



**МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ  
РОССИЙСКОЙ ФЕДЕРАЦИИ  
НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ  
ТОМСКИЙ ПОЛИТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ**

**ПРОГРАММА**

**МЕЖДУНАРОДНОЙ МОЛОДЕЖНОЙ НАУЧНОЙ ШКОЛЫ**

**«МЕТОДОЛОГИЯ ПРОЕКТИРОВАНИЯ МОЛОДЕЖНОГО НАУЧНО-  
ИННОВАЦИОННОГО  
ПРОСТРАНСТВА ДЛЯ РОССИЙСКОЙ ЭНЕРГЕТИКИ»**

**7-9 ИЮНЯ 2012 г.**  
Томск, Россия

**SCIENTIFIC PROGRAM**

**INTERNATIONAL SCHOOL FOR YOUNG RESEARCHERS**

**«DESIGN STRATEGY OF YOUNG SCIENCE AND INNOVATION ENVIRONMENT  
FOR RUSSIAN POWER INDUSTRY»**

**7-9 JUNE, 2012**  
Tomsk, Russia



## **СЕКЦИИ И НАУЧНЫЕ НАПРАВЛЕНИЯ ШКОЛЫ**

**Секция №1 Ядерные физика и энергетика.**

**Секция №2 Традиционная и альтернативная энергетика.**

**Секция №3 Общие проблемы современной физики и энергетики.**

## **ФИНАНСОВАЯ ПОДДЕРЖКА**

**Федеральные целевые программы Министерства образования и науки  
Российской Федерации**



## КОНКУРСНЫЕ КОМИССИИ

<b>Троицкий О.Ю.</b>	д.ф.-м.н., профессор, ТПУ, Томск
<b>Яковлев А.Н.</b>	к.ф.-м.н., доцент, проректор-директор ИФВТ ТПУ
<b>Данейкин Ю.В.</b>	к.ф.-м.н., доцент, зам. проректора-директора по УР ИНК ТПУ, Томск
<b>Верхотурова В.В.</b>	к.и.н., доцент, зав.каф. ИЯ ФТИ ТПУ, Томск
<b>Оствальд Р.В.</b>	к.х.н., доцент, ТПУ, Томск
<b>Годовых А.В.</b>	асс. каф. ФЭУ ФТИ, ТПУ
<b>Фалькович Ю.В.</b>	к.пед.н., ТПУ, Томск
<b>Данейкина Н.В.</b>	ст. преп. ТПУ, Томск
<b>Гоголев А.С.</b>	к.ф.-м.н., ТПУ, Томск

## ОРГКОМИТЕТ

<b>Долматов О.Ю.</b>	председатель, к.ф.-м.н., проректор - директор ФТИ ТПУ
<b>Верхотурова В.В.</b>	к.и.н., доцент, зав. каф. ИЯ ФТИ ТПУ, Томск
<b>Карпачева К.В.</b>	ТПУ, Томск
<b>Зольникова Л.М.</b>	начальник отдела ОНИР СиМУ УМАД НУ, ТПУ, Томск
<b>Джежора Г.С.</b>	ТПУ, Томск
<b>Давыдова Е.М.</b>	ТПУ, Томск

## РАСПИСАНИЕ

### 7 июня 2012

- 10<sup>00</sup> до 16<sup>00</sup>** Заседание секции №1  
**«Ядерные физика и энергетика»**  
228 ауд. 10 корпус ТПУ, пр. Ленина, 2)
- 12<sup>00</sup> до 18<sup>00</sup>** Заседание секции №2  
**«Традиционная и альтернативная энергетика»**  
(418 ауд. 10 корпус ТПУ, пр. Ленина, 2)
- 12<sup>00</sup> до 18<sup>00</sup>** Заседание секции №3  
**«Общие проблемы современной физики и энергетики»**  
(307 ауд. 10 корпус ТПУ, пр. Ленина, 2)

### 8 июня 2012

- 9<sup>00</sup> до 16<sup>00</sup>** Заседание секции №1  
**«Ядерные физика и энергетика»**  
(412 ауд. 10 корпус ТПУ, пр. Ленина, 2)

### 9 июня 2012

- 10<sup>00</sup> - 11<sup>30</sup>** Проведение семинара  
**«Teaching Technical Students a Foreign Language for Specific Purposes with Consideration of Requirements of International Examination Agencies. Innovative Teaching Methods: CLIL and Interdisciplinary Integration.»** Sedyunina E. L. Novosibirsk  
(307 ауд. 10 корпус ТПУ, пр. Ленина, 2)
- 12<sup>00</sup>** Подведение итогов работы научной школы, награждение победителей конкурса научно-исследовательских проектных работ  
На английском языке

