INTERNATIONAL
SCIENCE AND TECHNOLOGY
CENTER
Luganskaya ulitsa, 9
PO Box 25, 115516 Moscow,
Russian Federation
Tel: +7 (095/501) 797-6010
Fax: +7 (095/501) 797-6047
E-mail: istcinfo@istc.ru; http://www.istc.ru

МЕЖДУНАРОДНЫЙ
НАУЧНО-ТЕХНИЧЕСКИЙ
ЦЕНТР
Луганская улица, 9
А/Я 25, 115516 Москва,
Российская Федерация
Тел: +7 (095/501) 797-6010
Факс: +7 (095/501) 797-6047
E-mail: istcinfo@istc.ru; http://www.istc.ru

Projects Approved for Funding by ISTC Governing Board at the 34th Funding Session

1. Newly Approved Projects

1556.2 Environmental Friendly Technologies: Application of High Power Sonic and Ultrasonic Elastic Vibrations in the Production and Processing of Materials and Substances
Project Manager: Abramov O V; Leading Institution: Institute of General and Inorganic Chemistry (IONKh) (Moscow); Collaborators: Daimler Chrysler AG (Stuttgart, Germany), Degussa AG (Hanau-Wolfgang, Germany), Euro-Biomatex (Dahlenheim, France), General Electric Company / Global Research Center (Niskayuna, NY, USA), Hermann Bilz GmbH & Co. (Esslingen, Germany), KACU Systemic GmbH (Auenwald, Germany), Novozymes (Bagsvaerd, Denmark), NRS Technologies Limited (Shrewsbury, Shropshire, UK), Precious Metals Recovery Limited (Portlehead, UK), Rolls-Royce (London, UK), Rubber Works International, LLC (New York, USA), Sonic Process Technologies Ltd. (Shrewsbury, Shropshire, UK), Viatech (Bristol, UK), VIORYL (Athens, Greece), Western Sonics AB (Stockholm, Sweden); Duration: 30 months; Funding parties: EU

2426 Development of Test Kits to Diagnostically Significant Antigens of Yersinia Pestis with the Use of Combinatorial Phage Libraries of Miniantibodies
Project Manager: Anisimov A P; Leading Institution: State Research Center for Applied Microbiology (Obolensk, Moscow reg.); Supporting Institutions: Institute of Biochemistry and Physiology of Plants and Microorganisms (Saratov, Saratov reg.), Institute of Bioorganic Chemistry (Moscow); Collaborators: Institut National de la Santé et de la Recherche Médicale / Immunilogie Cellulaire et Clinique, Unité INSERM 255 (Paris, France), Universite de Paris-Sud / Institut de Génétique et Microbiologie (Orsay, France); Duration: 36 months; Funding parties: EU

2459 Study of Opportunities for the Submillimeter Polarizational Spectroscopy in Pulsed Magnetic Fields up to 50 T
Project Manager: Volkov A A; Leading Institution: Institute of General Physics named after A.M. Prokhorov RAS (Moscow); Supporting Institution: Kurchatov Research Center (Moscow); Collaborators: Florida State University / National High Magnetic Field Laboratory (Tallahassee, FL, USA), Universitat Stuttgart/Physikalisches Institut (Stuttgart, Germany), University of California (San Diego, CA, USA); Duration: 27 months; Funding parties: EU

2734 The Production of Highly Active Human Blood Plasma Butyrylcholinesterase Preparation by Gene Engineering Methods to Create Protective Means against Poisoning by Organophosphorous Cholinesterase Inhibitors
Project Manager: Anikienko K A; Leading Institution: State Research Institute of Organic Chemistry and Technology (Moscow); Supporting Institution: State Scientific Center of Genetics and Selection of Industrial Microorganisms (GosNIIGenetica) (Moscow); Collaborator: Southern Illinois University / School of Medicine (Springfield, IL, USA); Duration: 36 months; Funding parties: EU

