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FIFTH
INTERNATIONAL CONFERENCE

"Materials and Coatings for Extreme Performances: Investigations, Applications, Ecologically Safe Technologies for Their Production and Utilization"

SCIENCE & TECHNOLOGY CENTER IN UKRAINE

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PRELIMINARY PROGRAMME

September 22-26, 2008
Big Yalta, Zhukovka
Crimea, Ukraine

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- **European Office of Airspace Research and Development**

Place of holding Conference

“Zhukovka”
(Big Yalta, Crimea, Ukraine)

CONTENT

THE RULES OF THE CONFERENCE ACTIVITY

Sunday, September 21, 2008

9^{00}–18^{00}	Registration of participants

Monday, September 22, 2008

9^{30}–12^{00}	Registration of participants
10^{00}–10^{40}	Opening the conference
10^{40}–12^{10}	**First Morning plenary session**
12^{10}–12^{40}	Coffee-break
12^{40}–14^{00}	**Second Morning plenary session**
14^{00}–16^{00}	Lunch
16^{00}–17^{30}	**Evening plenary session**

Tuesday, September 23, 2008
Exposition posters of Section "C" all day

FIRST MORNING SESSION

9^{00}–11^{00}	*Section C. Advanced technologies for production and joining materials and products for operation in hazard conditions.*
11^{00}–11^{30}	Coffee-break

SECOND MORNING SESSION

11^{30}–14^{00}	*Section C. Advanced technologies for production and joining materials and products for operation in hazard conditions.*
14^{00}–16^{00}	Lunch

EVENING SESSION

16^{00}–18^{00}	*Section C. Advanced technologies for production and joining materials and products for operation in hazard conditions.*

Wednesday, September 24, 2008

SECTION D

STRUCTURE AND PROPERTIES OF MATERIALS AND COATINGS FOR OPERATION IN HAZARD CONDITIONS

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FIRST MORNING SESSION

9^{00}–11^{00}	*Section D. Structure and properties of materials and coatings for operation in hazard conditions.*
11^{00}–11^{30}	Coffee-break

SECOND MORNING SESSION

11^{30}–14^{00}	*Section D. Structure and properties of materials and coatings for operation in hazard conditions.*
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EVENING SESSION

15^{30}–18^{00}	*Section D. Structure and properties of materials and coatings for operation in hazard conditions.*

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FIRST MORNING SESSION

9^{00}–11^{00}	*Section E. Special Session "Thermal Barrier Coatings".*
11^{00}–11^{30}	Coffee-break

SECOND MORNING SESSION

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13^{00}–14^{00}	*Section F. Experimental data obtained from performance of materials and coatings in on location hazard conditions.*
14^{00}–16^{00}	Lunch

EVENING SESSION

16^{00}–18^{00}	*Section F. Experimental data obtained from performance of materials and coatings in on location hazard conditions.*

Friday, September 25, 2008
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FIRST MORNING SESSION

9^{00}–10^{30}	*Section A. Principles of designing materials and coatings for operation in hazard conditions.*
10^{30}–11^{00}	Coffee-break

SECOND MORNING SESSION

11^{00}–14^{00}	*Section B. Scientific fundamentals and computer models for the processes of manufacturing materials and coatings for operation in hazard conditions.*
14^{00}–15^{30}	Перерыв на обед

EVENING SESSION

15^{30}–17^{00}	*Section G. Potential and contemporary technologies for recycling industrial waste aimed to production structural, heat-insulative, facing and other materials.*
17^{00}	**CLOSE OF CONFERENCE**

Monday, September 22, 2008

10^{00} OPENING THE CONFERENCE

V. Skorokhod (Ukraine), Yu. Polezhaev (Russia), S, Reznik (Russia), M. Zaet (STCU), G. Frolov (Ukraine), L. Chernyshev (Ukraine), N. Pavlyukevich (Belarus), L. Henry (STCU)

10^{40}–12^{10} FIRST MORNING PLENARY SESSION

Chairmen: V. Skorokhod (Ukraine), Yu. Polezhaev (Russia), Jh. Klaman (Canada)

199 ROLE OF DIFFERENT STRUCTURAL LEVELS OF HIGH TEMPERATURE MATERIALS FOR DETERMINATION OF CRITERIA OF THEIR OPERATING CAPABILITY

Skhorokhod V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

20 minutes

207 MATERIALS FOR USE IN EXTREME CONDITIONS OF SPACE: A NEED FOR INTERNATIONAL COOPERATION

Kleiman J.I., Iskanderova Z.A., Issoupov V., Horodetsky S., Naumov S.F.[(1)], Grigorievsky A.V.[(2)], Finckenor M.[(3)]
Integrity Testing Laboratory Inc., Toronto, ON, Canada
[(1)]RSC «Energia», Korolev, Russia
[(2)]JSC «Kompozit», Obninsk, Russia
[(3)]NASA Marshall Space Flight Center, Huntsville, AL, USA

20 minutes

56 "CHESSBOARD" MESOEFFECT OF THE INTERFACE AS THE BASIS FOR DEVELOPING NANOSTRUCTURED COATINGS WORKING IN EXTREME SERVICE CONDITIONS

Panin V.E., Panin A.V., Sergeev V.P.
Institute of Strength Physics and Materials Science of SB RAS, Tomsk, Russia

20 minutes

523 Ti-BASED ALLOYS FOR AEROSPACE APPLICATIONS

Ivasishin O.M.
Kurdumov Institute for Metal Phisics of NASU, Kiev, Ukraine

20 minutes

166 ADVANCES IN THE DEVELOPMENT OF FUEL CELLS INVOLVING POLYMER MEMBRANES

Ivanchev S.S.
Department of the Boreskov Institute of Catalysis SB of RAS, St-Petersburg, Russia

20 minutes

Discussion

Monday, September 22, 2008

12^{40}–14^{00} SECOND MORNING PLENARY SESSION

Chairmen: S. Ivanchev (Russia), Yu. Pokhil (Ukraine)

410 MATERIALS FOR MAINTENANCE OF THERMAL MODE IN ORBIT AND AT REENTRY OF SPACE VEHICLES
Kostornov A., Skorokhod V., Solntsev V., Frolov G.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
20 minutes

195 DESIGN OF REUSABLE SPACE VEHICLES AND INVESTIGATION OF COMPOSITE MATERIALS THERMOPHYSICAL PROPERTIES
Reznik S.V., Timoshenko V.P., Prosuntsov P.V.
Bauman Moscow State Technical University, Moscow, Russia
20 minutes

189 COMPLEX STUDIES ON PHYSICAL-MECHANICAL PROPERTIES OF LONG-LIFE SPACE VEHICLES MATERIALS EXPOSED TO EXTREME ON-GROUND SIMULATED FACTORS OF OUTER SPACE
Abraimov V.V., Pokhyl Yu.A., TukhijV.G.(1), Potapov A.M.(1)
Institute for Low-Tempe-rature Physics and Engineering of NASU, Kharkov;
(1)State design office "Yuzhnoye", Dnepropetrovsk, Ukraine
20 minutes

165 STRUCTURE, PHASE STATE AND HIGH STRAIN RATE SUPERPLASTICITY IN Al-Li NANOSTRUCTURAL ALLOYS SUBJECTED TO SEVERE PLASTIC DEFORMATION
Myshlyaev M.M.
Baikov Institute of Metallurgy and Material Science of RAS, Moscow, Russia
Institute of Solid State Physics of RAS, Chernogoloka, Russia
20 minutes

158 NEW MATERIALS AS ONE OF THE STRATEGIC GOALS OF GENERAL MOTORS' RESEARCH AND DEVELOPMENT
Lesnevskiy L.N., Ushakov A.M.
Russia and CIS GM R&D Office, Moscow, Russia
20 minutes

Discussion

Monday, September 22, 2008

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Chairmen: L. Henry (STCU), S. Reznik (Russia)

100 APPLICATION OF RIDGE EFFECT PHENOMENON FOR DESIGN OF ULTRA-HIGH TEMPERATURE HETERO-MODULUS CERAMICS FOR THERMAL PROTECTION OF AEROSPACE STRUCTURES
Shabalin I.L.
Institute for Materials Research, The University of Salford, UK

20 minutes

131 COMPUTER WORKING MODELS OF T-X-Y DIAGRAMS TO CONSTRUCT THE HETEROGENEOUS MATERIALS
Lutsyk V. I.
BSC SB of RAS, Ulan-Ude, Russia

20 minutes

163 INTERNATIONAL DIALOG ON THE POTENTIAL ENVIRONMENTAL AND HEALTH RISKS OF NANOTECHNOLOGY
Melkonyan M.
Shubnikov Institute of Crystallography of RAS, Moscow, Russia

20 minutes

219 TRANSFORMATION AND SYNERGY OF CLUSTERS
Smertenko P., Chernyshev L.[(1)]
Ukrainian EUREKA office, Kiev, Ukraine
[(1)]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

20 minutes

Discussion

Tuesday, September 23, 2008

FIRST MORNING SESSION

9^{00}–11^{00} *Section C.* Advanced technologies for production and joining materials and products for operation in hazard conditions.

Chairmen: V. Maslov (Ukraine), A. Lyushinskiy (Russia)

C147 INFLUENCE OF THE MECHANISM OF ACTIVATION OF ELECTROLYTE ON THE DYNAMICS OF FORMATION OF OXIDE COATINGS BY AMO METHOD
Chigrinova N.M., Chigrinov V.E.
Autonomous economic unit of SSI "Powder metallurgy institute", Minsk, Belarus
15 minutes

C517 OBTAINING OF STRONG THERMOSTABLE OXIDE COATINGS FOR ZnSe-BASED IR OPTICAL ELEMENTS
Zagoruiko Yu.A., Fedorenko O.A., Kovalenko N.O., Kuzminov E.A.
STC "Institute for single crystals" Institute for Single Crystals of NAS of Ukraine, Kharkov, Ukraine
15 minutes

C135 PHOTOLUMINESCENCE OF AMORPHOUS Si:C:O:H LAYERS
Vasin A.V., Lysenko V.S., Nazarov A.N., Rudko G.Yu., Gule E.G., Ishikawa Y.[(1)]
Lashkaryov Institute of Semiconductor Physics of NASU, Kiev, Ukraine
[(1)]Japan Fine Ceramics Center, Nagoya, Japan
15 minutes

C80 THERMODYNAMICS CALCULATION OF HALCOGENIDE PROCESSING OF THE GALLIUM NITRIDE CRYSTAL SURFACES
Beznosyuk S.A., Fomina L.V.[(1)], Komarovskih N.V.
Altai State University, Barnaul, Russia
[(1)]Angarsk State Technical Academy, Angarsk, Russia
15 minutes

C85 FORMING OF POROUS FRAMEWORK OF POWDER-LIKE ANTIFRICTIONAL MATERIALS
Sanin A., Bozhko S., Scheglova L., Skachkoboras E., Bozhko I.
Dnepropetrovsk National University, Ukraine
15 minutes

C92 AUTOWAVE SYNTHESIS OF CAST HEAT-RESISTANT Al_2O_3–Cr_2O_3 SOLID SOLUTIONS
Tarasov A.G., Gorshkov V.A., Yukhvid V.I.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia
15 minutes

C51 SILICON NITRIDE SYNTHESIS USING ULTRA-DISPERSION SILION POWDERS
Zakorzhevsky V.V, Borovinskaya I.P.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia
15 minutes

C63 SHS AND APPLICATION OF REFRACTORY MATERIALS AS STRUCTURAL CERAMICS

Gorshkov V.A., Samboruk A.A., Yukhvid V.I
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia

15 minutes

Discussion

Tuesday, September 23, 2008

SECOND MORNING SESSION

11^{30}–14^{00} *Section C.* Advanced technologies for production and joining materials and products for operation in hazard conditions.

Chairmen: M. Myshlyaev (Russia), N. Nosachev (Russia), A. Sanin (Ukraine)

C88 SINTERING OF SIALON CERAMICS UNDER HIGH-SPEED HEAT TREATMENT

Smirnov K.L.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia

15 minutes

C21 ACTIVATOR, LIQUID PHASE AND SHS PROCESS INFLUENCE ON THE RECEIVING OF THE COMPLEX PROTECTIVE COATINGS ON THE STRUCTURAL MATERIALS IN THE VACUUM

Zmij V.I. Rudenkyy S.G. Kartscev N.F. Bredichin M.Y.
National Science Center Kharkov Institute of Physics and Technology, Kharkov, Ukraine

15 minutes

C40 WEAR-RESISTANT COMPOSITE COATINGS PRODUCED WITH THE USING OF HIGH CONCENTRATED ENERGY SOURCES

Mikheev R.S., Chernyshova T.A. [(1)], Kobernik N.V.[(2)], Chernyshov G.G.[(2)]
[(1)]Baikov Institute of Metallurgy and Materials Science of RAS
[(2)]Bauman Moscow State Technical University, Moscow, Russia

15 minutes

C341 THE METALIZATION AND BRAZING PROCESSES INVESTIGATION OF SEMICONDACTING $BaTiO_3$-CERAMICS UNDER VACUUM CONDITIONS

Sydorenko T.V., Naidich Yu.V., Durov O.V., Poluyanskaya V.V., Garmash E.P., Pleskach I.V., Vereshchaka V.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

C42 FEATURES OF FORMATION OF STRUCTURES AT PRESSING NANOSCALE POWDER MATERIALS

Perelman V., Zubro S.
Lomonosov Moscow State Academy of Thin Chemical Technology, Moscow, Russia

15 minutes

C50 INFLUENCE OF MAGNESIA-REDUCED PROCESSES ON CHARACTERISTICS OF INTERMETALLIC POWDERS – TiAl, NiAl
Vershinnikov V.I., Borovinsksaya I.P.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia
15 minutes

C181 DETONATION SYNTHESIS OF NANODISPERSED DIAMONDS, FULLERENES, CARBONIC NANOTUBES AND COVERINGS ON THEIR BASIS
Egorov I.V, Nosachev L.V., Yanovskii A.B.
Zhukovsky Federal State Unitary Enterprise Central Aerohydrodynamic Institute, Zhukovsky, Russia
15 minutes

C323 THE EFFECT OF MECHANICAL ACTIVATION ON PROCESSES OF STRUCTURE AND PHASE FORMATION OF BORON NITRIDE- AND ALUMINOSILICATE-BASED COMPOSITES
Vishnyakov L.R., Mazna O.V., Tomyla T.V., Okhrimenko V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
15 minutes

Discussion

Tuesday, September 23, 2008

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Chairmen: S. Beznosyuk (Russia), O.Okrostsvaridze (Georgia), O Sizonenko (Ukraine)

C32 MICRO- AND NANO-TECHNOLOGY OF BONDING OF PRECISION DETAILS OF OPTIC-ELECTRONIC DEVICES
Maslov V.P.
Lashkarev Institute of Semiconductors Physics of NASU, Kiev, Ukraine
15 minutes

C94 ULTRAHIGH MOLECULAR POLYETHYLENE MODIFIED NANODISPERSION POWDER WO_3
Osipova I.V., Novikov P.V.[(1)], Selutin G.E.[(2)], Churilov G.N.[(1)]
Kirensky Institute of Physics of SB RAS
[(1)]Siberian Federal University
[(2)]Institute of Chemistry and Chemical Technology of SB RAS, Krasnoyarsk, Russia
15 minutes

C120 MODIFICATION OF RUBBERS WITH THE USE OF STRUCTURALLY-ACTIVE ADDITIVES ON THE ZEOLITE BASE OBTAINED BY MECHANO-CHEMICAL ACTIVATION
Petrova N.N., Portnyagina V.V.[(1)]
Ammosov Yakutsk State University, Yakutsk, Russia
[(1)]Institute of Oil and Gas Problems of SB of RAS, Yakutsk, Russia
15 minutes

C107 CONDITIONS OF FORMATION OF FCC-METAL CONDENSATES WITH A NANO-TWINNED SUBSTRUCTURE FROM THE VAPOUR PHASE
Fesiun E.V., Ustinov A.I., Melnichenko T.V.
Paton Electric Welding Institute of NASU, Kiev, Ukraine

15 minutes

C101 DEPOSITION OF CORROSION AND WEAR RESISTANT NITROGEN COATINGS BY ELECTRON BEAM SURFACING
Ivanova E.A., Narkevich N.A.[(1)]
Tomsk Polytechnic University, Tomsk, Russia
[(1)]Institute of Strength Physics and Materials Science of SB RAS, Tomsk, Russia

15 minutes

C110 PREPARATION OF FeAl / Al_2O_3 NANOCOMPOSITES BY MEANS OF SHS WITH PRELIMINARY MECHANICAL ACTIVATION
Grigorieva T.F., Ancharov A.I.[(1)], Talako T.L.[(2)], Novakova A.A.[(3)], Barinova A.P., Vorsina I.A., Kiseleva T.Yu.[(3)], Vityaz P.A.[(2)], Lyakhov N.Z.
Institute of Solid State Chemistry and Mechanochemistry of SB of RAS
[(1)]Novosibirsk State University, Novosibirsk, Russia
[(2)]Institute of Powder Metallurgy of NASB, Minsk, Belarus
[(3)]Lomonosov MSU, Moscow, Russia