***Заседание секции №1  
Ядерные физика и энергетика.***

***7 июня 2012***

***228 ауд. 10 корпус ТПУ, пр. Ленина, 2***

***10.00– 16.00***

***PLENARY LECTURE***

**NUCLEAR PHYSICS AND NUCLEAR POWER INDUSTRY**

Yu.V. Daneykin, As. Professor, TPU, Tomsk

Master-class

**EFFECTIVE PRESENTATION: SUCCESSFUL CONTEMPORARY RESEARCHER**

Author Lisa Donohoe Luscombe Project Manager, English Language and Nonproliferation Program

James Martin Center for Nonproliferation Studies Monterey Institute of International Studies, the U.S.A.

***ORAL PRESENTATIONS***

***OP-1-1 P.V. Aksyutin***

**PLUTONIUM AND ITS APPLICATION.**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

***OP-1-2 K.E. Boltovskiy***

**NUCLEAR ENERGY MARKET IN RUSSIAN FEDERATION**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

***OP-1-3 M.A. Tikhonov***

**FIRST NUCLEAR REACTOR**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

***OP-1-4 A.O. Bronnikov***

**NUCLEAR BATTERIES**

Language advisor: Senior teacher N. V. Demjanenko

***OP-1-5 D.V.Chegodaeva***

**METHODS, TOOLS AND EQUIPMENT BAR CODE IDENTIFICATION IN THE PROBLEMS OF ACCOUNTING AND CONTROL OF NUCLEAR MATERIALS**

Language advisor: Senior teacher N.V. Daneykina

Scientific advisor: PhD, Associate Professor B.P. Stepanov

***OP-1-6 E.A. Danchenko***

**NUCLEAR MEDICINE**

Language advisor: Senior teacher Yu. V. Falkovich

Scientific advisor : Senior teacher A.V. Vukolov

***OP-1-7 A.P. Emelyanova***

**THE SPHAGNUM MOSS**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor N.K. Ryzhakova

**OP-1-8** V.V. Gafarova

**PROSPECTS FOR NUCLEAR POWER DEVELOPMENT IN RUSSIA**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

**OP-1-9** K.F. Galiev, A.V. Kononenko

**CALCULATION AND THEORETICAL ANALYSIS OF PREPARING TWO-COMPONENT SHS-SYSTEMS AND RADIOACTIVE WASTE IMMOBILIZATION USING THE TECHNIQUE OF SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS**

Language advisor: Teacher Y.V. Ermakova

Scientific advisor: Assistant A.O. Semenov

**OP-1-10** A.M. Gomzyakov

**COMPRASSION VVER vs RBMK**

Language advisor: Senior teacher N.V. Daneykina

**OP-1-11** I.M. Gubaidulin

**OPTIMIZATION OF DISTRIBUTION SCHEME IN «DRY» STORAGE SYSTEM OF SPENT NUCLEAR FUEL FOR MINIMIZATION OF INDUCED ACTIVITY IN CONSTRUCTION ELEMENTS OF THE SYSTEMS**

Language advisor: Senior teacher N.G. Novikova

Scientific advisor: PhD, Associate Professor S.V. Bedenko

**OP-1-12** D.S. Ibraeva

**STORAGE OF SPENT NUCLEAR FUEL**

Language advisor: Associate Professor R.I. Tolbanova

Scientific advisor: PhD, Associate Professor S.V. Bedenko

**COFFEE-BREAK**

**OP-1-13** D.A. Tatarnikov, A.V. Litvinov

**DEVELOPMENT OF PROGRAM-INFORMATION ENVIRONMENT FOR MODELING OF NUCLEAR FACILITY**

Language advisor: Senior teacher N.V. Daneykina

Scientific advisor: Senior teacher A.V. Godovykh

**OP-1-14** E.I. Kurchenko

**SHADOW OF CHERNOBYL**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor R.I. Kraidenko

**OP-1-15** O.O. Matveeva

**SEMIPALATINSK TEST SITE**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

Scientific advisor : Senior teacher A.V. Vukolov

**OP-1-16** A.Yu.Moiseeva

**HISTORY OF THE RADIOACTIVITY**

Language advisor: Senior teacher N. V. Demjanenko

***OP-1-17*** V.A. Neudakhin

**LASER METHOD FOR URANIUM ENRICHMENT PURPOSES**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor R.V. Kraydenko

***OP-1-18*** A. A. Sherengina

**ANALYSIS OF THE TECHNOLOGICAL PROCESS OF PRODUCTION OF FLUORINE IN THE APPARATUS OF MTE-1E AS A TECHNOLOGICAL OBJECT CONTROL**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Senior teacher N.V. Liventsova

