CONFERENCE SCHEDULE

JUNE 4, SUNDAY

Arrival of the participants. Registration. Hotel check-in
20:00 Welcome Party

JUNE 5, MONDAY

Morning session:

9:00 ***Opening of the Conference***

9:30 ***"Space weather and its forecasting"***
Artem A. Abunin, *Space Weather Prediction Center, IZMIRAN, Troitsk, Moscow, Russia*

10:10 ***"SIMuRG – a System for Ionosphere Monitoring and Research from GNSS: current state"***
Yury V. Yasyukevich, *Institute of Solar-Terrestrial Physics of Siberian Branch of Russian Academy of Sciences, Irkutsk, Russia*

10:50 Coffee Break

11:10 ***"Balance between acceleration and cooling of electrons in moderately outgassing comets"***
Andrey V. Divin, *St. Petersburg State University, St. Petersburg, Russia*

Section F «Ionospheric-magnetospheric relations»

14:30 ***"*Application of machine learning in the investigation of solar influences on Earth*"***
Slavica Malinović-Milićević, *Geographical Institute "Jovan Cvijić" SASA, Belgrade, Serbia*

14:50 ***"Solar energetic particle events and geomagnetic disturbances driven by the same solar sources"***
Maria A. Abunina, *Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of Russian Academy of Sciences (IZMIRAN), Troitsk, Moscow, Russia*

15:05 ***"The evaluation of secondary particle fluxes induced by the SCR protons during the GLE №69"***

Evgenii A. Maurchev, *Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of Russian Academy of Sciences (IZMIRAN), Troitsk, Moscow, Russia*

15:20 ***"An empirical model for estimating ICMEs speeds and delays"***
Nataly S. Shlyk, *Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of Russian Academy of Sciences (IZMIRAN), Troitsk, Moscow, Russia*

15:35 ***"Abnormal cases of violation of the ionosphere-magnetosphere coupling behavior: the role of auroral kilometric radiation (AKR)"***
Valeriia I. Kolpak, *Space Research Institute, Russian Academy of Sciences, Moscow, Russia; Pushkov Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation, Russian Academy of Sciences, Troitsk, Moscow, Russia*

15:50 Coffee Break

16:10 ***"Longitudinal dependence of the plasmasphere concentration accoding satellite measurements"***
Dmitry V. Chugunin, *Space Research Institute, Russian Academy of Sciences, Moscow, Russia*

16:30 ***"Internal structure of a polarization jet: stratified subauroral ion drift (SSAID)"***
Aleksandr A. Sinevich, *Space Research Institute, Russian Academy of Sciences, Moscow, Russia; Pushkov Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation, Russian Academy of Sciences, Troitsk, Moscow, Russia*

16:45 ***"Fractal characteristics of magnetosphere-ionosphere coupling in the auroral region"***
Alexander A. Chernyshov, *Space Research Institute, Russian Academy of Sciences, Moscow, Russia*

17:00 ***"Spatial evolution of energetic electron precipitations from the inner radiation belt during the last two solar cycles"***
Alla V. Suvorova, *Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Moscow, Russia*

17:15 ***"Ionospheric effects of magnetosheath jets"***
Alexei V. Dmitriev, *Department of Space Science and Engineering, National Central University, Taiwan*

Section P «Electromagnetic and optical phenomena in the atmosphere including long-lived and plasma objects»

14:30 ***"Stimulated detonation of a high-energy heterogeneous plasma formation created by capillary erosive plasma generator and magneto- plasma compressor"***
Anatoly I. Klimov, *Joint Institute for High Temperatures, Russian Academy of Sciences, Moscow, Russia*

14:50 ***"Creation of plasmoids by capillary discharge"***
Vladimir L. Bychkov, *Lomonosov Moscow state university, Moscow, Russia*

15:10 ***"Microwave diagnostics of the Gatchina discharge and its long-lived afterglow"***
Aleksandr M. Altmark, *Saint Petersburg Electrotechnical University "LETI", St. Petersburg, Russia*

