

**MINISTRY OF EDUCATION OF THE REPUBLIC OF BELARUS**  
**MINISTRY OF NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION**  
**OF THE REPUBLIC OF BELARUS**  
**PUBLIC COUNCIL OF BASIC ORGANIZATION**  
**FOR ECOLOGICAL EDUCATION OF CIS MEMBER-STATES**  
**BELARUSIAN STATE UNIVERSITY**  
**INTERNATIONAL SAKHAROV ENVIRONMENTAL INSTITUTE**  
**OF BELARUSIAN STATE UNIVERSITY**



# **PROGRAM**

**VIII International Scientific Conference  
of Young Scientists, Graduates,  
Master and PhD Students  
«Actual Environmental Problems»**

**November 22–23, 2018**

**Minsk, Republic of Belarus**



## Organizing Committee

*POZNYAK S. – Doctor of Agricultural Sciences, Professor, Deputy Director for Research, ISEI BSU – The Chairman;*

*LYSUKHO N. – Associate Professor, Ph.D., Head of Research Sector, ISEI BSU – The Vice-Chairman;*

*ALEKSEICHIK E. – Head of Department of International Relations, ISEI BSU;*

*GALCHENYA S. – Specialist of Research Sector, ISEI BSU;*

*GONCHAROVA N. – Associate Professor, Ph.D., Head of the UNESCO Chair, ISEI BSU;*

*GRITSKEVICH E. – Associate Professor, Ph.D., Chair of Immunology and Environmental Epidemiology, ISEI BSU;*

*KAPITSA V. – Associate Professor, Ph.D., Chair of Environmental Monitoring and Management, ISEI BSU;*

*KONOPELKO O. – Head of the Student's Scientific Society, ISEI BSU;*

*KOSHKINA N. – Head of the Department of Educational Work with Youths, ISEI BSU;*

*KOVERCHIK Yu. – Head of the Department of Technical Means of Education and Communications, ISEI BSU;*

*LAVRINOVICH T. – Head of Information-Publishing Department, ISEI BSU;*

*MAYOR L. – Specialist of Research Sector, ISEI BSU;*

*PETRENKO S. – Associate Professor, Ph.D., Leading Researcher of the Research Sector, ISEI BSU;*

*PLAVINSKI M. – Associate Professor, Ph.D., Head of the Chair of Social-Humanitarian Sciences and Sustainable Development, Ph.D., ISEI BSU;*

*TKACHENKO S. – Engineer of the Department of Technical Means of Education and Communications, ISEI BSU;*

*TONKONOGOV B. – Associate Professor, Ph.D., Head of the Educational and Methodical Laboratory of Innovative Education Technologies, ISEI BSU.*

**THE CONFERENCE  
IS HELD WITH FINANCIAL SUPPORT OF:**



*Ministry of Education, Republic of Belarus*



*Coca-Cola Beverages Belarus*



*UNESCO Chair «Environment and Management Sciences»*

# GENERAL INFORMATION

<b>Conference Venue</b>	International Sakharov Environmental Institute of Belarusian State University 23/1 Dolgobrodskaya Str., 220070, Minsk, Belarus
<b>Way from Railway Station</b>	1) from the metro station “Ploshad Lenina” to “Tractorny zavod”; 2) tram 3, 6, 7; bus 43 to stop «Metro station "Tractorny zavod"»
<b>Registration of the Participants</b>	Hall of ISEI BSU (1 <sup>st</sup> floor)
<b>Plenary Session Venue</b>	Lecture room 21
<b>Sectional Session Venue</b>	Building 1, lecture rooms 310, 413, 415, 417
<b>Plenary Reports</b>	Total time (reports and discussion) 15 minutes
<b>Sectional Reports</b>	Total time (reports and discussion) 10 minutes
<b>Poster Reports</b>	Are presented in the library, room 211, and the venue of the sections reports. Place for the report – A1
<b>Use of Informational Technologies</b>	The reporters can use a multimedia projector. Presentation files must be copied in advance

**Phone.:**+375 17 398 96 24

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# AGENDA OF THE CONFERENCE

## ***22 November, Thursday***

9.00 – 9.30 – registration of the participants (hall, 1<sup>st</sup> floor)

9.35 – 10.55 -- opening of the Conference, plenary session (lecture room 21)

11.05 – 14.15 – sectional session (according to the schedule)

12.00 – 13.00 -- poster session (Section 2)

14.15 – 15.00 – Dinner

15.00 – 16.00 – poster session (Section 3)

15.55 – 18.00 – sectional session (according to the schedule)

***Section 1 – lecture room 417***

***Section 2 – lecture room 415***

***Section 3 – lecture room 413***

***Section 4 – lecture room 310***

### **Poster session:**

**Section 1 – lecture room 417**

**Section 2 – library, room 211 (according to the schedule)**

**Section 3 – library, room 211 (according to the schedule)**

**Section 4 – lecture room 310**

## ***23 November, Friday***

9.35 – 11.35 – sectional session (according to the schedule)

12.00 – 13.00 – solution development (room 215)

# OPENING OF THE CONFERENCE

## Lecture room 21

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### CONFERENCE OPENING

Deputy Director for Educational Work of the International Sakharov Environmental Institute of Belarusian State University, Associate Professor, PhD.

**Igor E. Butchenkov**

### WELCOM ADDRESS

Head of the UNESCO Chair of the International Sakharov Environmental Institute of Belarusian State University, Associate Professor Ph.D.

**Nadezhda V. Goncharova**

Deputy Secretary General of the National Commission of the Republic of Belarus for UNESCO

**Natalya S. Schasnovich**

First Deputy Director General Coca-Cola Beverages Company – Belarus

**Andrei V. Roschupkin**

# PLENARY SESSION

## Lecture room 21 (9.35–10.55)

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**Chairman:** GRITSKEVICH E., Associate Professor, Ph.D., Associate Professor of the Chair of Immunology and Environmental Epidemiology, ISEI BSU;

**Co-Chairman:** KONOPELKO O., Head of the Student's Scientific Society, ISEI BSU.

### **1. NUCLEAR ENERGY AS A TOOL FOR DEVELOPING A "GREEN" ECONOMY**

Gonchrova N.

*Associate Professor Ph.D., Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **2. DFT STUDY OF PHYSISORPTION EFFECT OF CO AND CO<sub>2</sub> ON FURANOCOUMARINS FOR AIR PURIFICATION**

Shahab S.

*Associate Professor, Ph.D., Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **3. CYTOCHROME P450 ENZYMES AND REGULATION OF THEIR ACTIVITY**

Sysa A.

