



Russian Academy of Sciences,
IPCE RAS, RFBR, ISTR,
ROSATOM, RUSNANO
Interdisciplinary scientific council on radiochemistry
ACADEMINVESTSERVICE
FMBC FMBA, MUCTR



PROGRAM
July 4-8, 2011
Moscow, Russia



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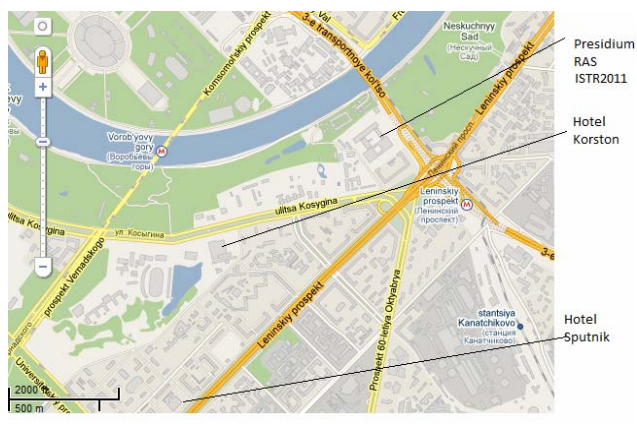
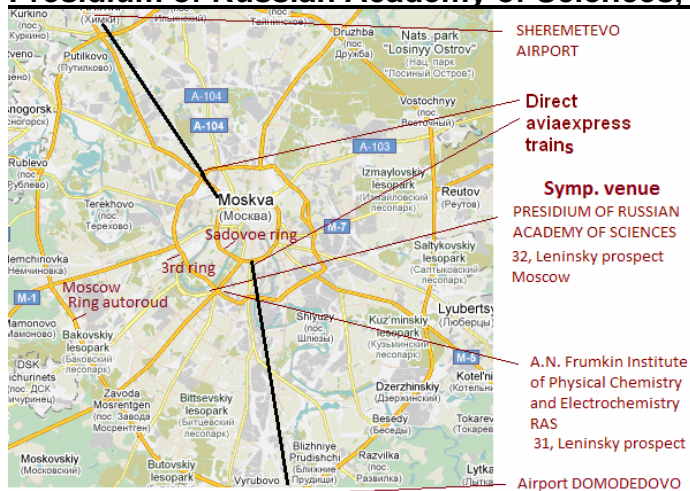
Web site: www.technetium-99.ru

Working group:

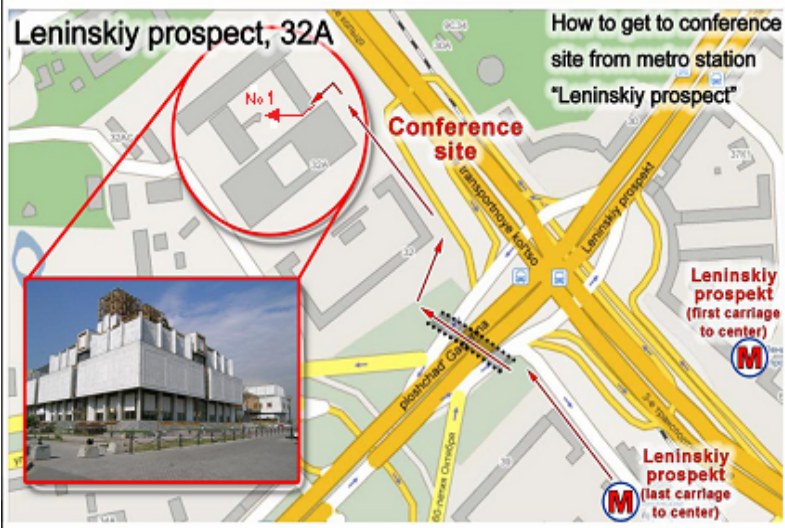
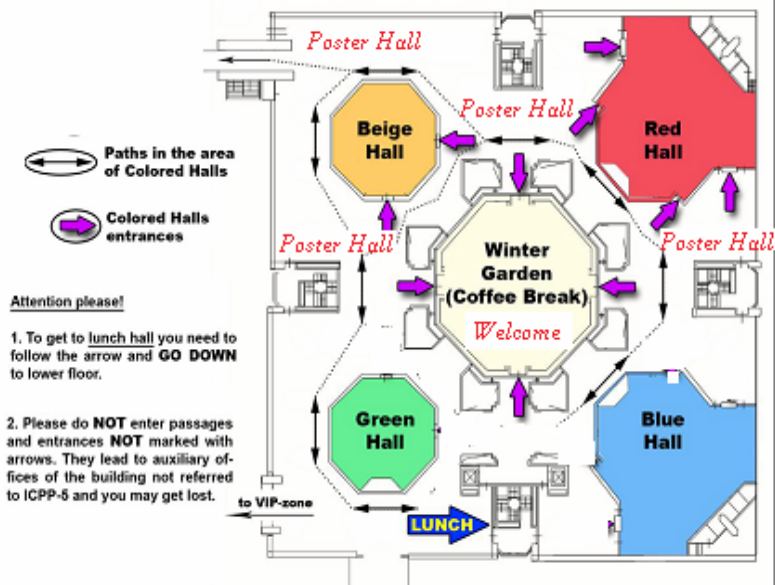
N.N. Popova, A.Ya. Maruk, A.M. Safulina, E.O. Nazarov, Ya.A. Obruchnikova, A.O. Malysheva, G.A. Kirakosyan, D.N. Tumanova, A.B. Melentev, N.Yu. Budanova, L.I. Kataeva, O.I. Lyamina, V.A. Lebedev, N. Gracheva, I.I. Byvsheva, Yu.V. Saprykin, T.K. Dvoryanchikova, M.V. Vazhenkov.

SYMPOSIUM VENUE: 32A, Leninskiy prospect, Moscow, Russia

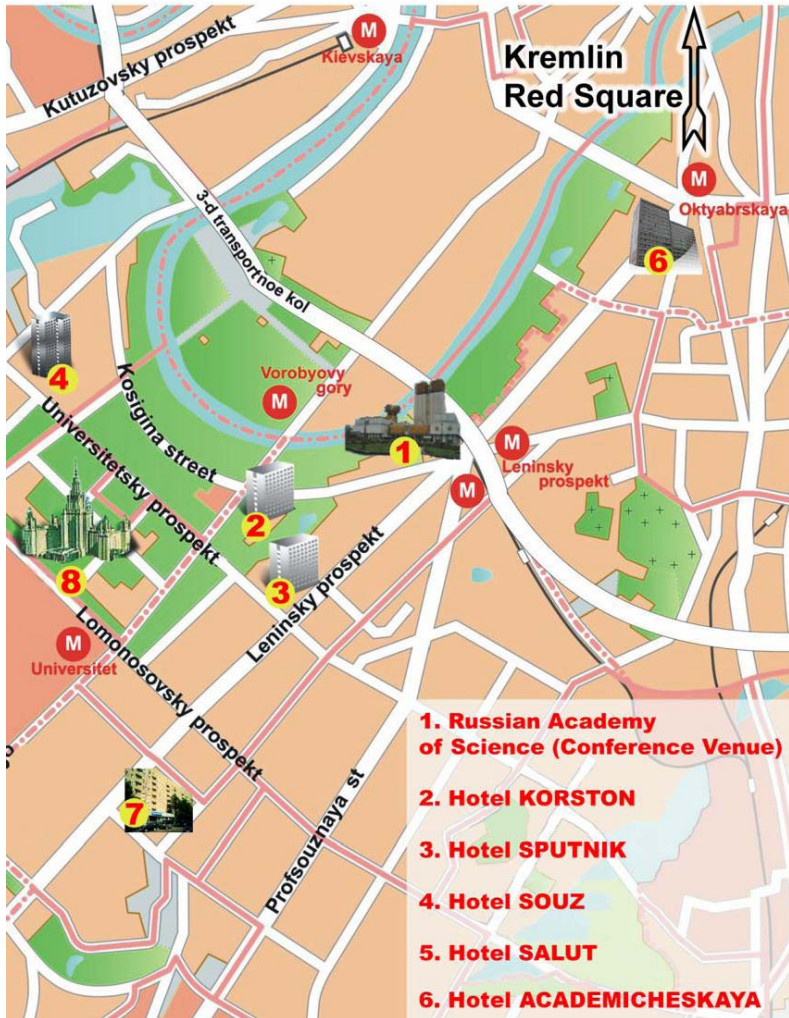
Presidium of Russian Academy of Sciences, Entry No 1