15 minutes

C211 SYNTHESIS, STRUCTURE, SUBSTRUCTURE, RESIDUAL STRESSES AND PROPERTIES OF TI-ZR-NI ICOSAHEDRAL QUASICRYSTALS
Pugachov A.T., Azhazha V.M.[(1)], Malykhin S.V., Khadzhay G.Ja.[(2)], Merisov B.A.[(2)]
National Science Center 'Kharkov Institute of Physics and Technology'
[(1)]National Technical University "Kharkov Polytechnical Institute"
[(2)]Karazin Kharkiv National University, Kharkov, Ukraine

15 minutes

Discussion

Tuesday, September 23, 2008

Exposition posters of Section "C" all day

C10 SELECTING INTERLAYERS IN DIFFUSION BONDING DISSIMILAR METALS
Lyushinskiy A.V.
JSC "Ramenskoe Design Company" (JSC RDC) Russia 140103

C11 PRODUCTION OF UNIFORM MIXTURE Ga - Ni*
Lushinsky A.V.[(1)], Umerov R.A., Uzakov Ia.M.[(2)], Dzidziguri E.L.[(3)]
[(1)]JSC "Ramenskoe Design Company" (JSC RDC)
[(2)]SPC "Tezlatgich", Toshkent, Republika Uzbekistan
[(3)]MISiS (TU), Moscow, Russia

C39 TECHNOLOGY OF OBTAINING CONSOLIDATED MATERIALS FROM SHS-POWDERS BY USING PHOSPHATE BINDING AGENTS
Okrostsvaridze O., Tavadze G., Gventsadze D., Dzneladze D., Badzoshvili T., Alania J.
Tavadze Institute Metallurgy and Materials, Tbilisi, Georgia

C1 EVOLUTION OF CAPILLARY - POROUS STRUCTURE UNDER INFLUENCE OF HIGH-VOLTAGE ELECTRIC DISCHARGE
Sizonenko O.N.
Institute of Pulse Processes and Technologies of NASU, Kiev, Ukraine

C17 NANO-POROUS STRUCTURES BASED ON SILICON CARBIDE AND BORON NITRIDE IN SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS
Uvarov V.I., Borovinskaya I.P., Zakorzhevsky V.V.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia

C28 LOW TEMPERATURE DEPOSITION OF PYROCARBON IN POROUS STRUCTURE OF CARBON COMPOSITES
Skachkov V.A., Ivanov V.I., Karpenko V.D.
Zaporozhya State Engineering Academy, Zaporozh'e, Ukraine

C69 GETTING THE SUPERHARD ALLOYS FROM IRON-, ALUMINIUM- AND GRAFITE-POWDERS BY HIGH TEMPERATURE AND HIGH PRESS PROCESSING
Zaritska A.V., Garan A.G.[(1)], Oliferuk D.I.[(2)], Andryushchenko V.A.[(2)]
Physical Engineering Centre of NASU, Kiev, Ukraine
[(1)]Bakul Institute for Superhard Materials of NASU, Kiev, Ukraine
[(2)]Kurdyumov Institute for Metal Physics of NASU, Kiev, Ukraine

C106 PREPARATION OF β-ROMBOHEDRAL BORON POWDERS
Gabunia D.L., Tsagareishvili O.A., Gachechiladze A.A., Tavadze G.F.
Tavadze Institute of Metallurgy and Materials Science, Tbilisi, Georgia

C108 XPS "TIZOPLEX" IN THE EXTREME NORTHERN CONDITIONS
Davydova N.N., Efimov A.P.[(1)], Filippov M.V.[(1)]
Institute of Oil and Gas Problems of SB of RAS, Yakutsk, Russia
[(1)]LC PCF"Sakhastroimaterialy", Yakutsk, Russia

C160 ENSURING OF HIGH TRIBOTEHNICAL CHARACTERISTIC OF ANTIFRICTION CCM AT CONDITION OF ABRASIVE PARTICLES ACTION
Zatulovsky S.S., Kosinskaia A.V., Lakeev V.A.
Phisico-Technological Institute of Metals and Alloys of NASU, Kiev, Ukraine

C173 DOUBLE NATURE OF FULLERENE CRYSTALLITES
Kasumov M.M., Khomenko B.S.
Vernadskii Institute of General and Inorganic Chemistry of NASU, Kiev, Ukraine

C174 TRANSFORMATION of FULLERENE CRYSTALLITES BY THE ACTION OF HIGH-POWER LASER PULSES
Kasumov M.M., Khomenko B. S.
Vernadskii Institute of General and Inorganic Chemistry of NASU, Kiev, Ukraine

C315 PECULIARITIES OF Ti_2Cu INTERACTION WITH HYDROGEN
Skorokhod V.V., Bratanich T.I., Kucheriavy O.V., Kopylova L.I., Karpets M.V, Krapivka N.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

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Bratanich T.I., Kopylova L.I., Krapivka N.A., Skorokhod V.V., Permyakova T.V., Gornaya I.D.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C331 PECULIARITIES OF SMELTING the HIGH PURE of Zr-Cr SYSTEM ALLOYS FOR NUCLEAR POWER ENGINEERING

Kuznetsova T.L., Brodnikovsky N.P., Krapivko N.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C340 TO THE PROBLEM OF A THRIFTY ALLOING BY A HARD-PHASE DOPANTS FOR THE GSPh-NONWEAR POWDER MATERIALS

Bagljuk G.A., Pyatachuk S.G., Alphintseva R.A., Grishchishyna L.N.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C356 INFLUENCE OF THE BORON ON STRUCTURE AND MAGNETIC CHARACTERISTICS POWDERED Fe-Co-P MATERIALS

Panasyuk O.A., Napara-Volgina S.G., Apininskaya L.M., Vlasova O.V., Minitsky A.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C381 HYDROTHERMAL NICKEL COATING ON TEFLON SUBSTRATE

Korablova I., Yamasaki N., Korablov D.[2], Oke Y., Ishida Emile H., Korablov S.[1]
Tohoku University, Graduate School of Environmental Studies, Aramaki Aoba – ku, Sendai Miyagi, Japan
[1]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[2]National Technical University of Ukraine “KPI”, Kiev, Ukraine

C386 RESEARCH OF THE SYNTHESIS PROCESSES OF TiN – TiB_2 COMPOSITION BY SPARK PLASMA SINTERING METHOD UNDER DIFFERENT TECHNOLOGICAL CONDITIONS

Petukhov A.S., Khobta I.V., Derev’yanko A.V., Ragulya A.V., Raychenko A.I., Isaeva L.P., Sameliuk A.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C398 EFFECT OF PROCESSING CHARACTERISTICS TO DENSITY AND ELECTRICAL BEHAVIOR OF COMPOSITES Si_3N_4– ZrC

Deriy A.I., Kyrylenko K.V., Petrovsky V.Ya.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C417 FLUID SYNTHESIS OF UNCONVENTIONAL CARBON ALLOTROPES

Smolyar A.S., Pokropivny V.V., Depmeier W.[1], Pokropivny A.V.[1], Kuts V.A.[2], Gurin C.G.[2], Arhipov A.P.[2], Barholenlo V.A.[3], Malochtan S.N.[3], Arhipov S.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[1]Institut fur Geowissenschaften der Universitat Kiel, Kiel, Germany
[2]Institute of magnetizm of NAN and MES of Ukraine, Kiev, Ukraine
[3]Carb Ex Ltd., Kiev, Ukraine

C423 FEATURES OF FORMATION OF CHROMIUM DISILICIDE NANOPOWDERS

Kud I.V., Lichodid L.S., Yeremenko L.I., Zyatkevich D.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C428 DEPOSITION OF INTERMETALLIC COMPAUND OF NI-AL SYSTEM BY HIGH VELOCITY AIR-FUEL SPRAY METHOD

Yevdokimenko Yu. I., Kysil V.M., Kadyrov V.Kh., Frolov G.A., Podchernyaeva I.A., Buchakov S.V., Remeslo V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C20 STRENGTH AND WEAR RESISTANCE OF DIAMOND-HARD ALLOY CUTTERS

Khorunov V.F., Maksymova S.V.(1), Stefaniv B.V.
Paton Electric Welding Institute of NASU, Kiev, Ukraine

C84 INCREASE OF PROPERTIES OF HIGH SPEED STEEL BY HYDROSTATICAL EKSTRUSION

Taranova M., Sanin A., Bozhko S., Scheglova L
Dnepropetrovsk National University, Ukraine

C98 MECHANOCOMPOSITES FOR THE DEVELOPMENT OF DIFFUSION-HARDENING SOLDERS

Grigorieva T.F., Barinova A.P., Ancharov A.I., Lyakhov N.Z.
Institute of Solid State Chemistry and Mechanochemistry of SB RAS, Novosibirsk, Russia

C119 SYNTHESIS OF NEW COMPLEX-REINFORCED ALUMINUM MATRIX COMPOSITE MATERIALS

Panfilov A.V., Prusov E.S., Panfilov A.A.
Vladimir State University, Vladimir, Russia

C123 METAL-MATRIX COMPOSITE MATERIALS WITH NANOSIZED INOCULANTS

Panfilov A.V., Petrunin A.V., Panfilov A.A.
Vladimir State University, Vladimir, Russia

C129 STRUCTURAL CHANGES UNDER PLASTIC DEFORMATION OF HEAT-RESISTANCE NI-ALLOYS SINGLE CRYSTALS ZS-26 AND ZS-32

Azhazha V.M., Sverdlov V.Ja., Ladygin A.N., Boguslajev A.V.(1), Klochikhin V.V.(1), Lysenko N.A.(1)
National Science Center «Kharkov Institute of Physics and Technology», Kharkov, Ukraine
(1)PJSC «Motor-Sich», Zaporozhue, Ukraine

C132 PINNING OF SEPARATE UNITS OF GRAPHITE BRAKE DISKS OF SHS METHOD

Vongai I.M., Aknazarov S.Kh., Mansurov Z.A.
Combustion Problems Institute, al-Farabi Kazakh National University, Almaty, Kazakhstan

C148 FORMATION OF HIGH-STRENGTH CERAMICS ON THE BASIS OF PYROPHYLLITE UNDER HIGH PRESSURE

Fomchenko V.A., Ryumshyna T.A.
Donetsk physical & technical institute of NASU, Donetsk, Ukraine

C157 APPLICATION OF COMPOSITE Ni-Al POWDER FOR MAKING PROTECTIVE COATING ON NICKEL FOAMS

Mikutski V.A., Smorygo O.L., Ilyushchanka A.F.
Powder Metallurgy Institute of NASB, Minsk, Belarus

C179 TECHNICAL DIAGNOSTICS OF DISKS OF GAS TURBINES METHOD OF THE CAPILLARY CONTROL

Kryukov I.I., Rybnikov A.I., Andreev P.A., Platonov V.S., Leontev S.A.[(1)]
The Polzunov Central Boiler and Tubine Institute
[(1)]Branch of Open Society "Power machines" - LMZ in St.-Petersburg, Russia

C303 DEVELOPMENT OF WORKS FOR STANDARDIZATION IN POWDER METALLURGY

Pavlygo T.M., Serdyuk G. G, Svistun L.I.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Kuban State Technological University, Krasnodar, Russia

C383 TO THE PROBLEME OF ECOLOGICAL CONSEQUENCES: PROGNOSIS OF THE ECONOMICAL ATTRACTIVE FOR THE SHORT RUN INNOVATION PROJECTS OF THE PRESENT MATERIALS SCIENCE

Grishchishyn D.A., Didenko A.P.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Modern University for Humanities, Moscow, Russia

C516 ENVIRONMENTALLY FRIENDLY AND SAFE TECHNOLOGY FOR PRODUCTION OF THE AUTECTIC γ–TIAL ALLOY FOR COATINGS

Sokolov V.M. Mekhed O.M., Fedorenko I. V., Babyuk V.D., Zhydkov Ye.A.
Physico-Technological Institute of Metals and Alloys of NAS of Ukraine, Kiev, Ukraine

C508 MICROSTRUCTURE AND PROPERTIES OF β-TITANIUM ALLOYS PRODUCED WITH BLENDED ELEMENTAL POWDER METALLURGY APPROACH

Ivasishin O., Savvakin D., Matviychuk M.
Kurdjumov Institute for Metal Physics of NAS of Ukraine, Kiev, Ukraine

C518 DEVELOPMENT OF NSC KIPT IN THE FIELD OF CREATION OF MATERIALS FOR EXTREME CONDITIONS OF OPERATION

Bilous V.A.
National Science Center «Kharkov Institute of Physics and Technology», Kharkov, Ukraine

C513 FORMING OF COATINGS AND NANOSTRUCTURE CREATING BY METHOD OF GAS-DETONATION SPRAYING

Dolmatov A.I., Markovich S.E.
National Aerospace University “Kharkiv Aviation Institute”, Kharkov, Ukraine

C514 THE DEPOSITION OF NANOSIZED FUNCTIONAL BORONS AND NITRIDES COVERINGS ON A BASIS OF TRANSITION METALS BY ION-PLASMA METHODS

Bazhin A.I., Goncharov A.A.[(1)], Konovalov V.A.
Donetsk National University, Donetsk, Ukraine
[(1)]Donbass State Machinery Academy, Donetsk, Ukraine

C517 OBTAINING OF STRONG THERMOSTABLE OXIDE COATINGS FOR ZnSe-BASED IR OPTICAL ELEMENTS

Zagoruiko Yu.A., Fedorenko O.A., Kovalenko N.O., Kuzminov E.A.
STC “Institute for Single Crystals” Institute for Single Crystals of NAS of Ukraine

C510 ECOLOGICALLY CLEAN PROCESSES OF CHROME AND MOLYBDENUM PLATING OF INTERNAL SURFACES OF DETAILS OF THE COMPLICATED CONFIGURATION
Nadtoka V.N., Masljany N.V.[(1)], Deyneko L.N.[(2)], Pankov R.V.[(2)]
"Yuzhnoye" State Design Office
[(1)]Dnepropetrovsk National Universitiy, Dnepropetrovsk, Ukraine
[(2)]National Metallurgical Academy of Ukraine, Dnepropetrovsk, Ukraine

C353 ELECTRIC SPARK PROCESSING WITH ALLOYS CONTAINING NICKEL ALUMINIDES
Paustovsky A.V., Alfintseva R.A., Kurinnaya T.V., Sheludko V.E., Pyatachuk S.G.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

C397 NANOCRYSTALLINE STRUCTURE IN IRON RESULTED FRON SEVERE PLATIC DEFORMATION WITH FRICTION UNDER DINAMIC RECRYSTALLIZATION
Byakova A., Yurkova A.[(1)], Belots`ky A.[(1)], Milman Yu.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]National Technical University of Ukraine "KPI", Kiev, Ukraine

Wednesday, September 24, 2008

FIRST MORNING SESSION

9^{00}–11^{00} *Section D.* Structure and properties of materials and coatings for operation in hazard conditions.

Chairmen: G. Kirillov (Russia), L. Lesnevskiy (Russia)

D352 LAYERED MOLYBDENUM AND TUNGSTEN DICHALCOGENIDES AS NANOSTRUCTURED MATERIALS FOR EXTREME CONDITIONS OF OPERATION
Kulikov L.M., Konig N.B., Akselrud L.G.[(1)], Davydov V.N.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Franko L'viv National University, L'viv, Ukraine

15 minutes

D2 APPLICATION ELECTROEXPLOSIVE ALLOYING FOR FORMATION ON THE SURFACE OF METALS AND ALLOYS GRADIENT NANOCOMPOSITE OF STRUCTURES
Budovskikh E.A., Vostretsova A.V., Gromov V.E.
Siberian State University of Industry, Novokuznetsk, Russia

15 minutes

D14 NANOGRAPHITE STRUCTURES FORMED DURING ANNEALING OF AMORPHOUS CARBON WITH FINELY-DISPERSED CARBON ENCAPSULATED IRON CARBIDE NANOPARTICLES
Sergiienko R., Shibata E., Nakamura T., Kim S., Kinota T.
Institute of Multidisciplinary Research for Advanced Materials (IMRAM), Japan

15 minutes

D208 INFLUENCE OF THE THERMAL EFFECT ON ELEMENTAL COMPOSITION OF THE MULTI-LAYER SYSTEM STEEL/Cu/Nb/Zr1Nb
Duvanov S.M., Baturin V.A., Borts B.V.[(1)]
Institute of Applied Physics of NASU, Sumy
[(1)]National scientific center "Kharkov Institute of Physics & Technology", Kharkov, Ukraine

15 minutes

D43 FORMATION OF A POROUS STRUCTURE OF METAL CONDNESATES AT THEIR CODEPOSITION WITH VAPOURS OFALKALIMETAL HALOGENIDES
Lyapina K.V., Ustinov A.I., Melnichenko T.V., Telichko V.A
Paton Electric Welding Institute of NASU, Kiev, Ukraine

15 minutes

D45 TWO-LAYER COMPOSITE COATINGS OBTAINED BY FURNACE INFILTRATION
Sukhovaya E.
Dnepropetrovsk National University, Ukraine

15 minutes

D52 KINETICS OF THE PENETRATION OF SHAPED CHARGE JETS IN BRITTLE MATERIALS
Rumyantsev B.V.
Ioffe Physical-Technical Institute, RUS, St-Petersburg, Russia

15 minutes

D61 DEVELOPMENT AND PROPERTIES OF FLUORIDE MATERIALS AND COATINGS FOR OPTICAL SYSTEMS FUNCTIONING IN EXTREMAL CONDITIONS
Zinchenko V.F., Kocherba G.I., Timukhin Ye.V., Sobol' V.P.(1), Mozgovaya O.V.(1), Gorshtein B.A.(1)
Bogatsky Physical-chemical Institute of NASU, Odessa
(1)SE "Central Design Office "Arsenal", Kiev, Ukraine

15 minutes

Discussion

Wednesday, September 24, 2008

SECOND MORNING SESSION

11^{30}–14^{00} *Section D.* Structure and properties of materials and coatings for operation in hazard conditions.

