

Scientific program of
The VI International Symposium “Biogenic - abiogenic interactions in natural and anthropogenic systems” devoted to the 150th anniversary of the Saint-Petersburg Naturalists Society

Monday, September 24
Birzhevaya line, 6.

8.30 - 9.00. Registration.

9.15 - 10.00. Opening Ceremony.

Chairs: Voytekhovskiy Yu.L., Lessovaia S.N.

10:00 - 10.30. Vlasov D.Yu. SAINT-PETERSBURG SOCIETY OF NATURAL RESEARCHERS AND ITS ROLE IN DEVELOPMENT OF DOMESTIC NATURAL SCIENCE (TO THE 150TH ANNIVERSARY OF THE FOUNDATION).

10.30 - 11.00. Kulchin Yu.N., Voznesenskiy S.S. NANOSTRUCTURED BIOMINERALS AND BIOMIMETIC MODELING OF THEIR CHARACTERISTICS.

11.00 - 11.30. Frank-Kamenetskaya O.V., Vlasov D.Yu. BIOFILM MINERALIZATION BY PARTICIPATION OF LITHOBIOTIC MICROBIAL COMMUNITY.

11.30 – 12.00. Kotelnikova E.N. ORGANIC ACIDS HAVING CHIRAL MOLECULES AS IMPORTANT MEMBERS OF BIOGENIC-ABIOGENIC INTERACTIONS.

Coffee Break: 12.00-12.20

Chairs: Chelibanov V.P., Panova E.G.

12:20 - 12.50. Alekseev A.O., Alekseeva T.V., Kalinin P.I., Mitenko G.V. RESPONSE OF THE SOILS TO THE GLOBAL CLIMATE CHANGE AND CLIMATIC GRADIENTS AT ECOSYSTEM SCALE.

12.50 - 13.20. Sturm (née Rosseeva) E., Knaus J., Kratochwil C., Schneider R., Chen S., Cölfen H., Krumova M., Carnelli D., Courty D., Segmehl J., Casdorff K., Sturm S., Wu B., Burkhardt U. CRACKING THE STRUCTURAL AND GENETIC BASIS OF TOOTH BIOMINERALIZATION IN CICHLID FISHES: HOW TO DEVELOP THE MOST EFFICIENT TEETH?

13.20 - 13.50. Lessovaia S.N., Ekosse G-I., Chistiakov K., Polekhovskiy Yu. MINERALOGY AND LANDSCAPE CHARACTERISTIC OF SOME GEOPHAGIC CLAYS FROM SOUTH AFRICA.

Lunch: 14:00-15:00

Chairs: Alekseev A.O., Frank-Kamenetskaya O.V.

15:00 - 15.30. Voytekhovskiy Yu.L. GEOMETRY, CLASSIFICATION AND NOMENCLATURE OF CAPSIDS OF ICOSAHEDRAL VIRUSES. GEOMETRY OF BIOLOGICAL COATINGS: GENETICS OR INVARIANTS OF POLYGONAL TILINGS?
15.30 - 16.00. Belisheva N.K. COMPARATIVE ANALYSIS OF THE ELEMENTAL STATUS OF CHILDREN LIVING IN AREAS WITH DIFFERENT MORBIDITY OF CHILDREN'S POPULATION IN THE EURO-ARCTIC REGION.

16.00 - 16.30. Chelibanov V.P., Frank-Kamenetskaya O.V., Marugin A.M. OPTICAL METHODS DEVELOPMENT TO STUDY BIOGENIC-ABIOGENIC INTERACTIONS.

Coffee Break: 16.30-17:00

17.00-18.30. Narayana Kalkura. BIOMINERALIZATION TO BIOFABRICATION.

18:30-20:00 Welcome party

Tuesday, September 25

Birzhevaya line, 6.

Methods for studying the interactions between biogenic and abiogenic components

Chairs: Chelibanov V.P., Lessovaia S.N.

9:30 - 10.00. Sumina E.L., Sumin D.L. TIME AND SPACE OF BIOLOGICAL MORPHOGENESIS.

10.00 – 10.30. Golovanova O.A. KINETICS OF OMA DISSOLUTION WITH MEDICINAL DRUGS.