Scheme of conference building's 3rd floor



Venue map



SESSIONS:

1	Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR)
2	Tc in the Nuclear Fuel Cycle and in the Biosphere. Analytical Chemistry of Tc and Re (in collaboration with ISTC, ROSATOM, RUSNANO)
3	Re Hydrometallurgy (in collaboration with Purolite and TMS)
4	Tc and Re in Nuclear Medicine (in collaboration with Burnazyan FMBC FMBA, ISTC, ROSATOM, RUSNANO)
5	Applications of Tc and Re, including their alloys in Modern Constructing Materials (in collaboration with Purolite, RUSNANO)
6	Tc and Re nanotechnology and applications for nanomaterials (in collaboration with RUSNANO)
7	Round Table: Tc and Re as business projects

CO-ORGANIZERS AND SPONSORS

Sessions 1 and 2 are organized by IPCE RAS in collaboration with RAS, RFBR, Bruker and Academinvestservice.

Session 3 and 5 are organized by IPCE RAS in collaboration with B. Bryskin, TMS, ROSATOM and Purolite.

Session 4 and 6 are organized in collaboration with FMBC FMBA, ROSATOM, ISOTOPE and ISTC.

Session 6 and 7 are organized by IPCE RAS in collaboration with RUSNANO.

PROGRAM

MONDAY, 4	
9.30 – 11.00	Registration
11.00 - 13.30 Red Hall	Opening ceremony Symposium lectures (invited speakers)
13.30-14.30	Lunch
14.30 - 17.15 Red Hall	SESSION 1.1. Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR) Oral presentations
14.30 - 17.15 Beige Hall	SESSION 2.1. Tc in the Nuclear Fuel Cycle and in the Environment. Analytical Chemistry of Tc and Re (in collaboration with ISTR, ROSATOM, RUSNANO)
17.30 - 18.00 Poster Hall	Poster communications: 1 - Fundamental Physics and Chemistry of Tc and Re 2 - Tc in the Nuclear Fuel Cycle and in the Environment. Analytical Chemistry of Tc and Re
19.00	Welcome Party
TUESDAY, 5	
Red Hall	SESSION 1.2. Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR)
09.30 - 10.00	Plenary lecture
10.00 - 10.30	Oral presentations
10.30 - 11.00	Coffee Break
11.00 - 13.00	Oral presentations
Beige Hall	SESSION 2.2. Tc in the Nuclear Fuel Cycle and in the Environment. Analytical Chemistry of Tc and Re (in collaboration with ISTR, ROSATOM, RUSNANO)
09.30 - 10.05	Plenary lecture
10.05 - 10.30	Oral presentations
10.30 - 11.00	Coffee Break
11.00 - 13.00	Oral presentations
13.00 - 14.00	Lunch
Red Hall	SESSION 1.3. Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR)
14.00 - 16.30	Oral presentations
16.30 - 17.00	Coffee Break
Beige Hall	SESSION 2.3. Tc in the Nuclear Fuel Cycle and in the Environment. Analytical Chemistry of Tc and Re (in collaboration with ISTR, ROSATOM,

	RUSNANO)
14.00 - 16.30	Oral presentations
16.30 - 17.00	Coffee Break
17.00 - 19.00	Poster communications: 1 - Fundamental Physics and Chemistry of Tc and Re 2 - Tc in the Nuclear Fuel Cycle and in the Environment. Analytical Chemistry of Tc and Re
20.00	Meeting of the IAC, ISC and LOSC

WEDNESDAY, 6	
Red Hall	SESSION 3.1. Re Hydrometallurgy (in collaboration with Purolite and TMS)
09.30 - 10.00	Plenary lecture
10.00 - 10.45	Oral presentations
10.45 - 11.00	Coffee Break
11.00 - 13.00	Oral presentations
Beige Hall	SESSION 4.1. Tc in Nuclear Medicine (in collaboration with Burnazyan FMBC FMBA, ISTC, ROSATOM, RUSNANO)
09.30 - 10.00	Plenary lecture
10.00 - 10.45	Oral presentations
10.45 - 11.00	Coffee Break
11.00 - 13.00	Oral presentations
13.00 – 14.00	Lunch
Red Hall	SESSION 3.2. Re Hydrometallurgy (in collaboration with Purolite and TMS)
14.00 - 16.30	Oral presentations
16.30 - 17.00	Coffee Break
Beige Hall	SESSION 4.2. Tc and Re in Nuclear Medicine (in collaboration with Burnazyan FMBC FMBA, ISTC, ROSATOM, RUSNANO)
14.00 - 16.30	Oral presentations
16.30 - 17.00	Coffee Break
17.00 - 19.00	Poster communications: 3 - Re Hydrometallurgy 4 - Tc and Re in Nuclear Medicine
THURSDAY, 7	

Red Hall	SESSION 6.1. Tc and Re nanotechnology and applications for nanomaterials (in collaboration with RUSNANO and B. Bryskin/TMS)
09.30 - 10.10	Plenary lecture
10.10 - 10.40	Oral presentations
10.40 - 11.00	Coffee Break
11.00 - 13.00	Oral presentations
Beige Hall	SESSION 5.1. Applications of Tc and Re, including their alloys in Modern Constructing Materials (in collaboration with Purolite, RUSNANO)
09.30 - 10.10	Plenary lecture
10.10 - 10.40	Oral presentations
10.40 - 11.00	Coffee Break
11.00 - 13.00	Oral presentations
13.00 – 14.00	Lunch
Red Hall	SESSION 6.2. Tc and Re nanotechnology and applications in the nanomaterials (in collaboration with RUSNANO and B. Bryskin/TMS)
14.00 - 16.00	Oral presentations
16.00 - 16.30	Coffee Break
Beige Hall	SESSION 5.2. Applications of Tc and Re, including their alloys in Modern Constructing Materials (in collaboration with Purolite, RUSNANO)
14.00 - 16.00	Oral presentations
16.00 - 16.30	Coffee Break
16.00 - 18.00	Poster communications: 5 - Applications of Tc and Re in technology, including their alloys in Modern Constructing Materials 6 - Tc and Re nanotechnology and applications for nanomaterials
20.00	Social dinner
FRIDAY, 8	
Round table: Tc and Re as business projects	
09.30 - 10.45	Oral presentations
10.45 - 11.10	Coffee Break
11.10 -11.50	Plenary Invited lecture
11.50 - 12.30	Symposium closure
14:30	Excursion tour