2770 Ecosystem Parameters and Tropospheric Chemistry in Central Siberia
Project Manager: Skorokhod A I; Leading Institution: Institute of Atmospheric Physics (Moscow); Supporting Institutions: Karpov Institute of Physical Chemistry (Moscow), V.N.Sukachev Institute of Forest, SB RAS (Krasnoyarsk-26, Krasnoyarsk reg.); Collaborators: Max-Planck-Institut für Chemie (Mainz, Germany), Max-Planck Society / Max-Plank-Institute fur Biogeochemie (Jena, Germany); Duration: 36 months; Funding parties: EU

2896 Planar Layered Structures Based on Ferroelectric Films Intended for Applications in Radioelectronic Tunable Devices of Millimeter Wavelength Band
Project Manager: Karmanenko S F; Leading Institution: St Petersburg Electrotechnical University (St Petersburg); Supporting Institution: Holding Company "Leninetz" (St Petersburg); Collaborators: Galileo

Avionica (Rome, Italy), INOSTEK Inc. (Geonggi, Korea), Institut fur Kristallzuchtung (Berlin, Germany), Korea Institute of Science and Technology (Seoul, Korea), London South Bank University (London, UK), NASA / Glenn Research Center (Cleveland, OH, USA), Paratek Microwave Inc. (Columbia, MD, USA), Tokai University / Department of Electronics (Kanagawa, Japan), University of Birmingham / School of Physics and Astronomy (Birmingham, UK); Duration: 24 months; Funding parties: EU

2897 Development of an Automated System for Measuring Concentrations of Heavy Metals in Processing Solutions and Industrial Waste Water at Electroplating Facilities
Project Manager: Khodos M Ya; Leading Institution: Ural State Economic University (Ekaterinburg, Sverdlovsk reg.); Supporting Institution: VNIITF (Snezhinsk, Chelyabinsk reg.); Collaborators: Gesellschaft fur Umweltkompatible Prozebtechnik mbH (Saarbrücken, Germany), Universitaet des Saarlandes (Saarbrücken, Germany); Duration: 36 months; Funding parties: EU

2917 Pinch-Effect in Laser Produced Plasma
Project Manager: Belyaev V S; Leading Institution: Central Research Institute of Machine Building (TsNIIMash) (Korolev, Moscow reg.); Supporting Institutions: Kurchatov Research Center (Moscow), Institute of Strategic Stability (Moscow), NIIIT (Pulse Techniques) (Moscow); Collaborators: CEA / DSM / Département de Recherche sur l'Etat Condencé, les Atomes et les Molécules / Service des Photons, Atomes et les Molecules (Gif Sur Yvette, France), Lawrence Berkeley National Laboratory (Berkeley, CA, USA), Los Alamos National Laboratory / Plasma Physics Group (Los-Alamos, NM, USA), Sandia National Laboratories (Albuquerque, NM, USA), Technische Universität Darmstadt (Darmstadt, Germany), Université de Paris VI / Laboratoire pour l'Utilisation des Lasers Intenses (LULI) / Laboratoire de Physique Atomique dans les Plasmas Denses (Paris, France), University of Texas at Austin / Texas Center for High Intensity Laser Science (Austin, TX, USA); Duration: 36 months; Funding parties: EU

2920 Absolute Measuring Instrument of Power on the Basis of High-Temperature Superconducting Thermometer as the Primary Standard Detector for Soft X-Ray Synchrotron Radiation
Project Manager: Khrebtov I A; Leading Institution: Vavilov State Optical Institute (GOI) (St Petersburg); Supporting Institutions: VNIIEF (Sarov, N. Novgorod reg.), Budker Institute of Nuclear Physics (Akademgorodok, Novosibirsk reg.); Collaborators: Arizona State University / College of Engineering and Applied Sciences (Tempe, AZ, USA), CEA / Bureau National de Metrologie / Laboratoire National Henri Becquerel (Gif Sur Yvette, France), LG Electronics / LG TCM S/W Lab (St Petersburg), Physikalisch-Technische Bundesanstalt / Laboratory of X-ray Radiometry (Berlin, Germany), Texas A&M University / Department of Electrical Engineering (College Station, TX, USA), Universite de Caen / Groupe de Recherche en Informatique, Image, Automatique et Instrumentation de Caen (Caen, France); Duration: 36 months; Funding parties: EU