***OP-1-19*** L.I. Svetlinchy

Obninsk, Russian Federation, Obninsk Insitite of Nuclear Power Industry , National Research Nuclear University of Moscow Engineering Physics Institute

**REALIZATION OF AN INTEGRATED APPROACH TO THE METHODS OF DYNAMICS SIMULATION AND PARAMETER SPACE INVESTIGATION IN MEDNES**

Language advisor: Associate Professor E.A. Avramova

Scientific advisor: PhD, Associate Professor A.A. Andrianov

***OP-1-20*** N.N. Oligerov

Obninsk, Russian Federation, Obninsk Insitite of Nuclear Power Industry , National Research Nuclear University of Moscow Engineering Physics Institute

**APPLICATION OF GRS-METHOD FOR EVALUATION OF UNCERTAINTY OF LEVELIZED COST OF DEVELOPING NUCLEAR POWER SYSTEM**

Language advisor: Associate Professor E.A. Avramova

Scientific advisor: PhD, Associate Professor A.A. Andrianov

***OP-1-21*** R.R. Sharafutdinov

**NUCLEAR POWER PLANT WORK**

Language advisor: Senior teacher N. V. Demjanenko

***OP-1-22*** D.Yu. Tugusheva

**DISCOVERY OF THE ELEMENTS AND THE ORIGIN OF THEIR NAMES**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor A.Yu.Vodyankin

***OP-1-23*** N.S. Vasilevskaya

**PHYSICAL PRINCIPALS OF RADIATION THERAPY**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

***OP-1-24*** K.A. Pazukhina

**NUCLEAR MAGNET RESONANCE**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

**COFFEE-BREAK**

***OP-1-25*** A.S. Andreeva

**GAMA – SPECTROMETRY**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: Assistant N.S. Rogova

**OP-1-26** E.V. Andreevsky K.Yu. Kudriashova

**X-RAY FLUORESCENT ANALYSIS IN THE NATIONAL EXPORT CONTROL SYSTEM OF THE RUSSIAN FEDERATION**

Language advisor: Senior teacher N.V. Daneykina

Scientific advisor: PhD, Associate Professor Yu.V. Daneykin

**OP-1-27** P.K.Vinnikov

**DIAGNOSTIC SYSTEM OF BETATRON ELECTRON BEAM BY DINT OF ELECTRO-SIGNAL ELECTRODE**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Senior teacher A.R. Wagner

**OP-1-28** V.A.Voevoda

**OBTAINING NITRIDES OF URANIUM AND PLUTONIUM**

Language advisor: Teacher A. A. Kuznetsova

Scientific advisor: Dr, Professor G.P. Khandorin

**OP-1-29** N.S. Doronin

**TRANSPORTATION OF NUCLEAR MATERIALS**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: Assistant A.O. Semenov

**OP-1-30** K.A. Eliseev

**DEVELOPMENT OF THE UPPER LEVEL SOFTWARE FOR DISPATCHING SYSTEM**

Language advisor: Teacher A.V. Tsepilova

**OP-1-31** N.V.Zinchenko , K.V. Kochur

**ION-EXCHANGE URANIUM CONCENTRATION**

Language advisor: Senior teacher A.P. Eonov

Scientific advisor: Assistant A.S. Kantaev

**OP-1-32** E.A. Zolotareva

**USING A NEW MEDTEHNOLOGIYA INTRAOPERATIVE ELECTRONIC REMOTE AND GAMMA-RAY THERAPY**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: Tomsk Cancer Research Institute V.A. Lisin

**OP-1-33** E.A. Ivanus

**STUDY OF SULFUR ISOTOPES BY VIBRATION SPECTROSCOPY AND QUANTUM CHEMISTRY**

Language advisor: Teacher A.A. Kyznetcova

Scientific advisor: PhD, Associate Professor N.B. Egorov

**OP-1-34** K.A. Isaeva

**OFFER AND DISTRIBUTION OF TRITIUM IN OBJECTS IN THE ENVIRONMENT SEMIPALATINSK TEST SITE**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: Research Center, Environmental Monitoring, Kazakhstan, PhD, O. N. Lyakhov