MONDAY, 4 July	
11.00 – 11.10	Welcome address from acad. B.F. Myasoedov
11.10 – 11.20	Welcome address from acad. A.Yu. Tsvivadze
11.20 – 12.20	Welcome address: RUSNANO, ISTC, ROSATOM, UNLV (USA), CEA (France), RFBR
12.20 – 12.50	K.E. German, F. Poineau Technetium: new trends in investigation and application
12.50 – 13.20	E.N. Kablov, N.V. Petrushin, V.V. Sidorov Rhenium in the thermally stable nickel alloys for single-crystal blades of gas-turbine engines
13.20 – 13.30	M. Ozawa ISTR retrospectives and prospects
13.30-14.30	Lunch
14.30 - 17.15 Red Hall	SESSION 1.1. Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR)
14.30 – 15.00	1.1 T. Yoshimura (Osaka University) Spectroscopic and photophysical properties of chalcogenide-capped octahedral hexarhenium complexes with N-heteroaromatic ligands
15.00 – 15.30	1.2 Y.V. Mironov, S.S. Yarovoy, K.A. Brylev, V.E. Fedorov (Nikolaev Institute of Inorganic Chemistry of SB RAS, Russia) Rhenium octahedral chalcohydroxo cluster complexes
15.30 – 16.00	1.3 F. Poineau, A. P. Sattelberger, B. L. Scott, P. Forster, P. Weck, E. Johnstone, K.R. Czerwinski (UNLV, LANL, ANL) Technetium halides: from molecular to extended structures
16.00 – 16.30	Coffee Break
16.30 – 16.45	1.4 E.N. Pryamilova, O.V. Chernyshova, D.V. Drobot (M. Lomonosov Moscow State Academy of Fine Chemical Technology) Electrochemical synthesis of rhenium alkoxyderivatives (investigation of the regularities and mechanism of complexes formation)
16.45 – 17.15	1.5 T. Gerber, Kim Potgieter, Peter Mayer (NMMU, Port Elizabeth, South Africa, Ludwig-Maximilians University, Germany) Rhenium coordination chemistry: old ligands die hard
14.30 - 17.15 Beige Hall	SESSION 2.1. Tc and Re in the Nuclear Fuel Cycle and in the Environment. Analytical Chemistry of Tc and Re (in collaboration with ISTC, ROSATOM, RUSNANO)

14.30 – 15.00	2.1 M. Ozawa, T. Suzuki, S. Koyama, Y. Fujii and M. Saito (Tokyo Institute of Technology, Japan) How to manage technetium (nuclear rare metal) and actinides, toward future reprocessing system providing non-proliferation
15.00 – 15.20	2.2 T.A. Boytsova, V.A. Korolev, Yu.A. Pohitonov, V.A. Babain, M. Ozawa, T. Suzuki (Khlopin Radium Institute, SPB & Tokyo Institute of Technology) Combined separation of Pd and Tc from the raffinates of the spent nuclear fuel reprocessing
15.20 – 15.40	2.3 M.Fattahi, I. Denden, F. Poineau (EMN-Subatech, France) Speciation of technetium in non complexing acidic media / anions effect
15.40 – 16.00	2.6 D.N. Kolupaev, A.B. Melent'ev, A.N. Mashkin, V.A. Misharin, A.V. Anan'ev, V.P. Shilov, K.E. German, I.G. Tananaev (PA "Mayak", Ozyorsk, IPCE RAS, Moscow) Composition and catalytic properties of the precipitates and interphase structures based on technetium with reference to the conditions of reductive separation operation of uranium and plutonium in the Purex process
16.00 – 16.30	Coffee Break
16.30 – 16.55	2.4 A.A. Kozar', V.F. Peretruhin, K.V. Rotmanov, V.A. Tarasov (IPCE RAS – Moscow , Research Institute of Atomic Reactors, Dimitrovgrade) The elaboration of technology bases for the artificial stable ruthenium preparation from technetium-99 transmutation products
16.55 – 17.15	2.5 K.E. German, Ya.A. Obruchnikova, D.N. Tumanova, V.F. Peretrukhin, Ph. Moisy (IPCE RAS, Moscow: CEA-DEN, Marcoule) Technetium catalytic effect and speciation in nitric acid solutions in presence of Np(V), Th(IV) and Zr(IV) and reducing nitrogen derivatives
17.30 - 18.00 Poster Hall	Poster communications: Fundamental Physics and Chemistry of Tc and Re Tc in the Nuclear Fuel Cycle and in the Environment Analytical Chemistry of Tc and Re
1.P1	N.G. Kabirov, S.M. Safarmamadov, A.A. Aminjanov (Tajik National University, Dushanbe) Effect of the rhenium(V) complex of 3,4-dimethyl-1,2,4-triazol-5-thiol on the diacetate cellulose light fastness
1.P2	A.V. Ermolaev, A.I. Smolencev, K.A. Brylyov, V.E. Fedorov, Yu.V. Mironov (A. Nikolaev Institute of Inorganic Chemistry of the Siberian Branch of the RAS, Novosibirsk,) Octahedral rhenium(III) chalcocyanohydroxo cluster complexes
1.P3	M.V. Suhanov, V.I. Pet'kov (Lobachevsky State University

	of Nizhny Novgorod) Rhenium and technetium orthocompounds with Kosnarite type structure: synthesis and investigation
1.P4	A.Yu. Didyk, R. Vishnevsky, V. Kalikauskas, A.A. Shiryaev (JINR, Dubna, & IAE POLATOM- Poland & Skobeltsyn Institute of Nuclear Physics of Moscow State University & IPCE RAS) Depth distribution of D-ions with 25 keV energy implanted into pure Mn, Tc* and Re foils up to high fluencies $(1\pm 2)\times 10^{18}$ D ⁺ /cm ² , measured by ERD method
1.P5	Z.Ch. Kadyrova, H.T. Sharipov, Sh. Dzhuraev, N.A. Parpiev (Tashkent Chemical Technological Institute, Uzbekistan, M. Ulugbek National University of Uzbekistan) Coordination compounds of biologically active N-containing heterocyclic ligands
1.P6	N.G. Kabirov, S. Safarmamadov, A.A. Amindzhanov (Tajik National University, Dushanbe) Chelation of rhenium (V) with 3-ethyl-4-methyl-1,2,4-triazol-5-thiol in 3 mol/l HCl medium
1.P7	K.. Mabatkadamova, N.. Kabirov, S.M. Safarmamadov, A.A. Amindzhanov (Tajik National University, Dushanbe) Complexation in the system Re(V) - 1-methyl-2-merkaptimidazol - 8 mol/l HCl.
1.P8	A.Ya. Maruk, M.S. Grigoriev, K.E. German (IPCE RAS) Synthesis, crystal structure and properties of triphenylguanidium tetraoxidorhenate hemihydrate
1.P9	A.M. Fedoseev, M.S. Grigoriev (IPCE RAS) Synthesis and crystal structure of $(AnO_2(HMPA)_4)(MO_4)_2$ (An=U, Pu), M=Cl, Tc, Re)
1.P10	K.E. German, A.Ya. Maruk, F. Poineau, Ph. Weck, G.A. Kirakosyan, V.P. Tarasov, K. Czerwinski (IPCE RAS, UNLV) Transformation of Tc(VII) in acids: $TcO_3(OH)(H_2O)_2$ and $TcO_3(H_2O)^{3+}$ in HClO ₄ and polymeric species in solids and acetonitrile splutions
1.P11	Ja.M. Gayfulin, Yu.V. Mironov, A.I. Smolencev (Nikolaev Institute of Inorganic Chemistry SB RAS, Novosibirsk) New compounds based on the cluster anions $[Re_4Q_4(CN)_{12}]^{4+}$ (Q=S, Se, Te) and cations $(1,10\text{-phenH})^+$, Nd^{3+} , Er^{3+}
1.P12	A.A. Aminjanov (Tajik State National University, Dushanbe) Mutual substitution of ligands in complex compounds of rhenium (V)
1.P.13	Fathi Habashi (Department of Mining, Metallurgical, and Materials Engineering, Laval University, Canada Rhenium and its position in the periodic table
1.P14.	G. Kolesnikov, V. Khrustalev, K.German, I. Tananaev, G.Kirakosyan E.Katayev (Nesmeyanov Institute of