Chairmen: V. Zinchenko (Ukraine), V. Rumyantsev (Russia)

D89 STRUCTURE AND MECHANICAL PROPERTIES OF BERYLLIUM SUBJECTED TO INTENSIVE PLASTIC DEFORMATION
Babun A.V., Vasil`ev A.A., Kovtun K.V., Starolat M.P, Stetsenko S.P., Trembach O.V., Hovrich S.V
National Science Center "Kharkov Institute of Physics and Technology" (NSC KIPT), Kharkov, Ukraine

15 minutes

D133 RUBBER COMPOSITES REINFORCED WITH CARBON NANOTUBES FOR OPERATION IN EXTREME CONDITIONS
Sementsov Yu.I., Stupak V.S., Revo S.L.(1), Lozovoy F.V.(1), Shevchenko I.P.(1)
Chuyko Institute of Surface Chemistry of NASU, Kiev, Ukraine
(1)Shevchenko Kiev National University, Kiev, Ukraine

15 minutes

D145 INVESTIGATION OF THERMOPHYSICAL PROPERTIES OF CARBON PLASTICS REINFORCED WITH CARBON FIBRES

BuryaA.I., Kazakov M.E.[(1)], Rula I.V.
Dnepropetrovsk State Agrarian Univesity, Dnepropetrovsk, Ukraine
[(1)]Scientific-Production Centre "UVIKOM", Mytishchi, Russia

15 minutes

D180 INWESTIGATION OF RADIANT CHARACTERISTICS OF THERMAL PROTECTION MATERIALS AND COATINGS

Paderin L.Ya., Prusov V.B., Tokarev O.D.
Zhukovsky Central Aero-Hydrodynamic Institute, Zhukovsky, Russia

15 minutes

D335 AMORPHIZATION AND CHEMICAL MODIFICATION OF $KTiOAsO_4$(001) OPTICAL SURFACE INDUCED BY Ar^+ ION BEAM BOMBARDMENT

Khyzhun O.Yu., Atuchin V.V.[(1)], Isaenko L.I.[(2)], Pokrovsky L.D.[(1)], Ramana C.V.[(3)], Sinelnichenko A.K.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Institute of Semiconductors Physics of SB RAS, Novosibirsk, Russia
[(2)]Institute of Geology and Mineralogy, SB RAS, Novosibirsk, Russia
[(3)]University of Texas at El Paso, El Paso, Texas, USA

15 minutes

D359 THERMOPHYSICAL PROPERTIES OF γ-ALLOY ON A BASIS OF TITANIUM ALUMINIDE

Isayev K.B.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

D9 DESIGNING OF ALUMOSILICATE PHOSPHATE GLASS CERAMIC SEALING

Setina J., Akishins V.[(1)]
Riga Technical University, Riga, Latvia
[(1)]Valmiera Glass Fibre, JSC, Latvia

15 minutes

D36 NUMERICAL ANALYSIS OF MECHANICAL BEHAVIOR OF ANISOTROPIC SHELL SYSTEMS WITH VARIABLE THICKNESS

Vlaikov G.G, Grigorenko A.Ya.[(1)]
Technical Centre of NASU, Kiev, Ukraine
[(1)]Timoshenko Institute of Mechanics of NASU, Kiev, Ukraine

15 minutes

D37 ENVIRONMENT INFLUENCE ON A THERMOMECHANICAL DAMAGE PROCESSES ON THE FRICTION SURFACES OF COMPOSITE MATERIALS

Kurilov G.V., Kurilov A.G., Galagan J.N.
Open Company NPF "Technologiya-2000", Kharkov, Ukraine

15 minutes

D87 INFLUENCE OF THE LONG PERIOD OF STORAGE ON AGEING ANTIFRICTION SOLID FILM LUBRICANT

Gamulya G.D., Tserkovny A.I., Volobuev F.I.
Verkin Institute for Low Temperature Physics and Engineering of NASU, Kharkov, Ukraine

15 minutes

Discussion

Wednesday, September 24, 2008

EVENING SESSION

15^{30}–18^{00} *Section D.* Structure and properties of materials and coatings for operation in hazard conditions.

Chairmen: T. Prikhna (Ukraine), G. Gamulya (Ukraine), L. Paderin (Russia)

D97 COMPOSITE SYSTEMS C_f/C and C_f/C – SiC: A STUDY OF PHYSICAL, MECHANICAL AND TRIBO-TECHNICAL PARAMETERS

Sapronov R., Suvorov S.[(1)], Rumyantsev V., Osmakov A., Ponomarenko G.
VIRIAL Ltd
[(1)]Saint-Petersburg State Technology Institute, St-Petersburg, Russia

15 minutes

D142 PROPERTIES OF EXPERIMENTAL STUDY OF TRIBOTECHNICAL CERAMIC COMPOSITES WITH SIC MATRIX

Kulik V.I., Nilov A.S., Zagashvili Yu.V.[(1)], Garshin A.P.[(2)], Savich V.V.[(3)], Shipitsa N.A.[(3)], Ilyuschenko A.Ph.[(3)], Dmitrovich A.A.[(3)]
Research-and-production company "Ceracom", Ltd
[(1)]Baltic State Technical University, St.Petersburg, Russia
[(2)]SPGTU, St.Petersburg, Russia
[(3)]Powder Metallurgy Institute, Minsk, Belorussia

15 minutes

D53 HIGH-VELOCITY IMPACT INTERACTION OF BRITTLE SOLIDS

Sinani A.B., Zilberbrand E.L., Kozhushko A.A.
Ioffe Physical-Technical Institute, RAS, St-Petersburg, Russia

15 minutes

D62 DISPERSION-STRENGTHENED PM ALUMINIUM ALLOY

Bechke K.V., Sanin A.F.
Dnepropetrovsk National University, Dnepropetrovsk, Ukraine

15 minutes

D168 INTERMETALLIC COVERING OF ELECTRICAL CONTACTS AND CURRENT-CARRYING PARTS OF HIGH-CURRENT DEVICES

Voronin A.A., Kulakov P.A., Prihodchenko V.I.
Samara State Technical University, Samara, Russia

15 minutes

D202 KINETICS OF HYDROGEN PENETRATION THROUGH TWO-LAYER DIFFUSION SYSTEMS WITH HIGH POROUS W-COATINGS

Glazunov G.P.
Institute of Plasma Physics of National Science Center "Kharkov Institute of Physics and Technology", Kharkov, Ukraine

15 minutes

D429 PROBLEMS OF SECURING INFORMATION ON MATERIALS WITH DEVELOPED STRUCTURE BY RESULTS OF ACOUSTIC MEASUREMENTS

Bezimyanniy Y.G.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

D96 INFORMATIVE ACCOMPANIMENT OF MATERIALS WHICH ARE USED IN EXTREME CONDITIONS

But A.V., Mygal V.P., Klimenko I.A. Phomin A.S.
Zhukovskiy National aerospace university “KhAI”, Kharkov, Ukraine

15 minutes

D72 HIGH PRESSURE-HIGH TEMPERATURE SYNTHESIZED NANOSTRUCTURAL MAGNEZIUM DIBORIDE-BASED SUPERCONDUCTORS

Prikhna T.A., Gawalek W.[(1)], Savchuk Ya.M., Weber H.[(2)] , Habisreuther T.[(1)], Sergienko N.V., Moshchil V. E., Wendt M.[(1)], Eisterer M.[(2)], Kozyrev A.V., Nagorny P.A., Schmidt Ch.[(1)], Melnikov V.S.[(1)], Dellith J.[(1)], Litzkendorf D.[(1)], Dittrich U.[(3)], Noudem J.[(4)]
Institute for Superhard Materials of NASU, Kiev, Ukraine
[(1)]Institut für Photonische Technologien, Jena, Germany
[(2)]Atomic Institute of the Austrian Universities, Vienna, Austria
[(3)]H.C. Starck GmbH, Goslar, Germany
[(4)]CNRS/CRISMAT/ISMRA, Caen, France

15 minutes

D387 EPR INVESTIGATIONS OF MECHANICAL SRESSES APPEARED UNDER THE HEATING AND COOLING OF ZIRCONIUM DIOXIDE NANOSCALE PARTICLES

Bykov I.P., Brik A.B.[(1)], Bevz V.V.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Semenenko Institute of Geochemistry, Mineralogy and Ore Formation of NASU, Kiev, Ukraine

15 minutes

D521 TRIBOLOGICAL AND CORROSION PROPERTIES OF ELECTROCHEMICAL COATINGS ON THE BASE OF COBALT AND IRON SUPERALLOYS

Tsyntsaru N., Dikusar A., CesiulisH.[(1)], Celis J.-P.[(2)], Bobanova J., Sidelinikova S., Belevsky S., Yapontseva Yu.[(3)], Bersirova O.[(3)], Kublanovsky V.[(3)]
Institute of Applied Physics ASM Chisinau, Moldova
[(1)]Vilnius University Vilnius Litva
[(2)]Katholieke Universiteit Leuven Heverlee, Belgium
[(3)]Institute of General &Inorganic Chemistry of NASU, Kiev, Ukraine

15 minutes

Discussion

Wednesday, September 24, 2008

Exposition posters of Section "D" with index "A" from 9^{00} till 14^{00}, Other posters of Section "D" from 16^{00} till 18^{00}

D371-A CERAMICS IN THE ZrO_2-Y_2O_3-CeO_2-Al_2O_3 SYSTEM
Dudnik E.V., Shevchenko A.V., Ruban A.K., Tsykrenko V.V., Red'ko V.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D372-A LAMINATED STRUCTURAL CERAMICS BASED ON ZrO_2
Dudnik E.V., Shevchenko A.V., Ruban A.K., Sciba I.A., Kurenkova V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine(

D307-A POWDER ANTIFRICTION BRONZE—GRAPHITE MATERIAL
Varchenko V.T., Fushchich O.I.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D433-A PHYSICAL-MECHANICAL PROPERTIES OF COMPOSITE MATERIALS PREPARED FROM COOPER POWDERS BY WARM PRESSING
Epifantseva T.A., Stern M.B., Mihailov O.V., Kayuk V.G., Martiuhin I.D., Luk'yanchuk E.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D22-A EVALUATION OF MAGNETITE PROPERTIES AFFECTING HYDROGEN ABSORPTION BY FOSSILE BOILER PIPES
Lunarska E., Pyrża J., Nikiforov K.
Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw, Poland

D93-A MODIFICATION OF THE SURFACE OF the tI AND Al ALLOYS FOR CATALYSIS
Lunarska E., Sakhnenko N.(1), Ved M.(1)
Institute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland
(1)National Technical University – KhPI, Kharkov, Ukraine

D144-A INVESTIGATION OF THE MECHANICAL PROPERTIES AND STRUCTURE OF VACUUM ARC PVD COATINGS
Gregor A., Adoberg E., Kulu P.
Tallinn University of Technolgy, Tallinn, Estonia

D161-A REFRACTORY TRIPLE COMPOSITES BASED ON ALUMINA AND ZIRCONIA
Ulyanova T.M., Krutko N.P., Titova L.V., Paemurd E.S.
Institute of General and Inorganic Chemistry of NASB, Minsk, Belarus

D200-A HIGH-POROUS MOLYBDENUM-COPPER PSEUDOALLOYS FOR AGGRESSIVE GASES
Chernyshev L., Fedorova N., Cai Anding(1), Bao Weifang(1)
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)Shanghai Research Institute of Materials, Shanghai, China

D204-A THE INVESTIGATION OF COARSE REDUCTION OF SINTERED POROUS MATERIALS
Rud' V.D., Bozhko T.E.
Lutsk state technical university, Lutsk, Ukraine

D206-A FORMATION OF ELECTROEXPLOSIVE MO-CU/CU AND W-CU/CU COVERINGS AND THEIR INVESTIGATION BY XPS AND TEM METHODS
Shpak A.P., Korduban A.M, Kryshchuk T.V., Kandyba V.O.
Kurdyumov Institute of Physics of Metals of NASU, Kiev, Ukraine

D4-A MECHANICAL PROPERTIES OF THE QUASICRYSTALLINE Al-Cu-Fe ALLOYS
Kholyavko V.V.
National Yechnical University of Ukraine “Kiev Polytechnical Institute”, Kiev, Ukraine

D8-A THE RESEARCHES OF INFLUENCE THERMAL PROCESSING ON STABILITY OF AMORPHOUS ALLOYS
Lysov V.I., Tsaregradska T.L., Turkov O.V., Saenko G.V.
Kiev Shevchenko National University, Kiev, Ukraine

D13-A STONE-CAST GOODS FROM FLUOROLOGOPIT, WHICH ARE STABLE AT EXTREME CONDITION OF MELTS OF ON-FERROUS METALS AND OTHER HIGH AGGRESSIVE AMBIENCES
Malyavin A.G., Zatulovsky S.S
Physico-technological Institute of Metals and Alloys of NAN of Ukraine,

D16-A IRRADIATION AS A FACTOR AFFECTING THE MICROMECHANICAL CHARACTERISTICS AND STATE OF MAGNETOSENSITIVE CENTERS IN SILICON CRYSTALS
Makara V.A., Steblenko L.P., Kuryliuk A.N., Kobzar Iu.L., Naumenko S.N., Kravchenko V.N.
Shevchenko National University, Kiev, Ukraine

D24-A RADIATION–PROTECTIVE NANO-COMPOSITES
Gulbin V.N., Petrunin V.F.(1)
NIKIMNIKIMT Institute – Affiliate of FGUP FGUP ICC “Rosatomstroy”,
(1)Moscow Engineering Physics Institute (State University), Moscow, Russia

D26-A COATINGS FROM EUTECTIC ALLOYS ON BASIS OF Ni-Al-Re SYSTEM
Shpak A.P., Kunitsky Yu.A.(1), Vlaykov G.G.(1), Barabash M.Yu.(1)
Kurdyumov Institute for Metal Physics of NASU
(1)Technical Centre of NASU, Kiev, Ukraine

D30-A FORMATION OF MICRO- AND NANO-STRUCTURES IN THE PROCESS OF GROWING AND γ-RADIATION OF HIGH-TEMPERATURE FERROELECTRICS–REFRACTORY LITHIUM NIOBATE SINGLE CRYSTALS
Palatnikov M., Shcherbina O.
Institute of Chemistry, Kola Science Centre RAS, Apatity, Russia

D34-A ON NATURE OF CURRENT INSTABILITY IN BORON
Gabunia D.L., Chkhartishvili L.S.(1,2), Tsagareishvili O.A.(1)
(1)Tavadze Institute of Metallurgy and Materials Science
(2)Georgian Technical University, Tbilisi, Georgia

D41-A INFLUENCE OF MICROALLOYUNG ON THE STRUCTURE AND THERMOCYCLIC DURABILITY OF STEELS 30 AND 30ГС
Levchenko G.V., Bobyr’ S.V, Djomina K.G., Zdorobets S.A.
Nekrasov Iron and Steel Institute of NASU, Dnepropetrovsk, Ukraine

D46-A INVESTIGATION OF THE EFFECT OF STRUCTURE OF Fe-B COATINGS ON THEIR MECHANICAL PROPERTIES
Borisov Yu.S., Astakhov E.A., Kaplina G.S., Murashov A.P., Gorban V.F.(1), Britun P.S.(1)
Paton Electric Welding Institute NASU, Kiev, Ukraine
(1)Frantsevich Institute for Materials Science Problems NASU, Kiev, Ukraine

D47-A MANUFACTURE OF COMPOSITE POWDER Fe-Cr-TiCN SYSTEM OF NANOCRYSTALLINE PHASE
Borisov Yu.S., Astakhov E.A., Rupchev V.L., Burlachenko A.N.
Paton Electric Welding Institute of NASU, Kiev, Ukraine

