. Yasaite, V. Selmanovich, Y. Zhuk</i> AN ASSESSMENT OF THE LEVEL OF ECOLOGICAL COMPETENCES OF TEACHERS.....	20
<i>A. Zhilko, L. Zhilko, T. Mohart, L. Mayor</i> ECOLOGICAL EDUCATION OF YOUTH AS ONE OF THE DIRECTIONS OF THE ACTIVITIES OF "ASSOCIATION OF BELARUS GUIDES" .....	20

## SECTION 2 MEDICAL ECOLOGY

<i>A. Abdul, E. Tarasova</i> SENSITIVITY OF M.HOMINIS AND U.UREALITICUM TO ANTIBIOTICS .....	22
<i>A. Adamovich, H. Charkouskaya, M. Yurkevich, D. Nizheharodava</i> ISOLATION AND CHARACTERIZATION OF RODENT NERVOUS TISSUE-DERIVED CELL CULTURE .....	23
<i>N. Aleksandryna, I. Koktysh</i> EXOSOMES AS BIOMARKERS IN PATHOLOGY .....	24
<i>M. Aliev, N. Porada</i> MORBIDITY AS NEGATIVE INDICATOR OF POPULATION HEALTH.....	25
<i>R. Andrejev, O. Parhimovich, K. Bulanova</i> INFLUENCE OF IONIZING RADIATION IN DOSE OF 1 GY ON CALCIUM TRANSFER IN RATS' PLATELETS .....	26
<i>I. Antonchik, E. Tarun</i> ANTIOXIDANT ACTIVITY OF JUICE OF SMALL-FRUIT CROPS .....	27
<i>D. Babaryko, D. Shauchuk, E. Ruta-Zhukouskaia</i> ANALYSIS OF HUMAN CHORIONIC GONADOTROPIN USING BOTTOM-UP PROTEOMIC APPROACH .....	28
<i>N. Bakun</i> CONTENT OF ALPHA-FETOPROTEIN IN PATIENTS WITH SYSTEMIC SCLERODERMA.....	29
<i>N. Bakun, A. Chukhol'skiy</i> THE COMPARISON OF EXPRESSION LEVELS FOR THE YELLOW GENE AND ELONGATION FACTOR GENE DROSOPHILA MELANOGASTER AT DIFFERENT STAGES OF THE DEVELOPMENT .....	30
<i>D. Bobrukevich, Ya. Melnikova</i> HYPERGLYCEMIA UNJUST-CHANGE OF NEUTROPHILS MICROBICIDAL .....	31
<i>M. Boika, V. Stelmakh</i> BIOCHEMICAL ASPECTS OF ECOLOGICAL - HYGIENIC CHARACTERISTICS OF THE DOMESTIC PLANT GROWTH REGULATOR "AFALAMIN" .....	32
<i>A. Bolsun</i> CHARACTERIZATION OF THE CYTOTOXIC EFFECT OF DMSO AND SDS ON MSC CULTURE USING MTT ASSAY.....	33
<i>O. Boyarin, N. Kokorina</i> PREGNANCY IN WOMEN AFTER ASSISTED REPRODUCTIVE TECHNOLOGIES .....	34
<i>P. Boyko</i> ANEMIES IN CHILDREN FROM 0 TO 3 YEARS.....	35
<i>A. Bulatovski, S. Kvach, L. Eroshevskaya, A. Zinchenko</i> ENGINEERING OF BACTERIAL STRAIN PRODUCING FUSION PROTEIN .....	35
<i>C. Cherepovich, E. Vasyukevich</i> ANALYSIS OF MORBIDITY OF THE POPULATION OF THE REPUBLIC OF BELARUS FROM ALCOHOLISM IN 1995–2015 .....	36
<i>D. Chobanyan, N. Nashkevich</i> EPIDEMIOLOGICAL ASPECTS OF DONORSHIP. SAFE BLOOD TRANSFUSION IN THE REPUBLIC OF BELARUS .....	37
<i>A. Chuholskiy</i> INCIDENCE OF CEREBRAL PALSY IN SOLIGORSK DISTRICT .....	38
<i>T. Chupakova, I. Puhteeva</i> ANALYSIS OF SCREENING RESEARCH OF DISEASES OF THE GASTROINTESTINAL TRACT IN THE REPUBLIC OF BELARUS .....	39