10.30 – 11.00. Kovalevski V.V., Markovskii Yu.A. ELECTRON MICROSCOPY STUDY OF BIOLEACHING OF SHUNGITE ROCKS.

11.00 - 11.20. Svarovskaya L.I., Manakov A.Y., Altunina L.K., Streles L.A., Stoporev A.C. ACTIVE INTERACTIONS IN A SYSTEM OF OIL AND MICROORGANISMS.

Coffee Break: 11.20-11.40

Chairs: Sumina E.L., Kovalevski V.V.

11.40 – 12.00. Litvinova T.V. POSSIBILITIES AND PERSPECTIVES OF BIOGENIC INTERACTIONS INVESTIGATION IN STROMATOLITIC BUILDUPS.

12.00 – 12.20. Iasenko E.A., Chelibanov V.P., Marugin A.M., Pinchiuk O.A., Frank-Kamenetskaya O.V. ANALYZER OF SINGLET OXYGEN AND THE PROSPECTS OF ITS APPLICATION IN THE STUDY OF BIOCOSE SYSTEMS.

12.20 – 12.40. Chelibanov I.V., Chelibanov V.P. INSTRUMENTAL CONTROL OF THE GAS EXCHANGE OF HIGHER PLANTS AT BIOTIC STRESS.

12.40 – 13.00. Lukashova M.V. EXPERIENCE OF APPLYING THE TECHNIQUES OF SCANNING ELECTRON MICROSCOPY FOR STUDIES OF INTERACTION BETWEEN BIOLOGICAL AND NON-BIOLOGICAL OBJECTS.

13.00 – 13.20. Askhabov A.M. QUATARONS – PRECURSORS OF ELEMENTS OF LIVING AND NONLIVING MATTER.

Lunch: 13:30 - 14:30

Biom mineralization and nature-like materials and technologies

Chairs: Vlasov D.Yu., Golovanova O.A.

14.30 – 15.00. Shilova O.A., Zelenskaya M.S., Khamova T.V., Глебова И.Б., Vlasov D.Yu. EFFECTS OF BIOMINERALIZATION IN SOL-GEL DERIVED EPOXY-TITANATE COATINGS USED TO PROTECT MARBLE FROM BIODEGRADATION.

15.00 – 15.30. Sidorova I.I., Voronina E.Yu. INORGANIC PHOSPHATE-SOLUBILIZING CULTIVABLE BACTERIA AND FUNGI.

15.30 – 15.50. Zelenskaya M.S., Rusakov A.V., Frank-Kamenetskaya O.V., Vlasov D.Yu., Himelbrant D.E., Izatulina A.R. THE FORMATION OF CALCIUM OXALATE HYDRATES BY THE INTERACTION BETWEEN MICROORGANISMS AND APATITE ON THE BASE OF FIELD AND LABORATORY RESEARCH.

15:50 – 16.10. Yusupov D.V., Dorohova L.A., Ilenok S.S., Baranovskaya N.V., Rikhvanov L.P. EFFECTS OF SO₂ & HF EMISSIONS OF AN ALUMINIUM SMELTER ON THE GYPSUM & FLUORITE FORMATION IN STOMATA OF URBAN TREE LEAVES.

16.10 – 16.30. Leonova L.V., Kuzmina L.Y., Simakova Y.S., Ryabova A.S., Cherviatsova O.Y. CARBONATE DEPOSITION BY ACTINOMYCETES IN VITRO.

16.30 – 16.50. Voznesenskiy S.S., Popik A.Yu., Gamayunov E.L., Galkina A.N., Orlova T.Yu., Markina Zh.V., Postnova I.V., Shchipunov Yu.A. BIOGENIC - ABIOGENIC SYSTEMS BASED ON MICROALGAE CELLS IMMOBILIZED IN A MATRIX.

16.50 – 17.10. Kovalevski V.V., Kochneva I.V., Rozhkova V.S. INFLUENCE OF BIOLEACHING ON SURFACE ACIDITY OF SHUNGITE ROCKS.

Petrovsky Hall (Main building of the SPbU, University emb. 7/9)

Geochemistry of biogenic-abiogenic systems. The section is dedicated to the memory of the outstanding Russian geochemist and mineralogist Vladimir F. Barabanov.

Chairs: Panova E.G., Kosheleva N.E.