*Associate Professor, Ph.D., Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*



# SECTIONAL WORK

Section 1, lecture room 417 (11.05–18.00)

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

**Chairman:** PLAVINSKI M., Associate Professor, Ph.D., Head of the Chair of Social-Humanitarian Sciences and Sustainable Development, ISEI BSU;

**Secretary:** KOROTKEVICH A., Senior Lecturer of the Chair of Social-Humanitarian Sciences and Sustainable Development, ISEI BSU.

### 1. CONTAMINATION OF THE ENVIRONMENT WITH MEDICINAL PREPARATION

Davidovskaya K.

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

### 2. ECONOMY OF THE CLOSED CYCLE AS A MEANS FOR SOLVING THE WASTE PROBLEM

Davidovskaya K., Rogalchuk M.

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

### 3. DISTURBANCE OF FOOD HUMAN BEHAVIOR UNDER THE INFLUENCE OF SOCIAL-PSYCHOLOGICAL FACTORS

Dolhaya A., Rodzkin A.

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

### 4. VIRTUAL REALITY AS A CONDITION OF DEVELOPMENT OF ADDICTIVE BEHAVIOR

Drozdov I., Shershniova T.

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

### 5. THE RESULTS OF THE STUDENTS SURVEY ON ISSUES RELATING TO THE ABORT

Gaikova E., Dudinskaya R.

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

### 6. GMO'S AND SOCIETY

Gorban A.

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

### 7. INFLUENCE OF ADVERSE FACTORS OF ECOLOGICAL ENVIRONMENT ON PERSON'S PSYCHOLOGICAL AND MENTAL HEALTH

Kazlova A., Kharytanovich A.

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

## **8. PROTECTION OF THE NEAR-EARTH SPACE AS AN UNDERVISED PROBLEM OF THE PRESENT**

Lesik V., Rodzkin A.

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

## **9. ECOLOGICAL CONSCIOUSNESS AS A FACTOR OF SUSTAINABLE DEVELOPMENT**

Panteley V., Olevskaya I.

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

## **10. HIKIKOMORI: REASONS FOR ISOLATION AND DIFFICULTIES IN IT**

Sadouskaya H., Olevskaya I.

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

## **11. FORMATION OF FRESHMEN STUDENTS ENVIRONMENTAL AWARENESS**

Statsi M., Kapustina T., Yasaite M., Zhuk E.

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

## **12. THE POLYETHYLENE PROBLEM AND THE WAYS OF ITS SOLUTION**

Tkachenko A., Kuzina L.

*Belarusian State University, ISEU BSU, Minsk, Republic of Belarus*

## **13. ENVIRONMENTAL FACTORS OF THE EVOLUTION DYNAMICS OF THE 11–14th CENTURIES NORTHERN BELARUSIAN POPULATION SEXUAL STRUCTURE**

Vinnikava V.

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

## **14. URBANIZATION AND ITS IMPACT ON SOCIO-ECOLOGICAL SPHERE OF LIFE. CITY ECOLOGY**

Yushchenko A., Alampieva V., Korotkevich A.

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

## **15. ENVIRONMENTAL SOCIAL ADVERTISING**

Yushkevich V., Stupen V., Lepskaya N.

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

## **POSTER PRESENTATIONS**

### **1. HOW MUCH YOU ARE READY FOR A ZERO-WASTE WAY OF LIFE?**

Astapovich E., Sinkevich K., Korotkevich A.

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

### **2. EXPLOITATION OF THE CROSS-BORDER NATURAL RESOURCES: ENVIRONMENTAL AND LEGAL DIMENSIONS**

Gorskaya V.<sup>1</sup>, Undrul A.<sup>2</sup>, Luchina V.<sup>1</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, Minsk, Republic of Belarus*

### **3. ECOLOGICAL CULTURE OF SOCIETY**

Verbitskaya A., Kozelko N.

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

## **DISTANT PARTICIPATION**

### **1. THE ROLE OF THE MEDIA IN THE PROCESS OF FORMATION OF ECOLOGICAL CONSCIOUSNESS**

Dovydenko E., Lepskaya N.

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

### **2. INTERRELATION MENTAL HEALTH AND PHYSICAL HEALTH**

Gromova T., Kozelko N.

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

### **3. ASSESSMENT OF ENVIRONMENTAL LITERACY OF STUDENTS IN MATTERS OF ENVIRONMENTAL SAFETY**

Kozachenko A., Zhuk E.

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

### **4. THE RELATIONSHIP BETWEEN THE LEVEL OF VERBAL AGGRESSIVENESS AND COMPUTER USE**

Kozelko N.

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

### **5. THE DEVELOPMENT OF THE PRINCIPLE OF CO-EVOLUTION IN MODERN SCIENTIFIC RESEARCH**

Levchik C., Lepskaya N.

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

### **6. NATURPHILOSOPHY OF RUSSIAN KOSMISM**

Lyulchenko A., Lepskaya N.

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

### **7. THE IMPORTANCE OF BIOLOGY AS A GENERAL OBJECT IN THE SELECTION OF PROFESSIONAL ACTIVITY**

Marchenko Y., Lyakh Yu.

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

### **8. INFORMATION AND EDUCATIONAL ACTIVITY OF THE MINSK ZOO AND ITS COMMUNICATION WITH EPIZOTICAL SITUATION IN BELARUS**

Strigelskaya N., Lyakh Yu.

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

### **9. WATER INTENSITY OF DAIRY INDUSTRY AND WAYS OF ITS OPTIMIZATION**

Zakharko P.

*Central Research Institute for Complex Use of Water Resources (CRICUWR), Minsk, Republic of Belarus*

**MEDICAL ECOLOGY**

**Chairman:** PETRENKO S., Associate Professor, Ph.D., Leading Researcher, Research Sector, ISEI BSU;

**Secretary:** LAZAR I., Senior Lecturer of the Chair of Immunology and Environ-mental Epidemiology, ISEI BSU.

**1. USING HIGH PERFORMANCE LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY IN THE ANALYSIS OF HUMAN CHORIONIC GONADOTROPIN**

Babaryko D.<sup>1,2</sup>, Syakhovich V.<sup>1,2</sup>, Bulanova K.<sup>2</sup>

<sup>1</sup>National Anti-Doping Laboratory, Lesnoy, Republic of Belarus

<sup>2</sup>Belarusian State University, ISEI BSU, Minsk, Republic of Belarus

**2. PREGNANCY, CHILDBIRTH AND PERINATAL OUTCOMES IN WOMEN OF LATE REPRODUCTIVE AGE WITH INDUCED PREGNANCY**

Boyarin O., Kokorina N.

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

**3. THE IDENTIFICATION OF EXPRESSION'S LEVEL OF NUCLEAR ANTIGEN KI-67 IN PATIENTS WITH PANCREATIC CANCER**

Drobysheva V., Shpadaruk E., Smolyakova R.