<i>A. Danchenko, V. Lemiasheuski, A. Batyan</i> INFLUENCE OF BLOOD IRRADIATION BY A HELIUM-NEON LASER ON ITS CELLULAR AND BIOCHEMICAL INDICATORS .....	40
<i>A. Dankova, E. Tarun, A. Pyrko</i> ANTIOXIDANT ACTIVITY OF HEXAHYDROQUINOLONES .....	41
<i>V. Drobysheva, E. Spadaruk, R. Smolyakova</i> THE IDENTIFICATION OF MUTATIONS IN THE GENES BRCA1 (185delAG) AND BRCA2 (6174delT) ON THE DEVELOPMENT OF PANCREATIC CANCER.....	42
<i>O. Druzynina, I. Koktysh</i> INFECTIOUS AND CLINICAL LABORATORY MARKERS IN CHILDREN WITH DIFFERENT FORMS OF RHEUMATOID ARTHRITIS.....	43
<i>E. Dunich, N. Gerasimovich</i> COMPARATIVE ANALYSIS OF MORTALITY OF PNEUMONIA IN CHILDREN OF MOLODECHENO DISTRICT.....	43
<i>E. El Uardi, N. Batyan</i> THE USE OF LASERS OF LOW INTENSITY IN DERMATOLOGY.LASEROUS REJUVENATION.....	44
<i>V. Emelyanova, N. Kokorina</i> THE STATE OF NEWBORN CHILDREN FROM MOTHERS WITH ENDOCRINE PATHOLOGY .....	45
<i>I. Falevich, I. Puhteva</i> EVALUATION OF THE LEVEL OF HEALTH OF MEN OF MILITARY AGE IN THE REPUBLIC OF BELARUS .....	46
<i>D. Filatova, M. Sineleva</i> FEATURES OF USE OF PSYCHOACTIVE SUBSTANCES IN VARIOUS AREAS OF THE REPUBLIC OF BELARUS .....	47
<i>K. Fomenko, I. Puhteva, N. Gerasimovich</i> THE COMBINED EFFECT OF PHYSIOLOGICAL AND PHYSICAL FACTORS ON HOMEOSTASIS OF CALCIUM IONS IN THE CELLS OF THE IMMUNE SYSTEM .....	47
<i>A. Gaiduk, E. Tolstaya</i> PSYCHOLOGICAL PECULIARITIES OF PREGNANT WOMEN .....	48
<i>E. Gaikova, R. Dudinskaya</i> THE ANALYSIS OF THE EPIDEMIOLOGICAL ASPECTS OF ABORTION .....	49
<i>A. Gavruseva, D. Antonishina, V. Podolyakina</i> CHARACTERISTICS OF MORTALITY FROM EXTERNAL CAUSES OF THE REPUBLIC OF BELARUS.....	50
<i>K. Gerasimovich, N. Besarab, A. Kanterova, G. Novik</i> STUDY OF FACTORS THAT HAVE A STIMULATING EFFECT ON GROWTH AND CAROTENOGENESIS IN YEAST <i>RHODOTORULA</i> GLUTINIS BIM Y-253.....	51
<i>E. Goldman, E. Titovich</i> PROSPECTS OF USING PHOTON BEAMS WITHOUT THE FLATTENING FILTER (FFF BEAMS) IN THE RADIATION THERAPY OF MALIGNANT TUMORS .....	52
<i>N. Goroshko, T. Volkova</i> EPIDEMICALLY IMPORTANT TYPES OF BLOODSUCKING MOSQUITOES (DIPTERA, CULICIDAE) IN THE TERRITORY OF BELARUSIAN POLESIE.....	53
<i>I. Grishuk, O. Novik, O. Lozinskaia</i> ANALYSIS OF MUTAGEN EFFECT OF FOOD COLORINGS BY ALLIUM TEST METHOD .....	54
<i>D. Grushik, A. Karpei</i> THE DEVELOPMENT OF AN ONLINE BOOKING SERVICE FOR TRADING PLACES IN THE MARKETS OF THE CITY OF MINSK .....	55
<i>D. Gurlo, E. Titovich</i> IMPROVEMENT OF THE DATABASE OF THE RADIOTHERAPY EQUIPMENT IN THE REPUBLIC OF BELARUS.....	55
<i>D. Gurlo, E. Titovich</i> COMPARATIVE ANALYSIS OF THE STATUS OF RADIATION THERAPY IN THE REPUBLIC OF BELARUS AND THE COUNTRIES OF THE FORMER USSR .....	56