9.30 - 9.50. Charykova M.V. V.F. BARABANOV – THE FOUNDER OF ECOLOGICAL GEOCHEMISTRY TEACHING AT THE ST. PETERSBURG STATE UNIVERSITY.

9.50 - 10.20. Nesterov E.M., Egorov P.I., Mavopulo P. THE INFLUENCE OF THE ENVIRONMENT ON THE EVOLUTION OF HUMAN, THE FORMATION OF SOCIETY, SCIENCE AND CULTURE.

10.20– 10.50. Alekseenko V.A., Shvydkaya N.V., Alekseenko A.V., Puzanov A.V. ACCUMULATION OF CHEMICAL ELEMENTS BY SOILS AND PLANTS UNDER EXTREME CONDITIONS OF MINING.

10.50 – 11.10 Baeva Yu. I., Chernykh N. A. ASSESSMENT OF HEAVY METALS AND ARSENIC POLLUTION OF SOILS DURING POSTAGROGENIC EVOLUTION.

11.10 – 11.30. Charykova M.V., Krivovichev V.G. STABILITY OF ARSENATES AND ARSENITES IN NATURAL AND ANTHROPOGENIC ENVIRONMENTS.

Coffee Break: 11.30-11.50

Chairs: Charykova M.V., Nesterov E.M.

11.50 – 12.20. Tobratov S.A., Zheleznova O.S. VARIABILITY OF BIOGEOCHEMICAL CYCLE CAPACITIES UNDER THE INFLUENCE OF LOCAL BURIED RELIEF HETEROGENEITIES (CASE STUDY OF SOUTH MESHCHERA FOREST ECOSYSTEM)

12.20 – 12.40. Smirnova O.K., Doroshkevich S.G., Shtareva A.V. CHEMICAL CONTENT OF MICROBIOTA COMMUNITIES IN MINE WATERS FROM TUNGSTEN DEPOSITS.

12.40 – 13.00. Doroshkevich S.G., Smirnova O.K., Sheshukova A.A. MICROMORPHOLOGICAL STRUCTURE, MINERAL AND CHEMICAL COMPOSITION OF SOILS FROM TECHNOGENIC LANDSCAPES OF TUNGSTEN MINE.

13.00 – 13.20. Lyapina E.E.1.2, Yusupov D.V.2 ASSESSMENT OF MERCURY LOAD OF THE TERRITORY OF ALTAI REGION ACCORDING TO BIOINDICATOR RESEARCHES

13.20 – 13.40. Bakhmatova K.A., Matinian N.N., Sheshukova A.A. HEAVY METALS IN THE SOILS OF SUPERAQUAL LANDSCAPES OF SAINT PETERSBURG, RUSSIA.

13.40 – 14.00. Kuzminskaya N.Yu., Kosheleva N.E. ANTHROPOGENIC GEOCHEMICAL TRANSFORMATION OF SOILS AND HERBAL VEGETATION IN THE CITY OF SERPUKHOV (MOSCOW REGION).

Lunch: 14:00-15:00

Geochemistry of biogenic-abiogenic systems.

Chairs: Alekseenko V.A., Doroshkevich S.G.

15:00 - 15:20. Priputina I.V. NO_x EMISSION, NITROGEN DEPOSITIONS AND TROPHIC STATUS OF FORESTS: RETROSPECTIVE AND ACTUAL ESTIMATIONS FOR MOSCOW REGION, RUSSIA.

15.20 – 15.40. Rybakov D.S. HEAVY METALS AND METALLOIDS IN MACROMYCETES FROM THE ZONE OF ACCUMULATED ENVIRONMENTAL HARM IN PETROZAVODSK (REPUBLIC OF KARELIA).

15.40 – 16.00. Rozhdestvina V.I., Ykimenko Y.N., Bolotskiy Y.L. TYPES OF MINERALIZATION OF DINOSAUR BONES OF THE KUNDUR LOCALITY (AMUR REGION)

16.00 – 16.20. Troshkova I. A., Alekseenko V. A., Rozhdestvenskaya T. A. SOIL GEOCHEMISTRY IN THE POLYMETALLIC DEPOSITS AREA OF NORTH-WESTERN ALTAI

16.20 – 16.40. Alekseenko A.V. SOIL GEOCHEMISTRY IN THE NOVOROSSIYSK URBAN AND INDUSTRIAL AGGLOMERATION.