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

**4. MODERN THEORETICAL CONCEPTS OF THE EFFECT OF IONIZING RADIATION ON PLASMA MEMBRANES**

Grigorovich A., Shimanskaya Y., Puhteeva I., Gerasimovich N.

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

**5. ALLELIC COMBINATIONS OF VDR, COL1A1, COL1A2 GENES IN BELARUSIAN WOMEN WITH POSTMENOPAUSAL OSTEOPOROSIS**

Kobets K., Yeuleyeu P.

Institute of Genetics & Cytology NAS Belarus, Minsk, Republic of Belarus

**6. ATMOSPHERIC POLLUTION AS A CAUSE OF CHRONIC BRONCHITIS**

Kozlovskaya D.

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

**7. CHARACTERISTICS OF CORRECTION METHODS OF THE FUNCTION OF THE THYROID SYSTEM IN THE PATHOLOGY OF THE THYROID GLAND**

Laptsinskaya T.

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

## **8. MITOGEN-INDUCED PROLIFERATION OF MEMORY T-CELLS IN PATIENTS WITH MULTIPLE SCLEROSIS AND PARKINSON'S DISEASE**

Liukouskaya N.<sup>1</sup>, Nizheharodava D.<sup>1,2</sup>, Boika A.<sup>2</sup>, Ponomarev V.<sup>2</sup>, Zafranskaya M.<sup>1,2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian Medical Academy of Post-Graduate Education, Minsk, Republic of Belarus*

## **9. STUDY OF GENETIC MARKERS OF RADIOSENSITIVITY AS A WAY TO IMPROVE HUMAN SAFETY IN CONTACT WITH IONIZING RADIATION**

Lylchenko A., Levchik C., Smolnik N.

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

## **10.DETERMINATION OF THE MOLECULAR-BIOLOGICAL PROFILE IN BREAST CANCER**

Marchuk I., Smolyakova R., Shpadaruk E.

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

## **11.IMMUNOPHENOTYPIC CHARACTERISTICS OF PERIPHERAL BLOOD LYMPHOCYTES OF PATIENTS WITH SEVERE COMBINED IMMUNODEFICIENCIES**

Pugacheva V.<sup>1</sup>, Guryanova I.<sup>2</sup>, Romanovskaya T.<sup>1</sup>

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

*Belarusian research center for pediatric oncology, hematology and immunology, Minsk, Republic of Belarus*

## **12.PREMATURE CHROMOSOME CONDENSATION (PCC) ASSAY FOR PROTON BEAM THERAPY**

Ryzhkova V.<sup>1</sup>, Kutsalo P.<sup>2</sup>, Nasonova E.<sup>2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*The Joint Institute for Nuclear Research, Dubna, Russian Federation*

## **13.CELL THERAPY OF ROTENONE-INDUCED EXPERIMENTAL PARKINSONISM MODEL**

Shadrina V.<sup>1</sup>, Talkovskaya M.<sup>2</sup>, Ustemchuk A.<sup>2</sup>, Aleinikava N.<sup>2</sup>, Nizheharodava D.<sup>1,2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian Medical Academy of Post-Graduate Education, Minsk, Republic of Belarus*

## **14.EFFECT OF STRESS FACTORS IN TRAINING ON ADAPTATION PROCESSES OF STUDENTS**

Zakharkevich A., Kravchenko V.

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

## **POSTER PRESENTATIONS**

### **1. ANALYSIS OF MORBIDITY OF POPULATION LIVING IN THE TERRITORY OF GOMEL REGION AFFECTED BY RADIOACTIVE CONTAMINATION**

Aliev M., Porada N., Shymanovich T.

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

## **2. ANTIRADICAL ACTIVITY OF FERMENTED COW COLOSTRUM**

Bondareva A.<sup>1</sup>, Shahab S.<sup>1,2,3</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Institute of physical organic chemistry of NAS of Belarus, Minsk, Republic of Belarus*

<sup>3</sup>*Institute of chemistry of new materials of NAS of Belarus, Minsk, Republic of Belarus*

## **3. A NEW PROCEDURE FOR SYNTHESIS OF TRANS-3-(p-HYDROXYCINNAMOYL)-4-HYDROXY-6-METHYLPYRONE-2 FROM DEHYDROACETIC ACID**

Bruyakin S., Pyrko A.

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

## **4. PHYSICOCHEMICAL CHARACTERISTICS OF NATURAL ANTICANCER COMPOUNDS**

Cherneyko A.<sup>1</sup>, Balakhanava I.<sup>1</sup>, Shahab S.<sup>1,2,3</sup>, Sheikhi M.<sup>4</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Institute of Physical Organic Chemistry National Academy of Sciences, Minsk, Republic of Belarus*

<sup>3</sup>*Institute of Chemically New Materials National Academy of Sciences, Minsk, Republic of Belarus*

<sup>4</sup>*Young Researchers and Elite Club, Gorgan Branch, Islamic Azad University, Gorgan, Iran*

## **5. EXCRETION AND CHARACTERISTICS OF POLYPHENOLS OF MEDICINAL PLANTS**

Drachilovskaya M.<sup>1</sup>, Shahab S.<sup>1,2,3</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Institute of Physical Organic Chemistry of NAS of Belarus, Minsk, Republic of Belarus*

<sup>3</sup>*Institute of Chemistry of New Materials of NAS of Belarus, Minsk, Republic of Belarus*

## **6. CYTOTOXIC EFFECTS OF SINGLE EXPOSURE DIIZONONYL PHTHALATE**

Hrynychak V.<sup>1</sup>, Stelmakh V.<sup>2</sup>

<sup>1</sup>*Scientific practical centre of hygiene, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **7. DFT STUDY OF PHYSISORPTION EFFECT OF CO AND CO<sub>2</sub> ON FURANOCOUMARINS FOR AIR PURIFICATION**

Murashko M.<sup>1</sup>, Shahab S.<sup>1,2,3</sup>, Sheikhi M.<sup>4</sup>, Khaleghian M.<sup>5</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Institute of Physical Organic Chemistry of National Academy of Sciences of Belarus, Minsk, Republic of Belarus*

<sup>3</sup>*Institute of Chemistry of New Materials of National Academy of Sciences of Belarus, Minsk, Republic of Belarus*

<sup>4</sup>*Young Researchers and Elite Club, Gorgan Branch, Islamic Azad University, Gorgan, Iran*

<sup>5</sup>*Department of Chemistry, Islamshahr Branch, Islamic Azad University, Islamshahr, Iran*

## **8. ANTIOXIDANT ACTIVITY OF COMPLEXES OF $\beta$ CYCLODEXTRIN WITH WHEY PROTEIN HYDROLYSATE**

Nosik A.<sup>1</sup>, Tarun E.<sup>1</sup>, Halavach T.<sup>2</sup>, Butina A.<sup>2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, Minsk, Republic of Belarus*

## **9. ANALYSIS OF DYNAMICS OF MORBIDITY OF MALIGNANT LEVELS OF SKIN WITH THE POPULATION OF THE REPUBLIC OF BELARUS FOR 2001–2016.**

Opanasenko T., Zhyvitskaya A., Stelmakh V.