15:30 ***"Strange traces of microsized ball lightnings"***
Anatoly I. Nikitin, *V.L. Talrose Institute for Energy Problems of Chemical Physics at N.N. Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

15:50 Coffee Break

16:10 ***"New plasma technology and technical means of artificial initiation and control of lightning discharges"***
Aleksandr S. Kamrukov, *Bauman Moscow State Technical University, Moscow, Russia*

16:30 ***"Generation of electric atmospheric discharges in the cloud-earth gap using medium energy proton accelerators"***
Denis Y. Smyslov, *Bauman Moscow State Technical University, Moscow, Russia*

16:50 ***"Peculiarities of ball lightning explosions inside enclosed spaces"***
Tamara F. Nikitina, *V.L. Talrose Institute for Energy Problems of Chemical Physics at N.N. Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

17:10 ***"Study of the luminescence of the discharge channel in a discharge with a liquid cathode"***
Andrey V. Chistolinov, *Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia*

JUNE 6, TUESDAY

Morning session:

09:30 ***"Precipitation of ring current and radiation belt particles into the ionosphere: theory and observations"***
Andrei G. Demekhov, *Polar Geophysical Institute, Apatity, Russia*

10:10 ***"Thermodynamic instability of the atmospheric boundary layer stimulated by tectonic and seismic activity"***
Sergey A. Pulinets, *Space Research Institute, Russian Academy of Sciences, Moscow, Russia*

10:50 Coffee Break

11:10 ***"Thunderstorm and lightning: monitoring, modeling, safety"***
Evgeny A. Mareev, *Institute of Applied Physics, Nizhny Novgorod, Russia*

Section F «Ionospheric-magnetospheric relations»

14:30 ***"Relativistic electron precipitation due to nonlinear resonant interaction with emic waves: comparing numerical simulation with experimental data"***
Veronika S. Grach, *Institute of Applied Physics, Nizhny Novgorod, Russia*

14:50 ***"Influence of ionosphere disturbances on GNSS scintillations at auroral latitudes"***
Vladimir B. Belakhovsky, *Polar Geophysical Institute, Apatity, Murmansk region, Russia*

15:05 ***"Statistical analysis of geomagnetic activity indices"***
Konstantin G. Ratovsky, *Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia*

15:20 ***"Modeling of zonal mean ionospheric disturbances on the example of the March 2015 geomagnetic storm with different onset moments"***
Kupriyan V. Belyuchenko, *Immanuel Kant Baltic Federal University, Kaliningrad, Russia*

15:35 ***"Investigation of the ionosphere response over Eurasia on magnetic storms in March 2012"***
Marina A. Chernigovskaya, *Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia*

15:50 Coffee Break

16:10 ***"Possibility of short-term forecasting foF2 and hmF2 at Moscow station"***

Valentin N. Shubin, *Pushkov Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, Russian Academy of Sciences, Troitsk, Moscow, Russia*

16:30 ***"Point-to-point ray tracing in three-dimensional anisotropic ionosphere using NeQuick2 and IGRF13 models"***
Igor A. Nosikov, *West Department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of the Russian Academy of Sciences, Kaliningrad, Russia*

16:45 ***"Investigation of the dependence of amplitude and polarization characteristics of short waves in the ionosphere on geophysical conditions"***
Kristina V. Raubo, *Immanuel Kant Baltic Federal University, Kaliningrad, Russia*

17:00 ***"Ionospheric echo occurrence observed by the EKB and MGW HF radars during quiet and disturbed geomagnetic conditions"***
Alexey V. Oinats, *Institute of Solar-Terrestrial Physics, Irkutsk, Russia*

17:15 ***"Phase-difference Approach to GNSS Local and Global Ionospheric Mapping"***
Artem M. Padokhin, *Lomonosov Moscow State University, Moscow, Russia, Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of the Russian Academy of Sciences, Moscow, Russia*