2965 Development of High Temperature Uranium Carbide Target-Ion Source Units for Production of Isotopes Far from Stability
Project Manager: Panteleev V N; Leading Institution: Nuclear Physics Institute (Gatchina, Leningrad reg.); Supporting Institution: Khlopin Radium Institute (St Petersburg); Collaborators: Grand Accélérateur National d'Ions Lourds (Caen, France), Istituto Nazionale di Fisica Nucleare (INFN) / Laboratori Nazionali di Legnaro (Padova, Italy); Duration: 24 months; Funding parties: EU CA

2969 An Arc Guard Device Based on a Distributed Position-Sensitive Fiber-Optical Light Sensor
Project Manager: Kazachkov Yu P; Leading Institution: NIIIT (Pulse Techniques) (Moscow); Collaborators: Center for Appropriate Technology (Washington, DC, USA), Siemens AG (Erlangen, Germany); Duration: 30 months; Funding parties: EU CA

2991 The Development of an Application Package for Organizing an Optimal Network for Monitoring of Gas and Aerosol Atmospheric Pollutants of Anthropogenic and Natural Origins
Project Manager: Borodulin A I; Leading Institution: State Research Center of Virology and Biotechnology VECTOR (Koltsovo, Novosibirsk reg.); Collaborators: T-Soft (Prague, Czechia), University of Alabama at Birmingham / School of Engineering (Birmingham, AL, USA); Duration: 24 months; Funding parties: CA

3002 Technology of Fine Crystalline High-Temperature Oxides
Project Manager: Panasyuk G P; Leading Institution: Institute of General and Inorganic Chemistry (IONKh) (Moscow); Supporting Institution: Moscow State University / Department of Chemistry (Moscow); Collaborator: ERMAFA Apparatebau GmbH (Chemnitz, Germany); Duration: 30 months; Funding parties: EU

3015 Fundamental Investigation of the High Current High Repetition Rate Discharges and Achievement of the EUV Radiation Parameters Required for the Next Generation Lithography

Project Manager: Borisov V M; Leading Institution: TRINITI (Troitsk, Moscow reg.); Collaborator: Xtreme Technologies (Göttingen, Germany); Duration: 24 months; Funding parties: EU JP Other

3016 Research of Additional Cooling Means Efficiency in the Critical Area of ATLAS Facility Muon Spectrometer (CERN)
Project Manager: Lebedeva T V; Leading Institution: VNIITF / State Unitary Enterprise STRELA (Snezhinsk, Chelyabinsk reg.); Collaborator: CERN / European Laboratory for Particle Physics (Geneva, Switzerland); Duration: 24 months; Funding parties: CA

3020 Development of Oxygen Sensors, Systems of Control of Oxygen Content in Lead Coolants for Test Loops and Facilities
Project Manager: Askhadullin R S; Leading Institution: FEI (IPPE) (Obninsk, Kaluga reg.); Collaborators: CEA / DEN / Département de Technologie Nucléaire (Saint-Paul-lez-Durance, France), ENEA (Bologna, Italy), EURATOM-Ciemat (Madrid, Spain), Forschungszentrum Karlsruhe in der Helmholtz-Gemeinschaft / Institut fuer Hochleistungsimpuls- und Mikrowellentechnik (Eggenstein-Leopoldshafen, Germany), Korea Atomic Energy Research Institute (KAERI) (Yuseong, Korea), Los Alamos National Laboratory (Los-Alamos, NM, USA), Mitsui Engineering & Shipbuilding Co., Ltd. / Nuclear Energy Systems Division (Tokyo, Japan), Ramon Llull University / Institut Quimic de Sarria (Barcelona, Spain), Royal Institute of Technology (Stockholm, Sweden), SCK-CEN (Mol, Belgium); Duration: 24 months; Funding parties: CA