<i>I. Huliuta, A. Shynhel, S. Bokut</i> DEVELOPMENT OF DATA DEPENDENT MS/MS ANALYSIS USING HIGH-RESOLUTION CHROMATOGRAPHY-MASS SPECTROMETRY .....	57
<i>A. Ionova, N. Danilkovich, S. Kosmacheva</i> THE TOXICITY OF THE MATERIALS IN RELATION TO MESENCHYMAL STEM CELLS .....	58
<i>N. Isakova, N. Ikonnikova</i> CHARACTERIZATION OF BIOCHEMICAL PROPERTIES AND BIOLOGICAL ACTIVITY OF COMPOUNDS OF A CARBOHYDRATE NATURE OF SOME OF BAZIDIOMYCETES .....	59
<i>U. Ivut, M. Zafranskaya, T. Kandratovich</i> ASSESSMENT OF ANTIPROLIFERATIVE EFFECT OF BONE MARROW MONONUCLEAR CELLS .....	60
<i>T. Kalenkovich, N. Kokorina, A. Kamlyuk</i> THE HEALTH OF CHILDREN BORN AS A RESULT OF ASSISTED REPRODUCTIVE TECHNOLOGY .....	61
<i>P. Kalofati, A. Yershova-Pavlova, N. Kokorina</i> CONGENITAL SPINAL HERNIAS (SPINA BIFIDA) .....	62
<i>A. Kamialchuk, V. Stelmakh, N. Ikonnikova</i> ECOLOGICAL CHARACTERISTIC OF THE ORAL MICROBIOTA .....	63
<i>A. Kaprusynka, E. Titovich, I. Tarutin</i> ANALYSIS OF METHODS OF TREATMENT FOR CNS TUMORS USING MEDICAL LINEAR ACCELERATORS .....	64
<i>N. Karaliova, T. Chikova</i> FACTORS OF RADIATION RISK AT RADIODIAGNOSIS AND RADIATION THERAPY IN HEALTHCARE INSTITUTION .....	65
<i>K. Karpova, A. Batyan</i> IMPACT OF LASER IRRADIATION OF LOW INTENSITY ON HEMOGLOBIN .....	66
<i>D. Katsiushkina, E. Levchik</i> THE ANALYSIS OF INCIDENCE AMONG CHILDREN IN MINSK REGION DURING 2007–2015 .....	67
<i>D. Kazlouski, E. Tsitovich, I. Tarutsin</i> THE NECESSITY OF THE IMPROVEMENT OF BRAHITERAPY PROGRAM IN THE REPUBLIC OF BELARUS .....	67
<i>I. Kazlovskiy, D. Burko, A. Rymko, A. Zinchenko</i> ENGINEERING OF <i>ESCHERICHIA COLI</i> STRAINS – PRODUCERS OF GUANOSINE MONOPHOSPHATE – AND CYTIDINE MONOPHOSPHATE KINASES .....	68
<i>A. Khromchenkova, A. Batyan</i> INDICATORS OF GLYCATED HEMOGLOBIN AND BLOOD GLUCOSE IN TYPE 2 DIABETES MELLITUS IN PATIENTS OF SMORGON .....	69
<i>E. Khrustalyova, V. Lemiasheuski, I. Merkulova</i> DYNAMICS OF PREVALENCE OF TUBERCULOSIS RESISTANT TO DRUG THERAPY AMONG RESIDENTS OF MINSK CITY FOR 2011–2015 .....	70
<i>M. Kocheeva, E. Shpadaruk, R. Smolyakova</i> EVALUATION OF ENDOGENOUS INTOXICATION BY INDICATORS OF PERIPHERAL BLOOD IN PATIENTS WITH LYMPHOMA .....	71
<i>N. Khacharhina, V. Stelmakh</i> EPIDEMIOLOGICAL FEATURES OF THE PREVALENCE OF OVERWEIGHT AND OBESITY IN BELARUS .....	72
<i>M. Komarovich</i> HYGIENIC EVALUATION OF NUTRITION OF CHILDREN VISITING KINDERGARTEN No. 195 IN MINSK .....	73
<i>K. Korotchikova, E. Tolstaya</i> PSYCHOLOGICAL STATE OF WOMEN WITH NEURO-CIRCULATORY DYSTONIA .....	73
<i>V. Koshlach, E. Tolstaya</i> SPECIFIC FEATURES OF PSYCHOLOGICAL STATUS OF PATIENTS WITH DIABETES MELLITUS .....	74
<i>V. Kostyuk, M. Dubina</i> DISEASES OF THE DIGESTIVE SYSTEM AS A MEDICAL AND SOCIAL PROBLEM IN THE REPUBLIC OF BELARUS .....	75
<i>A. Kovsh, K. Shpadaruk, R. Smoluakova</i> DETERMINATION OF EXPRESSION OF COX-2 AND MMP-7 GENES AMONG PATIENTS WITH GASTRIC CANCER .....	76

<i>K. Krivetskiy, D. Kozhevnikov</i> SPECTRAL MICROTOMOGRAPHY USING THE MARS-CT.....	77
<i>K. Krivetskiy, O. Boyarkin</i> SCIENTIFIC COMPUTING IN PYTHON.....	78
<i>V. Kugut, O. Parhimovich, K. Bulanava, L. Lobanok, O. Bichan, T. Milevich</i> THE STATE OF CALCIUM METABOLISM IN RAT PLATELETS IN THE NEAREST AND LONG TERM AFTER IRRADIATION.....	78
<i>O. Kulak, S. Bokut</i> MULTIPLE CONFORMATION STATES OF HUMAN HEMOGLOBIN .....	79
<i>K. Kulich, M. Sinelyova</i> ANALYSIS OF GENITOURINARY INFECTION PREVALENCE IN DIFFERENT AGE AND SOCIAL GROUPS.....	80
<i>I. Kutliakhmetov, R. Dudinskaya</i> THE ANALYSIS OF EPIDEMIOLOGICAL ASPECTS OF EYE DISODERS MORBIDITY OF THE CHILD POPULATION OF NOVOGRUDOK CITY .....	81
<i>A. Ladyha, R. Smolyakova, K. Shpadaruk</i> MOLECULAR AND CYTOGENETIC DIAGNOSTICS OF LYMPHOMA .....	81
<i>M. Lapushkina, N. Kokorina</i> THE INFLUENCE OF PATHOLOGY OF THE THYROID GLAND ON REPRODUCTIVE HEALTH OF WOMEN.....	82
<i>A. Levkovskaya, M. Talkovskaya, A. Bojko, D. Nizheharodava</i> IMMUNOPHENOTYPE OF PERIPHERAL BLOOD AND CEREBROSPINAL FLUID OF PATIENTS WITH PARKINSON'S DISEASE.....	83
<i>N. Losich, E. Tolstaya</i> THYROID CANCER MORBIDITY IN PINSK REGION IN 2009–2016.....	84
<i>A. Lukashevich, A. Kurepin, V. Lemiasheuski</i> DYNAMICS OF BACTERIAL AND VIRAL INFECTIONS OF RESPIRATORY TRACT IN SLUTSK REGION ...	85
<i>Y. Lukyanova, M. Sinelyova</i> CARDIAC SURGERY INTERVENTIONS BY HEART RHYTHM AND CONDUCTANCE DISTURBANCES IN THE ORGANIZATIONS OF THE MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS.....	86
<i>D. Luzan</i> MAIN INDICATORS OF OBSTETRIC SERVICES IN SOLIGORSK AND SOLIGORSK DISTRICT.....	87
<i>A. Lyubushkin, R. Smolyakova</i> DETERMINATION OF GENE EXPRESSION OF TS AND TP FOR THE ASSESSMENT OF DRUG SENSITIVITY IN COLORECTAL CANCER .....	88
<i>I. Marchuk, R. Smolyakova, E. Shpadaruk</i> PROGNOSTIC SIGNIFICANCE OF ASSESSMENT OF HORMONAL STATUS IN BREAST CANCER .....	89
<i>K. Markachova, E. Tolstaya</i> IMMUNE INDICES AND REACTIONS OF ADAPTATION .....	90
<i>O. Masalskaya, M. Sinelyova</i> EXAMINATION OF THE EXTENT OF THE DRUG USE AMONG THE YOUTH .....	90
<i>V. Masliukova, R. Smolyakova, K. Shpadaruk</i> MOLECULAR GENETIC PROLIFERATION OF METASTATIC MELANOMA.....	91
<i>V. Mayerava, I. Srukalova, H. Gapeenko, A. Viluga, R. Smolyakova, Y. Grachev</i> DETECTION OF MOLECULAR-GENETIC AND IMMUNOLOGICAL MARKERS OF HERPES VIRUSES IN PATIENTS WITH A PRIMARY BRAIN TUMOR .....	92
<i>V. Mikhno, O. Ablekovskaya</i> THE INFLUENCE OF VARIED LEVEL OF PHYSICAL ACTIVITY ON THE BIOLOGICAL AGE OF YOUNG PEOPLE .....	93
<i>E. Moduleva, R. Smolyakova, E. Shpadaruk</i> PROGNOSTIC SIGNIFICANCE OF MOLECULAR PROFILING OF COLORECTAL CANCER.....	94
<i>T. Navitskaya, V. Lemiasheuski</i> GLUCOSE LEVEL CHANGES IN PATIENTS WITH DIABETES MELLITUS AND IN HEALTHY INDIVIDUALS UNDER THE INFLUENCE OF LOW-LEVEL LASER THERAPY .....	95