D48-A PECULIARITIES OF THERMAL SPRAYING OF NANOPOWDERS OF DIFFERENT MATERIAL GRADES
Borisov Yu.S., Kaplina G.S., Astakhov E.A
Paton Electric Welding Institute of NASU, Kiev, Ukraine

D49-A EFFECT HEAT TREATMENT OF Fe-B COATINGS ON THEIR CORROSION AND WEAR RESISTANCE
Astakhov E.A., Kaplina G.S., Murashov A.P., Golnik V.F., Ipatova Z.G.,Kildij A.I.
Paton Electric Welding Institute of NASU, Kiev, Ukraine

D54-A DEVELOPMENT OF CONSTRUCTIONAL POLYMERIC NANOCOMPOSITES
Petrova P.N., Okhlopkova A.A.(1), Fedorov A.L.
Institute of Oil and Gas Problems SB RAS
(1)Ammosov Yakut State University, Yakutsk, Russia

D67-A STRUCTURE AND PROPERTIES OF COATINGS AFTER THE ELECTRIC-SPARK ALLOYING OF IRON BY TITANIUM AND CHROME IN SATURANT ENVIRONMENTS
Sidorenko S.I., Ivashchenko E.V., Lobachova G.G., Mazanko V.F.(1)
National Technical University “Kiev Polytechnical Institute, Kiev, Ukraine
(1)Kurdumov Metalophysics Institute of NASU, Kiev, Ukraine

D75-A THERMAL OXIDATION OF EPOXY-SILICA COMPOSITES RECEIVED VIA ANHYDRIDE CURING
Zhiltsova S.V., Mikhalchuk V.M.
Donetsk National University, Donetsk, Ukraine

D76-A THE INFLUENCE OF TEMPERATURE CYCLING ON ELECTROPHYSICAL CHARACTERISTICS OF MULTILAYERED NANOCOMPOSITE MATERIAL BASED ON Fe AND Al
Revo S.L., Lozovy F.V., Ivanenko E.A., Maksimova G.A.(1)
Shevchenko Kiev National University
(1)Frantsevich Institute for Material Science of NASU, Kiev, Ukraine

D82-A INFLUENCE OF PULSE CURRENT ON STEEL CATHODE HOLDER STRUCTURE
Fedorenkova L.I.
Dnepropetrovsk National University, Dnepropetrovsk, Ukraine

D83-A FEATURE OF CHEMICOTHERMAL TREATMENT FOR SPECIFIC CONFIGURATION STEEL ARTICLES
Spiridonova I.M., Kolyuchaya V.D., Mostovoy V.I., Lepehova H. V., Fedorenkova L.I.
Dnepropetrovsk National University, Dnepropetrovsk, Ukraine

D86-A LAYER-LIKE STRUCTURE OF FERRIC BORIDE IN BORONCONTAINING ALLOYS
Spiridonova I.M., Filonenko N.Y., Bezrukavaya O.G.
Dnepropetrovsk National University, Dnepropetrovsk, Ukraine

D102-A STRUCTURE AND PROPERTIES OF COATINGS RECEIVED BY METHOD OF LASER DOPING OF IRON ALLOYS BY TITANIUM CARBIDE IN THE SATURATING MEDIUMS
Sidorenko S.I., Ivashchenko E.V., Golovko L.F., Krasavin A.P., Marchenko N.V.
National Technical University of Ukraine “Kiev Polytechnical Institute”, Kiev, Ukraine

D103-A STRUCTURE AND PROPERTIES OF SURFACE LAYERS RECEIVED BY A ION-PLASMA METHOD AT VARYING PARAMETERS
Sidorenko S.I., Ivashchenko E.V, Stadnik A.A., Lobachova G.G.
National Technical University of Ukraine “Kiev Polytechnical Institute”, Kiev, Ukraine

D104-A THE INFLUENCE OF METHOD PREPARATION ON ELECTROMAGNETIC SHIELDING PROPERTIES OF GRAPHITE-EPOXY COMPOSITES
Vovchenko L., Matzui L., Oliynik V., Launetz V.
Shevchenko Kiev National University, Kiev, Ukraine

D109-A THERMOPOWER INDUCED BY DEFORMATION OF MULTILAYERED COMPOSITE Fe-Al
Lozovyi F.V., Revo S.L., Kopan’ V.S., Dashevsky M.M., Khutoryanska N.V.
Shevchenko Kiev National University, Kiev, Ukraine

D111-A TRANSPORT PROPERTIES OF NANOCOMPOSITE MATERIAL CNT-Fe
Ovsiyenko I.V., Len T.A., Shevchenko N.N., Matzui L.Yu.
Shevchenko Kiev National University, Kiev, Ukraine

D112-A CARBON NANOTUBES – COBALT NANOCOMPOSITE
Ovsiyenko I.V., Len T.A., Mentsel G.A., Matzui L.Yu.
Shevchenko Kiev National University, Kiev, Ukraine

D114-A COMPOSITE POWDER FOR WEAR-RESISTANT COATINGS
Mirijanashvili Z.M., Garibashvili V.I., Antadze M.E., Gabunia V.M.
Tavadze Institute of Metallurgy and Materials Science, Tbilisi, Georgia

D118-A STUDY OF POLYIMIDE FILMS RESISTANCE TO HIGH DOSES OF ACCELERATED ELECTRONS
Sychov M.M., Vasiljeva I.V.[(1)], Mjakin S.V., Zagranichek A.L.
St-Petersburg State Institute of Technology, St-Petersburg, Russia
[(1)]Technology Center RADIANT, St-Petersburg, Russia

D125-A THERMOGRAVIMETRIC ANALYSIS OF NANOSTRUCTURAL CARBON FILMS THERMOSTABILITY
Linnik A.I., Varukhin V.N., Prudnikov A.M.
Donetsk Institute for Phys. & Engineer of NASU, Donetsk, Ukraine

D126-A THE INFLUENCE OF HEAT TREATMENT ON MAGNETIC AND TRANSPORT PROPERTIES OF FINEMET AMORPHOUS ALLOYS
Babich M.G., Zakharenko M.I., Orlenko M.V., Semen’ko M.P.
Taras Shevchenko Kiev national University, Kiev, Ukraine

D130-A THERMAL AND ELECTRICAL CONDUCTIVITY OF POLYMER COMPOSITES WITH CARBON NANOFILLERS
Lazarenko A.A., Vovchenko L.L., Matzui L.Yu., Peres Yu.S.
Shevchenko Kiev National University, Kiev, Ukraine

D134-A RESEARCH OF PROPERTIES OF CALCIUM HYDROXYLAPATITE AS MATRIX FOR BURIAL OF RADIO-ACTIVE WASTES
Shpak A.P., Karbivskyy V.L., Kurgan N.A., Zueva N.A.
Kurdyumov Institute for Metal Physics of NASU, Kiev, Ukraine

D139-A STRUCTURE AND OPTICAL PROPERTIES OF SMOTH CVD DIAMOND COATINGS
Genchel' V.K., Sizov A.I., Bulychev B.M., Zvukova T.M., Korobov Yu.A., Khomich A.V.[(1)], Kovalev V.I.[(1)], Kanzyuba M.V.[(2)], Zavedeev E.V.[(2)]
Lomonosov Moscow State University, Moscow, Russia
[(1)]Kotelnikov Institute of Radio Eng. & Electronics of RAS
[(2)]Prokhorov General Physics Institute of RAS, Moscow, Russia

D140-A FINE-GRAINED α-SiAlON CERAMICS FROM NANOPOWDERS
Zalite I., Zilinska N., Krastins J.
Institute of Inorganic Chemistry of the Riga Technical University, Salaspils, Latvia

D141-A DEVELOPMENT AND STUDY OF RADIO-PROTECTIVE MATERIALS AND COATINGS BASED ON FOAMED PLASTICS WITH ULTRADISPERSED FILLERS
Hudramovych V.S. Dzjuba A.P.[(1)], Ignashkin I.S.[(1)]
Institute of Technical Mechanics of NASU and NSAU, Dnepropetrovsk, Ukraine
[(1)]Dnepropetrovsk National University, Dnepropetrovsk, Ukraine

D149-A ELLIPSOMETRIC ANALISYS FE-BASED ALLOYS AFTER LASER ANNELING
Poperenko L.V., Fedosenko O.O., Odarych V.A., Gnatyuk V.A.[(1)], Toru Aoki[(2)]
Shevchenko Kiev National University
[(1)]Lashkaryov Institute of Semiconductor Physics of NASU, Kiev, Ukraine
[(2)]Research Institute of Electronics, Shizuoka University, Japan

D154-A RESONANCE-ACOUSTIC RESEARCH TECHNIQUE OF THERMAL SHOCK RESISTANCE OF CERAMIC MATERIALS
Marukovich A.I., Leonov A.N., Smorygo O.L.
Powder Metallurgy Institute of NASB, Minsk, Belarus

D167-A PHYSICAL PROPERTIES OF MATERIALS (DATABASE)
Vinogradov Yu.K.
Moscow Aviation Institute (Technical State University), Moscow, Russia

D170-A THERMAL DEFORMATION AND STRENGTH OF SHELLS OF CARBON COMPOSITE MATERIALS DEPENDING ON MANUFACTURING FACTORS
Gracheva L.I., Kharchenko V.V.
Pisarenko Institute for Problems of Strength of NASU, Kiev, Ukraine

D172-A EVOLUTION OF MICROMECHANICAL PROPERTIES OF AMORPHOUS ALLOYS AS A RESULT OF WEAK MAGNETIC FIELD EFFECT
Vasylyev M.A., Makeyeva I.N., Galstyan G.G.
Kurdumov Institute for Metal Physics of NASU, Kiev, Ukraine

D188-A PHASE-STRUCTURAL TRANSFORMATIONS IN MANGANOUS CAST-IRON DURING SHOCK - ABRASIVE WEAR

Bobyr S.V., Bolshakov V.I.[(1)], Veselova S.I.[(1)], Nesterenko A.M., Pljuta V.L.
Institute of ferrous metallurgy of NASU, Dnepropetrovsk, Ukraine
[(1)]Pridneprovsk state academy of construction and architecture, Dnepropetrovsk, Ukraine

D190-A INVESTIGATION OOF SOLAR ARRAYS PROPERTIES DEGRADATION UNDER INFLUENCE OF ON-GROUND SIMULATED SPACE ENVIRONMENT FACTORS

Abraimov V.V., Pokhyl Yu.A., Tukhij V.G.[(1)], Potapov A.M.[(1)], Hu Chzhenjui[(2)], Zaika A.S., He Shi-Yu[(2)]
Institute of Low Temperature Physics and Engineering of NASU, Kharkov, Ukraine
[(1)]State design office"Yuzhnoye", Dnepropetrovsk, Ukraine
[(2)]Harbin Institute of Technologies, Harbin, China

D191-A A STUDY ON EFFECTS OF SPACE FACTORS ON THE MATERIALS OF SPACE OPTICS

Abraimov V.V., Pokhyl Yu.A., Liu Hai[(2)], Tukhij V.G.[(1)], Potapov A.M.[(1)], Zaritsky I.P., Saltevskiy G.I., He Shi-Yu[(2)]
Institute of Low Temperature Physics and Engineering of NASU, Kharkov, Ukraine
[(1)]State design office"Yuzhnoye", Dnepropetrovsk, Ukraine
[(2)]Harbin Institute of Technologies, Harbin, China

D192-A Pt-MODIFIED Al-Ni BOND COATS DEPOSITED BY MAGNETRON SPUTTERING

Belousov I.V., Bondarchuk V.I.[(1)], Kononenko Yu.G., Kuzmichev A.I.[(2)], Shaginyan L.R.[(3)]
Int'l Res. Centre «Pratt & Whitney-Paton» Kiev, Ukraine
[(1)]Institute of Physics of Metals of NASU, Kiev, Ukraine
[(2)]Kiev Technical University, Kiev, Ukraine
[(3)]Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D194-A STRESS RATE DEPENDENCE OF FERROELASTIC SWITCHING UNDER MECHANICAL LOADING

Viola G., Verbylo D.[(1)], Reece M.J.
Queen Mary London University of Greate Britain
[(1)]Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D301-A SOLAR RADIATION TREATMENT OF ELECTROSPARK COATINGS ON TiN, TiB_2 BASE ON 30HGSA STEEL

Paustovsky A.V., Frolov G.A., Novikova V.I., Tsyganenko V.S., Mordovets H.M, Gubin Yu.V., Kostenko A.D., Isaeva L.P., Poperenko T.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D304 BIOMATERIALS BASED ON CALCIUM PHOSPHATE FOR RECONSTRUCTIVE SURGERY UNDER INFLAMMATION CONDITIONS IN BONE TISSUE OF PATIENTS

Sych O., Ivanchenko L., Pinchuk N.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D311 HEAT CAPACITY RARE EARTH GERMANIDES WITH STRUCTURE MN_5SI_3 IN THE FIELD OF HIGH TEMPERATURES

Gorbachuk N.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D312 THE STUDY OF MOLYBDENUM INFLUENCE ON THE HIGH-TEMPERATURE STRENGTH OF TITANIUM ALLOY TI – CR – MO – TIC

Petrova A.M., Shtern M.B.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D314 TITANIUM DIBORIDE LOW RESISTANCE LAYERS

Dranenko A.S., Dvorina L.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D318 INFLUENCE OF PHASE STRUCTURE AND POROSITY OF SINTERED TWO-PHASE TITANIUM NANOLAMINATE-COMPOSITES ON STRAIN AND STRENGTH CHARACTERISTICS

Gorban' V.F., Demidik A.N., Ivanova I.I., Krylova N.A., Polushko A.P., Pechkovsky E.P., Firstov S.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D319 HIGH-TEMPERATURE SHORT- AND LONG-TERM HARDNESS AND CREEP OF SINTERED TWO-PHASE POROUS COMPOSITES ON NANOLAMINATE Ti_3SiC_2 BASIS

Burka M.P., Demidik A.N., Ivanova I.I., Krylova N.A., Polushko A.P., Pechkovsky E.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D320 HIGH-TEMPERATURE STRAIN HARDENING OF SINTERED POROUS TWO-PHASE TITANIUM NANOLAMINATE-COMPOSITES

Brodnikovsky N.P., Demidik A.N., Ivanova I.I., Krylova N.A., Polushko A.P., Pechkovsky E.P., Sameljuk A.V., Bahonsky D.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D321 MONITORING AND PROCESS CONTROL OF PLATING UNDER CONDITIONS PULSE-MODE OF GALVANIC-POWDER-LIKE COMPOSITION GRADIENTS COVERAGES

Zabrodskii I.M., Derev'yanko O.V., Dmitriev I.M., Uvarova I.V., Luchka M.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D322 DEVICE FOR THE CYCLIC TESTS

Lytvynenko Yu.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D324 CHARACTERISTICS OF THERMO-ACTIVATION PROCESS OF PLASTIC DEFORMATION OF ALLOYS ON BASE OF INTERMETALLICS WITH PARTICIPATION OF Al

Milman Yu.V., Korzhova N.P., Mordovets N.M., Legkaya T.N.[(1)], Golubenko A.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Kurdumov Institute of Metal Physics of NASU, Kiev, Ukraine

D325 BEHAVIOUR OF COMPLEX–ALLOYED ALLOYS OF $L1_2$ – STRUCTURE TYPE OF Al-Ti-Cr SYSTEM AT OXIDATION ON AIR

Milman Yu.V., Korzhova N.P., PoryadchenkoN.E., Legkaya T.N.[(1)], Mordovets N.M., Krapivka N.A., Orishich I.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Kurdumov Institute of Metal Physics of NASU, Kiev, Ukraine

D327 INFLUENCE OF SMALL CHROMIUM ADDITIONS ON ZIRCONIUM OXIDIZATION RESISTANCE IN AIR

Brodnikovskij N.P., Oryshich I.V., Poryadchenko N.E., Krapivka N.A., Khmeljuk N.D., Kuznetsova T.L., Rokitskaya E.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D329 PROPERTIES OF LASER PROCESSED LaB_6 – BASED THICK FILMS

Paustovsky A.V., Rud B.M., Sheludko V.E., Telnikov E.Ya., Kremenitsky V.V.[(1)], Zakharchenko I.V.[(2)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Technical Center of NASU, Kiev, 04070, Ukraine,
[(2)]Taras Shevchenko Kiev National University, Kiev, Ukraine

D218 IMPROVEMENT OF FATIGUE LIFE OF BUTT WELDED JOINTS ON SHEET ALUMINUM ALLOYS WELDED BY CONSUMABLE ELEKTRODE IN INERT GAS (MIG)

Ischenko A., Kiryan V., Mashin V., Shonin V.
Paton Electric Welding Institute of NASU, Kiev, Ukraine