Section E «Elementary processes in the upper atmosphere and ionosphere»

14:30 ***"Mechanisms of ozone interaction with model aerosols"***
Alexey A. Tsyganenko, *St. Petersburg State University, St. Petersburg, Russia*

14:50 ***"Dissociation dynamics of CH_3CHOO Criegee intermediates in the atmosphere of the Earth"***
Yuri A. Dyakov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russian Federation*

15:10 ***"Atmospheric radical reactions during the combustion of toluene and ethanol in air"***
Igor I. Morozov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

15:30 ***"The reaction of fluorine atom with benzene: a theoretical study"***
Sergey O. Adamson, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

15:50 Coffee Break

16:10 ***"Distribution of ion concentrations in the dry air of the troposphere"***
Ilya G. Stepanov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

16:30 ***"Orientational isomerism in complete set of clusters $(H_2O)_n$, n = 2–6"***

Ekaterina A. Shirokova, *Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia*

16:50 ***"State selective recombination as the course of excited atoms in gas phase processes"***
Vitaliy L. Berdinskiy, *Orenburg State University, Orenburg, Russia*

17:10 ***"On the relationship between the wave and the Schrödinger equations in a physical vacuum"***
Vladimir L. Bychkov, *Lomonosov Moscow State University, Moscow, Russia*

Evening session:

17: 30 Poster session

Sections: F «Ionospheric-magnetospheric relations», P «Electromagnetic and optical phenomena in the atmosphere including long-lived and plasma objects», E «Elementary processes in the upper atmosphere and ionosphere»

JUNE 7, WEDNESDAY

Morning session:

Section T «Methods and techniques for remote sensing and identification of hazardous chemicals in the atmosphere and different surfaces»

09:30 ***"Remote sensing of greenhouse gases by small spacecraft"***
Igor L. Fufurin, *Bauman Moscow State Technical University, Moscow, Russia*

09:50 ***"Monitoring CO_2 and CH_4 in the atmosphere using FTIR spectroscopy"***
Ilya S. Golyak, *Bauman Moscow State Technical University, Moscow, Russia*

10:10 ***"Extinction coefficient estimation of UV- C waves on the sea track"***
Igor D. Rodionov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

10:30 ***"Application of neural networks for automatic detection of unmanned aerial vehicles"***
Dmitry R. Anfimov, *Bauman Moscow State Technical University, Moscow, Russia*

10:50 Coffee Break

11:10 ***"Measuring the concentration of carbon dioxide with the open path FTIR spectrometer"***
Ivan B. Vintaikin, *Bauman Moscow State Technical University, Moscow, Russia*

11:30 ***"Possibilities of deep learning methods in solving spectral analysis tasks"***
Igor S. Golyak, *Bauman Moscow State Technical University, Moscow, Russia*

11:50 ***"Laser infrared spectroscopy for analysis of micro impurities in atmospheric air"***
Olga A. Nebritova, *Bauman Moscow State Technical University, Moscow, Russia*

12:10 ***"Infrared quantum-cascade laser for remote sensing of chemical compounds"***
Pavel P. Demkin, *Bauman Moscow State Technical University, Moscow, Russia*

Afternoon session:

Section D «Atmospheric-ionospheric relations»

14:30 ***"Artificial periodic inhomogeneities and stratification of the D region of the ionosphere"***
Nataliya V. Bakhmetieva, *Radiophysical Research Institute Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia*

14:50 ***"Simulation of the ionospheric electric field perturbation associated with an increase in radon emanation"***
Valery V. Denisenko, *Institute of Computational Modelling SB RAS, Krasnoyarsk, Russia; West Department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation RAS, Kaliningrad, Russia*

15:10 ***"Effects of geomagnetic storms in the mesopause region and F2-layer of the ionosphere"***
Irina V. Medvedeva, *Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia*