	Organoelement Compounds, RAS; IPCE RAS; Institut für Organische Chemie, Universität Regensburg, Germany) Macrocyclic receptors for pertechnetate and perchlorate anions
19.00	Welcome Party

TUESDAY, 5	
Red Hall	SESSION 1.2. Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR)
09.30 – 10.00	1.6 T. Kobayashi, X. Gaona, D. Fellhauer, M. Altmaier (Karlsruhe Institute of Technology & European Commission, Joint Research Centre, Institute for Transuranium Elements) Redox behaviour of Tc(VII)/Tc(IV) couple in diluted NaCl solution in various reducing systems
10.00 – 10.30	1.7 A.E. Miroslavov, G.V. Sidorenko, A.A. Lumpov, D.N. Suglobov, M.S. Grigoriev, V.V. Gurzhiy (Khlopin Radium Institute, IPCE RAS), Hexacarbonyltechnetium(I) cation and its reactivity
10.30 - 11.00	Coffee Break
11.00 – 11.20	1.8 G.V. Sidorenko, A.E. Miroslavov, D.N. Suglobov, M.S. Grigoriev, V.V. Gurzhiy (V. Khlopin Radium Institute, IPCE RAS, Russia) Structural chemistry of technetium carbonyl compounds
11.20 – 11.45	1.9 D.V. Drobot, O.V. Chernyshova, O.S. Kriyzhovets, K.A. Smirnova, I.V. Masilin, A.V. Shevelkov, M.V. Tsodikov, A.V. Chistyakov, O.V. Petrakova, E.G. Il'in (M. Lomonosov Moscow State Academy of Fine Chemical Technology) "Soft" chemistry methods appear as an effective way for production of superdispersive (nano-sized) materials based on Re and d-elements of V-VIII groups
11.45 – 12.00	Coffee Break
12.00 – 12.30	1.10 C. Kremer, R. Chiozzone (Cátedra de Química Inorgánica, Facultad de Química, Montevideo, Uruguay) Structure and magnetic properties of polynuclear complexes containing Re(IV)
12.30 – 13.00	1.13 K.B. Povarova (Baikov Institute of Metallurgy and Materials Science RAS) Physicochemical principles of the development of rhenium-based and rhenium-containing alloys
Beige Hall	SESSION 2.2. Tc in the Nuclear Fuel Cycle and in the Environment.

	Analytic Chemistry of Tc and Re (in collaboration with ISTR, ROSATOM, RUSNANO)
09.30 - 10.05	2.7 T. Khijniak (Winogradsky Institute of Microbiology of RAS, Moscow) Interaction of long-lived radionuclides and microorganisms
10.05 – 10.30	2.8 S.N. Britvin, Y.I. Korneyko, S.V. Krivovichev, W. Depmeier (St. Petersburg State University; V. Khlopin Radium Institute, Department of Crystallography & Institute Geosciences, University Kiel, Germany) Layered Hydratinium Titanate: reductive adsorbent for irreversible immobilization of technetium
10.30 - 11.00	Coffee Break
11.00 – 11.45	2.9 S.V. Yudintsev, E.E. Konovalov, B.S. Nikonov (IGEM RAS, «SRC RF – IPPE») Re and Tc in cermet waste forms
11.45 – 12.00	Coffee Break
12.00 – 12.30	2.10 M. Chotkowski, A. Czerwiński (University of Warsaw Chemistry Department) Electrochemical and spectroelectrochemical investigations of TcO_4^- electroreduction in acidic media
12.30 – 13.00	2.11 L.V. Borisova, V.V. Minin (Vernadsky Institute of Geochemistry and Analytical Chemistry RAS; Institute of General and Inorganic Chemistry RAS) Stabilization of rhenium(VI) compounds in solutions and using them in analysis
13.00 - 14.00	Lunch
Red Hall	SESSION 1.3. Fundamental Physics and Chemistry of Tc and Re (in collaboration with RFBR)
14.00 – 14.25	1.11 A.I. Irtegov, M.A. Kurykin, V.N. Khrustalev, E.E. Nikishina, D.V. Drobot (Nesmeyanov Institute of Organoelement Compounds of the RAS, M. Lomonosov Moscow State Academy of Fine Chemical Technology) Polyfluorinated β -diketonates of rhenium
14.25 – 14.50	1.12 W.M. Kerlin, T. Yordanova, F. Poineau, P.M. Forster, A.P. Sattelberger, K.R. Czerwinski (UNLV; Ecole Polytechnique Fédérale de Lausanne; ANL,USA) Preparation of technetium metal-metal bonded acetate dimers via hydrothermal route

14.50 – 15.15	1.13 E.V. Johnstone, F. Poineau, P.F. Weck, E. Kim, P.M. Forester, B. Scott, T. Hartmann, A.P. Sattelberger, K.R. Czerwinski (University of Nevada, Las Vegas (UNLV), USA) Synthesis and characterization of low-valent binary technetium
15.15 – 15.40	1.14 V.E. Fedorov, Yu.V. Mironov, N.G. Naumov, K.A. Brylev (Nikolaev Institute of Inorganic Chemistry, SB of RAS) Recent results in rhenium cluster chemistry
15.40 – 16.00	1.15 O.S. Kryzhovets, D.V. Drobot, A.V. Shevelkov, O.V. Petrakova (Lomonosov Moscow State Academy of Fine Chemical Technology, Lomonosov Moscow State University, Moscow) Heteroligand alkoxides of rhenium containing O-Et and O-iPr ligands
16.00 – 16.30	1.16 A.A. Aminjonov (Tajik State National University, Dushanbe) Status and prospects of studies on the chemistry coordination compounds of rhenium(V)
16.30 - 17.00	Coffee Break
Beige Hall	SESSION 2.3. Tc and Re in the Nuclear Fuel Cycle and in the Environment. Analytic Chemistry of Tc and Re (in collaboration with ISTC, ROSATOM, RUSNANO)
14.00 – 14.30	2.12 H.T. Sharipov, A.H. Turesebekov, R. Sharipov, V.F. Borbat (Tashkent Chemical Technological Institute, Uzbekistan, Institute of Geology and Geophysics AS of Uzbekistan & Omsk F. Dostoevsky State University, Omsk, Russia) Analytical study of natural concentrations and chemical compounds of rhenium and technetium
14.30 – 15.00	2.13 K. Leszczynska-Sejda (Institute of Non-Ferrous Metals Gliwice, Gliwice, Poland) Method for hexamminecobalt(III) perhenate synthesis from perhenic acid
15.00 – 15.30	2.14 D. Golovanov (Bruker-Moscow) Modern X-ray analytical instruments of Bruker AXS
15.30 – 16.00	2.15 R.A. Aliev (Lomonosov Moscow State University) Preparation of ^{95m,g} Tc, ⁹⁶ Tc by irradiation of molybdenum with ALPHA-particles and deuterons
16.00 – 16.30	2.16 S. Alwaer.(Tripoly TNRC, Libya) Modernization method for production of Fission Mo-99 from Low-Enriched-Uranium Foil (LEU-Foil)
16.30 - 17.00	Coffee Break