D330 PECULIARITIES of FORMATION the CAST STRUCTURE of Zr- (0,5-7,5) % at.Cr ALLOYS, PERSPECTIVE for NUCLEAR POWER ENGINEERING

Kuznetsova T.L., Brodnikovsky N.P., Krapivko N.A., Zubets Y.Y.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D332 ABRASIVE WEAR RESISTANCE OF BORIDE COATINGS ON IRON-CHROMIUM ALLOYS

Dybkov V.I., Goncharuk L.V., Khoruzha V.G., Meleshevich K.A., Samelyuk A.V., Sidorko V.R.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D333 CREATION AND STUDY COATINGS USED IN THE STOMATOLOGY, RESISTANT TO AGGRESSIVE MEDIUM OF THE ORAL CAVITY

Kostenko E., Parkhomey A.[(1)], Ivanchenko L.[(1)], Kuda A.[(1)]
Shupik Institute for Stomatology of National Medical Academy of Post-graduate Education, Kiev, Ukraine
[(1)]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D339 INFLUENCE OF NITROGEN ON STRUCTURE AND PROPERTIES OF ELECTRON-BEAM FILMS OF CHROMIUM

Brodnikovskiy N.P., Zykova E.V., Dubykivsky L.F., Danilenko N.I., Rokitskaya E.A., Bega N.D.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D343 DISPERSION- STRENGTHENING of ALLOYS of SYSTEM of Zr-Cr

Brodnikovsky N.P., Zubets Y.Y., Krapivka N.A., Sarzhan G.F., Rokitskaya E.A., Bahonsky D.A., Bega N.D.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D344 FEATURES OF IMPACT FRACTURE OF CERAMICS FORMED UPON PLATES MADE OF POLYMER COMPOSITE

Vishnyakov L.R., Neshpor O.V., Mazna O.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D347 STRUCTURE AND PROPERTIES OF Zr-Co-Ir ALLOYS
Semenova E.L., Petyukh V.M., Kudryavtsev Yu.V.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)] Kurdyumov Institute of Metal Physics of NASU, Kiev, Ukraine

D349 BEHAVIOR OF ADHESION STRENGTH OF PLASMA-SPRAYED COATING DEPENDING ON TECHNOLOGICAL FACTORS
Besov A.V., Dolgov N.A.[(1)], Zubretskaya N.A.[(2)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Pisarenko Institute for Problems of Strength of NASU, KievUkraine
[(2)]Kiev National University of Technologies and Design, Kiev, Ukraine

D351 THERMAL STABILITY AND MECHANISM OF NONISOTHERMAL OXIDATION OF WSi_2 AND W_5Si_3 POWDERS
Koshelev M.V., Dvorina L.A., Dranenko A.S.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D355 HOT-PRESSED CERAMICS ON THE BASIS OF THE COMPOSITION POWDER IN THE SYSTEM (SiC-C) – Ti – Al_2O_3
Davidchuk N.K., Gadzyra N.F., Gnesin G.G.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D357 STRUCTURE AND PROPERTIES OF Zr-Co-Ir ALLOYS
Semenova E.L., Petyukh V.M., Kudryavtsev Yu.V.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Kurdyumov Institute of Metal Physics of NASU, Kiev, Ukraine

D361 HEAT CAPACITY OF NANOSIZED 2H-MoS_2 AT CRYOGENIC TEMPERATURES
Muratov V.B., Kopan A.R., Kulikov L.M., Konig N.B.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D363 ESTIMATE OF VOLUVE EFFECT UPON ANOMALOUS CRYSTALLIZATION OF THE RARE-EARTH METAL OXDES IN A FOCAL ZONE OF AN OPTIC FURNACE
Frolov A.A., Voynich E.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D364 COATED BY NANOSIZED BN-C STRUCTURES ELECTRODES FOR DETECTION OF DISSOLVED OXYGEN
Sartinska L.L., Frolov A.A., Kolbasov G.Ya.[(1)], Vorobets V.S.[(1)], Karpenko S.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Institute of General & Inorganic Chemistry of NASU, Kiev, Ukraine

D365 THE EQUIPMENT FOR COMPARATIVE ESTIMATION OF CERAMIC THERMAL-SHOCK RESISTANCE BY THE METHOD OF ACOUSTIC EMISSION REGISTRATION
Voynich E.V., FrilovA.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D369 THERMODYNAMIC CHARACTERISTICS OF PRASEODYMIUM SELENIDES IN THE REGION OF Pr_3Se_4- Pr_2Se_3 COMPOSITIONS AT HIGH TEMPERATURES
Litvinenko V.F., Kopan A.R.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D370 RESEARCH OF CHANGE OF MORPHOLOGY AND STRUCTURE NANOFILMS OF SOME REFRACTORY AND THE PRECIOUS METALS DEPOSITED ON OXIDES AND CARBON MATERIALS DURING ANNEALING UP TO HIGH TEMPERATURES

Naidich Y.V., Gab I.I., Kostyuk B.D., Stetsyuk T.V., Kurkova D.I., Dukarov S.V.[(1)], Kryshtal A.P.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Karazin Kharkov National University, Kharkov, Ukraine

D373 POROUS COMPOSITE MATERIALS ON THE BASIS OF METAL FIBRES AND POWDERS FOR CAPILLARY STRUCTURES

Kostornov A.G., Moroz A.L., Shapoval I.V., Lalor M.[(1)], Mgaloblishvili O.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]John Moores University, Liverpool, United Kingdom

D375 INFLUENCE OF AGING ON THE STRENGTH AND MAGNETIC PROPERTIES IN METASTABLE Fe-Ni-BASED ALLOYS

Samsonov U.I., Shevchenko O.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D376 INFLUENCE of COOLING of β-PHASE ON MICROHARDNESS of Ti-Cr ALLOYS

Brodnikovskiy N.P., Zykova E.V., Rokitskaya E.A., Bega N.D., Sameluk A.I.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D377 CHARACTERIZATION OF PECVD SiCN FILMS PREPARED FROM HEXAMETHYLDISILANE

Ivashchenko V.I., Porada O.K., Ivashchenko L.A., Timofejeva I.I., Sinelnichenko O.K., Butenko O.O., Ushakov M.V., Ushakova L.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D378 STRUCTURE AND STRAIN SENSITIVITY OF RESISTIVE THICK FILMS ON THE BASIS OF SnO_2-Sb

Rud B.M., Gonchar A.G.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D379 FIBER OXIDE FILLERS FOR ALUMINOSILICATE OF WEAR & FRICTION APPLICATIONS

Vishnyakov L.R., Moroz V.P., Yaremenko O.P., Sinaiskiy B.N., Varchenko V.T.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D385 EMISSION PROPERTIES OF CATHODES BASED ON BN-C AS A RESULT OF LASING

Sartinska L.L., Bloschanevich O.M., Nishchenko M.M.[(1)], Shevchenko N.A.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Kurdumov Institute for Metal Physics of NASU, Kiev, Ukraine

D392 PHASE COMPOSITION AND CORROSION-ELECTROCHEMICAL BEHAVIOR OF Mg-Cu-Y ALLOY AFTER CATHODIC TREATMENT WITH HYDROGEN ATOMS

Shvets V., Lavrenko V., Talash V., Khomko T., Rudenko Yu., Shevchuk N.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D393 EFFICIENCY OF MICROWAVE ABSORBERS FOR HARD CONDITIONS WORKING VIA THEIR MICROSTRUCTURE CHARACTERIZATION
Gnatenko S.V., Shulzhenko V.Ya., Petrovsky V.Ya.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D394 HIGH TEMPERATURES STRENGTH COATING Al-Fe-Cr SYSTEM SPRAING BY THE COLD GASDYNAMIC SPRAYING
Kiz M.M., Iefimov M.O., Yakovleva M.S., Sirko A.I., Byakova A.V., Milman Yu.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D395 SOUND ABSORPTION PROPERTIES OF AL-FOAM
Dudnyk A.O., Nastaburko A.V., Muzyka A.A., Sirko A.I., Byakova A.V., Milman Yu.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D396 MECHANICHAL PROPERTIES OF NANOSTRUCTURED IRON, RESULTED FROM SEVERE PLASTIC DEFORMATION BY FRICTION
Byakova A., Yurkova A.(1), Milman Yu.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)National Technical University of Ukraine “KPI”, Kiev, Ukraine

D400 SOME EROSION REGULARITYES OF BK8 HARD ALLOY WITH MICROADDITIONS OF REFRACTORY CARBIDES BY SPARK TREATMENT
Paustovskiy A.V., Botvinko V.P.(1), Gubin Yu.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)Bakul Institute of Superhard Materials of NASU, Kiev, Ukraine

D402 IMPACT TOUGHNESS OF MULTI-LAYERED CERAMICS/METAL COMPOSITES
Skorokhod V.V., Panichkina V.V., Radchenko P.Ya.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D415 DAMPING CAPACITY OF POROUS TITANIUM UNDER HIGH-FREQUENCY VIBRATIONS
Vdovychenko O.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D421 EFFECT OF SOLAR RADIATION ON PROPERTIES OF α-Si_3N_4 BASED COMPOSITES
Tsyhanenko V.S., Dubovyk T.V., Rohozynska A.A., Rogozynskyi A.A., Shcherbyna O.D., Lychko V.V., Subbotin V.I., Yurchuk L.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D422 SHOCK RESISTANT COMPOSITES ON THE BASIS OF BORON CARBIDE AND ALUMINUM NITRIDE
Grigoryev O.N., Shcherbyna O.D., Bega N.D., Kotenko V.A., Dubovyk T.V., Subbotin V.I., Mosina T.V., Lychko V.V., Berezhynskyi I.L.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D424 AN INVESTIGATION OF THE ELECTRONIC STRUCTURE OF SOME ZIRCONIUM-CONTAINED REFRACTORY COMPOUNDS USING THE ULTRA-SOFT X-RAY SPECTROSCOPY METHOD
Bondarenko T.N., Khyzhun O.Yu., Kopylova K.I.(1)
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D425 EFFECT OF MICROALLOYING WITH Sc AND RARE-EARTH METALS ON STRUCTURE AND HIGH-TEMPERATURE PROPERTIES OF TITANIUM ALUMINIDES BASED ALLOYS

Gornaya I.D., Goltvyanitsa V.S.[(1)], Goltvyanitsa S.K.[(2)], Ban'kovsky O.I., Poryadchenko N.E., Nevinchanaya E.A., Kotko A.V., Okun' I.V., Firstov S.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Zaporozhye National Technical University, Zaporozhye, Ukraine
[(2)]Real Ltd., Zaporozhye, Ukraine

D426 INFLUENCE OF Sc AND Gd ON HEAT RESISTANCE OF TITANIUM INTERMETALLICS BASED ALLOYS

Brodnikovskij N.P., Poryadchenko N.E., Oryshich I.V., Gornaya I.D., Gorpenko E.A., Goltvyanitsa V.S.[(1)], Goltvyanitsa S.K.[(2)], Kulak L.D., Firstov S.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Zaporozhye National Technical University, Zaporozhye, Ukraine
[(2)]Real Ltd., Zaporozhye, Ukraine

D430 APPLICATION OF NONLINEAR EFFECTS TO CONTROL STRUCTURE OF HIGH-POROUS MATERIAL

Bezimyanniy Y.G., Talko O.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D432 INFLUENCE OF PHYSICAL-CHEMICAL PROPERTIES OF TUNGSTEN ON STRUCTURE FORMATION OF HETEROGENEOUS Cu−W GREEN BODIES

Epifantseva T.A., Stern M.B., Kayuk V.G., Koval A.Yu., Martiuhin I.D., Belas O.N.
Frantsevich Institute for Problems of Materials Science of NASU

D434 INVESTIGATION OF CORRELATION BETWEEN ELASTIC WAVE ATTENUATION AND COMPOSITION AND STRUCTURE OF COMPOSITES WITH METAL MATRIX AND DIAMONDS

Bezimyanniy Yu.G., Visotsky A.N., Istomina T.A., Teslenko L.O., Bashavaya I.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D435 INVESTIGATION OF THE EFFECT OF COMPOSITION AND STRUCTURE ON ULTRASOUND VELOCITY IN POWDER MATERIAL WITH COPPER MATRIX AND TUNGSTEN INCLUSIONS

Bezimyanniy Yu.G., Epifantseva T.A., Kozirackiy E.A., Teslenko L.O.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D212 ESTIMATIONS OF DEFORMATION OF MICROOBJECTS OF TITANIUM CARBIDE

Ogorodnikov V.V., Murzin L.M.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Sebastopol national technical university, Sebastopol, Ukraine

D164 ACCELERATION OF PROCESS OF SOLUTION – FORMATION IN POWDER MIXTURE 50%Cu+50%Ni UNDER APPLICATION OF ALTERNATING MAGNETIC FIELD

Perekos A.E., Mordyuk B.N., Prokopenko G.I., Ruzhitskaya T.V., Efimova T.V., Zalutskiy V. P.
Kurdyumov Institute for Metal Physics of NASU, Kiev, Ukraine

D177 ON TWO SHAPE MEMORY EFFECTS IN SOME TITANIUM BASED ALLOYS
Peradze T., Stamateli Y., Gorgadze K., Stamateli M., Peradze Kh.
Georgian Technical University, Tbilisi, Georgia

D506 INFLUENCE OF VARIOUS METHODS OF SEVERE PLASTIC DEFORMATION ON THE MECHANICAL PROPERTIES OF TI GRADE 2
Tabachnikova E., Podolskiy A., Smirnov S., Bidylo M., Bengus V., Natsik V., Tikhonovsky M.[(1)], Haimovich P.[(1)], Borisova I.[(1)], Danilenko N.[(2)], Firstov S.[(2)], Aleksandrov I.[(3)], Latysh V.[(3)], Valiev R.[(3)]
Verkin Institute for Low Temperature Physics & Engineering, NAS of Ukraine; Kharkov, Ukraine
[(1)]National Science Center "Kharkiv Institute of Physics and Technology", Kharkov, Ukraine
[(2)]Frantsevich Institute for Problems of Materials Science of NAS of Ukraine, Kiev, Ukraine
[(3)]Institute of Physics of Advanced Materials, Ufa, Russia

D522 STRENGTHENING AND RESTABLISHING OF MACHINE PARTS BY ELECTROPLATING WEAR RESISTANT COATINGS
Stoicev P., Topala P.[(1)]
Technical University of Moldova Chisinau, Moldova
[(1)]State University „A. Russo”, Balti, Moldova

D38 TRIBOLOGICAL PROPERTIES OF COMPOSITE MATERIALS IN CONDITIONS OF COMPLEX DYNAMIC LOADING
Kurilov A.G., Kurilov G.V., Lvov G.I.[(1)]
Open Company NPF "Technologiya-2000", Kharkov, Ukraine
[(1)]NTU “KhPI”, Kharkov, Ukraine

D505 TEMPERATURE-MEASURING GLASSY-LIKE CHALCOGENIDES FOR ENVIRONMENTALLY-HAZARD FIBER OPTICAL SENSING
Shpotyuk O.I., Golovchak R.Ya., Vakiv M.M.
Institute of Materials, Scientific Research Company “Carat”,Lviv, Ukraine

D12 DIFFUSION WELDING JOINT OF W WITH Mo AND Ti
Lushinsky A. V.
JSC “Ramenskoe Design Company” (JSC RDC) Russia

D503 VARIATION OF OPTICAL CHARACTERISTICS OF II-VI NANOCRYSTAL-BASED COMPOSITES UNDER IONIZING RADIATION
Gomonnai A.V., Azhniuk Yu.M., Solomon A.M., Megela I.G.,
Hutych Yu.I., Lopushansky V.V.
Institute of Electron Physics, NAS of Ukraine, Uzhhorod

D502 LOW–TEMPERATURE RADIAL THERMAL EXPANSION OF SINGLE-WALLED CARBON NANOTUBES
Popov S.N., Vinnikov N.A., Gavrilko V.G., Dolbin A.V., Esel'son V.B., Manzhelii V.G., Sundqvist B.[(1)]
Verkin Institute for Low Temperature Physics and Engineering of NAS of Ukraine, Kharkov, Ukraine
[(1)]Umea University, Umea, Sweden

D501 HEAT-RESISTANCE POLYMERIC MATERIALS AND COATING BASED ON PHENYLONE FOR FRICTION UNITS

Sytar V.I., Kabat O.S., Stowpnyk O.V.
Ukrainian State University of Chemical Engineering, Dnepropetrovsk, Ukraine

D6 STRUCTURE-PHASE STATES UNDER THE PIG IRON PLASMA STRENGTHENING AND THE NEXT SERVICE

Efimov O.Yu., Gromov V.E.[(1)], Chinokalov V.Ya., Konovalov S.V.[(1)]
[(1)]Joint Stock Company "West Siberian Iron and Steel Plants", Novokuznetsk, Russia
[(1)]Siberian State University of Industry, Novokuznetsk, Russia