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

## **10. SPECTROSCOPIC STUDIES (GEOMETRY OPTIMIZATION, E → Z ISOMERIZATION, UV/VIS, EXCITED STATES, FT-IR, HOMO-LUMO, FMO, MEP, NBO) OF NEW AZOMETHINE DYES FOR BIOLOGICAL APPLICATIONS**

Pazniak A.<sup>1</sup>, Shahab S.<sup>1,2,3</sup>, Sheikhi M.<sup>4</sup>, Dikusar E.<sup>2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Institute of Physical Organic Chemistry National Academy of Sciences of Belarus, Minsk, Republic of Belarus*

<sup>3</sup>*Institute of Chemistry of New Materials of National Academy of Sciences of Belarus, Minsk, Republic of Belarus*

<sup>4</sup>*Young Researchers and Elite Club, Gorgan Branch, Islamic Azad University, Gorgan, Iran*

## **11. A METHOD FOR IMRT TREATMENTS OF PROSTATE CANCER IMPROVEMENT**

Piatkevich M., Titovich E., Makarava N., Kazlouski D., Kaprusynka A., Hertsyk V.  
*N. N. Alexandrov National Cancer Centre of Belarus, Minsk, Republic of Belarus*

## **12. ANTIOXIDANT PROPERTIES OF JUICES CONTAINING CHERRY, RASPBERRY AND STRAWBERRY**

Podorovskaya P., Tarun E., Selina D.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **13. RADICAL-RECOVERY PROPERTIES OF BLACK CURRANT JUICE, BLACKBERRY AND BLUEBERRY**

Selina D., Tarun E., Podorovskaya P.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **14. STRUCTURE OF CARDIOVASCULAR PATHOLOGY IN AGED PERSONS**

Silkina L., Ablekovskaya O.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **15. CONGENITAL MALFORMATIONS OF THE DIGESTIVE SYSTEM**

Skorodenok Y., Kokorina N.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **16. CHARACTERISTIC AND POSSIBLE TARGETS OF ACTIVITY OF IMMUNOMODULATORS OF PLANT AND FUNGICAL ORIGIN**

Yerchinskaya T., Ikonnikova N.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **17. RELATIONSHIP OF PHYSICAL DEVELOPMENT WITH THE RESPECTIVE HEALTH GROUP OF CHILDREN'S POPULATION**

Yukhnevich V., Ablekovskaya O.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **18. SYNTHESIS OF NEW 11-ARYLSUBSTITUTED DERIVATIVES OF 5-HYDROXY-3,3-DIMETHYL-1,2,3,4,5,11-HEXAHYDROINDENO [1,2-b] QUINOLINE-1,10-DIONE**

Zeynalov R., Kotkovskaya T., Pyrko A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **19. ANTAGONISTIC ACTIVITY OF BACTERIA OF GENUS BACILLUS**

Ziamtsova V., Gritskevich E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **DISTANT PARTICIPATION**

### **1. FREQUENCY AND DYNAMICS OF THE CONGENITAL CLEFT LIP AND PALATE IN THE REPUBLIC OF BELARUS**

Androsova M., Kokorina N.

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

### **2. USE OF MICRONUCLEAR TEST IN ASSESSMENT OF INFLUENCE OF NEGATIVE FACTORS OF THE ENVIRONMENT ON THE PERSON**

Arkadyeva O., Matoshko E., Smolnik N.

*Belarusian state university, ISEI BSU, Minsk, Republic of Belarus*

### **3. EPIDEMIOLOGICAL ASPECTS OF MORBIDITY OF THE POPULATION OF THE REPUBLIC OF BELARUS DISEASES OF THE CIRCULATORY SYSTEM**

Belaya Y.

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

### **4. TARGET THERAPY OF BLADDER CANCER BY INHIBITING THE SIGNALING OF FGFR3**

Beridze R., Gritsuk A., Koval A.

*Gomel State Medical University, Gomel, Republic of Belarus*

### **5. ANALYSIS OF ENVIRONMENTAL AND HERITABLE RISK FACTORS OF CANCER OF THE KIDNEY**

Brisyk D., Smirnova E.

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

### **6. GENERATION AND ANALYSIS OF DECELLULARIZED LIVER SCAFFOLDS FOR REGENERATIVE MEDICINE**

Dubko A.<sup>1</sup>, Jurkevich M.<sup>1</sup>, Abdul A.<sup>1</sup>, Arestakesyan H.<sup>2</sup>, Karabekian Z.<sup>2</sup>, Zafranskaya M.<sup>1</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Orbeli Institute of Physiology, Yerevan, Republic of Armenia*

### **7. OBTAINING RECELLULARIZED LIVER TRANSPLANTATS AS A PERSPECTIVE DIRECTION OF REGENERATIVE MEDICINE**

Dubko A.<sup>1</sup>, Jurkevich M.<sup>1</sup>, Abdul<sup>1</sup> A., Karabekian Z.<sup>2</sup>, Zafranskaya M.<sup>1</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Immunology and Tissue Engineering Lab, Orbeli Institute of Physiology, Yerevan, Armenia*

### **8. IDENTIFICATION OF CLONAL REARRANGERS OF GENES OF ANTIGEN-RECOGNIZING RECEPTORS IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIS**

Dubko A.<sup>1</sup>, Lutskovich D.<sup>2</sup>, Meleshko A.<sup>1,2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian Research Center for Pediatric Oncology, Hematology and Immunology Lyasny, Republic of Belarus*

### **9. EFFECT OF DEXAMETHASON ON THE STRUCTURAL STATE OF THYMUS MEMBRANES**

Fomenko K., Puhteeva I., Gerasimovich N.