17.00 - 19.00	Poster communications: Fundamental Physics and Chemistry of Tc and Re Tc in the Nuclear Fuel Cycle and in the Environment Analytic Chemistry of Tc and Re
2.P1	A.A. Kozar', V.F. Peretruhin (IPCE RAS Moscow) ⁹⁹ Tc transmutation target heterogeneity for the artificial stable ruthenium purification from ¹⁰⁶ Ru
2.P2	G.S. Bulatov, K.N. Gedgovd, D.Yu. Lyubimov (IPCE RAS; SIA «LUCH», Russia) The behavior of technetium, americium and neptunium in the spent FBR (U,Pu)N fuel after fast neutron irradiation as a function of the temperature and burn-up
2.P3	E.M. Pichuzhkina, S.V. Tomilin (NIAR , Dimitrovgrad) Compounds of curium with technetium
2.P4	V.I. Volk, K.N. Dvoyeglazov, V.L. Vidanov, L.N. Sergeeva (Bochvar High-Tech Research Institute of Inorganic Materials) Extraction-chromatographic purification of uranium extract from technetium
2.P5	E.E. Konovalov, T.O. Mishevets, S.S. Shulepov, Yu.D. Boltoev («SSC RF – IPPE», Obninsk, Russia) Metal-thermal Immobilization of High-active Technetium Waste into Matrices Based on Metal Glass Crystalline Composites
2.P6	N.N. Popova, G.L. Bykov, I.G. Tananaev, B.G. Ershov (IPCE RAS) Application of modified wood materials for extraction of technetium(VII) from aqueous medium
2.P7	K.E. German, A.B. Melentev, Ya. V. Zubavichus, S.N. Kalmykov, A.A. Shiryaev, I.G. Tananaev (PA “Mayak”, <u>Ozyorsk</u> ; IPCE RAS, Moscow; NRC “Kurchatov Institute”, M. Lomonosov Moscow State University) Structure and properties of insoluble technetium compounds formed in technetium - hydrazine - DTPA - nitric acid - solutions
2.P8	A.B. Melent'ev, A.N. Mashkin, O.V. Tugarina, K.E. German, I.G. Tananaev (PA “Mayak”, Ozyorsk; IPCE RAS, Moscow, Russia) The Behavior of the Technetium - hydrazine - nitric acid - TBP System in Presence of The Complexing Agents
2.P9	A.M. Safulina, K.E. German, E.I. Goryunov, I.B. Goryunova, E.E. Nifantiev, I.G. Tananaev, B.F. Myasoedov (IPCE RAS, Nesmeyanov Institute of Elementoorganic Compounds of RAS, Russia) Technetium(VII) extraction with hybrid phosphor-nitrogenated derivative ligands
2.P10	M.K. Abdulhatov, S.A. Bartenev, M.Ya. Gojzman, A.V. Gribanov V.S. Gusel'nikov, M.P. Zykov, Yu.N. Novikov,

	Yu.N. Sazanov, N.G. Firsin (V. Khlopin Radium Institute, St.-Petersburg; Institute of Macromolecular Compounds RAS, St. Petersburg, Konstantinov Petersburg Nuclear Physics Institute RAS, Gatchina) New materials for immobilization of technetium-containing waste for the purpose of their isolation from the environment
2.P11	K.E. German, V.F. Peretruxhin, A.Yu. Tsivadze (IPCE RAS Moscow, Russia) Technetium sulfides – role in chemistry and ecology
2.P12	K.E. German, T. Khijniak, V.F., Peretruxhin (IPCE RAS Moscow, Russia) Technetium limnology as frame for its ecology and the key for underground storage
2.P13	Yu.I. Korneyko, V.M. Garbuzov, B.E. Burakov (Khlopin Radium Institute, Russia) Kassiterite as a Durable Host-Phase for Technetium Immobilization
2.P14	A.G. Maslennikov, K.V. Rotmanov, N.G. Kravchenko, V.M. Radchenko, M.V. Kormilitsyn, V.F. Peretruxhin (IPCE RAS Moscow, Russia; NIIAR Dimitrovgrad) Electrochemical Investigation of Corrosion and Dissolution of Metallic Technetium and Tc-Ru Alloys in 0,5 – 6,0 M HNO ₃
2.P15	R.A. Aliev, S.N. Kalmykov, I.G. Tananaev, I.A. Ivanov (Lomonossov Moscow State University, IPCE RAS Moscow, Russia; PO Mayak, Russia) Tc-99 determination in contaminated groundwater
2.P16	O. Batuk, S.N. Kalmykov, E.V. Zakharova (Lomonossov Moscow State University, IPCE RAS Moscow, Russia) Sorption of Tc-99 and Np-237 by depleted UO ₂
2.P17	Yu.I. Urusov, K.E. German, A.V. Kopytin, A.F. Zhukov (Mendeleev Russian Chemical-Technology University, IPCE RAS Moscow, Russia; Kurnakov Institute of General and Inorganic Chemistry Russia) ReO ₄ ⁻ and TcO ₄ ⁻ ion-selective bubble-through flow cells
2.P18	A.A. Kozar', V.F. Peretruhin (IPCE RAS Moscow, Russia) ⁹⁹ Tc transmutation target heterogeneity for the artificial stable ruthenium purification from ¹⁰⁶ Ru
2.P19	A.A. Grechnikov, L.V. Borisova, V.A. Ryabuhin (Vernadsky Institute of Geochemistry and Analytical Chemistry RAS) Novel approach to the mass-spectrometric determination of trace amounts of rhenium using its complexes with organic reagents
20.00	Meeting of the IAC, ISC and LOSC

WEDNESDAY, 6 July

Red Hall	SESSION 3.1. Re Hydrometallurgy (in collaboration with Purolite and TMS)
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09.30 – 10.10	3.1 I.D. Troshkina (Mendeleyev University of Chemical Technology of Russia) Rhenium in Nuclear Fuel Cycle
10.10 – 10.45	3.2 Z.S. Abisheva, A.N. Zagorodnyaya (Centre of Earth Sciences, metallurgy and ore beneficiation, Kazakhstan) Rhenium of Kazakhstan
10.45 – 11.00	Coffee Break
11.00 – 11.30	3.3 E.A. Ospanov, E.I. Gedgagov, N.A. Ospanov, S.V. Zakharyan (Balkhash copper smelter, Republic of Kazakhstan; GINTSVETMET Institute, Russia) Development of the technology for production of high-purity ammonium perrhenate at Balkhash copper smelter, Republic of Kazakhstan
11.30 – 12.05	3.4 Gedgagov E.I., Nekhoroshev N.E.(FSUE “GINTSVETMET Institute”, Russia; ZAO “VR”«BP») Use of ion-exchange resins for production of high-purity ammonium perrhenate when processing rhenium-containing ore and secondary raw materials
12.05 – 12.30	3.5 M. Mikhaylenko (Purolite International, Russia) Purolite® Ion Exchange Resins for Recovery and Purification of Rhenium
12.30 – 13.00	3.6 Og. Bozhkov, Ch.Tzvetkova, L. Borisova (Institute of General and Inorganic Chemistry, Bulgarian Academy of Sciences & Vernadsky Institute of Geochemistry and Analytical Chemistry, Russian Academy of Sciences, Russia) Phytomining of Re - an Alternative Method for Re Production
Beige Hall	SESSION 4.1. Tc and Re in Nuclear Medicine (in collaboration with Burnazyan FMBC FMBA, ISTC, ROSATOM, RUSNANO)
09.30 – 10.00	4.1 G.E.Kodina (Burnazyan Federal Medical Biophysical Center of FMBA Russia) Tc-99m and Re-188 in Russian Nuclear Medicine
10.00 – 10.25	4.2 H. Braband, R. Alberto (Institute of Inorganic Chemistry, University of Zurich, Switzerland) The <i>fac</i> -{TcO ₃ } ⁺ core – a challenge for high-valent technetium chemistry
10.25 – 10.45	4.3 A.Ya. Maruk, A.B. Bruskin, G.E. Kodina (Burnazyan FMBC FMBA Russia) New radiopharmaceuticals based on technetium-99m with bifunctional chelating agents
10.45 – 11.00	Coffee Break