15:30 ***"On the velocity of vertical propagation of a plane acoustic disturbance of the atmosphere initiated by a ground source"***
Ekaterina S. Smirnova, *Immanuel Kant Baltic Federal University, Kaliningrad, Russia*

15:50 Coffee Break

16:10 ***"The correlation of wave disturbances of ionospheric characteristics obtained from the ionosonde and GNSS receiver measurements"***
Natalia P. Perevalova, *Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia*

16:30 ***"Trends and features of thunderstorms and lightning activity: numerical study of the aerosols impact"***
Maria V. Shatalina, *Federal Research Center Institute of Applied Physics of the Russian Academy of Sciences (IAP RAS), Nizhny Novgorod, Russia*

16:50 ***"Wavelet analysis of regional electron content during a sudden stratospheric warming"***
Aleksandr V. Timchenko, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*

17:10 ***"Relationship between tropospheric blocking enents and stratospheric temperature in winter"***
Olga S. Zorkaltseva, *Institute of solar-terrestrial physics SB RAS, Irkutsk, Russia*

Section M «Novel methods for environmental control and monitoring»

14:30 ***"Simulating adsorption on a rough surface of nanoaerosoles and its influence on the energy characteristics of the surface"***
Elena S. Zaitseva, *Kurnakov Institute of General and Inorganic Chemistry, Russian Academy of Sciences, Moscow, Russia*

14:50 ***"Mechanochemical synthesis of FE_2O_3/CEO_2, FE_2O_3-CUO/CEO_2 and CUO/CEO_2 composites: structure and catalytic properties in C_2H_6 total oxidation"***

Olga S. Morozova, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

15:10 ***"Properties of solid-like acetonitrile in between oxidized graphene planes according to pulse EPR spectroscopy"***
Dmitry A. Astvatsaturov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Science, Moscow, Russia; Lomonosov Moscow State University, Moscow, Russia*

15:30 ***"Structural, optical and electronic properties of nanostructured TiO_2/Cu composites"***
Elizaveta A. Konstantinova, *Lomonosov Moscow State University, Moscow, Russia*

15:50 Coffee Break

16:10 ***"Quantum-chemical modeling of exchange coupling in the heterometallic complexes of 3d and 4d metals with dithiooxamide"***
Konstantin V. Bozhenko, *The Federal Research Center of Problems of Chemical Physics and Medical Chemistry, Russian Academy of Sciences, Chernogolovka, Russia*

16:30 ***"Determination of paramagnetic probe release profiles from polylactide films with simultaneous pH measurement of the probe local environment"***
Tatiana A. Ivanova, *Lomonosov Moscow State University, Moscow, Russia*

16:50 ***"In situ EPR spectroscopy: new approach to study supercritical media and processes conducted within"***
Anastasia A. Popova, *Lomonosov Moscow State University, Moscow, Russia*

17:10 ***"Electron spin exchange as a tool to investigate intramolecular transformations in organic biradicals"***
Alexander I. Kokorin, *Semenov Federal Research Center for Chemical Physics RAS, Moscow, Russia*

Evening session:
17: 30 Poster session
Sections: D «Atmospheric-ionospheric relations», M «Novel Methods for Environmental Control and Monitoring», T «Methods and techniques for remote sensing and identification of hazardous chemicals in the atmosphere and different surfaces»

JUNE 8, THURSDAY

Morning session:

09:30 ***"Acoustic gravity waves during the eruption of the Tonga volcano on January 15, 2022 and an estimate of the acoustic energy of this eruption"***
Sergey N. Kulichkov, *Oboukhov Institute of Atmospheric Physics RAS, Moscow, Russia*

10:10 ***"Inverse tasks of passive location"***
Leonid S. Chudnovsky, *JSC "Scientific and Production Corporation "Systems of Precision instrument making", Russia*

10:50 Coffee Break

11:10 ***"Coupling of Ionospheric Disturbances with Dynamic Processes in the Troposphere: Theory, Experiment and Applications"***
Maxim G. Golubkov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