**OP-1-35** Yu. V. Rummyantseva

**USING THE ACHIEVEMENTS OF MODERN NUCLEAR PHYSICS**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

Scientific advisor: Senior teacher A.V. Vukolov

**Заседание секции №2**  
**Традиционная и альтернативная энергетика.**

**7 июня 2012**

**418 ауд. 10 корпус ТПУ, пр. Ленина, 2**

**12.00– 18.00**

**PLENARY LECTURE**

**REMOTE THERMAL FLASH TECHNIQUE FOR THERMOPHYSICAL PROPERTIES MEASUREMENTS AND APPLICATION TO PROBLEMS OF ENERGETICS.**

O.Yu. Troitsky, Dr, Professor , TPU, Tomsk

Master-class

**EFFECTIVE PRESENTATION: SUCCESSFUL CONTEMPORARY RESEARCHER**

Author Lisa Donohoe Luscombe Project Manager, English Language and Nonproliferation Program  
James Martin Center for Nonproliferation Studies Monterey Institute of International Studies, the U.S.A.

**ORAL PRESENTATIONS**

**OP-2-1** M.Yu.Voytenko

**WIND POWER**

Language advisor: Senior teacher N. V. Demjanenko

**OP-2-2** A.N. Lemachko

**SOLAR PANELS**

Language advisor: Senior teacher Yu. V. Falkovich

**OP-2-3** R.R.Mamedov

**ALTERNATIVE ENERGY**

Language advisor: Senior teacher N. V. Demjanenko

**OP-2-4** A.N. Svyatenko.

**HEAVY WATER**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor A.Yu.Vodyankin

**OP-2-5** S.A.Chalov

**NUCLEAR POWER PLANT IS MORE ENVIRONMENTAL-FRIENDLY THAN THERMAL STATION**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor A.Yu.Vodyankin

**OP-2-6** M.S. Mishanov

**EXTREME CONTROL OF RESONANT VOLTAGE**

Language advisor: Teacher A.A. Kuznetsova

**OP-2-7** I.S. Gavryushenko, E. A. Zaitsev

**RENEWABLE AND UNTRADITIONAL ENERGY SOURCES**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Senior teacher A. V. Astapenko

**OP-2-8** D.O. Korolev

**METHODS OF GOLD EXTRACTION**

Linguistic Advisor: A.P. Eonov

Scientific advisor: Assistant D.V.Akimov

**OP-2-9** J.K. Kuneev

**INCREASE EFFICIENCY TECHNOLOGIES PHOTOELECTRIC CONVERTER**

Language advisor: PhD, Associate Professor G.A. Nizkodubov

Scientific advisor: Dr, Professor B. V. Lukutin

**OP-2-10** S.G. Lazarev, E.V. Shvets

**THE PROCESSES OF OBTAINING LIQUID AND GASEOUS FUELS FROM OIL AND COAL SLURRIES**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: PhD, Associate Professor A.G. Karengin

**OP-2-11** A.B. Novosyolov

**SOURCES OF ALTERNATIVE ENERGY**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor A.Yu.Vodyankin

**COFFEE-BREAK**

**OP-2-12** P.V. Sokin

**MASS SPECTROMETRIC ANALYSIS OF GAS PRODUCTS AUTOPSY WASTE RZPM**

Language advisor: Teacher A.A. Kuznetsova

Scientific advisor: PhD, assistant A.N. Strashko

**OP-2-13** R.S. Gladkih, E.N. Glushkov, I.A. Kopylov

**SINGLE-WIRE TRANSFER OF ELECTRIC ENERGY**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Dr, Professor V.F. Myshkin

**OP-2-14** V.S. Khokhryakov, A.V. Malakhov

**PLASMA CURRENT CONTROL-ORIENTED LINEAR MODEL FOR TOKAMAK KTM**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: PhD, Associate Professor V.M. Pavlov

**OP-2-15** I.V. Tibeykin, K.A. Mishyshin, A.V. Yshakov

**ACCUMULATION OF HYDROGEN**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Assistant Savostikov D.V.

**OP-2-16** P.A. Ilin, I.N. Gribachev, I.S. Kovalev

**TRANSFER OF AN ELECTRICITY WITHOUT WIRES - PROSPECT IN THE FUTURE.**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Dr, Professor V.F. Myshkin

**OP-2-17** N.S. Doronin

**TRANSPORTATION OF NUCLEAR MATERIALS.**

Language advisor: Senior teacher N. V. Demjanenko

Scientific advisor: Assistant A. O.Semenov

**OP-2-18** Foronda Lorenzo Jose

**EFFECTIVE WAYS OF TRANSMITTING ELECTRIC ENERGY**

Spain, Universitat Jaume I

**OP-2-19** A.V. Rybakov

**RESEARCH OF POTASSIUM TETRAFLUOROBROMATE SOLUBILITY IN BROMINE TRIFLUORIDE**

Language advisor: Senior teacher N.G. Novikova

Scientific advisor: PhD, Associate Professor R.V. Ostvald

**OP-2-20** R.S.Korotkov

**PLASMA HEAT GENERATOR BASED ON HIGH-FREQUENCY JET PLASMATRON**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: PhD, Associate Professor A.G. Karengin