D18 CAVITATION STABILITY OF SAMPLES OF STEEL 20CH13 WITH MULTILAYER COTAINGS

Matsevity V.M., Kazak I.B., Vakulenko K.V.
Podgorny Institute for Mechanical Engineering Problems of NASU, Kharkov, Ukraine

D55 THE ANALYSIS OF THE FRETTING-WEAR MECHANISM OF PLASMA SPRAY COATINGS IN FRICTION UNITS OF AVIATION ENGINES

Lesnevskiy L.N., Gavrilov P.V., Klopov S.G., Troshin A.E., Tyurin V.N.
Moscow Aviation Institute (State Technical University) "MAI", Moscow, Russia

D73 MICROSTRUCTURE OF STEEL BOMBARDED BY HIGH-VELOCITY MICROPARTICLE FLUXs

Zil'berbrand E.L, Rumyantsev B.V.
Ioffe Physical-Technical Institute of RAS, St.Peterburg, Russia

D156 STRUCTURE OF THE DENSE CERAMICS RECEIVED BY SHS-DENSEIFICATION

Khitev A.V., Shcherbakov V.A.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia

D193 FIRE PROTECTIVE COATINGS THERMOPHYSICAL PROPERTIES DETERMINATION BY FIRE TEST EXPERIMENTAL DATA

Krukovsky P., Homiak Y. [(1)], Novak S. [(1)]
Institute of EngeneeringThermophysics of NASU, Kiev, Ukraine
[(1)]Ukrainian Fire Safety Institute, Kiev, Ukraine

D317 NEW METHODOLOGY OF HANDLING AND THE ANALYSIS OF RESULTS OF THE AUTOMATIC INDENTATION OF MATERIALS

Firstov S.A., Gorban' V.F., Pechkovsky E.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D348 A NEW APPROACH TO FORMATION OF AN INTERGROWTH STRUCTURES BETWEEN THE EUTECTIC PLASMA-DEPOSITED PHASES FOR THE SIGNES CHARGE LOAD AERO-CONSTRUCTIONS

Uskova N.A., Baglyuk G.A, Grishchishyna L.N, Moljar A.G.,[(1)] Trofimov V.A.[(2)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Kurdyumov`s Institute for Metal Physics of NASU, Kiev, Ukraine
[(2)]Antonov's Aero-Cosmical Science Complex, Kiev, Ukraine

D362 ANOMALOUS CRYSTALLIZATION OF THE RARE-EARTH OXIDES IN THE SUBGROUP OF YTTRIA
Frolov A.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

D384 ON REASONS FOR GRIPPING ELECTRODES FROM Ag, Cu AND Ni DURING COATING DEPOSITION IN LOW-VOLTAGE PULSED DISCHARGES
Kryachko L.A., Golovkova M.Ye.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)National Technical University of Ukraine "Kiev Polytechnic Institute", Kiev, Ukraine

D399 STRUCTURAL FEATURES OF THE LUQUID PHASE SINTERED Cu-Cr COMPOSITES
Khomenko O.V., Lesnik N.D., Minakova R.V. Homenko A.I.(1)
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)State Research Institute of Automated Systems, Kiev, Ukraine

Thursday, September 25, 2008

FIRST MORNING SESSION

9^{00}–11^{00} *Section E.* Special Session "Thermal Barrier Coatings".

Chairmen: V. Kolarik (Germany), P.Krukovskiy (Ukraine)

E152 PHASE TRANSITIONS AND DEGRADATION MECHANISMS IN YPZ THERMAL BARRIER COATINGS
Kolarik V., Fietzek H., Juez-Lorenzo M., Herrmann M.
Fraunhofer-Institut für Chemische Technologie ICT, Germany

15 minutes

E413 RESOURCE TESTS OF SPECIMENS OF METAL HEAT PROTECTION
Frolov G., Buchakov S., Evdokimenko Yu., Kissel V., Kolotilo A., Pasichny V., Ruban A., Solntsev V., Tykhyy V.(1), Frolov A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)YUZNOYE State Design Office, Dnepropetrovsk, Ukraine

15 minutes

E113 MODELLING OF INTERDIFFUSION PROCESSES BETWEEN MCRALY COATINGS AND NI-BASE ALLOYS DURING LONG TERM OPERATION OF GAS TURBINE COMPONENTS
Shemet V., Pirón Abellán J., Quadakkers W.J.
Forschungszentrum Jülich GmbH, Jülich, Germany

15 minutes

E171 LIFE TIME AND OPERATION TEMPERATURE ESTIMATION FOR MCrAlY COATINGS FOR GAS TURBINE BLADES
Krukovsky P., Tadlya K., Rybnikov A.(1), Kolarik V.(2), Stamm W.(3)
Institute of EngeneeringThermophysics, Kiev, Ukraine
(1)Polsunov Central Boiler and Turbine Institute, St-Petersburg, Russia
(2)Fraunhofer-Institut für Chemische Technologie, Germany
(3)Siemens AG Power Generation, Germany

15 minutes

E71 FORMATION OF NANOSTRUCTURAL MT-YBCO CERAMICS WITH HIGH SUPERCONDUCTING AND MECHANICAL CHARACYERISTICS
Prikhna T.A., Chaud X.[(1)], Gawalek W.[(2)], Savchuk Ya. M., Rabier J.[(3)], Joulain A.[(3)], Dub S., Moshchil V.E., Sergienko N.V., Melnikov V.S., Habisreuther T.[(2)], Litzkendorf D.[(2)], Sverdun V.B., Vlasenko A.V.
Institute for Superhard Materials, Kiev, Ukraine
[(1)]CNRS/CRETA, France
[(2)]Institut für Photonische Technologien, Jena, Germany
[(3)]Universite de Poitiers, CNRS/Lab. de Metallurgie Physique, France

15 minutes

E217 PROTECTIVE COATINGS FOR TITANIUM BLADES
Ustinov A.I.
Paton Electric Welding Institute of NASU, Kiev, Ukraine

15 minutes

E151 MODIFIED ALUMINIDE COATINGS FOR HIGH TEMPERATURE APPLICATIONS
Pedraza F., Bouchaud B., Balmain J., Menuey J., Bonnet G.
Université de La Rochelle, France

15 minutes

E155 THERMAL BARRIER COATINGS FOR LAND BASED INDUSTRIAL GAS TURBINES
Stamm W.
Siemens Energy, Germany

15 minutes

Discussion

Thursday, September 25, 2008

SECOND MORNING SESSION

11^{30}–13^{00} *Section E.* Special Session "Thermal Barrier Coatings".

Chairmen: G. Frolov (Ukraine), A. Ustinov (Ukraine)

E91 ON CONTAMINATION OF SPACECRAFT OPTICAL SURFACES BY OUTER ATMOSPHERE PRODUCTS
Khasanshin R. H., Alexandrov N.G.[(1)]
Joint-stock company "Kompozit", Korolev
[(1)]Krunichev State Research and Production Space Center, Moscow, Russia

15 minutes

E58 ELECTRON BEAM – PHYSICAL VAPOR DEPOSITION (EB-PVD) TECHNOLOGY AND EQUIPMENT FOR PRODUCING THERMAL BARRIER COATING IN GAS TURBINE CONSTRUCTION
Yakovchuk K.Yu., Movchan B.A.
State Company "International Center for Electron Beam Technologies of Paton Electric Welding Institute of NASU", Kiev, Ukraine

15 minutes

E90 MASS LOSS OF POLYMERIC COMPOSITES IN VACUUM IN DEPENDENCE ON RADIATION INTENSITIES
Khasanshin R. H., Timofeev A.N., Ivanov M.F.[(1)]
Joint-stock company "Kompozit", Korolev
[(1)]Joint Institute for High Temperatures of RAS, Moscow, Russia

15 minutes

E186 PECULIARITIES OF TESTING OF THERMAL PROTECTION MATERIAL FOR SPACE TECHNOLOGY PRODUCTS AT PLASMATRONS
Klishin A.F.
Lavochkin FSUI, Khimki, Russia

15 minutes

E169 STUDY OF VOLUMETRIC THERMAL EXPANSION PROCESSES IN CARBON COMPOSITE MATERIALS
Gracheva L.I.
Pisarenko Institute for Problems of Strength of NASU, Kiev, Ukraine

15 minutes

Discussion

Thursday, September 25, 2008

SECOND MORNING SESSION

13^{00}–14^{00} *Section F.* Experimental data obtained from performance of materials and coatings in on location hazard conditions.

Chairmen: G. Churilov (Russia), O. Kliass (Ukraine)

F68 THE COMPOSITE MATERIAL OPERATION IN THE CONDITIONS OF THERMAL CICLES OF INCREASED TEMPERATURE AND R_2O CORROSION
Tropinova I., Tropinov A.[(1)], Goberis S.[(2)]
Private company „Scientific- production company „Alineka", Kiev, Ukraine
[(1)]Kiev National University of architercture and bulding material, Kiev, Ukraine
[(2)]Scientific-research institute „Termoisolyazia",Vilnius, Lithuania

15 minutes

F203 SILICON PIN DETECTORS PRODUCTION FOR EXTREME PERFORMANCES
Perevertaylo V.L., Tarasenko L.I., Perevertaylo O.V., Shkirenko E.A.
SE Institute of Microdevices STC "Institute for Single Crystals" of NASU, Kiev, Ukraine

15 minutes

F3 HIGH TEMPERATURE COMPOSITE BEARING MATERIALS FOR EXTREME WORKING CONDITIONS
Shevchuk Yu.F., Roik T.A. [(1)], Vitsuk Yu.Yu.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]National Technical University of Ukraine "Kiev Polytechnical Institute", Kiev, Ukraine

15 minutes

F59 ANALYSIS OF DAMAGE MECHANISMS IN COATED SUPERALLOYS UNDER THERMAL FATIGUE CYCLING IN A HIGH-TEMPERATURE GAS FLOW
Kravchuk L.V., Kuriat R.I., Buyskikh K.P., Kyselevskaya S.G.
Pisarenko Institute for Problems of Strength of NASU, Kiev, Ukraine

15 minutes

Discussion

Thursday, September 25, 2008

EVENING SESSION

16^{00}–18^{00} *Section F.* Experimental data obtained from performance of materials and coatings in on location hazard conditions.

Chairmen: M. Tsebrenko (Ukraine), N. Petrova (Russia), V. Sharapova (Ukraine)

F95 THE INFLUENCE OF PLASMA TREATMENT ON THE CHEMICAL COMPOSITION OF METAL BOUNDARY LAYER
Churilov G.N., Osipova I.V.(1), Glushenko G.A.(1), Tomashevich E.V.(2), Vnukova N.G.(1)
Kirensky Institute of Physic of SB RAS, Russia
(1)Siberian Federal University, Krasnoyarsk, Russia
(2)Institute of Chemistry and Chemical Technology of SB RAS, Krasnoyarsk, Russia
15 minutes

F35 TENSIONS ARE IN AMORPHOUS MATERIALS
Dzyuba I.G., Nechitaylo Ya.A, Dement'ev V.A
Technical center of NASU, Kiev, Ukraine
15 minutes

F70 THE STRUCTURAL STATE OF MATERIAL AS ESTIMATION CRITERION OF EXTREME WORK TERMS
Kliass O.V., Kreshchenko V.A., Volkov G.V.
GTRPC «Zorya» – «Mashproekt», Nikolaev, Ukraine
15 minutes

F121 COMPLEX EVALUATION OF SERVICEABILITY OF RUBBERS OF SEALING PURPOSE IN THE EXTREMAL NORTHERN CONDITIONS
Petrova N.N., Portnyagina V.V.(1)
Ammosov Yakut State University
(1)Institute of Oil and Gas Problems of SB of RAS; Yakutsk, Russia
15 minutes

F346 PRODUCING OF HEAT-RESISTANT CERAMIC BARS FOR DETAILS OF TURBINE ENGINE
Simanovskii V., Maksyuta I., Kvasnytska Iu., Lashneva V.(1) ,Levchenko Iu.
Phisico-Technological Institute of Metals and Alloys of NASU, Kiev, Ukraine
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
15 minutes

F220 WORKABILITY OF THE SAPPHIRE CRYSTAL OF MEDICAL PURPOSE AND SCHEME OF FORMATION OF SPHERICAL SURFACE WITH THE INCREASE PRECISON
Turmanidze R., Butskhrikidze D., Beridze M.
Georgian Technical University, Tbilisi, Georgia
15 minutes

F122 ECONOMICAL MAGNETIZATION OF YBCO SUPERCONDUCTOR BULKS AND RINGS IN ORDER TO CHECK THE QUALITY OF MACHINING
Kósa J., Vajda I., Prikhna T.(1)
Budapest University of Technology and Economics, Hungary; (1)Institute for Superhard Materials of NASU, Kiev, Ukraine
15 minutes

Discussion

Thursday, September 25, 2008

Exposition posters of Sections"E" and "F" all day

E 57 STRUCTURE AND PROPERTIES OF THERMAL BARRIER COATINGS DEPOSITED IN VACUUM

Yakovchuk K.Yu., Movchan B.A., Rudoy Yu.E., Onoprienko E.V.
State Company "International Center for Electron Beam Technologies of Paton Electric Welding Institute of NASU", Kiev, Ukraine

E305 THE WAYS OF ZIRCONIA THERMAL BARRIER COATINGS FUNCTIONAL PROPERTIES ADVANCEMENT

Oliker V. E., Pritulyak A.A., Gridasova T.Ya.(1)
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)National Technical University of Ukraine – "KPI", Kiev, Ukraine

E25 HEAT-RESISTANT COATINGS FOR WORK IN HIGH TEMPEREATURE CONDITION

Barabash M.Yu., Martynchuk E.L., Kunitskaya L.Yu.(1)
Technical Centre of NASU
(1)Institute of Surface Chemistry of NASU, Kiev, Ukraine

E115 TOWARD INVESTIGATION OF THE EFFICIENCY OF LIGHT HEAT-SHIELDING COATINGS

Tretyak M.S., Chuprasov V.V., Klishin A.F.(1)
Lykov Heat and Mass Transfer Institute of NASB, Minsk, Belarus
(1)Lavochkin NPO Federal State Unitary Enterprise, Khimki, Russia

E116 INVESTIGATION OF HEAT-SHIELGING COATINGS AT A STAGNATION PRESSURE EXSEEDING ATMOSCHERIC ONE

Chuprasov V.V., Tretyak M.S., Klishin A.F.(1)
Lykov Heat and Mass Transfer Institute of NASB, Minsk, Belarus
(1)Lavochkin NPO Federal State Unitary Enterprise, Khimki, Russia

E117 AN EXPERIMANTAL RIG FOR INVESTIGATION THE INTERACTION OF PLASMA JETS WITH A SUBSTANCE

Chuprasov V.V., Tretyak M.S., Klishin A.F.(1)
Lykov Heat and Mass Transfer Institute of NASB, Minsk, Belarus
(1)Lavochkin NPO Federal State Unitary Enterprise, Khimki, Russia

E146 DYNAMICS AND RADIATION OF EROSIVE PLASMA UNDER LASER ACTION ON METALS

Stankevich Yu., Stepanov K., Stanchits L., Ershov-Pavlov E.(1), Catsalap K.(1)
Lykov Heat and Mass Transfer Institute of NASB
(1)Stepanov Institute of Physics of NASB, Minsk, Belarus

E310 ISOTHERMAL SECTIONS OF THE Al_2O_3—HfO_2—Y_2O_3 and Al_2O_3—HfO_2—La_2O_3 PHASE DIAGRAM at 1650 °C

Lakiza S.M., Tyschenko Ja.S., Red'ko V.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

E406 INFLUENCE OF CONVECTION ON EFFECTIVE HEAT CONDUCTIVITY OF SPECIMENS FOR CELLULAR HEAT PROTECTION IN THE CONDITIONS OF NON-STATIONARY HEATING

Borovik D.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

E409 RESEARCH OF RENEWABLE ABLATION HEAT PROTECTION AT HIGH-TEMPERATURE HEATING

Frolov G., Solonin S., Katashinsky V., Kolotilo A., Litjuga N., Potapov A.[(1)], Tykhyy V.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]YUZNOYE State Design Office, Dnepropetrovsk, Ukraine

E436 SOLUTION OF HEAT CONDUCTIVITY TASK BY INTEGRAL-DIFFERENTIAL METHOD

Zasjadko A., Baranov V., Frolov G.[(1)]
Institute for Problems of Modeling in Energetics of NASU, Kiev, Ukraine
[(1)]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

E150 SPACE APPLIED EPOXY POLYURETHANE THERMAL CONTROL COVERINGS

Rassamakin B.M., Khayrnasov S.M.
National Technical University of Ukraine “Kiev Polytechnic Institute”, Kiev, Ukraine

E414 HEAT CONDUCTIVITY OF MULTILAYERED HEAT-PROTECTIVE PACKAGE IN CONDITIONS OF RADIATION HEATING

Frolov G., Gusarova I.[(1)], Borovik V., Borovik D., Isaev K., Kolotilo A., Tykhyy G.[(1)], Ustianskiy A., Tsyganenko V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]YUZNOYE State Design Office, Dnepropetrovsk, Ukraine