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



**10.POSSIBLE DIRECTIONS AND APPROACHES IN THE STUDY OF THE IMMUNOTROPIC POTENTIAL OF POLYSACCHARIDES OF BASIDIOMYCETES**

Goshkevich E., Lobay M., Ikonnikova N.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**11.BACTERIAL PATHOGENS OF HUNTING WATERFOWL AS THE FACTOR OF THE REDUCTION OF THEIR NUMBERS IN BELARUS**

Grinek A., Liakh Y.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**12.DEVELOPMENT OF GUIDELINES FOR ROUTINE QUALITY CONTROL ACTIVITIES FOR A NEW GENERATION OF MEDICAL LINEAR ACCELERATORS**

Hertsyk V., Titovich E., Piatkevich M.  
*N.N.Alexandrov National Cancer Center of Belarus, Minsk, Republic of Belarus*

**13.THE ANALYSIS OF PRIMARY PHYSICAL INABILITY AMONG THE POPULATION REPUBLIC OF BELARUS**

Holub A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**14.PRODUCTION OF CYTOKINES BY T-LYMPHOCYTES IN PATIENTS WITH CHRONIC HEPATITIS C INFECTION**

Ivuts U.<sup>1</sup>, Lykashik S.<sup>2</sup>, Nizheharodava D.<sup>1</sup>, Zafranskaya M.<sup>1</sup>  
<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*  
<sup>2</sup>*Belarusian State Medical University, Minsk, Republic of Belarus*

**15.EXPANSION OF NATURAL KILLER CELLS IN VITRO WITH II-<sup>2</sup> AND FEEDER CELLS CO-CULTURE**

Katbah S.<sup>1</sup>, Meleshko A.<sup>1,2</sup>  
<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*  
<sup>2</sup>*Belarusian Research Center for Pediatric Oncology, Hematology and Immunology, Lesnoy, Republic of Belarus*

**16.THE USE OF ULTRASOUND IN THE BRACHYTHERAPY OF CERVICAL CANCER**

Kazlouski D., Kazlouskaya Yu., Titovich E., Piatkevich M.  
*N.N. Alexandrov National Cancer Center of Belarus, Minsk, Republic of Belarus*

**17.QUANTITATIVE ANALYSIS OF CHILD MORBIDITY OF THE CITY OF MOZYR**

Kovalchuk M., Dudinskaya R., Chobanyan D.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**18.STRONGILOIDOZ AMONG INHABITANTS OF THE MINSK ZOO**

Melnik M., Zhuk E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**19.VARIABILITY OF POPULATION CHARACTERISTICS OF THE GRASS FROG (RANA TEMPORARIA) WITHIN BELARUS**

Mitsura D., Khandohiy A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **20.HEALTH ASSESSMENT OF THE POPULATION OF THE REPUBLIC OF BELARUS**

Rudkovskaya-Yazubets K.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **21.STUDYING OF INDIVIDUAL TYPES OF SPECIFIC TOXICITY OF INNOVATIVE INFUSION SOLUTION FOR PARENTERAL NUTRITION BASED ON AMINO ACIDS**

Savitskaya V., Tarasova E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **22.MODIFICATION OF POLYELECTROLYTE MICROCAPSULES BY DYE MOLECULES RHODAMINE 6G**

Scherbovich A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **23.THE STUDY OF PHOTO-SWITCHES BASED ON QUANTUM DOT-PHOTOCHROMIC MOLECULE COMPLEXES BY SPECTROPHOTOMETRY METHODS**

Scherbovich A.<sup>1</sup>, Karpach P.<sup>2</sup>  
<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*  
<sup>2</sup>*Yanka Kupala State University of Grodno, Grodno, Republic of Belarus*

## **24.THE EFFECT OF GENE POLYMORPHISM OF XENOBIOTIC DETOXIFICATION ENZYMES GCLM ON URINE MERCURY CONTENT**

Shinetova L., Bekeyeva S.  
*L.N. Gumilyov Eurasian National University, L.N. Gumilyov ENU, Astana, Kazakhstan*

## **25.DIAGNOSTICS OF HUMAN PAPILLOMA VIRUS WITH PCR-METHOD**

Shkodzich K., Tarasova E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **26.ANTIBIOTIC RESISTANCE IN THE MODERN WORLD**

Sinenok D., Tarasova E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **27.DETERMINATION OF POLYMORPHISM OF K-RAS AND DPC4 GENES IN PANCREATIC CANCER IN THE BACKGROUND OF DIABETES MELLITUS**

Smolyakova I.<sup>1</sup>, Smolyakova R.<sup>2</sup>, Shpadaruk K.<sup>2</sup>  
<sup>1</sup>*Belarusian State Medical University, Minsk, Republic of Belarus*  
<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **28.HUMAN MICROBIAL ECOLOGY AND STRESS**

Starovoitova S.  
*National University of Food Technologies, Kyiv, Ukraine*

## **29.QUALITY ASSURANCE PROGRAMME FOR THE GAMMA-KNIFE STEREOTACTIC GAMMA UNIT**

Titovich E., Kazlouski D., Piatkevich M.  
*N.N. Alexandrov National Cancer Centre of Belarus, Minsk, Republic of Belarus*

## **30.ANALYSIS THE CARDIOVASCULAR SYSTEM DISEASES PEOPLE DISTRICT MOLODECHNO V. CHIST**

Vishnevskaya-Sushko A., Kozelko N.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **31. THE CONTENT OF THYROID HORMONES IN THE DYNAMICS OF RADIOIODINE THERAPY IN DIFFUSE TOXIC GOITER**

Yukhnovich V., Smolyakova R.

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

### **32. USING OF THE SYSTEM OF BREATHING CONTROL DURING IRRADIATION OF BREAST TUMORS**

Zazybo Y<sup>1.</sup>, Chikova T.<sup>2</sup>

<sup>1</sup>*Minsk city clinical oncologic dispensary, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **Section 3, lecture room 413 (11.05–18.00)**

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### **PROBLEMS OF MODERN ENVIRONMENTAL SAFETY (BIO-MONITORING, BIO-INDICATION, BIOREMEDIATION, RADIOECOLOGY AND RADIATION SAFETY, ENVIRONMENTAL MONITORING, MANAGEMENT AND AUDIT. INFORMATION SYSTEMS AND TECHNOLOGIES IN ECOLOGY)**

**Chairman:** GONCHAROVA N., Associate Professor, Ph.D., Head of the UNESCO Chair, ISEU BSU;

**Co-Chairman:** KAPITSA V., Associate Professor, Ph.D., Associate Professor of the Chair of Environmental Monitoring and Management, ISEI BSU;

**Secretary:** LUKYANOVA D., Master's degree student, ISEI BSU.

#### **1. PURPOSE, STRUCTURE AND CONTENT OF WEB-SITE “ECOLOGICAL PORTAL OF THE REPUBLIC OF BELARUS”**

Avizhets M.<sup>1</sup>, Tonkonogov B.<sup>2</sup>

<sup>1</sup>*Minsk city executive committee, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

#### **2. SIMULATION OF RADIATION THERAPY USING PROTON AND CARBON-12**

Brynkevich H.<sup>1</sup>, Blagodarova Y.<sup>1</sup>, Batmunkh M.<sup>2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Joint Institute for nuclear research, JINR, Dubna, Russian Federation*

#### **3. RECYCLING IS THE SOLUTION OF ENVIRONMENTAL PROBLEMS**

Checkmenyova A., Kunets N.