16.40. – 17.00. T.I. Borisochkina, K.A. Kolchanova, A.S. Frid. HEAVY METALS IN THE SOILS OF THE LIPETSK TECHNOGENIC BIOGEOCHEMICAL PROVINCE.

17.00- 17.15. Nesterov E.M., Postolova M.E. COPEVOLUTION OF THE BIOLOGICAL AND BIOXIC MEDIA.

17.15 – 17.30. Streltsov M.A., Sinai M.Yu., Nesterova L.A., Frank-Kamenetskaya O.V. CHANGES IN THE ACIDITY OF RAINWATER IN CONTACT WITH THE URBAN ATMOSPHERE.

Birzhevaya line, 6.

Coffee Break: 17.30-17.50

17:30-18:30 – poster session.

18.30. Excursion to OPTEC. Russian manufacturer of atmosphere monitoring devices, chemiluminescent and optical sensors.

Wednesday, September 26
Birzhevaya line, 6.

Biom mineralization and nature-like materials and technologies

Chairs: Voznesenskiy S.S., Sturm E.

09.30 - 10.00. Izatulina A.R., Nikolayev A.M., Kuzmina M.A., Frank-Kamenetskaya O.V., Malyshev V.V. BACTERIAL MECHANISMS OF PATHOGENIC CRYSTALLIZATION IN THE HUMAN BODY.

10.00 – 10.30. Kuranov G., Gulyaev N., Nikolaev A., Frank-Kamenetskaya O. CRYSTAL CHEMICAL CHARACTERIZATION AND FORMATION MECHANISM OF HUMAN CARDIOVASCULAR APATITE DEPOSITS.

10.30 – 10.50. Golovanova O.A. SYNTHESIS OF CALCIUM CARBONATES IN THE PRESENCE OF YELLOW COMPONENTS.

10.50 – 11.10. Kuz'mina M.A., Nikolaev A.M., Frank-Kamenetskaya O.V. THE FORMATION OF CALCIUM AND MAGNESIUM PHOSPHATES OF THE RENAL STONES DEPENDING ON THE COMPOSITION OF THE CRYSTALLIZATION MEDIUM.

Coffee Break: 11.10 – 11.30

Chairs: Belisheva N.K., Shilova O.A.

11.30 – 11.50. Bugaeva A.A. Golovanova O. A. SYNTHESIS OF ZN-SUBSTITUTED B-TCP

11.50 – 12.10. Tomashevsky I.A., Golovanova O.A. THE ROLE OF AMINO ACIDS IN THE METABOLISM OF CALCIUM IONS.

12.10 – 12.30. Izmaylov R.R., Chikanova E.S. BIOMIMETIC SYNTHESIS, STRUCTURE AND PROPERTIES OF SR-KGA IN THE PROTEIN MATRIX OF GELATINE

12.30 – 13.00. Pavlova L.M., Nekrasov E.V., Radomskaya V.I., Shumilova L.P. PALLADIUM (II) BIOSORPTION BY MICROFUNGUS.

Lunch: 13:00-14:00

Biodeterioration of natural and artificial materials

Chairs: Vlasov D.Yu., Kirtsidely I.Yu.

14.00 – 14.30. Panova E.G., Vlasov D.Yu., Zelenskaya M.S., Vlasov A.D. GEOCHEMICAL FEATURES OF BIOLOGICAL WEATHERING OF GRANITE.

14.30 – 15.00. Zaitsev A.N., Vlasov D.Yu., Zelenskaya M.S., Chakhmouradian A.R., Leach L., Leach M., Mwankunda J. MICROBIOLOGY OF THE FOOTPRINT TUFF (SITE G, LOCALITY 8), LAETOLI, TANZANIA.

15.00. – 15.20. Simakova Y.S., Leonova L.V. BACTERIAL DEPOSITING OF ZINC SULPHIDES IN THE CENTRAL HEATING SYSTEM.

15.20 – 15.40. Ponizovskaya V.B., Antropova A.B., Bilanenko E.N., Mokeeva V.L. FUNGAL COMPLEX OF STONE MATERIALS IN INTERIORS OF CULTURAL HERITAGE.