<i>A. Nosareva, M. Sinelyova</i> THE STATE OF HEALTH OF PREGNANT WOMEN AND THE PECULIARITIES OF PREGNANCY AND BIRTH.....	96
<i>A. Opanasenko, E. Tolstaya</i> SPECIFIC FEATURES OF THE PSYCHOLOGICAL STATE OF CHILDREN LIVING IN THE REGIONS CONTAMINATED WITH RADIONUCLIDES .....	96
<i>A. Petrovskaya, A. Tkachenko, N. Kokorina</i> ART AT WOMEN WITH ENDOCRINE PATHOLOGY .....	97
<i>V. Pishchako, T. Romanovskaya</i> THE EVALUATION OF THE INFLUENCE OF VIRUS AND BACTERIAL INFECTIONS ON THE DEVELOPMENT OF PAPILLOMAVIRUS INFECTION .....	98
<i>J. Poskannaya, N. Porada</i> TRAUMATISM AS A CAUSE OF PREMATURE MORTALITY OF THE POPULATION OF THE REPUBLIC OF BELARUS .....	100
<i>A. Romanova, Y. Melnikova</i> INFLUENCE OF INCREASED GLUCOSE CONCENTRATIONS ON OXYGEN-INDEPENDENT METABOLISM OF NEUTROPHILS .....	101
<i>V. Ryzhkova, P. Kutsalo, E. Nasonova</i> RELATIVE BIOLOGICAL EFFECTIVENESS (RBE) VALUES FOR PROTON BEAM THERAPY .....	102
<i>M. Sabadash, E. Tolstaya</i> INFLUENCE OF SEVERAL FACTORS ON THYROID CANCER DEVELOPMENT .....	103
<i>V. Savitskaya, E. Tarasova</i> MODERN METHODS OF DIAGNOSTICS OF VIRAL HEPATITIS C .....	104
<i>A. Scherbovich, S. Maskevich</i> ANALYSIS OF SPECTROSCOPIC METHODS OF DETECTION OF STRUCTURAL AND FUNCTIONAL STATES OF HEMOGLOBIN IN RBCS .....	105
<i>S. Melnov, A. Semak, E. Smirnova</i> POLYMORPHISM ACE AND GLUTATHION-S- TRANSFERASE OF GENES IN KIDNEY CANCER.....	106
<i>E. Sergeychik, I. Puhteeva</i> EVALUATION OF THE RESULTS OF PROSTATE CANCER SCREENING IN MEN.....	107
<i>E. Shavalda, A. Batyan, N. Gerasimovich</i> USE OF GAMMA KNIFE IN RADIOSURGERY IN THE TREATMENT OF EPILEPSY.....	108
<i>T. Shnitko, A. Batyan</i> APPLICATION OF LASERS IN VISION CORRECTION .....	108
<i>D. Sinenok, A. Shchokolova, A. Zinchenko</i> PROSPECTS OF USING CPG-DNA AND CYCLIC DINUCLEOTIDES AS VACCINE ADJUVANTS .....	109
<i>A. Sipach, A. Kurepin, V. Lemiasheuski, V. Cheplya</i> THE ANALYSIS OF INCIDENCE OF PREGNANT WOMEN ON THE EXAMPLE OF FRUNZENSKY DISTRICT OF THE CITY OF MINSK .....	110
<i>K. Skrechko, R. Smolyakova, K. Shpadaruk</i> IMMUNOPHENOTYPIC CHARACTERISTICS OF B-CELL NON-HODGKIN'S LYMPHOMAS .....	111
<i>D. Solovey, N. Ikonnikova</i> INVESTIGATION OF DAMAGE OF OPPORTUNISTIC FUNGI IN MAN-MADE ECOSYSTEMS .....	113
<i>P. Spiridovich, O. Ablekovskaya</i> THE INFLUENCE OF VARIED LEVEL OF PERSONAL ANXIETY ON THE ADAPTIVE CAPACITY OF STUDENTS .....	114
<i>M. Stepanyuk, V. Lemiasheuski, T. Kalenchuk</i> THE PARAMETERS OF CARDIAC RHYTHM IN INDIVIDUALS OF DIFFERENT AGE UNDER THE INFLUENCE OF PHYSICAL ACTIVITY .....	114
<i>A. Strinovich, H. Ivanchyk, D. Nizheharodava</i> TRANSFORMING GROWTH FACTOR BETA AS A PROGNOSTIC MARKER OF FIBROGENESIS IN THE EXPERIMENTAL MODEL OF LIVER CIRRHOSIS .....	115
<i>A. Sulkovskaya, V. Stelmakh</i> EPIDEMIOLOGICAL ASPECTS OF LUNG CANCER .....	116