F504 SB-INCORPORATION EFFECTS IN THE DESIGN OF ENVIRONMENTALLY-“GREEN” GLASSY SEMICINDUCTORS FOR HAZARDOUS APPLICATION

Klym H.I., Shpotyuk Ya.O.[(1)], Shpotyuk O.I., Vakiv M.M.
Institute of Materials, Scientific Research Company “Carat”, Lviv, Ukraine
[(1)]Franko Lviv National University, Lviv, Ukraine

F416 INCREASE OF ABRASIVE RESISTANCE OF DETAILS FOR PRESSING OF SILICATE AND HEAT-RESISTANT BRICKS

Firstov S.O., Mihajlov A.A., Brodnikovskyy M.P.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

F124 ON RESISTANCE OF SILICON CARBIDE IN MATERIAL OF ELECTROLYTIC CELL HEARTH INTERBLOCK SEAMS

Sharapova V.V., Sereda B.P.[(1)]
State Enterprise "Ukrainian Research Institute of Special Steels, Alloys and Ferroalloys”
[(1)]Zaporozhye State Engineering Academy, Zaporozhye, Ukraine

F345 REMOVAL OF CERAMIC BARS ON THE BASIS OF CORUNDUM DURING THE PROCESS OF CAST MEDICAL EQUIPMENT PRODUCING

Simanovskii V., Maksyuta I., Kvasnytska Iu., Lashneva V.[(1)] ,Levchenko Iu.
Phisico-Technological Institute of Metals and Alloys of NASU, Kiev, Ukraine
[(1)]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

F74 NEW FILTER MATERIALS ON THE BASIS OF ULTRATHIN POLYPROPYLENE MICROFIBERS

Tsebrenko M.V., Rezanova V.G., Tsebrenko I.A., Melnik I.A., Nikolaeva A.P.
Kiev National University of Technologies and Design, Ukraine

F187 THE SELF- INSTALLED CYLINDRICAL HYDROSUPPORT

Arinkin S.M., Panasenko L.N., Popok E.V.[(1)]
Lykov Heat & Mass Transfer Institute of NASB
[(1)]Byelorussian State Technological University, Minsk, Belarus

F137 OPTICAL PROPERTY VARIATIONS OF CHROMIUM OXIDE - BASED FUNCTIONAL COATING ON STAINLESS STEEL SURFACE UNDER HUMAN BLOOD PLASMA ACTIION

Poperenko L.V, Maitz, M.F.[(1)], Vinnichenko M.V., Nosach D.V.
Shevchenko Kiev National University, Kiev, Ukraine
[(1)]Institute of Ion Beam Physics and Materials Research, Forschungszentrum Rossendorf, Dresden, Germany

F176 Ti-Al-N POWDERS ELECTRON EMISSION UNDER CONCENTRATED SOLAR RADIATION

Nishchenko M.M., Tsapko E.A., Shevchenko N.A., Lyudvinskaya T.A.[(1)], Neshpor I.P.[(1)]
Kurdiumov Institute for Physics of Metals of NASU, Kiev, Ukraine
[(1)]Institute for Problems of Materials Science of NASU, Kiev, Ukraine

F178 NANODIAMOND CHROMIUM PLATING

Tsyganok R.Y., Ivashchenko V.N., Borodin V.G.
SPE “SINTA” Ltd, Kharkov, Ukraine

F183 IMPACT OF HEATED STEAM TEMPERATURE ON CONVECTION SUPERHEATER METAL

Gavrilova A.A., Salov A.G., Gavrilov V.K.
Samara State Technical University, Samara, Russia

F334 THE FORMATION OF PROTECTING COATING ON THE SURFACE OF HOT-PRESSED NANO-STRUCTURED COMPOSITES OF $Ti_{1-x}Al_xN$ SOLID SOLUTIONS AND $Ti_{1-x}Al_xN$ + AlN UNDER THE INFLUENCE OF CONCENTRATED SOLAR RADIATION

Lyudvinskaya T., Grigoriev O., Podcherniaeva I., Panasyuk A., Neshpor I.,
Andreeva M., Butenko O., Subbotin V., Derenovska N., Uvarova I.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

F336 EFFECTS OF Ar^+ ION BEAM BOMBARDMENT OF $KY(WO_4)_2$(010) SURFACE

Khyzhun O.Yu., Atuchin V.V.[(1)], Pokrovsky L.D.[(1)], Ramana C.V.[(2)], Sinelnichenko A.K.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Laboratory of Optical Materials and Structures, Institute of Semiconductor Physics, SB RAS, Novosibirsk, Russia
[(2)]Department of Metallurgical and Materials Engineering & Electrical and Computer Engineering, University of Texas at El Paso, El Paso, Texas, USA

F338 THE RESULTS OF TESTS OF ZIRCONIA-BASED THE CERAMIC HEADS OF HIP ENDOPROSTHESIS

Lashneva V.V., Shevchenko A.V., Matveeva L.A.[(1)], Nelyuba P.L.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Institute of Semiconductors Physics of NASU, Kiev, Ukraine

F374 CALCULATION OF CONTACT THERMAL RESISTANCE CAPILLARY STRUCTURES IN HEAT PIPES

Kostornov A., Shapoval A., Shapoval I., Legro G.K.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)Bruxelles University, the Center of Microgravitational Researches, Bruxelles, Belgium

F388 CHANGES OF CHARACTERISTICS OF INTERNAL FRICTION IN STEEL 20 AND 12Kh1MF DURING OPERATION IN STEAM PIPILENES

Vdovychenko O.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

F407 MEASUREMENT OF TRIBOTECHNICAL CHARACTERISTICS OF ANTIFRICTIONAL MATERIALS IN THE MODE CONTINUOUS MONITORING

Frolov G., Borovik V., Borovik D., Grudina T., Kolotilo A., Lameko A.(1), Surdu M.(1), Frolov A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)Scientific Research Institutes of Precision Measurements at «Ukrmetrteststandart», Kiev, Ukraine

F408 RESEARCH OF THE HEAT PIPES UNIT MANUFACTURED FOR SE PIPE, AFTER OF TESTS ON VIBRATION STRENGTH, LINEAR AND TRANSPORT G-LOADS

Kostornov A., Gusarova I.(1), Yelanskyy Yu.(1), Derkach S.(2), Dobrovolskyy V.(2), Tykhyy V.(1), Frolov G., Shapoval A.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)YUZNOYE State Design Office, Dnepropetrovsk, Ukraine
(2)KURS Open Societies Research-production complex, Kiev, Ukraine

F412 RESOURCE TESTS MODULAR TRIBOMETERS MANUFACTURED TO THE PREPARATION PROGRAM OF SE MATERIAL-FRICTION

Kostornov A., Gamulja G.(1), Borovik D., Grudina T., Kolotilo A., Frolov G., Fushchich O., Chevychelova T.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
(1)Verkin Institute for Low Temperature Physics & Engineering NASU, Kharkov, Ukraine

F216 SEMICONDUCTOR MATERIALS FOR RADIATION OPERATING CONDITIONS

Shurygin F., Bolshakova I., Holyaka R., Leroy Cl.(1), Makido O.
Lviv Polytechnic National University, L'vov, Ukraine
(1)Groupe de la Physique des Particules, Laboratoire R-J.A.-Levesque, Universite de Montreal, Montreal, Canada

F29 CERMET MEMBRANES FOR CARBON-DIOXIDE CONVERSION OF METHANE

Uvarov V.I., Borovinskaya I.P., Malevannaya I.G.
Institute of Structural Macrokinetics and Materials Science of RAS, Chernogolovka, Russia

F105 BORON CARBIDE BASED METAL-CERAMIC

Gachechiladze A.A, Jalabadze N.V, Mikeladze A.G, Kharati R.G, Gabunia D.L, Tsuladze T.A., Tsagareishvili O.A.
Tavadze Institute of Metallurgy and Materials Science, Tbilisi, Georgia

F354 THE DYNAMICS OF THE TUMOUR CELLS AND IMITATOR CELLS POPULATIONS UNDER THE MAGNET AND TEMPERATURE FIELDS INFLUENCE

Raychenko O.I., Kushchevska N.F.[(1)], Mosyenko V.S.[(2)], Yanish Y.V.[(2)], Kuz'menko A.P.[(2)], Derev'yanko O.V., Ogorodnikov V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Dumansky Institute of Colloid and Water Chemistry of NASU, Kiev, Ukraine
[(2)]Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology of NASU, Kiev, Ukraine

F411 SCIENTIFIC EQUIPMENT FOR RESEARCHES AND CERTIFICATION OF HEAT PIPES FOR SPACE FUNCTION

Yelanskyy Yu., Elchin A.[(1)], Tykhyy G, Kopyatkevich R.[(2)], Kostornov A.[(3)], Mishin G.[(3)], Prokhorov Yu.[(1)], Surdu M.[(4)], Frolov G.[(3)], Shapoval A.[(3)]
YUZNOYE State Design Office, Dnepropetrovsk, Ukraine
[(1)]ENERGIA Space-Rocket Corporation, Korolev, Russian
[(2)]Federal State Unitary Enterprise Central Research Institute for Machine Building, Korolev,
[(3)]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(4)]Scientific Research Institutes of Precision Measurements at «Ukrmetrteststandart», Kiev, Ukraine

F515 CHANGE OF PROPERTIES OF BARRIER STRUCTURES BASED ON LAYERED CRYSTALS UNDER INFLUENCE OF HIGH-ENERGY IRRADIATION

Kovalyuk Z.D., Politanska O.A., Sydor O.M., Tkachenko V.G., Maksymchuk I.M., Dubinko V.I.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]National Scientific Center “Kharkov Physico-Technical Institute” of NASU, Kharkov, Ukraine

F509 TRANSPARENT AND CONDUCTIVE METAL OXIDE COATINGS FOR OPTOELECTRONIC DEVICES

Gorley P., Frasunyak V., Orletsky I., Bilichuk S.
Fedkovych Chernivtsi National University

Friday, September 26, 2008

FIRST MORNING SESSION

9^{00}–10^{30} *Section A.* Principles of designing materials and coatings for operation in hazard conditions.

Chairmen: V. Oliker (Ukraine), P. Loboda (Ukraine)

A215 PERSPECTIVITY OF USING OF NEW BORIDE MATERIALS AND TECHNOLOGIES FOR DEVELOPMENT OF SCIENCE AND TECHNIQUE
Loboda P.
National Technical University of Ukraine "KPI", Kiev, Ukraine

15 minutes

A78 VACANCY THEORY FROM THE POSIYIONS OF MESOSCOPIC NONEQUILIBRIUM THERMODYNAMICS
Metlov L.S.
Galkin Donetsk Physical and Technical Institute of NASU, Donetsk, Ukraine

15 minutes

A19 GENERALISED NOTIONS ON THE MECHANISM OF ADHESION OF SOLIDS WITH METALS
Matsevity V.M., Kazak I.B., Vakulenko K.V.
Podgorny Institute for Mechanical Engineering Problems of NASU, Kharkov, Ukraine

15 minutes

A507 PHYSICAL AND CHEMICAL FUNDAMENTALS OF DEVELOPMENT OF COATINGS BASED ON INTERSTITIAL ELEMENTS TO ENHANCE THE SERVICE PROPERTIES OF TITANIUM ALLOYS
Yaskiv O., Fedirko V., Pohrelyuk I., Pichugin A.
Karpenko Physico-Mechanical Institute of NAS of Ukraine

15 minutes

A313 INFLUENCE OF MAGNETIC-ABRASIVE TREATMENT ON THE MECHANISM OF HIGH-TEMPERATURE OXIDATION OF COATINGS BASED ON NiAl
Oliker V.E., Gridasova T.Ya.[(1)], Eliseeva E.N., Sirovatka V.L.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]National Technical University of Ukraine "KPI", Kiev, Ukraine

15 minutes

A162 MECHANISMS OF DEVELOPMENT OF EPOXY COMPOSITE MATERIALS WITH CONTROLLED PROPERTIES
Kostornov A.G., Savchuk P.P.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev
[(1)]Lutsk State Technical University, Lutsk, Ukraine

15 minutes

A511 SYNCHRONOUS EFFECT OF HARD RADIATION AND HIGH TEMPERATURES ON THE SEMICONDUCTORS PROPERTIES: A SUPERPOSITION OF ACTIONS OR NEW MECHANISMS
Neimash V.B., Kraitchinskiy A.N., Tischenko V.V., Kolosyuk A.G., Kabaldin O.M
Institute of Physics of NASU

15 minutes

Discussion

Friday, September 26, 2008

SECOND MORNING SESSION

11^{00}–14^{00} *Section B.* Scientific fundamentals and computer models for the processes of manufacturing materials and coatings for operation in hazard conditions.

Chairmen: M. Livshits (Russia), V. Timoshenko (Ukraine)

B33 EXPERIMENTAL RESEARCH OF GAZDYNAMIC PROCESSES AND BASING OF TECHNOLOGICAL PARAMETERS OF DEVICES WITH BULK MATERIAL SPOUTED BED
Timoshenko V.I., Knyshenko Yu.V., Ljashenko Yu.G., Deshko A.Ye., Osadchiy A.V.
Institute of the Technical Mechanics of the NASU and NSAU

15 minutes

B81 COMPUTER SIMULATION OF NANOSCALE CLUSTER AGGREGATION ON SURFACES OF MATERIALS
Beznosyuk S.A., Vaghenin S.V., Fomina L.V.(1), Zhukovsky M.S.(2)
Altai State University, Barnaul, Russia
(1)Angarsk State Technical Academy, Angarsk
(2)Altai State Technical University, Barnaul, Russia

15 minutes

B159 NUMERICAL CALCULATION AND OPTIMAL DESIGN OF COMPOSITE STRUCTURES WITH THE REQUIRED SET OF PROPERTIES AT THE INFLUENCE OF EXTREMAL FACTORS
Gusev E.L., Bakulin V.N.(1)
Institute of Oil and Gas Problems of SB RAS, Yakutsk, Russia
(1)Institute of Applied Mechanics of RAS, Moscow, Russia

15 minutes

B197 ORIGINATION AND ROLE OF COMPRESSIVE STRESS AT ION DEPOSITION OF DLC-FILM
Strel'nitskij V.E., Kalinichenko A.I., Perepelkin S.S.
National Science Center "Kharkov Institute of Physics and Technology", Kharkov, Ukraine

15 minutes

B64 TWO-DIMENSIONAL MODEL OF NITRIDE MATERIALS COMBUSTION SYNTHESIS: EFFECT OF HEAT LOSSES
Grachev V.V., Soloviev R.V.
Institute of Structural Macrokinetics and Materials Science of RAS
Chernogolovka, Russia

15 minutes

B182 THE OPTIMAL CONTROL OF INDUCTION HEATING AND VACUUM CARBURIZING PROCESS
Livshits M.Yu., Derevyanov M.Yu.
Samara State Technical University, Samara, Russia

15 minutes

B342 PLASMA PARAMETERS AND ELECTRODE MATERIAL RELATIONSHIP IN A SPARK DISCHARGE

Kurochkin V.D., Kravchenko L.P, Romanenko O.M., Puh V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

B350 THEORETICAL MODEL OF DUCTILE MATERIAL POWDER

Tkachenko G.V., Uryukov B.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

B185 MATHEMATICAL MODEL FOR RESIDUAL STRESSES RELAXATION IN THERMAL SPRAY COATINGS

Chekurin V.F.
Pidstryhach Institute for Applied Problems of Mechanics and Mathematics of NASU, L'vov, Ukraine

15 minutes

B196 MODELING OF TEMPERATYRE FIELD AND DETERMINATION OF DEFORMED STATE OF GLASS CONSTRUCTION UNDER CONDITIONS OF FOREST FIRE

Bobkova E., Reznik S.
Bauman Moscow State Technical University, Moscow, Russia

15 minutes

B390 PHASE RELATIONS IN THE SYSTEMS FORMED BY ZIRCONIUM AND CERIUM OXIDES

Andrievskaya E.R.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

B405 FULCARBONITES, FULBORENITES, AND FULSICARBONITES: NEW CLASS OF SEMICONDUCTING ZEOLITES BUILT FROM CLUSTERS C_n, B_nN_n AND Si_nC_n

Pokropivny V.V., Skorokhod V.V., Bekenev V.L., Pokropivny A.V., Smolyar A.S.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

15 minutes

B7 WEAR-RESISTANT COATINGS ON CARBIDE-STEEL BASE

Narva V.K., Pavlov S.A.
State Technological University – MISiS, Moscow, Russia

15 minutes

B66 EFFECT OF POWERFUL CURRENT PULSES ON THE STRUCTURE OF Mg ALLOY ZK60

Valeev I.Sh., Valeeva A.Kh
Institute for Metals Superplasticity Problems RAS, Ufa, Russia

15 minutes

Discussion

Friday, September 26, 2008

EVENING SESSION

15^{30}–17^{00} *Section G.* Potential and contemporary technologies for recycling industrial waste aimed to production structural, heat-insulative, facing and other materials.