15.40 – 16.00. Kravchenko A.V., Fadeeva M.A. RED-LISTED SPECIES OF VASCULAR PLANTS AND LICHENS IN GEOLOGICAL NATURE MONUMENTS IN THE VOLOGDA REGION, NORTH-WEST RUSSIA.

16.00 – 16.20. Kolotilova N.N. AT THE BEGINNING OF GEOLOGICAL MICROBIOLOGY (ON THE 130th ANNIVERSARY OF THE BIRTH OF L.D.STURM).

16.20 – 16.40. Vlasov D., Ghoneim M., Panova E., Zelenskaya M. BIOLOGICAL WEATHERING OF INTRUSIVE ROCKS OF EGYPT.

Petrovsky Hall (Main building of the SPbU, University emb. 7/9)

Biomineral interactions in extreme environment

Chairs: Alekseeva T.V., Aparin B.F.

09.00. – 09.30. Mergelov N.S., Mueller C.W., Steffens M., Shorkunov I.G., Dolgikh A.V. ORGANO-MINERAL INTERACTIONS IN SUBAERIAL SEGMENT OF SILICATE ROCKS: NANOSIMS AND SEM-EDX STUDY FROM EAST ANTARCTICA.

09.30 – 10.00. Abakumov E.V., Lupachev A.V., I.Yu. Parnikoza. ORNITOGENIC SOILS OF ANTARCTICA: DIVERSITY, CHARACTERISTICS, FUNCTIONING.

10.00 – 10.20. Kirtsidely I.Yu., Zvererva G.N, and Machs E.M. ANTARCTIC SPORES INACTIVATION BY VUV EMISSION.

10.20 – 10.40. Reykhard L.Ye., Kozina N.V., Sapozhnikov Ph.V., Kalinina O.Yu. FRAMBOIDAL PYRITE: EXTREME BIOMINERALIZATION FROM THE ARCTIC TO THE ANTARCTIC.

10.40 – 11.00. Trigubovich A.M., Gontcharova I.A., Arashkova A.A., Miamin V.E. INFLUENCE OF TEMPERATURE ON MICROMYCETES ISOLATED FROM MINERAL BUILDING MATERIALS.

Coffee Break: 11.00-11.20

Biomineral interactions in soil

Chairs: Mergelov N.S., Sukhacheva E.Yu.

11.20 – 11.50. Alekseeva T.V., Zolotareva B.N., Bukhonov A.V., Kolyagin Yu.G. ABOUT HUMIN.

11.50 - 12.20. Aparin B.F., Andronov E.E., Sukhacheva E.Yu. , Kichko A.A., Valchenko Ia.V. MICROBIAL COMMUNITY IN SOILS OF SAINT PETERSBURG.

12.20 – 12.40. Kashulina G.M. HEAVY METALS IN THE SOILS NEAR NICKEL-CUPPER INDUSTRIAL COMPLEX: SPATIAL DISTRIBUTION AND TEMPORAL VARIATION.

12.40 – 13.00. Inisheva L. I., Porokhina E. V. BIOGENIC FORM OF MIGRATION OF ELEMENTS IN OLIGOTROPHIC BOGS.

13.00 – 13.20. Shorkunov I.G., Mergelov N.S., Dolgikh A.V. EVIDENCE OF ORGANO-MINERAL INTERACTIONS INSIDE MICRO- AND FULL-SCALE PALEOSOLS FROM BARBERTON GREENSTONE BELT (3.5-3.2 Ga) AND HEKPOORT FORMATION (2.2 Ga), SOUTH AFRICA.

13.20 -13.40. Perminova E.M., Lapteva E.M., Vinogradova Yu.A., Kovaleva V.A. PLANT RESIDUES TRANSFORMATION IN THE NATIVE SPRUCE BILBERRY FOREST AND DECIDUOUS-SPRUCE FOREST STANDS OF DIFFERENT AGE (KOMI REPUBLIC, RUSSIA)

13.40 – 14.00. Redkina V.V., Shalygina R.R., Korneykova M.V. MICROORGANISMS OF TECHNOGENIC LANDSCAPES BY THE EXAMPLE OF NEPHELINE-CONTAINING SANDS, MURMANSK REGION.