11.50 ***"Spin probe and spin label EPR spectroscopy for studying thermoresponsive polymers "***
Elena N. Golubeva, *Lomonosov Moscow State University, Moscow, Russia*

12:30 ***Closing the Conference***

14:00 Excursion

JUNE 9, FRIDAY

Departure of the participants. Hotel check-out

POSTER SESSION

June 6, Tuesday

Section F «Ionospheric-magnetospheric relations»	
PS I.1	***"Monitoring the ionospheric TEC during November 4, 2021 geomagnetic storm"*** Ivan I. Efishov, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
PS I.2	***"Occurrence of TEC fluctuations and GPS positioning errors over Europe during November 4, 2021 storm"*** Ivan I. Efishov, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
PS I.3	***"The space weather conditions of the long-lived macro-synoptic processes"*** Olga M. Stupishina, *Saint Petersburg State University, Saint Petersburg, Russia*
PS I.4	***"Ionospheric response over Europe during the partial solar eclipse of October 25, 2022"*** Nadezhda Yu. Tepenitsyna, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
PS I.5	***"Effect of the interhemispheric asymmetry of the magnetic field on the fluxes of energetic charged particles at low-orbit satellites during substorm events"*** Tatiana A. Yahnina, *Polar Geophysical Institute, Apatity, Russia*
PS I.6	***"Role of atmosphere-ionosphere coupling on ionospheric electric field"*** Maxim V. Klimenko, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
PS I.7	***"Search for the earthquake-related ionospheric disturbances using ROTI: a case study"*** Angela Melgarejo-Morales, *SCiESMEX, LANCE, Instituto de Geofisica, Unidad Michoacan, Universidad Nacional Autonoma de Mexico, Morelia, Michoacan, Mexico*
PS I.8	***"TEC Analysis based on weekly reports by Mexican space weather service"*** Victor J. Gatica-Acevedo, *SCiESMEX, LANCE, Instituto de Geofisica, Unidad Michoacan, Universidad Nacional Autonoma de Mexico, Morelia, Michoacan, Mexico*
PS I.9	***"Atmospheric electricity and charged particles on a period of low solar activity"*** Jania Newton-Bosch, *Instituto de Geofísica, Universidad Nacional Autónoma de México*

PS I.10	***"Influx of particles in the atmosphere after an intense solar flare: a simulation for hadron propagation"*** Fernando Monterde-Andrade, *Instituto de Geofísica, Universidad Nacional Autónoma de México, Ciudad de México, México*
PS I.11	***"The EAGLE hole atmosphere model: effects of St. Patrick's day geomagnetic storm"*** Fedor S. Bessarab, *West Department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
Section P «Electromagnetic and optical phenomena in the atmosphere including long-lived and plasma objects»	
PS I.12	***"Long-lived luminous formations in the atmosphere and strange radiation"*** Andrey V. Chistolinov, *Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russian Federation*
PS I.13	***"Impact of corona discharges on germination and infestation of winter wheat seeds"*** Vladimir L. Bychkov, *Lomonosov Moscow state university, Moscow, Russia*
PS I.14	***"Optical and soft X-ray spectra measured in heterogeneous plasma flow"*** Anatoly I. Klimov, *Joint Institute for High Temperatures, Russian Academy of Sciences, Moscow, Russia*
Section E «Elementary processes in the upper atmosphere and ionosphere»	
PS I.15	***"Rate constants for vibrational relaxation of H_2O by Ar: atmospheric implication of the infrared chemiluminescence study"*** Nadezhda I. Butkovskaya, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*
PS I.16	***"Dependence of positioning errors on the signal power of global navigation satellite systems"*** Gennady V. Golubkov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*
PS I.17	***"Change in chemical and electronic properties of pentalene and its derivatives under ionization"*** Yuri A. Dyakov, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*
PS I.18	***"Collisional broadening of spectral lines in slow atomic collisions"*** Stanislav Y. Umanskii, *Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences, Moscow, Russia*