**OP-2-21** V.S. Kudryavceva, A.S. Selyanin, D.S. Kovalenko

**THE STUDY OF HYDROGEN ABSORPTION IN TITANIUM AND TITANIUM-BASED MATERIALS**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Assistant D.V. Savostikov

**OP-2-22** V.A.Zavgorodnii

**PLUTONIUM**

Language advisor: Senior teacher N. V. Demjanenko

**Заседание секции №3**

**Общие проблемы современной физики и энергетики.**

**7 июня 2012**

**307 ауд. 10 корпус ТПУ, пр. Ленина, 2**

**12.00– 18.00**

**PLENARY LECTURE**

Master-class

**EFFECTIVE PRESENTATION: SUCCESSFUL CONTEMPORARY RESEARCHER**

Author Lisa Donohoe Luscombe Project Manager, English Language and Nonproliferation Program

James Martin Center for Nonproliferation Studies

Monterey Institute of International Studies, the U.S.A.

**MODERN TRENDS IN RUSSIAN ENERGY AUDIT**

Yakovlev A.N. associate professor, vice-rector, director of the Institute of High Technology Physics,  
TPU, Tomsk

**ORAL PRESENTATIONS**

**OP-3-1** E.V. Bulimenko

**INTERNATIONAL PROJECT ITER**

Language advisor: PhD, Senior teacher Yu. V. Falkovich

**OP-3-2** D.D. Amanbayev

**AMMONIUM TETRACHLORIDOCOBALTATE THERMAL SUSTAINABILITY  
EXPLORATION**

Language advisor: PhD, Senior teacher Yu.V. Falkovich

Scientific advisor: Associate Professor R.I. Kraydenko

**OP-3-3** A. I. Eligecheva

**SYNTHESIS OF HYDROXYAPATITE**

Language advisor: Teacher S. S. Budkova

Scientific advisor: Professor T. I. Guzeeva

**OP-3-4** A.V. Hamlova, V.A. Golovkova

**RESEARCH OF TETRAFLUOROBROMATES OF ALKALI METALS**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-5** V.N. Kudijarov

**ACCUMULATION OF HYDROGEN IN TECHNICALLY PURE TITANIUM AT  
ELECTROLYTIC SATURATION AND AT SATURATION FROM GAS ATMOSPHERE**

Scientific advisor: Associate Professor A. M. Lider

**OP-3-6** I. A. Kurskiy

**RESEARCH OF THE SYNTHESIS TETRAFLUOROBROMATES OF ALKALINE-EARTH  
METALS**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-7** A.A. Lukashevich

**OBTAINING OF AMMONIUM SILICOFLUORIDE**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-8** N. A. Lobodyuk

**RESEARCH OF EFFICIENCY OF FLUORINE ELECTROLYSIS BY CURRENT-VOLTAGE CHARACTERISTICS OF THE ANODES**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-9** I.V. Nazarkin

**THE FORMATION OF CRATERS UNDER THE INFLUENCE OF HIGH-POWER ION BEAMS ON CONDUCTIVE MATERIALS**

Language advisor: Teacher S. S. Budkova

Scientific advisor: Professor G. E. Remnev

**OP-3-10** J. A. Sedelnikova

**SEARCHING THE WAYS OF MAGNET PRODUCTION WASTE PROCESSING BASED ON Nd<sub>2</sub>Fe<sub>14</sub>B AND Sm<sub>2</sub>Co<sub>17</sub>**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-11** A.N. Urinova

**ELECTROCHEMICAL SEDIMENTATION OF ND-FE ALLOYS**

Language advisor: Senior teacher N. V. Daneikina

**COFFEE-BREAK**

**OP-3-12** Z.G Ushakova

**CHEMICAL ETCHING OF THE TITANIUM AND ALLOYS ON ITS BASIS**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-13** I.S.Gladyshev