3029 Radiation Effects in Semiconductor III-Nitrides
Project Manager: Kolin N G; Leading Institution: Karpov Institute of Physical Chemistry (2) (Obninsk, Kaluga reg.); Supporting Institution: State Institute of Rare Metals (Moscow); Collaborators: European Materials Research Society (EMRS) (Strasbourg, France), Semiconductor Research Institute (Sendai, Japan), Sweet Analysis Services, Inc. (Alexandria, VA, USA), University of California (Berkeley, CA, USA), University of Florida / Department of Materials Science and Engineering (Gainesville, FL, USA), Wright State University / Semiconductor Research Center (Dayton, OH, USA); Duration: 36 months; Funding parties: EU

G-1110 Development of a Package of Technologies for Commercial Production of Boron Isotopes-Based Materials and Items
Project Manager: Gelashvili G S; Leading Institution: National High Technology Center of Georgia (Tbilisi, Georgia); Collaborators: NUKEM Nuclear GmbH / RWE NUKEM GmbH (Alzenau, Germany), Spectra Gases (Branchburg, NJ, USA); Duration: 27 months; Funding parties: EU

G-1129 Bacteriophage, an Effective Biological Tool Against Plant Diseases Caused by Pathogenic Bacteria
Project Manager: Sadunishvili T A; Leading Institution: Durmishidze Institute of Biochemistry and Biotechnology (Tbilisi, Georgia); Supporting Institution: Georgian Kanchaveli L. Research Institute of Plant Protection (Tbilisi, Georgia); Collaborators: Graz University of Technology / Institut fuer Biotechnologie (Graz, Austria), Iowa State University of Science and Technology / Department of Plant Pathology (Ames, IA, USA), Lawrence Berkeley National Laboratory / Center for Environmental Biotechnology (Berkeley, CA, USA), The Evergreen State College (Washington, MD, USA), University of Florida / College of Medicine (Gainesville, FL, USA); Duration: 36 months; Funding parties: CA

G-909 New Compact Heat Exchanger for High Technologies
Project Manager: Avaliani J; Leading Institution: NII Optica (Tbilisi, Georgia); Collaborators: ENEA / Institute of Thermal-Fluid Dynamics (Rome, Italy), Kyushu University / Department of Mechanical Engineering Science, Faculty of Engineering (Fukuoka, Japan), University of Minnesota / Department of Mechanical Engineering (Minneapolis, MN, USA); Duration: 24 months; Funding parties: EU

K-1125 Creation of a Comprehensive Database of the Former Semipalatinsk Test Site
Project Manager: Berezin S A; Leading Institution: National Nuclear Center of the Republic of Kazakstan (Kurchatov, Kazakstan); Collaborator: Forschungszentrum für Umwelt und Gesundheit GmbH (GSF) / Institut für Strahlenschutz (Neuherberg, Germany); Duration: 24 months; Funding parties: EU

T-1086 Meteor Showers as Indicators of Cometary Nature of Near Earth Asteroids (NEAs) and Physical Properties of Meteoroids
Project Manager: Kokhirova G I; Leading Institution: Institute of Astrophysics (Dushanbe, Tajikistan);
Collaborators: Astronomical Institute (Ondrejov, Czechia), Queen Mary, University of London (London, UK), SETI Institute (Mountain View, CA, USA); Duration: 36 months; Funding parties: EU

2. Project Development Grants

2943 Development of Technology of Spent Electrolytes of Galvanic Production (Chrome Plating, Nickel Plating, Copper Plating, etc.) Complete Recycling
Project Manager: Rodnikova T V; Leading Institution: VNIIEF (Sarov, N. Novgorod reg.); Collaborator: Pittsburgh University / Graduate School of Public Health / Department of Environmental and Occupational Health (Pittsburgh, PA, USA); Duration: 24 months; Funding parties: CA