Chairmen: O.Kuntyi (Ukraine), A. Surzhenkov (Estonia), V. Pasichnyi (Ukraine)

G153 TECHNOLOGY OF ELECTROCHEMICAL PROCESSING PSEUDOALLOYS OF WC-Ni(Co)

Yavorskiy V.T., Kuntyi O.I., Sribna A.V., Ivashkiv V.R.[(1)]
L'vov Polytechnic National University
[(1)]State Enterprise "Argentum", L'vov, Ukraine

15 minutes

G367 ON REDUCTION OF FERRUGINOUS WASTE OF METALLURGIC PRODUCTION AS APPLIED TO PROCESS OF HYDROGEN OBTAINING IN SOLAR FURNACES BY "IRON-VAPOUR" METOD

Zenkov V.S., Pasychny V.V., Klimenko V.P., Pasychna M.S., Gavrylova O.N.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Joint Corp. "Metallurgic Group of Enterprises "Asovstal", Ukraine

15 minutes

G420 MATERIAL UTILIZATION OF CONVENTIONAL AMMUNITION

Nerus M.A.
State Self-financing Research Centre "Vector" of NASU, Kiev, Ukraine

15 minutes

G127 SOLAR COLLECTOR WITH INTEGRAL THERMALLY POWERED PUMP

Shekriladze I.G., Avalishvili I.G., Beroshvili A.I., Machavariani E.S.[(1)], Ochterbeck J.M., Shekriladze D.I., Shvangiradze M.G.
Georgian Technical University, Tbilisi, Georgia
[(1)]Clemson University, Clemson SC, USA

15 minutes

G44 THE DIRECTIONS OF USE OF PRODUCTS FROM POLYMERS WASTE VAPOR-THERMAL PROCESSING

Zhuravskij G.I., Matvejchuk A.S., Sharanda N.S.
Luikov Heat and Mass Transfer Institute NAS Belarus

15 minutes

G128 LASER TREATMENT OF THERMAL SPRAYED AND PVD COATINGS

Surzhenkov A.G., Kulu P.A., Gregor A., Zimakov S.
Tallinn University of Technolgy, Estonia

15 minutes

Discussion

Friday, September 26, 2008

Exposition posters of Sections“A”, “B” and G” all day

A27 NANOOBJECT ODERING WITH THE HELP OF TEMPLATES
Grin′ko D.A., Litvin O.S., Zabolotny M.A.[(1)], Kunitskaya L.Yu. [2)], Vlaykov G.G.[(3)], Barabash M.Yu.[(3)]
Institute of Semiconductor Physics of NASU
[(1)]Taras Shevchenko Kiev National University
[(2)]Chuyko Institute of Surface Chemistry of NASU
[(3)]Technical Centre of NASU

A209 INTERACTION IN ALLOYS OF BINARY AND TERNARY SYSTEMS, CONTAINING GALLIUM
Sudavtsova V.S., Kotova N.V., Romanova L.A., Zinevich T.N.
Shevchenko Kiev National University, Kiev, Ukraine

A213 INFLUENCE OF d- AND f- METALS ON CHARACTER OF INTERACTION IN THE Al-Si-M MELTS
Sudavtsova V.S., Mateyko I.V., Kotova N.V., Lagodiuk Yu.V., Sharkina N.O
Shevchenko Kiev national university, Kiev, Ukraine

A214 INFLUENCE OF METALS ON INTERPARTIAL INTERACTION IN MELTS OF THE SYSTEM OF Al2O3-MgO-SiO2-CaF2
Sudavtsova V.S.[(1)], Galinich V.I, Goncharov.I.A., Mischenko D.D., Shevchuk R.N.
Paton Institute of electric Welding of NASU,
[(1)]Shevchenko Kiev national university, Kiev, Ukraine

A210 THERMODYNAMIC PROPERTIES OF ALLOYS OF TRIPLE SYSTEMS Ni-B-M
Kudin V.G., Makara V.A., Sudavtsova V.S., Lagodiuk Yu.V., Kobylinskaya N.G.
Shevchenko Kiev National University, Kiev, Ukraine

A201 PHYSICAL AND MATERIALS CRITERION OF SELECTION PROTECTIVE COATINGS IN THE PRESENCE OF CAVITATIVE WEAR
Chernega S., Krasovskiy M.
National technical university of Ukraine "Kiev polytechnic institute”, Kiev, Ukraine

A31 THE STRUCTURAL MODIFICATION OF ALUMINIUM-MATRIX COMPOSITES BY REFRACTORY NANOPARTICLE ADDITIONS
Chernyshova T.A., Bolotova L.K., Kalashnikov I.E., Kobeleva L.I.
Baikov Institute of Metallurgy and Materials Science of RAS

A308 INFLUENCE OF LOAD, SLIDING RATE, AND MEDIUM ON THE STRUCTURAL STATE OF AN ALLOY FORMED IN FRICTION ON THE WORKING SURGACE OF A COPPER-BASED SELD-LUBRICATING COMPOSITE MATERIAL AND ITS MECHANICAL CHARACTERISTICS
Fushchych O.I., Chevychelova T.M. Gorban V.F., Kostenko A.D.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

A309 TRIBOSYNTHESIS OF AN ALLOY ON THE FRICTION SURFACE OF A COPPER-BASED SELF-LUBRICATING COMPOSITE ANTIFRICTION MATERIAL

Fushchich O.I., Chevychelova T.M., Koval A.Yu., Kostenko A.D.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

A389 STRUCTURAL STUDIES OF THE VAPOR- PHASE CONDENSATES IN SYSTEMS CU-W (MO, CR) AND OF THE ARTICLES OF THEM

Minakova R.V., Grechanyk N.I., Khomenko O.V., Golovkova M.E., Kopylova G.E., Veklich A.N.[(1)], Babich I.L.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Taras Shevchenko Kiev National University, Kiev, Ukraine

A431 MIXING ENTHALPIES OF IRON WITH DYSPROSIUM

Berezutski V.V., Ivanov M.I., Rafal A.N., Usenko N.I.[(1)]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(1)]Shevchenko National University, Kiev, Ukraine

A520 APPLIED ELECTRIC DISCHARGES IN IMPULSE OF DEVELOPMENT NON-CONVENTIONAL TECHNOLOGIES

Topala P., Stoicev P.[(1)]
State University „A. Russo", Balti, Moldova
[(1)]Technical University of Moldova, Chisinau, Moldova

B15 MODELLING OF GROWTH LAYER SILICON AND DIELECTRIC FILM PROCESSES FROM PAIR-GAS PHASES

Timoshenkov S.P., Britkov I.M., Timoshenkov Al.S., Britkov O.M., Grigoriev D.K., Timoshenkov An.S., Evstafiev S.S. Prokopiev E.P.
The Moscow State Institute of Electronic Technology (MIET), Moscow, Russia

B136 CHROMIUM DISILICIDES NANOCRYSTALLINE POWDERS SYNTHESIS BY METALLOTHERMIC REDUCTION METHOD

Malyshev V.V., Gab A.I.[(1)], Astrelin I.M.[(1)], Pasichny V.V.[(2)], Litvinenko Yu.M.[(2)]
Open International University of Human Development"Ukraine", Kiev, Ukraine
[(1)]National Technical University of Ukraine "Kiev Polytechnical Institute", Kiev, Ukraine
[(2)]Institute for Problems of Materials Science, Kiev, Ukraine

B184 PARAMETRIC ANALYSIS OF ENERGY INTERACTION IN HIGH-INTENSITY PROCESSES

Diligenskyi N.V., Efimov A.P.[(1)]
Institute for the Control of Complex systems of RAS
[(1)]Samara State Technical University, Samara, Russia

B300 ELECTRONIC AND THERMODYNAMIC PARAMETERS OXIDES IN SYSTEM PrO_2 - Pr_2O_3 - Y_2O_3

Gorjachev J.M., Dehtjaruk V.I., Siman N.I., Fijalka L.I.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B302 INJECTION MOLDING OF COMPEX-SHAPED PARTS FOR OPERATION UNDER EXTREME CONDITIONS

Frolova O., Tkachenko L., Shtern M., Mihaylov O.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B306 COMPUTER MODELLING OF ASYMMETRIC ROLLING OF PM MATERIALS
Mikhailov O.V., Gogaev K.A., Voropaev V.S., Kalutskiy G.Ya.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B358 MATHEMATICAL MODELING OF THE FEATURES STRUCTURED-LUMPY MATERIAL ON BASE OF THE POWDERED ALLOY OF 79HM WITH ADDITIVE OF THE JOIN FeTi
Tkachenko L.N., Vlasova O.V., Panasyuk O.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B326 COMPUTER MODELING OF SINTERING OF FUNCTIONALLY GRADED CEMENTED CARBIDES
Maximenko A.L., Stern M.B.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B337 COMPUTER MODELING OF HEAT - MASS TRANSFER PROCESSES AT HIGH - TEMPERATURE PROCESSING OF DISPERSE MATERIALS
Mikhailov O.V., Shtefan E.V.[1]
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[1]National Universities of Food Technologies, Kiev, Ukraine

B360 ELECTRONIC STRUCTURE, IR AND RAMAN SPECTRA OF CRYSTAL-CREATED SEMICONDUCTORS CLUSTERS: FULCARBENES C_{2n}, FULBORENES B_nN_n AND FULSICENES Si_nC_n
Ovsyannikova L.I., Pokropivny V.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B391 INTERACTION CERIUM OXIDE WITH ZIRCONIA AND SAMARIA AT 1500 °C
Andrievskaya E.R., Kornienko O.A., Lopato L.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B401 GRAIN BOUNDARY DIFFUSION IN THE Al_2O_3 -Cr_2O_3 SYSTEM UNDER MICROWAVE HEATING
Getman O.I., Panichkina V.V., Radchenko P.Ya., Sameliuk A.V., Skorokhod V.V., Yeremeyev A.G.[1], Plotnikov S.V.[1].
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[1]Institute for Applied Physics of RAS, Nizhniy Novgorod, Russia

B403 DIFFUSION UNDER MICROWAVE HEATING IN KCl AND KBr SINGLE CRYSTALS
Getman O.I., Panichkina V.V., Radchenko P.Ya., Sameliuk A.V., Skorokhod V.V., Yeremeyev A.G.[1], Plotnikov S.V.[1].
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[1]Institute for Applied Physics of RAS, Nizhniy Novgorod, Russia

B418 SYNTHESIS CONDITION INFLUENCE ON STRUCTURE AND PROPERTIES OF POWDERS OBTAIND BY THERMAL DECOMPOSITION OF THERE OXALATES
Kushchevskaya N.F., Uvarova I.V.[1], Perekos A.Ye.[2], Voynash V.Z.[2], Efimova T.V.[2], Zalutzkiy V.P.[2], Kushchevskiy A.E.[1]
Dumansky Institute for Colloid Chemistry and Water Chemistry NASU, Kiev, Ukraine
[1]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[2]Kurdumov Institute for metal physics NASU, Kiev, Ukraine

B198 TWO CHANNEL FILTERED VACUUM-ARC PLASMA SOURCE FOR COMPOSITE COATINGS DEPOSITION

Aksenov I.I., Aksenov D.S., Vasilyev V.V., Luchaninov A.A, Reshetnyak E.N., Strel'nitskij V.E.
National Science Center "Kharkov Institute of Physics and Technology", Kharkov, Ukraine

B427 PHASE COMPOSITION AND CORROSION STABILITY OF NANOPOWDERS PRODUCED BY ELECTROEXPLOSION TECHNIQUE FROM IRON AND CARBON COMPACTS

Perekos A. E., Rud A.D., Dubovoy A.G.(1), Schur D.V.(1), Zalutskii V.P., Rud N.D., Melnichenko V.P., Ivaschuk L.I., Rogozinskii A.A.(1)
Institute for Metal Physics of NASU, Kiev, Ukraine
(1)Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B60 COMPUTER MODELING OF CRYOGENIC TREATMENT OF THE ROLLING-MILL ROLL

Kislov A.M., Pokhyl Yu.A., Romanenko V.G
Verkin Institute for Low Temperature Physics and Engineering of NASU, Kharkov, Ukraine

B77 CONSTRUCTION OF THE ULTIMATE STRAIN SURFACES AND INVESTIGATION OF A PLASTICITY RESOURCE DURING METAL FORMING OF DISCRETE MATERIALS

Ryabicheva L.A., Usatyuk D.A., Baranov A.G.
East-Ukrainian Volodimir Dal National University, Lugansk, Ukraine

B143 NUMERICAL STUDY OF SIC-MATRIX COMPOSITE PRODUCTION BY CVI PROCES

Kulik A.V., Kulik V.I.(1), Ramm M.S.(2), Vetkina N.L., Bogatchev E.A.(3), Timofeev A.N.(3), Lakhin A.V.(3)
Baltic State Technical University, St.Petersburg
(1)Ceracom, Ltd, St.Petersburg
(2)Soft-Impact, Ltd., St.Petersburg,
(3)Kompozit Corp., Korolev, Russia

B437 PREDICTION OF POSSIBILITY OF HIGH PRESSURE REACTIONARY SINTERING IN THE Ti-B-N NANOSYSTEM

Bykov A.I. Timofeeva I.I. Ragulya A.V., Klochkov L.A.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

B419 ANOMALOUS DISSOLUTION OF CARBON IN TITANIUM UNDER MILLING IN PLANETARY MILL

Savyak M.P., Kirilenko S.N., Adeev V.M.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

G23 TECHNOLOGY OF DIVIDING POLYMER BODIES OF SOLID-PROPELLANT ROCKETS IN THE PROCESS OF UTILIZATION

Shvangiradze M.G., Menteshashvili V.N., Gerkeuli T.Z.
Georgian Technical University, Tbilisi, Georgia

G65 CONSTRUCTION OF OPTIMAL PRESCRIPTION OF RUBBER BASED ON MORPHOLOGY ANYLISIS

Shevchenko N.M
Agrarian University, Dnepropetrovsk, Ukraine

G79 THE FORMATION OF NANOSIZED METAL-OXIDE CERAMICS ON IRON BASED FOR APPLICATION IN EXTREME CONDITIONS
Chuprunov K.O., Levina V.V., Konuhov Y.V., Novakova A.A.[(1)], Medentsov V.E., Falkova A.V.[(1)]
State Technological University "Moscow Institute of Steel and Alloys",
[(1)]Moscow State University, Moscow, Russia

G99 PROCESSING WAY OF THE RUBBER WASTE BY MECHANICAL ACTIVATION FOR EFFECTIVE SECONDARY USE
Khristoforova A.A., Sokolova M.D.
Institute of oil and gas problems of SB RAS, Yakutsk, Russia

G138 UTILISATION OF NICKEL-CONTAINING ELECTROPLATING SLUDGE FOR PRODUCTION OF Facing TILE GLAZE
Kochetov G.M., Emelianov B.M.
Kiev National University of Construction and Architecture, Kiev, Ukraine

G328 EMPERATURE IN FOCUS OF SOLAR FURNACE
Ludanov K.I., Likhoded S.I.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

G366 OF FEATURES OF Fe REDUCTION IN PROCESSES OF HYDROGEN OBTAINING BY IRON-VAPOUR METHOD IN SOLAR FURNACES
Zenkov V.S., Pasychny V. V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

G368 INVESTIGATION OF DESTRUCTION KINETICS OF SOLID ALLOY WASTE BEING IN THE SHAPE OF ROD BY THERMAL REPROCESSING IN SOLAR FURNACE
Pasichny V.V., Korchemna V.S., Ostapenko S.A., Pasichna M.S.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

G380 PECULIARITIES of REPROCESSING the LOW-GRADE INDUSTRIAL TITANIUM ALLOYS WASTE for PRODUCTION the HIGH-HARD MATERIALS
Kuznetsova T.L., Brodnikovsky N.P., Oryshich I.V.
Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine

G382 NANOSTRUCTURAL MATERIAL FABRICATION FROM OYSTER SHELL WASTE BY HYDROTHERMAL HOT PRESSING
Korablova I., Yamasaki N., Korablov D.(2), Oke Y., Ishida Emile H., Korablov S.[(1)]
Tohoku University, Graduate School of Environmental Studies, Aoba 6-6-11, Aramaki Aoba –ku, Sendai Miyagi 980-8579, Japan
[(1)]Frantsevich Institute for Problems of Materials Science of NASU, Kiev, Ukraine
[(2)]National Technical University of Ukraine "KPI", Kiev, Ukraine

G205 PTIMIZATION OF PROCESSES OF GRINDING DOWN OF POWDERS OF STEEL OF SHH 15 IS FROM WASTES OF BEARING PRODUCTION
Rud' V.D., Galchuk T.N.
Lutsk state technical university, Lutsk, Ukraine

17^{00} CLOSE OF THE CONFERENCE