**SCADA SYSTEM**

Language advisor: Teacher A. A. Kuznetsova

Scientific advisor: Associate Professor S. A. Baidali

**OP-3-14** D.V. Sidelev

**DEPOSITION THIN FILMS AL<sub>2</sub>O<sub>3</sub> AND TiO<sub>2</sub> WITH DUAL MAGNETRON SPUTTERING SYSTEM**

Language advisor: Associate Professor O.M. Stepanova

Scientific advisor: Head of laboratory Yu. N. Yurjev

**OP-3-15** A. K. Dosmaganbetov

**OBTAINING OF A MOLECULAR COMPOSITE ON A BASIS OF POLYTETRAFLUOROETHYLENE AND SILICON DIOXIDE.**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Assistant S. I. Ivlev

**OP-3-16** A.I. Novokshonov

**REPORT ON RESEARCH WORK ON: XRF ANALYZERS.**

Scientific advisor: Senior teacher A.R. Wagner

**OP-3-17** A.I. Scherban, A.P. Zavialov

**PROGRAMMING MECHANISM DDE IN MATLAB**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Assistant A.A. Mezentsev

**OP-3-18** A.V. Rumiantsev

**SETUP FOR STUDY OF RADIATION IN VUV REGION GENERATED BY 5.7 MEV  
ELECTRONS IN A MULTILAYER MIRROR**

Language advisor: Senior teacher N.V. Demianenko

Scientific advisor: Associate Professor S.R. Uglov

**OP-3-19** Maitree Polsongkram

Rajamangala University of Technology ISAN

**PHYSICAL AND CHEMICAL TRANSFORMATIONS AT CONTROLLED THERMAL  
DECOMPOSITION OF WOODY BIOMASS**

Scientific advisor: Professor G. V. Kuznetsov

**OP-3-20** R.A. Laas, Hans Michael Kröning,

**MEASUREMENTS OF ELECTRONIC BEAM PARAMETERS IN BETATRON**

Language advisor: PhD, Senior teacher Yu.V. Falkovich

Scientific advisor: Associate Professor M.M. Rychkov

**OP-3-21** Amos Ncube

Zimbabwe

**LIFE CYCLE ASSESSMENT OF PET BOTTLE**

Scientific advisor: Associate Professor Yu. V. Borodin

**OP-3-22** E.B. Nedoroslev

**CALCULATION AND DESIGN OF NEUTRON SHIELDING**

Language advisor: Senior teacher N.V. Demianenko

Scientific advisor: Associate Professor Yu .M. Stepanov

**COFFEE-BREAK**

**OP-3-23** Yu.S. Bordulev, R.S. Laptev

**DIGITAL SPECTROMETRIC SYSTEM FOR MATERIAL STUDYING BY POSITRON  
ANNIHILATION TECHNIQUES**

Language advisor: Associate Professor A.S. Parnyugin

Scientific advisor: Associate Professor A. M. Lider

**OP-3-24** P.V. Kadorkin

**ACTIVATION OF WATER SOLUTIONS BY LASER RADIATION**

Language advisor: Senior teacher N.V. Demianenko

Scientific advisor: Associate Professor L.N. Shiyan

**OP-3-25** I.A. Miloichikova

**METHODOLOGY OF NUCLEAR RADIATION DOSIMETRY BASED ON POLYMER FILMS**

Language advisor: Associate Professor R.I. Tolbanova

Scientific advisor: Senior teacher A.R. Wagner

**OP-3-26** A. L. Tatarenko, A. I. Panasenko, M. V. Arsentev

**RESEARCH OF PROCESS OF RECEPTION ND – CONTAINING ALLOYS BY ELECTROLYSIS METHOD OF WATER SOLUTIONS.**

Language advisor: Teacher A. A. Kuznetsova

Scientific advisor: Associate Professor A.J. Vodjankin

**OP-3-27** A.V. Pasyukova, I.A. Kalygina

**SYNTHESIS OF CALCIUM HYDROXYAPATITE (HA)**

Language advisor: Teacher A. A. Kuznetsova

Scientific advisor: Senior teacher , PhD L.A. Leonova

**OP-3-28** S.V.Kuznetsov, K.S.Trifonov,

**CAN INTERFACE**

Language advisor: Teacher A. A. Kuznetsova

Scientific advisor: Assistant E. P.Zelenetskaya

**OP-3-29** T. S. Uglov

**THE RESEARCH OF CHARACTERISTICS OF THE PULSE REFLECTION OXIMETER.**

Language advisor: Associate Professor V. V.Verkhoturova

Scientific advisor: Associate Professor A. N. Aleinik