June 7, Wednesday

Section D «Atmospheric-ionospheric relations»	
PS II.1	***"Disturbances in the upper atmosphere during the meteorological storm in the moscow region on May 2017"*** Olga P. Borchevkina, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
PS II.2	***"Intercoupled generation of acoustic and gravity waves by atmospheric heat sources"*** Yuliya A. Kurdyaeva, *West department of Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation Russian Academy of Sciences, Kaliningrad, Russia*
PS II.3	***"Numerical modeling and study of acoustic-gravity waves generated by an arriving atmospheric front in the Arctic"*** Sergey P. Kshevetskii, *Immanuel Kant Baltic Federal University, Kaliningrad, Russia*
PS II.4	***"The ionospheric electric field above an electrified cloud"*** Valery V. Denisenko, *Institute of Computational Modelling SB RAS, Krasnoyarsk, Russia*
PS II.5	***"Interpretation of polarization lidar data while cirrus clouds scanning"*** Natalia V. Kustova, *V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia*
PS I.6	***"A study of the influence of particle shape on the characteristics of scattered light for laser sounding problems"*** Ilia V. Tkachev, *V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia*
PS II.7	***"Backscattering by atmospheric ice crystals for the problems of interpreting data from the earthcare satellite applied to problem of climate change detection"*** Victor A. Shishko, *V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia*
PS II.8	***"Modeling of the general circulation of the earth's atmosphere for different seasons"*** Konstantin G. Orlov, *Polar Geophysical Institute, Apatity, Russia*
Section M «Effects of ionization of the atmosphere. Natural and technogenic disasters»	
PS II.9	***"Features of defects in titania nanotubes"*** Ekaterina V. Kytina, *Lomonosov Moscow State University, Moscow, Russia*
PS II.10	***"Quantum chemical study on charge transfer complexes between organic fragments"*** Natalia N. Breslavskaya, *Institute of General and Inorganic Chemistry RAS, Russia*
PS II.11	***"Direct evidence of shallow donors in ZnO using EPR spectroscopy "*** Elizaveta A. Konstantinova, *Lomonosov Moscow State University, Moscow,*

	Russia
PS II.12	***"Sorbents and heterogeneous catalysts for purification from contaminants based on zirconium dioxide"*** Natalya N. Gavrilova, *D. Mendeleev University of Chemical Technology of Russia, Moscow, Russia*
Section T «Methods and techniques for remote sensing and identification of hazardous chemicals in the atmosphere and different surfaces»	
PS II.13	***"Diffuse reflectance spectroscopy as a method for identification of substances in different aggregate states"*** Dmitry R. Anfimov, *Bauman Moscow State Technical University, Moscow, Russian Federation*
PS II.14	***"Optical methods for analyzing the natural gas component composition for environmental and industrial applications"*** Roman A. Gylka, *Bauman Moscow State Technical University, Moscow, Russia*
PS II.15	***"Optical methods of medicines quality using neural networks"*** Roman A. Gylka, *Bauman Moscow State Technical University, Moscow, Russia*
PS II.16	***"Remote measurement of climatically active gas concentrations in the atmosphere by a Raman lidar"*** Vladimir A. Devisilov, *Bauman Moscow State Technical University, Moscow, Russia*
PS II.17	***"Experimental setup for optical detection of unmanned aerial vehicles based on video images with IR and UV laser highlighting of the object"*** Evgenii N. Zadorozhnyi, *Bauman Moscow State Technical University, Moscow, Russia*
PS II.18	***"Machine learning for substance inditification using quantum cascade laser spectroscopy"*** Alina A. Konopleva, *Bauman Moscow State Technical University, Moscow, Russia*
PS II.19	***"Computation of the noise component of a vertical antenna for recording Schumann resonances"*** Kirill E. Tyupikov, *JSC "Scientific and Production Corporation "Systems of Precision instrument making", Moscow, Russia*