11.00 – 11.20	4.4 V.N. Korsunsky, V.N. Oshchepkov, S.V. Shiryaev, E.Z. Rabinovich (Burnazyan FMBC, Blokhin RCRC, Institute of Urology, "Pharm-Sintez" Inc.) “Rezoskan, 99mTc” in the diagnosis of metastatic bone lesions
11.20 – 11.45	4.5 V.S. Skuridin, V.L. Sadkin, E.S. Stasiuk, N.V. Varlamova, A.C. Rogov, E.A. Nesterov (National Research Tomsk Polytechnic University, Tomsk) Obtaining Technetium-99m Labeled Nanocolloids Based on Aluminium Oxide for Medical Diagnostics
11.45 – 12.10	4.6 E.A. Nesterov, V.S. Skuridin, M.L. Belyanin, J.V. Nesterova, V.L. Sadkin, A.S. Rogov, I.V. Chikova (National Research Tomsk Polytechnic University) Receiving of nanosized colloids based on modified DTPA molecule labeled with technetium-99m
12.10 – 12.35	4.7 N.I. Gorshkov, A.Yu. Murko, Yu.I. Zolotova, O.V. Nazarova, I.I. Malakhova, V.D. Krasikov, R. Schibli (Institute of Macromolecular Compounds RAS Institute for Pharmaceutical Sciences ETH Hönggerberg, Switzerland) Synthesis and complex analysis of biologically active polymers (poly-N-vinylpyrrolidone) with Re(CO) ₃ species
12.35 – 13.00	4.8 A.N. Klyopov, V.V. Krylov, Y.A. Kurachenko, Eu.S. Matushevich, Eu.V. Snigirev, O.P. Aleksandrova (Medical Radiological Research Centre of Ministry of Health; Obninsk Institute for Nuclear Power Engineering of National Research Nuclear University) Development of dosimetric support and planning of radionuclide therapy with radiopharmaceutical labeled ¹⁸⁸ Re
13.00 – 14.00	Lunch
Red Hall	SESSION 3.2. Re Hydrometallurgy (in collaboration with Purolite and TMS)
14.00 – 14.35	3.7 V.P. Volkov, N.M. Mescheryakov (Navoi GMK, Uzbekistan) ZAO NPO “GPS”, Russia) Sorptive Recovery of Rhenium from Circulating Solutions of Uranium in Situ Leaching Operation
14.35 – 15.10	3.8 A.N. Zagorodnyaya, Z.S. Abisheva, S.E. Sadykanova (Centre of Earth Sciences, Metallurgy and Ore Beneficiation, Almaty, Kazakhstan) Interphase Substances of Rhenium Extraction Circuit are a source for production of rhenium and radiogenic osmium
15.10 – 15.50	3.9 L. Ya. Agapova, Z. S. Abisheva, S. K. Kilibayeva, I. A. Sapukov (Centre of Earth Sciences, Metallurgy and Ore Beneficiation, Kazakhstan) Electrodeposition of rhenium

	alloys in form of powders and coatings from water solutions by membrane electrolysis
15.50 – 16.30	3.10 Z.S. Abisheva, L.Ya. Agapova, E.I. Ponomareva, Z.T. Abdrakhmanova (Centre of Earth Sciences, Metallurgy and Ore Beneficiation, Kazakhstan) Application of electrodialysis method for high purity metal rhenium obtaining
16.30 – 17.00	Coffee Break
Beige Hall	SESSION 4.2. Tc and Re in Nuclear Medicine (in collaboration with Burnazyan FMBC FMBA, ISTC, ROSATOM, RUSNANO)
14.00 – 14.30	4.9 A. Hammadi (CEA, Saclay, National Institute for Nuclear Science and Technology, France) Education and training in nuclear medicine, radiopharmacy, medical physics and molecular imaging: the INSTN experienced approach
14.30 – 14.55	4.10 M. L. Bonardi, F. Groppi, E. Lapshina, S. Manenti, L. Gini (Università degli Studi di Milano, UNIMI and Istituto Nazionale di Fisica Nucleare, INFN, L.A.S.A., Radiochemistry Laboratory, Via F.Lli Cervi 201, I-20090 Segrate, Mi, Italy, Institute for Nuclear Research, Russia) High Specific Activity Radionuclides in NCA form: Re-186g produced by Cyclotron
14.55 – 15.20	4.11 M.P. Zykov, A.T. Filyanin, G.E. Kodina, A.Yu. Tsivadze, V.N. Romanovsky, D.A. Tkachuk, O.A. Filyanin, S.P. Orlov, V.A. Novojilov (Khlopin Radium Institute, Frumkin IPCE RAS, Burnazyan FMBC FMBA Russia) Optimization of parameters of the ¹⁸⁸ Re obtaining process in a centrifugal extractor
15.20 – 15.45	4.12 N.G. Baranov, D.V. Stepchenkov, N.A. Nerozin, E.V. Sulim, Yu.V. Minko, A.A. Semenova (State Scientific Centre Institute for Physics and Power Engineering, Russia) Substantiation of technological parameters of a stationary rhenium-188 generator for radionuclide therapy
15.45 – 16.10	4.13 A.A. Semenova, N.G. Baranov, D.V. Stepchenkov, E.V. Sulim, V.M. Petriev (Institute for Physics and Power Engineering, Russia; State Institution Medical Radiological Research Center RAMS, Russia) ¹⁸⁸ W/ ¹⁸⁸ Re generator production technology for nuclear medicine
16.10 – 16.30	4.14 A.N. Klyopov, V.M. Petriev, V.G. Skvortsov, V.V. Kanygin, V.K. Shiryayeva, O.P. Aleksandrova (Medical Radiological Research Center, Obninsk ; MEPhI; Federal center of nuclear medicine projects design and development FMBA Russia) Mathematical models for pharmacokinetics and dosimetry in

	experimental radiobiological researches of bone-seeking radiopharmaceutical ^{188}Re -KOEDF
16.30 - 17.00	Coffee Break
17.00 - 19.00	Poster communications: 3 - Re Hydrometallurgy 4 - Tc and Re in Nuclear Medicine
3.P1	A.A. Blohin, E.E. Malceva, M.A. Pleshkov, Yu.V. Murashkin, M.A. Mihaylenko (St.-Petersburg State Institute of Technology; JSC “Hypronickel Institute”, “Purolite International-Russia”) Sorption recovery of rhenium from acidic sulfate and mixed nitrate-sulfate solutions containing molybdenum
3.P2	Ch. Tzvetkova, Og. Bozhkov, L. Borisova (Institute of General and Inorganic Chemistry BAS, Bulgaria; Vernadsky Institute of Geochemistry and Analytical Chemistry RAS, Russia) Rhenium Phytomining by Alfalfa (Medicago) from Soils of Ore Dressing Regions at Laboratory Conditions
3.P3	A.G. Kasikov, A.M. Petrova, N.S. Areshina, A.A. Blohin, E.E. Malceva (Tananaev Institute of Chemistry and Technology of Rare Elements and Minerals, Kola SC RAS, Apatity, Russia) Rhenium recovery from gas-purification wastes of the Kola mining Company
3.P4	A.G. Kasikov, A.M. Petrova (Tananaev Institute of Chemistry and Technology of Rare Elements and Minerals, Kola Science Centre of the RAS, Apatity, Russia) Solvent extraction of Rhenium(VII) BY high-molecular aliphatic alcohols from acid solutions
3.P5	A.A. Palant, O.M. Levchuk, A.M. Levin, O.V. Reshetova (Baikov Institute of Metallurgy and Materials Science RAS, Russia) Production of the high purity NH_4ReO_4 using electro dialysis method
3.P6	R.D. Allabergenov, Kh.T. Sharipov, R.Kh. Sharipov, A.A. Niyazmatov (SE “Central Laboratory”, Tashkent, Uzbekistan; Tashkent chemical technology institute, Uzbekistan) Possibilities of oxidative lixiviation of rhenium sulphides by low pressures
3.P7	I.D. Troshkina, A.V. Shilyaev, N.V. Balanovskiy, A.M. Chekmarev, O.A. Chernyadeva (MUCTR; Leader Research Institute of Chemical Technology) Sorption of rhenium from uranium solutions by nanostructured ionites