<i>E. Tokarchuk, I. Koktysh</i> OPTIMIZATION OF MORPHOLOGICAL METHOD OF APOPTOSIS RESEARCH IN CELL CULTURE....	117
<i>V. Tolochko, M. Sinelyova</i> THE ASSESSMENT OF THE EFFICIENCY OF THE CARDIAC CARE TO THE POPULATION OF GOMEL REGION .....	118
<i>A. Voronina</i> THE INFLUENCE OF NEGATIVE FACTORS OF PRODUCTION ON THE STATE OF HEALTH OF EMPLOYEES IN THE ENTERPRISE “BELSHINA” .....	119
<i>D. Vasilevskaya, O. Boyarkin</i> MATHEMATICAL MODELING IN MEDICINE .....	120
<i>A. Yerofeyeva, A. Chuholskiy, D. Smiljanic</i> ALLELIC DISCRIMINATION AS A METHOD FOR THE ESTIMATION OF SOCIAL INTERACTION.....	120
<i>A. Yerofeyeva</i> BLOOD ADRENOCORTICOTROPIC HORMONE LEVEL IN WHITE MICE UPON HEAT AND COLD EXPOSURE.....	121
<i>V. Yukhnovich, J. Malinovskaya</i> THE INCIDENCE OF PATHOLOGIES OF A THYROID GLAND AMONG THE POPULATION OF REPUBLIC OF BELARUS.....	122
<i>N. Yunevich</i> FACTORS OF INFORMATION ENVIRONMENT IN THE ASPECT OF ECOLOGICAL MEDICINE AND PSYCHOLOGY .....	123
<i>Y. Zazybo, T. Chikova</i> ANALYSIS OF RADIOBIOLOGICAL PLANNING OF IRRADIATION BREAST TUMORS BASED ON THE MONACO SYSTEM.....	124
<i>V. Zhelyazko</i> EPIDEMIOLOGY OF MYOCARDIAL INFARCTION IN THE REPUBLIC OF BELARUS.....	126
<i>M. Zhirchuk</i> RISK ANALYSIS OF DENTALCARIES FOR CHILDREN'S POPULATION OF BORISOV .....	127
<i>A. Zhuro, A. Batyan</i> THE USE OF LOW INTENSITY LASERS IN PATIENTS WITH DIABETES MELLITUS TYPE 2 .....	127

### SECTION 3

#### PROBLEMS OF MODERN ENVIRONMENTAL SAFETY

#### (BIO-MONITORING, BIO-INDICATION, BIO-REMEDICATION, RADIOECOLOGY AND RADIATION SAFETY, ENVIRONMENTAL MONITORING, MANAGEMENT AND AUDIT, INFORMATION SYSTEMS AND TECHNOLOGIES IN ECOLOGY)

<i>A. Chernetskaya, M. Asipchyk</i> FEATURES OF SPAWNING OF A COMMON FROG (R. TEMPORARIA) AT MELIORATIVE CHANNELS ....	129
<i>L. Astrouskaya, N. Bushkevich, N. Gerasimovich, I. Puhteeva</i> ANALYSIS OF INFLUENCE AND CONSEQUENCES OF ACCIDENTS AT CHERNOBYL AND FUKUSHIMA.....	130
<i>M. Avizhets, B. Tonkonogov</i> STRUCTURE OF SOFTWARE AND HARDWARE COMPLEX FOR MONITORING AND CONTROL OF PARAMETERS AND MODES OF SOLAR COLLECTORS.....	131
<i>E. Bakanovskaya, D. Vorobyov</i> SPATIAL-TEMPORAL CHANGES OF EMISSIONS OF POLLUTING SUBSTANCES IN ATMOSPHERIC AIR OF BELARUS .....	132
<i>E. Belkovskaya, O. Khadzhinova</i> IAEA REQUIREMENTS FOR ACCOUNTING AND CONTROL OF NUCLEAR MATERIAL AT NPP.....	133
<i>A. Bintyai, T. Sergeeva, E. Smirnova</i> CHARACTER OF TROPHIC RELATIONSHIPS OF LOCKS (ACRIDIDAE) AS THE FITOPHAGIC CONSUMERS ON THE EXAMPLE GLYPTOBOTHRUS APRICARIUS.....	134