Lunch: 14:00-15:00

Medical geology and organic mineralogy

Chairs: Kotelnikova E.N., Kuranov G.

15.00 – 15.20. Isakov A.I., Kotelnikova E.N., Lorenz H. LIMITS OF SOLID SOLUTIONS AND CRYSTAL MORPHOLOGY IN THE SYSTEM OF L-VALINE – L-LEUCINE ENANTIOMERS.

15.20 – 15.40. Mazukhina S., Pozhilenko V., Drogobuzhskaya S. THE ROLE OF FUNDAMENTAL SCIENCE (THERMODYNAMICS, COMPUTER MODELING) IN MEDICAL AND ENVIRONMENTAL STUDIES.

15.40 - 16.00. Belisheva N.K., Kostyuk V.I. , Megorskiy V.V. ASSESSMENT OF THE CONTRIBUTION OF THE HYDROCHEMICAL PROPERTIES OF THE DRINKING WATER IN THE PREVALENCE OF DISEASES AT THE KOLA NORTH.

16.00 - 16.20. Yakushina O.A., Evdokimov F.A., Yakushina O.I. PREMISES AND ONTOGENY OF MINERAL PATHOGENIC FORMATIONS IN HUMANS.

16.20 - 16.40. Mazukhina S.I., Tereshchenko P.S., Drogobuzhskaya S.V MODELING AS A NEW PERSPECTIVE IN THE STUDY OF GASTRO-INTESTINAL TRACT.

Birzhevaya line, 6.

Coffee Break: 16.50-17.10

17:10-18:00 – Poster session. Closing Ceremony.

18.00. Excursion to the laboratory center of the TESCAN company. Scanning electron microscopes with detectors for the local composite and crystallographic information.

Poster session:

1. Abramova T.T. DESTRUCTION OF WHITE STONE IN THE URBAN ENVIRONMENT .
2. Bogdasarov M.A. THERMAL PROPERTIES AND INFRA-RED SPECTROMETRY OF AMBER AND AMBER-LIKE FOSSIL RESINS IN NORTHERN EURASIA.
3. Chikanova E.S., Golovanova O.A. FEATURES OF THE CRYSTALLIZATION OF CALCIUM PHOSPHATES FROM THE MODEL SALIVA SOLUTION IN THE PRESENCE OF AMINO ACIDS.
4. Frid A.S., Borisochkina T.I. ASSESSMENT OF VERTICAL MIGRATION OF POLLUTANT ELEMENTS IN SOILS OF THE ORENBURG TECHNOGENIC PROVINCE.
5. Gerk S.A., Golovanova O.A. REGULARITIES OF POLYSACCHARIDE SORPTION ON THE SURFACE OF HYDROXYLAPATITE.
6. Gerrits R., Gorbushina A.A., Polekhovsky Yu., Dultz S., Kopitsa G., Lessovaia S.N. MODELING OF BIOGENIC WEATHERING OF ROCKS IN SOIL COLD ENVIRONMENTS.
7. Golovanova O.A., Korolkov V.V. PHYSICO-CHEMICAL MODEL OF EDUCATION OF POORLY SOLUBLE COMPOUNDS IN NEFRON OF THE KIDNEY
8. Karaseva O.N., Lakshantov L.Z. STUDY OF METAL CO-PRECIPIATION WITH CALCITE IN THE PRESENCE/ABSENCE OF BIOPOLYMER.
9. Korneev A.V., Frank-Kamenetskaya O.V., Kuzmina M.A., Ryabchuk V.K. SYNTHESIS OF HYDROXYAPATITES FROM Ti-CONTAINING SOLUTIONS AND THEIR PHOTOCATALYTIC PROPERTIES
10. Kremcheev E.A., Nagornov D.O. EVALUATION OF THE EFFECT OF THE EQUIPMENTS DESIGN PARAMETERS ON THE DEGREE OF CHANGE OF THE NATIVE STRUCTURE OF PEAT.
11. Kulemzina T.V., Krivolap N.V., Krasnozhen S.V., Ispanov A.N., Sidorova V.V. HOMEOTHERAPY AS A FACTOR FOR ENSURING THE LIFE OF THE HUMAN ORGANISM.
12. Kuranov G., Mikhelson K., Puzyk A. SOLUBILITY OF HYDROXYAPATITE AS A FUNCTION OF SOLUTION COMPOSITION (EXPERIMENT AND MODELLING)
13. Lebedev S.V., Kulkova M.A., Nesterov E.M., Zarina L.M. MONITORING LONG-LIVED RADIONUCLIDES (^3H , ^{14}C) AND HEAVY METALS IN SNOW COVER OF URBAN AREAS AS INDICATORS OF ENVIRONMENTAL POLLUTION (ST. PETERSBURG, RUSSIA).
14. Lobzova R.V., Karimova O.V., Antonova E.I. CRUSTS AND INCRUSTATIONS ON NATURAL AND ARCHITECTURAL OBJECTS.
15. Mityusheva T. P., Katkova V. I. MINEROGENESIS ON THE TIMAN MACROPHYTES.
16. Mouraviev F.A., Biktagirova I.R. BACTERIOMORPHIC STRUCTURES IN THE PERMIAN PEDOGENIC AND SEDIMENTARY CARBONATES OF MIDDLE VOLGA REGION BY SEM DATA.
17. Nikolaev A.M, Kolesnikov I.E., Konev V.A., Shubnyakov I.I., Frank-Kamenetskaya O.V., Kireev A.A., Kryuchkova L.Yu. APPLICATION OF THE LUMINESCENT LABELS FOR THE STUDYING OF THE INTERACTION BETWEEN BONE TISSUE AND APATITE IMPLANT IN VIVO
18. Nikolaev A.M., Bazhenov V.V., Frank-Kamenetskaya O.V., Ehrlich H. MINERAL COMPONENT OF THE BONE TISSUE OF ICE FISH CHAMPSOCEPHALUS GUNNARI
19. Plotkina Yu.V., Pikhur O.L., Kulkov A.M. The structure and composition of the dogs odontoma.
20. Rodina O.A., Mitrofanov N.V., Nikitina V.N., Vereshchagin O.S., Frank-Kamenetskaya O.V., Nikitin M.Yu., Zelenskaya M.S., Vlasov D.Yu. LITHOBIONTIC COMMUNITIES WITH PREVENTION OF CYANOPROKARIOTES AND THEIR ROLE IN BIOMINERALIZATION PROCESSES