3.P8	A.A. Abdusalomov, I.D. Troshkina, A.M. Chekmarev, N.P. Ismailov (Iashkent Chemical-Technological Institute, Uzbekistan; MUCTR) Sorption of palladium from the rhenium containing sulphuric acid solution
3.P9	I.D. Troshkina, T.G. Abdrakhmanov, N.A. Smirnov, A.B. Mayboroda, K.I. Potapova, A.M. Chekmarev (MUCTR) Ultrafiltration separation of rhenium and uranium using nitrogen-containing polyelectrolytes
3.P10	I.D. Troshkina, L.A. Zemskova, A.M. Chekmarev, A.V. Plevaka, Aye Minn, A.V. Shilyaev, A.V. Voit, D.N. Tumanova (MUCTR; Institute of Chemistry, Far Eastern Branch RAS) Recovery of rhenium from aqueous solutions by fibrous materials
3.P11	A.G. Kasikov, A.M. Petrova, P.B. Gromov, V.T. Kalinnikov (Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of the Kola Science Centre of RAS) Rhenium recycling from heat-resistant rhenium-containing nickel-based superalloys
3.P12	A.M. Safiulina, K.E. German, N.N. Popova, M.Yu. Burtsev (Academinvestservise Ltd., JSC NPO Innovation and development) Installation for liquid-liquid extraction concentrating and recovery of Rhenium from aqueous sulfate solution.
3.P13	I.D. Troshkina, M.V. Vazchenkov, A.M. Chekmarev (Mendeleev University of Chemical Technology of Russia) Recovery of rhenium from oil shale
3.P14	A.G. Kasikov, A.M. Petrova (Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of the Kola Science Centre of RAS) Rhenium(VII) solvent extraction by mixtures of tertiary amine and oxygen-containing extragents from sulphate media
4.P1	N.D. Betenekov, E.I. Denisov, L.M. Sharygin, M.N. Golubev (UrFU, Ekaterinburg; RPF TERMOXID, Russia) The generator ^{99m}Tc based on inorganic sorbent "Termoksid-5"
4.P2	V.E. Baulin, O.V. Kovalenko, A.N. Usolkin, Y.A. Voroshilov, N.G. Yakovlev, A.Yu. Tsivadze (IPCE RAS, "PA" Mayak "; IPhAC RAS) Investigation of the sorbents on the basis of the new phosphoryl-containing ligands for allocation, concentration and purification of the molybdenum from the irradiated uranium targets
4.P3	L. Fuks, E. Gniazdowska, P. Kozminski (Institute of Nuclear Chemistry and Technology, Poland) Novel technetium and rhenium complexes with the N-heterocyclic aldehyde thiosemicarbazones - potential

	radiopharmaceuticals
4.P4	E. Gniazdowska, P. Kozminski, K. Bankowski (Institute of Nuclear Chemistry and Technology, Poland; Pharmaceutical Research Institute, Poland) ^{99m} Tc-labelled vasopressin analog d(ch ₂) ₅ [d-tyr(et ²),ile ⁴ ,eda ⁹]avp as a potential radiofarmaceutical for small-cell lung cancer (sclc) imaging
4.P5	A.O. Malysheva, G.E. Kodina, O.E. Klementyeva (Burnazyan Federal Medical Biophysical Center FMBA Russia) Complexes of technetium-99m and rhenium-188 with zoledronic acid in nuclear medicine
4.P6	V.G. Merkulov, E.V. Chibisov, V.V. Zukau, Yu.S. Maslennikov, G.G. Glukhov (Physical-technical Institute of Tomsk Polytechnic University) Production of ¹⁸⁸ W and extraction of ¹⁸⁸ Re at IRT-T
4.P7	D.V. Stepchenkov, N.A. Nerozin, N.G. Baranov, E.V. Sulim, A.A. Semenova (Institute For Physics and Power Engineering) Technetium-99m generator production and application experience
4.P8	N.B. Epstein, G.M. Khomushku, L.D. Artamonova, V.G. Skvortsov (NRNU MEFhI – IATE). Medical Radiological Research Center) Determination of ascorbic acid in kit by high-performance liquid chromatography
4.P9	N.S. Al-Hokbany, I. J. Al-Jammaz. (King Saud University, Kingdom of Saudi Arabia) Cyclotron and Radiopharmaceuticals Department, King Faisal Specialist Hospital and Research Center, Kingdom of Saudi Arabia (Synthesis and characterisation complex of the {REO} ³⁺ core with sn and n donor ligands
4.P10	A.I. Kostylev, Yu.G. Pokrovskiy, I.V. Reshetov, S.S. Suharev, N.G. Firsin (Khlopin Radium Institute, Saint- Petersburg; Gertsen Moscow Research Oncological Institute. Moscow; Department of Oncology PKI FMBA, Moscow, Russia) Stable sols of rhenium sulfide for radioisotope diagnosis of cancer
4.P11	<u>N. Taratonenkova</u> , A. Malysheva, G. Kodina, O.E. Klementieva (Burnazyan Federal Medical Biophysical Center FMBA, Moscow, Russia) Preparation and biological study of «Nanotech, ^{99m} Tc»
4.P12	Y.N. Reshetnik, A.N. Bykov, G.E. Kodina, A.O. Malysheva (Burnazyan Federal Medical Biophysical Center, Moscow, Russia) Sorption removal of Na ^{99m} TcO ₄ from extracts of extraction generator ⁹⁹ Mo/ ^{99m} Tc
4.P13	A.A. Kuznetsov, A.A. Kudrin, G.E. Kodina, Y.N. Reshetnik, V.A. Artemeva (LLC «Center «Atommed», Moscow, Russia; Burnazyan Federal Medical Biophysical Center, Moscow,