<i>A. Boltsik, O. Konopelko, N. Goncharova</i> DEVELOPMENT OF A METHOD FOR ASSESSING THE STATE OF THE ENVIRONMENT OF AN INDUSTRIAL CITY USING RUDERAL PLANTS BASED ON CITY ZHODINO .....	134
<i>H. Brynkevich, O. Boyarkin</i> SOLAR FLARES AND THEIR IMPACT ON HUMANITY .....	135
<i>D. Budzevich, S. Golovaty</i> METHODOLOGICAL APPROACHES TO THE DETERMINATION OF THE VALUE ESTIMATION OF ECOSYSTEM SERVICES AND BIOLOGICAL DIVERSITY OF THE LUNGS OF THE REPUBLIC OF BELARUS .....	136
<i>D. Detsuk, C. Mukina</i> ANALYSIS OF ENVIRONMENTAL ASPECTS TO OJSC "MINSK TRACTOR FACTORY" .....	137
<i>A. Dubrousky, P. Dubrousky, O. Guskova, V. Beresneva</i> MODELLING OF NONLINEARITY OF LIGHT COLLECTION IN LARGE-VOLUME SCINTILLATORS.....	138
<i>P. Dubrouski, A. Dubrouski, V. Zhuravkov, V. Ivaniukovich</i> AUTOMATING THE MANAGEMENT OF THE PORTAL RADIATION MONITORS SYSTEM .....	138
<i>Yu. Eshmanskaya, O. Lozinskaya</i> BIOINDICATION WITH THE USE OF TRIFOLIUM REPENS L .....	139
<i>A. Ezerski</i> NEUTRON-PHYSICAL AND THERMOPHYSICAL CALCULATIONS OF WWER-1200. SOFTWARE COMPLEX CASCADE.....	140
<i>K. Filippovich, V. Misiuchenka</i> PRACTICAL EXPERIENCE OF THE APPLICATION OF THE STRATEGIC ENVIRONMENTAL ASSESSMENT IN THE REPUBLIC OF BELARUS .....	141
<i>A. Frolova, C. Mukina</i> ANALYSIS OF ENVIRONMENTAL ACTIVITY AT OJSC "MINSK RAILWAY-CARRIAGE REPAIR WORKS" .....	142
<i>A. Gavdel</i> ANALYSIS OF THE ENVIRONMENTAL WASTE STATISTICS. BACKGROUND OF THE ELECTRONIC STATISTICAL REPORTING FORMS .....	143
<i>V. Gmir, V. Lemeshevskiy</i> INFLUENCE OF NATURAL SORBENTS ON RADIONUCLIDES BUILD-UP IN ANIMAL ORGANISMS .....	144
<i>V. Gorbach, E. Svistun, M. Jasoveev</i> ECOLOGICAL FEATURES OF THE COMMUNITY STRUCTURE OF WATERBIRDS AND SHOREBIRDS OF THE WATER RESERVOIR "DROZDY" MINSK .....	145
<i>V. Gorskaya, R. Titkov</i> STORAGE OF RADIOACTIVE WASTES AS A WAY TO ENSURE RADIATION SAFETY .....	146
<i>A. Grinek, Y. Liakh</i> BACTERIOSIS IN THE PATHOLOGY OF WATERFOWL AND THE ROLE OF THEIR DISTRIBUTION IN THE TERRITORY OF THE REPUBLIC OF BELARUS.....	146
<i>T. Gromova, N. Kozelko</i> MENTAL HEALTH AND THE ENVIRONMENT .....	147
<i>V. Grynchak, V. Stelmakh</i> SPECIFIC FEATURES OF THE TOXIC EFFECT OF DIISONONYL PHTHALATE ON REPRODUCTIVE FUNCTIONS OF WHITE RATS.....	148
<i>O. Hertsyk, E. Titovich, I. Tarutin</i> ADVANTAGES OF USING LINEAR ACCELERATORS OF NEW GENERATION FOR RADIATION THERAPY OF TUMORS .....	149
<i>M. Kadatskaya, M. Germenchuk</i> RADIATION MONITORING FOR DOSE ASSESSMENT OF REPRESENTATIVE PERSON .....	150
<i>U. Kapitsa</i> MODERN ENVIRONMENTAL PROBLEMS – THEIR CAUSES AND MANAGEMENT .....	151
<i>A. Kashuba, U. Ivaniukovich</i> CALCULATION OF COEFFICIENT OF HIDDEN LEAKAGE IN THE WATER SUPPLY NETWORKS OF SUBSCRIBERS.....	152