**OP-3-30** I.A. Miskun

**CALCULATION OF CHARACTERISTICS OF RADIO-FREQUENCY FLARE PLASMATRON.**

Language advisor: Teacher S. S. Budkova

Scientific advisor: Associate Professor Yu.Yu. Lutsenko

**OP-3-31** S. I. Efremov, E. B. Asanov, N.A. Nikiteeva

**RESEARCH OF ALF3 PRODUCTION PROCESS USING HEXAFLUOROSILICIC ACID**

Language advisor: Senior teacher N. V. Daneikina

Scientific advisor: Senior teacher L.A. Leonova

**OP-3-32** Deriglazov A.A.

**THE USE OF EDDY CURRENT METHOD FOR THE ANALYSIS OF LAYERED HYDROGEN CONTENT IN TITANIUM**

Language advisor: Teacher A. A. Kuznetsova

Scientific advisor: Associate Professor V. V. Larionov

**OP-3-33** Apata Oluvagbenga

Nigeria

**OBTAINING HIGH-OCTANE COMPONENTS OF GASOLINE**

Scientific advisor: Associate Professor D. N. Ogorodnikov

**OP-3-34** Bargholts Jonas Magleby

Denmark, Engineering college of Aarhus

**ANALYSIS OF THE DEVELOPMENT OF MICRODOSIMETRY STAGES**



***Заседание секции №1  
Ядерные физика и энергетика.***

**8 июня 2012**

**412 ауд. 10 корпус ТПУ, пр. Ленина, 2**

**9.00– 16.00**

**ORAL PRESENTATIONS**

**OP-1-36 Brenner Simon**

Austria, Vienna University of Technology

**PROLIFERATION SIGNIFICANCE OF DIFFERENT TYPES OF REACTORS**

**OP-1-37 D.B. Kuzero, I.Yu. Novoselov, D.A. Mikhailova**

**NUCLEAR FUSION**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: PhD, Associate Professor D.G. Vidiayev

**OP-1-38 A. A. Kushnerovich**

**VULNERABILITY ASSESSMENT OF NUCLEAR POWER PLANT**

Language advisor: Senior Teacher N.V. Daneykina

Scientific advisor: PhD, Associate Professor F. P.Koshelev

**OP-1-39 M. N. Kolpakov I.D. Slepchenko, I.L. Kuzminskiy**

**THE CONCEPT OF LOW-TEMPERATURE PLASMA. DIAGNOSTICS PROBLEMS.**

Language advisor: Teacher A.V. Tsepilova

**OP-1-40 O. D. Shakhmatova**

**PLASMA UTILIZATION OF LIQUID RADIOACTIVE WASTE**

Language advisor: Senior Teacher N.G. Novikova

Scientific advisor: PhD, Associate Professor A. G. Karengin

**OP-1-41 A. A. Mekhovich, S.A. Edreev, A.E. Kolchev**

**IMPROVEMENT OF EDUCATION IN NUCLEAR SPHERE**

Language advisor: O. S. Glushakova

Scientific advisor: Dr, Full Professor V. V. Larionov

**OP-1-42 G.A.Apalkov, E.V. Savochkina**

**URANIUM EXTRACTION TECHNOLOGY**

Language advisor: Senior Teacher A.P. Eonov

Scientific advisor: Assistant A.S. Kantaev

**OP-1-43 M.V. Prasolov**

**RESEARCH REACTORS**

Language advisor: Senior Teacher O.I. Shaykina

Scientific advisor: Senior Teacher M. S. Kuznetsov

**OP-1-44 D. G. Prokopiev**

**DIGITAL DETECTORS**

Language advisor: Senior Teacher N.V. Daneykina

Scientific advisor: Dr, Full Professor G. I. Aizenshtat

**COFFEE-BREAK**

**OP-1-45** E.S. Tugurov

**DETECTOR ON BASED AVALANCHE PHOTODIODE**

Language advisor: Senior Teacher N. V. Demjanenko

Scientific advisor: Senior Teacher A.V. Vukolov

**OP-1-46** I.V. Khalyavin , D.Yu. Butenko

**RISK AND THREATS ESTIMATION OF FNPP PHYSICAL PROTECTION. MODEL EASI**

Language advisor: Senior Teacher N.V. Daneykina

Scientific advisor: PhD, Associate Professor D.G. Demyanyuk

**OP-1-47** I.E. Shabalin

**MODELING OF SPONTANEOUS HIGH-TEMPERATURE SYNTHESIS**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: PhD, Associate Professor D. S. Isachenko

**OP-1-48** S.N. Elpashev, D.A. Iksanov, A.K. Likhanov

**RESEARCH NEUTRON-PHYSICAL CHARACTERISTICS OF THE REACTOR CORE IRT-T WITH FRESH HEU FUEL**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: Assistant A.G. Naymushin