*Gymnasium № 32 of Minsk, Minsk, Republic of Belarus*

#### **4. DETERMINATION OF MASSES OF THE SUPER HEAVY ELEMENTS IN THE EXPERIMENTS ON SYNTHESIS OF <sup>112</sup> AND <sup>114</sup> ELEMENTS USING THE REACTIONS $40\text{Ar} + 148\text{Sm}$ ; $40\text{Ar} + 166\text{Er}$ ; $48\text{Ca} + 242\text{Pu}$ .**

Dvorakovskiy A.<sup>1</sup>, Hrytskevich D.<sup>1</sup>, Dorozhkin V.<sup>1</sup>, Vedeneev V.<sup>2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Joint Institute for nuclear research, JINR, Dubna, Russian Federation*

**5. WEB RESOURCE AS SYSTEM OF A DISTANCE CONTROL AND MONITORING**

Evstigneev K., Lefanova I.

*Belarusian State University, ISEU BSU, Minsk, Republic of Belarus*

**6. THE ESTIMATION OF THE ECOLOGICAL CONDITION OF DRUZHBY NARODOV PARK**

Grinevich A., Pennikova M.

*Secondary school № 64, Minsk, Republic of Belarus*

**7. THE MEASUREMENT SYSTEM OF NUTRIENTS IN THE SYSTEM FOR MONITORING AND CONTROL OF THE CLOSED WATER ENVIRONMENT**

Grinevich E., Kot E.

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

**8. MATHEMATICAL SIMULATION OF SYSTEMS WITH MOVING OBJECTS**

Ivaniukovich V., Nevar R.

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

**9. METHODOLOGICAL APPROACHES TO THE STUDY OF MICROBIAL LANDSCAPE OF SOIL**

Kaluhina T.

*Belarusian State University, ISEI Minsk, Republic of Belarus*

**10. FUNCTIONAL STRUCTURE OF INFORMATION RETRIEVAL SYSTEM “POLLEN OF WOODY AND SHRUB PLANTS GROWING IN TERRITORY OF THE REPUBLIC OF BELARUS”**

Konopelko O., Tonkonogov B.

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

**11. PROBLEMS OF QUALITY CONTROL OF AUTOMATIC DISPENSING SYSTEMS FOR RADIOPHARMACEUTICALS**

Malishevski V., Emelyanenko E., Noshadi S.

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

**12. THE COMPARATIVE RESEARCH OF THE EFFICIENCY OF BIOMETHODS AND CHEMICAL METHODS OF WATER MONITORING**

Navoyeva A.

*Gymnasium № 1 named after F. Skorina of Minsk, Minsk, Republic of Belarus*

**13. THE SURVIVAL RATE OF MARBLE CRAYFISH – A POTENTIAL INVASIVE SPECIES**

Piachko A.

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

**14. ANALYSIS OF LOCAL MONITORING DATA OF JSC “BOBRUISK PLANT OF BIOTECHNOLOGIES”**

Pinchuk A., Misiuchenko V., Belyaeva T.

*Belarusian State University, Minsk, the Republic of Belarus*

**15. THE PROBLEM OF RADIATION SENSITIVITY OF ALBINO RATS MYOCARDIUM**

Poddubny A.

*Gomel State Medical University, Gomel, Republic of Belarus*

## **16. FEATURES OF THE DEVELOPMENT OF MANTIS RELIGIOSA IN THE PROCESS OF ONTOGENESIS IN LABORATORY CONDITIONS**

Sanikovitch V., Serzhantova E., Alkhimovich Ch., Zabrodskaya Ju.  
*Gymnasium № 43 of Minsk, Minsk, Republic of Belarus*

## **17. LIGHTING MANAGEMENT IN A CLOSED WATER ENVIRONMENT**

Tkachenko S., Lefanova I.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **18. LOCAL ENVIRONMENTAL MONITORING ON OJSC «RECHITSA METIZNY PLANT»**

Zuro K., Rodzkin A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **POSTER PRESENTATIONS**

### **1. PRACTICAL ISSUES OF AUTOMATED IRRIGATION SYSTEMS ESTABLISHMENT**

Grushik D., Karpei A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **2. THE HISTORY OF THE SEMI – PARASITE PLANT: MISTLETOE WHITE AS THE POTENTIAL THREAT TO THE PARK LANDSCAPES OF MINSK CITY**

Karpovich F.  
*Gymnasium № 33 of Minsk, Minsk, Republic of Belarus*

### **3. CONIFEROUS SPECIES IDENTIFICATION ON THE BASIS OF THE SPECTROMETRIC INFORMATION**

Khokh A.<sup>1</sup>, Poznyak S.<sup>2</sup>

<sup>1</sup>*Scientific and Practical Centre of the State Forensic Examination Committee of the Republic of Belarus, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **4. MONITORING OF FLOODPLAIN VEGETATION OF THE RIWER WESTERN DVINA**

Liantaushchyk M., Chernetskaya A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **5. THE COMPOSITION OF INVASIVE PLANTS IN BREST**

Litsuk A.  
*Brest State University, Brest, Republic of Belarus*

### **6. DATA OF RADIONUCLEUM CONTAMINATION DIFFERENT TYPE LAKES FOR THE RADIATION IMPACT ESTIMATION OF ON THE OBJECTS OF BIOTA**

Lukyanova D., Chuholskiy A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

### **7. INVASIVE SPECIES OF THE FLORA OF THE CENTRAL PART OF THE BELARUSIAN POLESYE**

Mialik A.  
*The Polesie Agrarian Ecological Institute of the National Academy of Sciences of Belarus, Minsk, Republic of Belarus*

## **8. USE OF PLANTS IN THE SCALE AND CORROSION CONTROL**

Ogurtsova M., Labusheva Ju.

*Gymnasium № 1 named after F.Skorina of Minsk, Minsk, Republic of Belarus*

## **9. POSSIBILITIES FOR COMPLEX STORM DETECTION AND FORECASTING OF SEVERE CONVECTIVE STRUCTURES BASED ON MODELING AND SATELLITE DATA OVER THE TERRITORY REPUBLIC OF BELARUS**

Prakharenia M.<sup>1</sup>, Sprygin A.<sup>2</sup>

<sup>1</sup>*Belarusian State University, Minsk, Republic of Belarus*<sup>2</sup>*Central Aerological Observatory, Dolgoprudny, Russian Federation*

## **10.METHOD FOR ESTHETIC APPEAL OF THE TERRITORY'S ASSESSMENT TO ECOLOGICAL TOURISM DEVELOPMENT**

Stenko S., Kapitsa U.