<i>V. Kavaliova, O. Guskova</i> PROBABILISTIC SAFETY ASSESSMENT ON NUCLEAR POWER PLANTS.....	153
<i>D. Kazak, S. Golovaty</i> THE ASSESSMENT OF THE EFFICIENCY OF WASTEWATER TREATMENT AT THE MINSK SEWAGE TREATMENT STATION .....	153
<i>E. Kemesh, V. Malishevskiy</i> ECOLOGICAL PROBLEMS OF NON-IONIZING RADIATIONS.....	154
<i>Yu. Khodyko, K. Mukina</i> ANALYSIS OF WATER CONSUMPTION AND WATER DISPOSAL OF JSC "MINSK PLANT OF WHEEL TENDERS" .....	155
<i>A. Khokh, O. Kvaschenko</i> SELECTION OF MODEL TREES OF SCOTS PINE TO OBTAIN DENDROCHRONOLOGICAL INFORMATION .....	156
<i>A. Khruscheva, N. Vlasova</i> RADIATION PROTECTION IN RADIATION THERAPY.....	157
<i>Yu. Kirillova</i> EVALUATION OF MEASUREMENT UNCERTAINTY IN THE CONTROL OF MICROBIOLOGICAL PURITY OF PURIFIED WATER.....	158
<i>I. Shturo, S. Korney, O. Boyarkin</i> GEOREACTOR AND ITS IMPACT ON THE ENVIRONMENT .....	159
<i>V. Kovalev, N. Goncharova</i> CHRONIC IRRADIATION OF SCOTTISH PINE TREES (PINUS SYLVESTRIS) IN THE NAROVLYANSKY AND VETKOVSKY PHYTOCENOSES: DOSIMETRY AND RADIOBIOLOGICAL EFFECTS .....	160
<i>V. Kovalevich, E. Len</i> SEWAGE TREATMENT AT LUNINETS COMMUNAL UNITARY ENTERPRISE WATER SUPPLY SEWERAGE "VODOKANAL" WITH THE APPLICATION OF THE BIOLOGICAL TREATMENT METHOD....	161
<i>E. Kresova, I. Gishkeluk, S. Kundas</i> ONE-DIMENSIONAL MODEL OF NON-ISOTHERMAL MOISTURE TRANSFER IN ENCLOSING CONSTRUCTION .....	162
<i>E. Kruk, N. Lysuho</i> ANALYSIS OF TECHNOLOGICAL CONSUMPTION OF WATER IN THE MUNICIPAL WATER SUPPLY AND USE WASTE WATER TREATMENT BY THE EXAMPLE OF CITY GRODNO.....	163
<i>A. Kuniza, C. Mukina</i> TECHNO-ECONOMIC ANALYSIS OF WASTE MANAGEMENT AT THE ENTERPRISES OF THE REPUBLIC OF BELARUS.....	164
<i>A. Khokh, O. Kvaschenko</i> THE TRACHEID FEATURES OF PINE TREES FROM DIFFERENT GROWING .....	165
<i>N. Lastovskaya, E. Len</i> CHARACTERISTIC OF THE WATER DEIRONING STATION RUE VALOSIN HOUSING AND UTILITIES INFRASTRUCTURE .....	166
<i>M. Liantaushchyk, A. Chernetskaya, T. Kalenchuk</i> MONITORING OF FLOODPLAIN VEGETATION ON THE R. WESTERN DVINA .....	167
<i>Yu. Lyakh, E. Dedkova</i> THE METHODS OF LABORATORY DIAGNOSTICS AND EPIZOOTIC SITUATION ON TRICHINOSIS IN THE CITY OF GOMEL.....	167
<i>D. Majdibor, V. Malishevskiy</i> THE DESTRUCTION OF THE OZONE LAYER AND THE PROBLEMS OF ECOLOGY .....	168
<i>A. Makarevich, N. Parfinovich, N. Poluyan, Y. Pakhadnia</i> LACCASE INDUCED WATER PURIFICATION TO REMOVE 3,3'- DIMETHYLBENZIDINE (O-TOLUIDINE).....	169
<i>A. Melnichuk, N. Tushin</i> PROTECTION OF PEOPLE LIVING IN LONG-TERM CONTAMINATED AREAS AFTER A NUCLEAR ACCIDENT OR A RADIATION EMERGENCY.....	170
<i>E. Zhuk, M. Melnik</i> HELMINTHS OF HOOFED INHABITANTS OF MINSK ZOO .....	171

<i>A. Mialik</i>	THE ORIGIN OF THE ADVENTIVE FLORA OF PRYPIACKAJE PALIESSIE.....	172
<i>A. Moroz, B. Tonkonogov</i>	ARCHITECTURE OF INTEGRATED INFORMATION SYSTEM FOR ANALYSIS OF POTENTIAL OF RENEWABLE ENERGY SOURCES .....	173
<i>A. Morozov, A. Pityk, S. Ragulin</i>	CALCULATED STUDY OF DROPLET ENTRAINMENT PROCESSES OF BORIC ACID.....	174
<i>R. Nevar, U. Ivaniukovich</i>	THE DYNAMIC MODEL OF THE FORECASTING THE POLLUTANTS ACCUMULATION IN SOILS .....	175
<i>E. Orlova, I. Rovenskay</i>	ECOLOGICAL ASPECTS OF RATIONAL USE OF RAW MATERIALS OF THE FACTORY "STROYFARFOR" JSC "KERAMIN" .....	176
	ISOLATION AND PHYSICO-CHEMICAL CHARACTERISTICS OF EXTRACELLULAR LACCASE FROM THE FUNGUS GANODERMA LUCIDUM .....	177
<i>N. Parfinovich, A. Makarevich, N. Poluyan, Y. Pakhadnia</i>	.....	177
<i>A. Petukh, O. Lozinskaya</i>	MONITORING OF THE TERRITORY OF BELARUSIAN NPP UNDER CONSTRUCTION WITH THE USE OF FLUCTUATING ASYMMETRY OF LEAF BLADE OF BETULA PENDULA.....	178
<i>A. Pinchuk, V. Misiuchenko</i>	MANAGEMENT OF RUBBER-CONTAINING WASTE IN THE REPUBLIC OF BELARUS .....	179
<i>E. Pinchuk, N. Tushin</i>	RADIOLOGICAL PROTECTION FROM COSMIC RADIATION IN AVIATION .....	179
<i>I. Razhnova</i>	ENVIRONMENTAL MANAGEMENT AS A KEY ISSUE IN SUSTAINABLE DEVELOPMENT AND AS THE HIGHEST PRIORITY OF INDUSTRIAL ACTIVITIES AND ENTREPRENEURSHIP .....	180
<i>V. Ryzhkova, V. Litvyak, A. Batian, V. Kravchenko, A. Kliuev, I. Pochytskaya</i>	STIMULATING EFFECT OF LASER RADIATION ON THE INITIAL STAGES OF ONTOGENESIS OF TRITICUM L. ....	181
<i>V. Kravchenko, M. Vitushko, I. Batsiuk, V. Ryzhkova, A. Batian</i>	AVIAN INFLUENZA AND ORNITHOSIS :ORIGIN, TRANSMISSION AND PREVENTION.....	182
<i>E. Samusik, S. Golovatyi</i>	THE CONTENT OF PHOTOSYNTHETIC PIGMENTS IN LEAVES OF BETULA PENDULA AND THE EAGLES PINUS SYLVESTRIS IN A ZONE OF INFLUENCE OF THE ENTERPRISE OF THE CEMENT INDUSTRY .....	182
<i>A. Savitskaya, A. Zhuk</i>	ASSESSMENT OF ENVIRONMENTAL AWARENESS OF THE POPULATION ABOUT THE PARASITOLOGICAL SITUATION IN THE CITY .....	183
<i>A. Savin, O. Khadzhinova</i>	THE CONCEPT OF USED NUCLEAR FUEL MANAGEMENT AT THE BELARUSIAN NPP .....	184
<i>Y. Senyuk, A. Rodzkin</i>	MONITORING OF EMISSIONS TO ATMOSPHERIC AIR AT THE MINSK WHEEL TRACTOR PLANT .....	185
<i>E. Serzhantova, A. Zhigalskaya, E. Pinchuk</i>	MANTIS ORDINARY (MANTIS RELIGIOSA) IN BELARUS: FINDINGS AND OBSERVATIONS .....	186
<i>P. Shalkevich, S. Kundas, A. Moroz, O. Hilko</i>	THE APPLICATION OF A NEW SOFTWARE FOR 3D MODELING OF THE NONISOTHERMAL HEAT AND MOISTURE TRANSFER IN NATURAL DISPERSE ENVIRONMENT .....	187
<i>A. Sheika</i>	ENVIRONMENTAL IMPACT ASSESSMENT AS ENVIRONMENTAL SAFETY ASSURANCE .....	188
<i>A. Skibinskaya, V. Mironov, V. Zhuravkov</i>	THE CONTENT OF TRITIUM IN SURFACE WATER TESTS ROUND THE CONSTRUCTION AREA OF THE BELARUSIAN NPP.....	189
<i>D. Surma, U. Ivaniukovich</i>	CALCULATION OF CONCENTRATIONS OF POLLUTANTS IN THE ENVIRONMENT .....	190