2981 Complex Therapy and Prophylaxis of Anthrax Infection with Specific Bacteriophages and Immunoglobulins
Project Manager: Popov V G; Leading Institution: Institute of Immunological Engineering (Lyubuchany, Moscow reg.); Supporting Institution: State Research Center for Applied Microbiology (Obolensk, Moscow reg.); Collaborators: Institute of Microbiology of the German Army (Munich, Germany), Universitat Hohenheim / Institut fuer Umwelt- und Tierhygiene (Stuttgart, Germany); Duration: 36 months; Funding parties: CA

KR-1122 Biotechnological Approaches to the Creation of New Botanical Pesticides and Molecular-Biological Aspects of Their Influence on Harmful Organisms
Project Manager: Chakaeva A S; Leading Institution: Kyrgyz Research Institute of Livestock, Veterinary and Pastures (Bishkek, Kyrgyzstan); Collaborators: Imperial College London / Department of Agricultural Sciences (Ashford, Kent, UK), University of British Columbia (Vancouver, BC, Canada), University of California (Riverside, CA, USA), University of Idaho / College of Agricultural and Life Sciences (Moscow, ID, USA); Duration: 36 months; Funding parties: CA

3. Reallocation of Funds for Earlier Approved Projects

1606 Experimental Mock-up of Molten Salt Loop of Accelerator-Based Facility for Transmutation of Radioactive Waste and Conversion of Military Plutonium. Stage 2: Experimental Study of Molten Salt Technology for Safe, Low-Waste and Proliferation Resistant Treatment of Radioactive Waste and Plutonium in Accelerator-Driven and Critical Systems
Project Manager: Zherebtsov A L; Leading Institution: VNIITF (Snezhinsk, Chelyabinsk reg.); Supporting Institutions: Kurchatov Research Center (Moscow), High Temperature Electrochemistry Institute (Ekaterinburg, Sverdlovsk reg.), VNIIKhT (Chemical Technology) (Moscow); Collaborators: British Nuclear Fuels Ltd (BNFL) (Risley Warrington, Chesire, UK), CEA / DRN / DER / CEN Cadarache (Cadarache, France), CEA / DSM / DAPNIA/CEN Saclay (Saclay, France); Duration: 36 months; Funding parties: EU

1861 Creation of the Universal Gas Polarized Target for the Investigation of the Nuclear Polarization in the Molecules of Hydrogen (Deuterium) at the Different Interactions with the Target's Walls
Project Manager: Chernov N N; Leading Institution: Nuclear Physics Institute (Gatchina, Leningrad reg.); Collaborator: Universitat zu Koln / Institut fur Kernphysik (Köln, Germany); Duration: 36 months; Funding parties: EU Other

B-1063 Atmosphere Aerosol and Ozone Monitoring in CIS Regions through Lidar Network (CIS-LiNet)
Project Manager: Chaikovsky A P; Leading Institution: B.I. Stepanov Institute of Physics (Minsk, Belarus); Supporting Institutions: Institute of Atmospheric Optics (Tomsk, Tomsk reg.), Institute of Applied Geophysics (Fedorov) (Moscow), Surgut State University (Surgut), Il'ichev's Pasific Oceanological Institute (Vladivostok, Primorsky reg.), Kyrgyz-Russian Slavonic University (Bishkek, Kyrgyzstan); Collaborators: Max-Planck-Institut fuer Meteorologie (Hamburg, Germany), NASA / Goddard Space Flight Center (Greenbelt, MD, USA), Tokyo University of Mercantile Marine (Tokyo, Japan), Université des Sciences et Technologies de Lille / Laboratoire d'Optique Atmospherique (Villeneuve d' Ascq, France); Duration: 36 months; Funding parties: EU CA