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

## **11.ESTIMATION OF THE LEVEL OF RADIOACTIVE EXPOSURE ON SEPARATE COMPONENTS OF FOREST ECOSYSTEMS OF THE BELARUSIAN POLESIE**

Sulkovskaya A.

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

## **12.DEVELOPMENT OF A SOFTWARE MODULE ON THE ESTIMATION OF THE EXPOSURE TO THE PROTECTION OF ATMOSPHERIC AIR DURING THE STATE ECOLOGICAL EXPERTISE**

Surma D.<sup>1</sup>, Ivaniukovich U.<sup>2</sup>

<sup>1</sup>*Ministry of natural resources and environmental protection of the Republic of Belarus Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **13.PLANT UPTAKE OF RADIOCAESIUM – POTENTIAL FOR REMEDIATE RADIOCONTAMINATED SOILS**

Zhuraukou Y., Goncharova N.

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

## **DISTANT PARTICIPATION**

### **1. SPECIES COMPOSITION OF AMPHIBIANS IN WETLANDS OF THE CENTRAL AND SOUTHERN PART OF THE REPUBLIC OF BELARUS**

Asipchyk M., Chernetskaya A.

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

### **2. WEB-APPLICATION WITH GEOINFORMATION MODULE FOR ENVIRONMENTAL RISK ASSESSMENT OF LAND POLLUTION BY HEAVY METALS**

Chemerevsky D., Ivaniukovich U.

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

### **3. BIO-BASED SOLUTIONS FOR RESOURCE RECOVERING FROM WASTES**

Chernysh Ye.

*Sumy State University, Sumy, Ukraine*

**4. BIOMONITORING APPLICATION PERSPECTIVES IN DECISION OF THE ESTIMATION OF THE CASPIAN SEA ENVIRONMENTAL STATE**

Gabbasova S., Plyatsuk L., Ablieieva I.  
*Sumy State University, Sumy, Ukraine*

**5. ANALYSIS OF THE ACTIVITIES OF THE BARANOVICHI GORRIONCILLO OF NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION**

Golub S., Mukina C., Takmianina D.  
*Belarusian state University, ISEI BSU, Minsk, Republic of Belarus*

**6. STUDYING THE INFLUENCE OF FOOD FRAGRANCES ON CELL CULTURE NEK2937**

Grishuk Ya, Lozinskaya O.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**7. PRODUCTION OF THE COMPLEX MICROBIAL PREPARATION USING INDUSTRIAL WASTE**

Havrylkin D.<sup>1</sup>, Klymenko N.<sup>1</sup>, Leonova N.<sup>2</sup>  
<sup>1</sup>*National University of Food Technology, Kyiv, Ukraine*  
<sup>2</sup>*Zabolotny Institute of Microbiology and Virology of the NASU, Kyiv, Ukraine*

**8. BIOSYNTHESIS OF BIOSURFACTANTS BY CULTIVATION OF NOCARDIA VACCINII IMV B-7405 ON TOXIC INDUSTRIAL WASTE**

Hershtman A., Pirog T.  
*National University of Food Technologies, Kyiv, Ukraine*

**9. AUTOMATED FEEDING SYSTEM FOR AQUATIC ANIMALS IN THE CLOSED ENVIRONMENT**

Holubovich A., Kot E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**10. ECOLOGICAL WAYS TO REDUCE THE NUMBER OF IXODID MITES AND THE ROLE OF RED FOREST ANTS IN THIS**

Isachenko L., Lyakh Yu.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**11. CHARACTERISTICS OF THE SOLID WASTE LANDFILLS OF THE MINSK REGION**

Kananovich V., Lysukha N.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**12. DATA OF TAXONOMIC, CHOROLOGICAL, ECOLOGICAL-GEOGRAPHICAL, BIOMORPHOLOGICAL, ECOLOGICAL ANALYSIS OF FLORA ZHODINO**

Kanapelka V., Boltik A.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**13. INDIVIDUAL PLANNING AND IN VIVO DOSIMETRY OF RADIATION THERAPY FOR CANCER OF THE CERVIX AND BODY OF UTERUS**

Karaliyova N.<sup>1</sup>, Piskunou V.<sup>1</sup>, Chikova T.<sup>2</sup>  
<sup>1</sup>*Vitebsk regional clinical oncology dispensary, Vitebsk, Republic of Belarus*  
<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**14. SPATIAL LINEARITY IN MRI QUALITY CONTROL**

Karpeikin A., Lushchik A.  
*Brest Regional Oncology Center, Brest, Republic of Belarus Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **15.MONITORING OF HIDDEN WATER NETWORK LEAKS**

Kashuba A., Ivaniukovich U.

*Belarusian State University, ISEI Minsk, Republic of Belarus*

## **16.TREE-RING CHRONOLOGIES OF PINUS SYLVESTIS L.: TERRITORIAL DIFFERENTIATION**

Khokh A., Makhankou K.

*Scientific and Practical Centre of the State Forensic Examination Committee of the Republic of Belarus, Minsk, Republic of Belarus*

## **17.SEASONAL VARIATION OF PINE MICROELEMENT COMPOSITION**

Khokh A.<sup>1</sup>, Poznyak S.<sup>2</sup>

<sup>1</sup>*Scientific and Practical Centre of the State Forensic Examination Committee of the Republic of Belarus, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **18.MONITORING OF THE HICLE POLLUTION IN THE CLIMATE CHANGES CONTEXT**

Kofanova O., Kofanov O.

*National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine*

## **19.MODERNIZATION OF GAS CLEANING SYSTEMS OF JSC "GOMEL PLANT OF CASTING AND NORMALS" FOUNDRY**

Kononchuk N., Misiuchenko V., Belyaeva T.

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

## **20.USING THE DOSIMETRIC MODEL FOR CALCULATED DOSES ABSORBED BY REPRODUCTION ORGANS OF PINE TREES**

Kovalev V.

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

## **21.REACTION OF PIGMENTAL AND ANTIOXIDANT SYSTEMS OF PLANT ON ENVIRONMENTAL POLLUTION**

Kovalev V., Bandarchik R.

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

## **22.SOLVING ENVIRONMENTAL PROBLEMS DURING THE WASTE PRODUCTION ACCORDING TO THE STATE WASTE CADASTRE OF THE REPUBLIC OF BELARUS**

Kuniza A., Mukina C.

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

## **23.METHODS OF CONTROLLING RESPIRATORY CYCLE IN RADIATION THERAPY**

Lushchik A., Karpeikin A.

*Brest Regional Oncology Center, Brest, Republic of Belarus Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

## **24.EXPERIMENTAL STUDY OF THE PROCESSES OF SOLUBILITY OF BORIC ACID IN STEAM**

Morozov A., Sakhipgareev A., Shlepkin A.