<i>E. Svistun, V. Gorbach, M. Jasoveev</i>	
ECOLOGICAL STRUCTURE OF AVIFAUNA IN THE CHELYUSKINTSEV PARK AND THE CENTRAL BOTANICAL GARDEN IN MINSK.....	191
<i>G. Talkach, S. Poznyak</i>	
PRACTICAL RECOMMENDATIONS FOR SUMMER RESIDENTS ON THE REDUCTION OF HEAVY METALS IN CROP PRODUCTION, GROWN IN SUBURBAN AREAS IN THE BREST REGION.....	192
<i>E. Titovich</i>	
ASSESSMENT OF ABSORBED DOSE RATE FROM IONIZING RADIATION FOR THE GAMMA-KNIFE STEREOTACTIC GAMMA UNIT.....	193
<i>L. Tsvirko, D. Shatilo</i>	
PARASITIC SITUATION ON HORSE HELMINTHOSES ON THE TERRITORY OF THE POLESSKY RADIATION AND ECOLOGICAL RESERVE .....	194
<i>A. Verbitskaya, N. Kozelko</i>	
ECOLOGICAL CONSCIOUSNESS IN THE MODERN WORLD.....	195
<i>E. Grinkevich, A. Verbitskaya, A. Kuzina</i>	
THE PROBLEM OF USING WASTE AUTOMOBILE AND INDUSTRIAL OILS IN THE REPUBLIC OF BELARUS .....	196
<i>Ya. Yanchuk, V. Misiuchenko</i>	
APPROACHES TO ESTIMATION OF BIODIVERSITY OF FOREST PHYTOCENOSES OF BREST REGION... ..	197
<i>V. Yanovich, M. Pravko</i>	
BIOKINETIC AND DOSIMETRIC MODELS FOR RADIOLOGICAL PROTECTION.....	198
<i>G. Zayats, R. Privada, O. Boyarkin</i>	
WARP DRIVE – SUPERLUMINAL TRAVEL .....	198

#### SECTION 4

#### CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT RENEWABLE ENERGY SOURCES AND ENERGY CONSERVATION

<i>D. Chemerevsky, U. Ivaniukovich</i>	
WEB-APPLICATION FOR GEOINFORMATION MODULE AS A PART OF UNIFIED DATA BASE OF PERSISTENT ORGANIC POLLUTANTS .....	200
<i>A. Khrystsiuk</i>	
LEGAL REGULATION OF USE AND PROTECTION OF SURFACES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT.....	200
<i>E. Ivanova, V. Pashinsky, A. Butko</i>	
ENERGY ASSESSMENT OF FUEL BASED ON "TORF-CROWN" AND "TORF-IVA" .....	201
<i>V. Kankova, I. Narkevitch</i>	
ENVIRONMENTAL SAFETY: DISCUSSION OF CLIMATE CHANGE PROBLEMS .....	203
<i>V. Kovshik, A. Butko, V. Pashinsky</i>	
EMPIRICAL EVALUATION OF THE ARRIVAL OF THE DAILY SUM OF DIRECT AND SCATTERED RADIATION .....	204
<i>A. Savchik, V. Misiuchenka</i>	
THE ANALYSIS OF POLLUTANT EMISSIONS INTO THE ATMOSPHERE AT OJSC "BARHIM" .....	205
<i>A. Turchinovitch, T. Smirnova</i>	
AUTOMATION OF POWER MANAGEMENT IN THE EDUCATIONAL BUILDING .....	206
<i>L. Zhminda, A. Sysa</i>	
THE FUTURE OF FOOD: MEAT ALTERNATIVES .....	207
<i>Y. Zhuraukou., R. Bandarchyk., N. Goncharova</i>	
MAIN DIRECTIONS OF THE DEVELOPMENT OF "GREEN" ECONOMY IN THE REPUBLIC OF BELARUS.....	208