	Russia) Semi-Automatic ^{99m} Tc solvent extraction system.
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THURSDAY, 7	
Red Hall	SESSION 6.1. Tc and Re nanotechnology and applications for nanomaterials (in collaboration with RUSNANO and B. Bryskin/TMS)
09.30 - 10.10	6.1. Ya.V. Zubavichus, A.A. Veligzhanin, A.A. Chernyshov, E.V. Guseva (National Research Centre “Kurchatov Institute”, Russia) Synchrotron diagnostics of functional nanomaterials
10.10 – 10.40	6.2. A.I. Kostylev, U.G. Pokrovskiy, I.D. Troshkina, N.G. Firsin, A.M. Chekmarev, A.V. Chirkov (Khlopin Radium Institute, Mendeleyev University of Chemical Technology of Russia) Manufacture of nano - and ultradisperse powders of rhenium and refractory metals from technogenic raw materials
10.40 - 11.00	Coffee Break
11.00 – 11.20	6.3. N.R. Antipkin, G.A. Biljalova, M.A. Bogorodskaya, A.O. Bogorodsky, A.B. Sazonov, A.S. Chagovets (Mendeleyev University of Chemical Technology of Russia) Non- stoichiometric synthesis OF rhenium heptasulfide hydrosol
11.20 – 10.45	6.4. K.A. Smirnova, D.V. Drobot, A.I. Lvovskiy, O.V. Petrakova (Lomonosov Moscow State Academy of Fine Chemical Technology, Russia) Controlled synthesis of ultra dispersed (nano sised) Rhenium oxides (IV) and (VI): synthesis of precursors and properties of the materials
12.00 – 12.15	Coffee Break
12.15 – 12.35	6.5. G.V. Sidorenko, A.E. Miroslavov, D.N. Suglobov, A.A. Lumpov, A.N. Yalfimov (Khlopin Radium Institute; RRC for Radiology and Surgical Technologies, Russia) Volatile technetium carbonyl compounds and prospects for their application
12.35 – 13.00	6.6. E.V. Abkhalimov, B.G. Ershov (Frumkin Institute of Physical Chemistry and Electrochemistry RAS) Synthesis and characterization of Ni-M (M = Pd, Pt) nanoparticle pair structures
Beige Hall	SESSION 5.1. Applications of Tc and Re, including their alloys in Modern Constructing Materials (in collaboration with Purolyte, RUSNANO)

09.30 - 10.10	5.1. Boris D. Bryskin, Edwin D. Sayre The Fabrication Development of Rhenium Used in High Temperature Rockets and High Temperature Space power Reactor
10.10 – 10.40	5.3. I.V. Mazilin, D.V. Drobot (Lomonosov Moscow State Academy of Fine Chemical Technology, Russia) Heterometallic Re, Ni, Co-alkoxides as precursors for functional materials synthesis
10.40 - 11.00	Coffee Break
11.00 – 11.30	5.4 A.P. Parshin, R.N. Manuylov, S.A. Melnikov, G.M. Voldman (Leading Research Institute of Chemical Technology, Russia; Lomonosov Moscow State Academy of Fine Chemical Technology, Russia) Metallothermic method for producing rhenium-based alloys
11.30 – 12.00	5.5. F. Morito, M.I. Danylenko, A.V. Krajnikov (MSF Laboratory, Moriya, Japan ; Institute for Problems of Materials Science, Kiev, Ukraine) Rhenium effect in Mo-Re welds
12.00 – 12.15	Coffee Break
12.15 – 13.00	5.6. P.P. Oleynikov, P.A. Zaytsev, A.A. Ulanovskiy, S.N. Nenashev, T.Ju. Goncharuk (SIA "LUCH", Russia Obninsk Thermoelectric Company (OTC), Ltd., Russia Federal State Institution "ROSTEST-MOSKVA" ; Volfram Ltd., Russia) Use of Tungsten and Rhenium Alloys for Manufacturing of High-Temperature Thermocouples W5%Re/W20%Re
13.00 – 14.00	Lunch
Red Hall	SESSION 6.2. Tc and Re nanotechnology and applications in the nanomaterials (in collaboration with RUSNANO and B. Bryskin/TMS)
14.00 – 14.30	6.7. R.D. Solovov, P.A. Morozov, B.G. Ershov (Lomonosov Moscow State Academy of Fine Chemical Technology, Frumkin Institute of Physical Chemistry and Electrochemistry RAS, Russia) Pd nanoparticles in aqueous solutions: synthesis and properties
14.30 – 15.00	6.8. V.Yu. Murzin, Ya.V. Zubavichus, M.V. Chukalina, N.Yu. Kozitsyna, M.N. Vargaftik, I.I. Moiseev, A.A. Shiryayev, K.E. German (NRC "Kurchatov Institute", IPS RAS; IMT RAS, IGIC RAS, IPCE RAS, Russia) Wavelet

	ANALYSIS of EXAFS spectra AS applied to polynuclear and cluster transition metal complexes
15.00 – 15.30	6.9. A.A. Shiryaev (IPCE RAS Russia) Nanodiamonds for in Biomedical and Sorption Applications: Structure and Defects
15.30 – 16.00	6.10 I.G. Tananaev, K.E. German (IPCE RAS) Nanotechnologies in radiochemical technology and radioecology including technetium speciation and separations
16.00 - 16.30	Coffee Break
Beige Hall	SESSION 5.2. Applications of Tc and Re, including their alloys in Modern Constructing Materials (in collaboration with Purolyte, RUSNANO)
14.00 – 14.30	5.8. E.D. Sayre. Technetium - a rare metal produced by man for structural and medical use
14.30 – 15.00	5.7. K.B. Povarova, N.K. Kazanskaya (Baykov Institute of Metallurgy and Materials Science RAS) Modern structural materials based on the W-Mo-Re system
16.00 - 16.30	Coffee Break
16.00 - 18.00	Poster communications: 5 - Applications of Tc and Re in technology, including their alloys in Modern Constructing Materials 6 - Tc and Re nanotechnology and applications for nanomaterials
5.P1	K.S. Mabatkadamova, N.G. Kabirov, S.M. Safarmamadov, A.A. Aminjonov (Tajik National University. Dushanbe) Complexation in the system Re (V) ÷ 1-methyl-2-merkaptimidazole ÷ 8 mol/l HCl
5.P2	N.S. Beknazarova, A.A. Aminjonov (Tajik National University. Dushanbe) Influence of oxochloro-thiopyrine rhenium(V) complex on radiation firmness of cellulose diacetate
5.P3	I.G. Roberov, N.B. Gorina, G.S. Burkhanov (IMET RAS) Plastic Deformation of Rhenium and Platinum-Group Metals.
6.P1.	G.S. Bulatov, K.N. Gedgovd, D.Yu. Lyubimov (IPCE RAS; SIA “Luch”, Podolsk, RF) High temperature interaction of rhenium, molybdenum and tungsten metals with uranium mononitride
6.P2.	A.M. Fedosseev, A.A. Bessonov, Ph. Moisy (IPCE RAS, Moscow; CEA, France) Thermal behavior of perhenate complexes of neodymium and preparation of nanodimensional

	rhenium cermets
6.P3.	Ya.A. Obruchnikova, A.A. Shiryaev, A.M. Safiulina, A.V. Karpukhin, I.I. Kulakova, K.E. German (IPCE RAS; Lomonosov Moscow State University) Technetium(VII) sorption by modified nanodiamonds from aqueous and Nitric acid solutions
6.P4.	K.E. German, M.S. Grigoriev, A.Ya. Maruk, Ya.V. Zubavichus, Ya.A. Obruchnikova, A.A. Shiryaev (IPCE RAS; NRC “Kurchatov Institute”) Stabilization of nano-rhenium and nano-technetium in amorphous carbon matrix
6.P5.	A.V. Kopytin, Yu.A. Politov, E.G. Ilyin, Yu.I. Urusov, K.E. German (IGIC RAS, MUCTR, IPCE RAS) Ion selective electrodes based on monocrystalline KTiOPO_4 with nanocapillar conductivity for determination of K^+ -ions
6.P6.	Yu.V. Plekhanov, K.E.German (IPCE RAS) Quantum chemical study of subnanodimensional mixed clusters of technetium and ruthenium
6.P7.	G.V. Sidorenko, A.E. Miroslavov D.N. Suglobov (Khlopin Radium Institute) Deposition of technetium coatings by thermolysis of volatile carbonyl compounds
20.00	Social dinner

FRIDAY, 8	
Round table: Tc and Re as business projects	
09.30 - 10.45	Oral presentations
10.45 - 11.10	Coffee Break
11.10 -11.50	Plenary Invited lecture
11.50 - 12.30	Symposium closure
14:30	Excursion tour