*Leading scientist, Doctor of technical science, Institute for Physics and Power Engineering named after A.I. Leypunsky, Obrinsk, Russian Federation*

## **25.INVESTIGATION OF TOXIC AND GENOTOXIC EFFECTS OF SYNTHETIC FOOD DYES BY THE ALLIUM TEST METHOD**

Novik A., Lozinskaya O.

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



**26.ANALYSIS OF ENVIRONMENTAL ASPECTS AT THE OJSC "GOMEL PLANT OF CASTING AND NORMALS»**

Paulovich A., Mukina C.

*Belarusian state University, ISEI BSU, Minsk, Republic of Belarus*

**27.THE USE OF VOXEL PHANTOMS IN NUCLEAR MEDICINE**

Pechnikova A., Tumaev A., Tushin N.

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

**28.COMPLEX EVALUATION OF TECHNOGENIC SOIL POLLUTION IN THE IN THE CONTROL AREA OF BELARUSIAN NUCLEAR POWER PLANT**

Pozdnyakova A., Germenchuk M.

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

**29.ANALYSIS OF ENVIRONMENTAL PROTECTION ACTIVITIES OF OJSC «BELOVEZHSKIE SYRY»**

Protasevich I., Levanskaya N.

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

**30.ACTIVITY OF LIPID PEROXIDATION AND CATALASE IN LEAVES OF WOODY PLANTS IN CONDITIONS OF TECHNOGENIC STRESS**

Samusik E., Golovatyi S.

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

**31.ASSESSMENT OF OCCURRENCE OF TICKS IN THE PARK OF STONES**

Savitskaya A., Zhuk E.

*Belarusian State University, ISEI Minsk, Republic of Belarus*

**32.DETERMINATION OF THE RADIATION BACKGROUND AND THE DEGREE OF RADIOACTIVE POLLUTION OF DIFFERENT OBJECTS**

Slobodyan O., Tymchuk A.

*National University of Food Technology, Kyiv, Ukraine*

**33.DETERMINATION OF THE TOTAL DOSE OF IONIZING RADIATION**

Slobodyan O., Ovsienko K.

*National University of Food Technology, Kyiv, Ukraine*

**34.ECOLOGICAL AND EPIDEMIOLOGICAL ASPECTS OF THE INCIDENCE OF MALIGNANT NEOPLASMS OF THE LUNG**

Sulkovskaya A.

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

**35.COMPARATIVE ECOLOGICAL ANALYSIS OF THE AVIFAUNA OF THE PARKS OF THE CITY OF MINSK**

Svistun E.

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

**36.SOURCES OF HEAVY METAL INCREASE IN SOILS IN THE TERRITORY OF BREST REGION**

Taukach G.<sup>1</sup>, Pazniak S.<sup>2</sup>

<sup>1</sup>*Brestian State University named of A. S. Pushkin, Brest, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

**37.ANALYSIS OF THE ENVIRONMENTAL ACTIVITIES AT MINSK HEATING NETWORKS OF CHPP-2**

Totmjanina D., Mukina C.

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

### **38.AUTOMATION OF WATER LEAKAGE CONTROL SYSTEM**

Turchinovich A., Smirnova T.

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

### **39.SOLAR FLARES AND THEIR PREDICTION METHODS**

Vasilevskaya D.<sup>1,2</sup>, Boyarkin O.

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Researchers Training Institute National Academy of Sciences of Belarus, Minsk, Republic of Belarus*

### **40.ESTIMATION OF THE SPATIAL DISTRIBUTION OF THE POPULATIONS OF COMMON ADDER, THE DEVELOPMENT OF THE PLACES WITH THE HIGH NUMBER, PROMISING FOR ORGANIZING THE TRADE**

Volosovich A., Mitsura D., Khandogiy A.

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

### **41.FEATURES OF ECOLOGY OF WETLAND BIRDS OF THE SVISLOCH RIVER IN MINSK METROPOLIS**

Zhilkevich A., Khandohiy A.

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

## **Section 4, lecture room 310 (11.05–18.00)**

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

**Chairman:** TONKONOGOV B., Associate Professor, Ph.D., Head of the Academic-methodical Department, ISEU BSU;

**Secretary:** KONOPELKO O., Head of the Student's Scientific Society, ISEI BSU.

#### **1. ASSESSMENT OF THE GREENHOUSE GAS EMISSIONS IN THE SECTOR “LAND USE, LAND USE CHANGE AND FORESTRY”**

Kankova V.<sup>1</sup>, Narkevitch I.<sup>1,2</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*RUE «Belarusian Research Center «Ecology», Minsk, Republic of Belarus*

#### **2. HELIOBIOLOGY**

Kononov P., Telyazhevich V.

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

#### **3. STRUCTURE AND CONTENT OF SERVER DATABASE OF RENEWABLE ENERGY EQUIPMENT AND POTENTIAL OF RENEWABLE ENERGY SOURCES**

Moroz A.<sup>1</sup>, Tonkonogov B.<sup>2</sup>

<sup>1</sup>*“Sensotronika” Ltd, Minsk, Republic of Belarus*

<sup>2</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

#### **4. HARDNESS**

Petran M., Gerasimchuk I., Krasovsky V.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

#### **5. NEWTON'S GENIUS**

Yakshevich S., Demidchik V., Krasovsky V.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

#### **6. THE STEEL AS PART OF HISTORY**

Zhuraukou Y., Bandarchyk R., Krasovskiy V.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

#### **7. SUSTAINABLE DEVELOPMENT IN INTERNATIONAL WATER LAW**

Zmachinskaya M.  
*Belarusian State University, Minsk, Republic of Belarus*

### **POSTER PRESENTATIONS**

#### **1. COMPARATIVE CHARACTERISTICS OF REFUSE DERIVED FUEL FOR USE IN CEMENT KILNS**

Shcherbina E.<sup>1</sup>, Fursa Y.<sup>2</sup>, Narkevitch I.<sup>1</sup>

<sup>1</sup>*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

<sup>2</sup>*Republic Research Unitary Enterprise «Bel RC «Ecology», Minsk, Republic of Belarus*

### **DISTANT PARTICIPATION**

#### **1. SMART POWER SUPPLY SYSTEM**

Astreyko A., Kot E.  
*Belarusian State University, ISEI BSU, Minsk, Republic of Belarus*

#### **2. CLIMATE CHANGE ON THE EXAMPLE OF GLAZED FROST IN THE TERRITORY OF THE REPUBLIC OF BELARUS**

Berezhkova K.  
*Republican Center for Hydrometeorology, Control of Radioactive contamination and Environmental Monitoring, Minsk, Republic of Belarus*

#### **3. GLOBAL CLIMATE CHANGE IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT GOALS**

Ihnatovich A.  
*Belarusian State University, Minsk, Republic of Belarus*

**FOR NOTES**

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