21. Rozanov A.B., Hardie A.G., Olivier S., Sigge G., Botha A. AEROBIC, ANAEROBIC AND PHOTO DEGRADATION OF BIOCHAR.
22. Ryabinkin S.V. COMPARISON OF BALANCE SHEET RESULTS BY THE ARITHMETIC MEAN METHOD WITH THE RESULTS OF CALCULATIONS BY THE GEOMETRIC MEAN METHOD.
23. Ryabinkin S.V. THE TIME OF PREPARATION AND DEFENSE OF THE DISSERTATION WORK. RYABINKINA S.V. "QUANTITATIVE ASSESSMENT OF THE SCALE OF METHANE GENERATION BY COALS OF THE PECHORA BASIN".
24. Semenova I.N., Rafikova Yu.S., Khasanova R.F., Suyundukov Ya.T. FEATURES OF THE GEOCHEMICAL ENVIRONMENT AND THE HEALTH OF THE POPULATION OF THE MINING REGION.
25. Sergina S.N., Chzhengina S.Y., Ilyukha V.A., Svetov S.A. PINEAL GLAND CALCIFICATION IN BLUE FOX (*VULPES LAGOPUS* L., CANIDAE, CARNIVORA, MAMMALIA).
26. Socrates R., Narayana K.S., Frank-Kamenetskaya O.V., Golovanova O.A. BIOMINERALIZATION OF CALCIUM PHOSPHATE USING BIOMIMETIC METHOD.
27. Sofinskaya O.A., Korolev E.A. WETTING CONTACT ANGLE HYSTERESIS ON THE WATER-AIR BOUNDARY OF A FEW CLAY MINERALS.
28. Zhuravlev A.V., Plotitsyn A.N., Gruzdev D.A. CARBON ISOTOPE RATIOS IN THE APATITE-PROTEIN COMPOSITES OF CONODONT ELEMENTS – PALAEOBIOLOGICAL PROXY.