**OP-1-49** E. I. Kuligina

**RADIO-ECOLOGICAL INSPECTION OF OIL-AND-GAS PRODUCTIONS TERRITORIES OF THE WEST-SIBERIAN REGION USING GIS-TECHNOLOGIES**

Language advisor: Senior Teacher N. V. Demjanenko

Scientific advisor: Assistant N. S. Rogova

**OP-1-50** V. A. Lyamkin, N.B. Rachuk

**ACCUMULATION OF AMERICIUM FOR TECHNOLOGICAL GETTING WEAPONS-GRADE PLUTONIUM**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: PhD, Associate Professor K. V. Yushitsin

**OP-1-51** I. A. Khasanov

**MANUFACTURE OF ELECTRIC ENERGY IN A NUCLEAR REACTOR**

Language advisor: PhD, Senior Teacher Yu. V. Falkovich

**OP-1-52** K. S. Ovechkin, A.V. Perov

**PLUTONIUM-239 IN NUCLEAR POWER**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: PhD, Associate Professor K. V. Yushitsin

**OP-1-53** D.V. Demina

**USING STATISTICAL ANALYSIS TECHNIQUES FOR MEASURING AIR POLLUTION THE NORTHERN PART OF THE CITY OF TOMSK**

Language advisor: Senior Teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor N.K. Ryzhakova

**COFFEE-BREAK**

**OP-1-54** D.O. Dolmatov

**NUCLEAR REACTORS**

Language advisor: Senior Teacher N. V. Demjanenko

**OP-1-55** Y.A. Kustov, R. K. Cherdizov, M.E. Torchanovskiy .

**PERSPECTIVES FOR THE USE OF HIGH-POWER ION BEAMS IN NUCLEAR POWER**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: PhD, Associate Professor G.N. Kolpakov

**OP-1-56** A. V. Litvinov, D.A. Tatarnikov

**DEVELOPMENT OF PROGRAM-INFORMATION ENVIRONMENT FOR SIMULATION OF NUCLEAR MATERIALS**

Language advisor: Senior Teacher N.V. Daneykina

Scientific advisor: Senior Teacher A.V. Godovykh

**OP-1-57** S.A. Mamon, D.Yu. Voytenko, T.F. Subbota,

**PROCESSING OF POWDER MIXTURES OF REAGENTS WITH USING MECHANICAL ACTIVATION**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: Assistant A.O. Semenov

**OP-1-58** E.K. Suyazova , K.S. Dudko

**INVESTIGATION OF THE KINETICS OF DISSOLUTION OF GOLD IN AQUA REGIA.**

Language advisor: Senior Teacher N. V. Demjanenko

Scientific advisor: Senior Teacher A.V. Astapenko

**OP-1-59** D. A. Koshkina

**URANIUM ENRICHMENT**

Language advisor: Senior Teacher N. V. Demjanenko

Scientific advisor: PhD, Associate Professor A.Yu.Vodyankin

**OP-1-60** A. A. Spirin

**NUCLEAR RADIATION**

Language advisor: PhD, Senior Teacher Yu. V. Falkovich

**OP-1-61** M.E. Pronin

**RADIATION THERAPY**

Language advisor: PhD, Senior Teacher Yu. V. Falkovich

Scientific advisor: Senior Teacher A.V. Vukolov

**OP-1-62** A.I.Perov, E.V.Belov

**DEVELOPING THE CONCEPT OF A SPECIALIZED REACTOR OF A NUCLEAR DOPING OF SILICON BLANKS**

Language advisor: Senior Teacher Y.V. Ermakova

Scientific advisor: PhD, Associate Professor, Yu. B. Chertkov

**OP-1-63** E.V.Bespala, M.I.Chromyak, K.I.Zarif

**ANALYSIS OF THE PROCESS FOR ISOTOPE PLASMA SEPARATION**

Language advisor: Teacher A.V. Tsepilova

Scientific advisor: Dr, Full Professor, V.F. Mishkin

**9 июня 2012**

**307 ауд. 10 корпус ТПУ, пр. Ленина, 2**

10<sup>00</sup> - 11<sup>30</sup> Проведение семинара **«Teaching Technical Students a Foreign Language for Specific Purposes with Consideration of Requirements of International Examination Agencies. Innovative Teaching Methods: CLIL and Interdisciplinary Integration»** E. L. Sedyunina, head of the language centre «NUDO Education Centre», Novosibirsk

**COFFEE-BREAK**

12<sup>00</sup> Подведение итогов работы научной школы, награждение победителей конкурса научно-исследовательских проектных работ на английском языке.

### СХЕМА РАСПОЛОЖЕНИЯ КОРПУСА № 10 ТПУ

