

Conference/Workshop Timetable

	Sept. 11, Monday	Sept. 12, Tuesday	Sept. 13, Wednesday	Sept. 14, Thursday	Sept. 15, Friday	Sept. 16, Saturday
Chairmen	Session I K. Stepanov F. Wagner	Session IV (adjoint Workshop) K. Ida, V. Tereshin	Session VI M. Petrov V. Voitsenya	Session VIII A. Hassanein I. Onishchenko	Session X M. Sadowski V. Shafranov	Session XII E. Kruglyakov Yu. Kuznetsov
9:10- 9:45 9:25	OPENING	I-04 F.Wagner	I-09 A.Hassanein	I-13 E.Kruglyakov	I-17 O. Agren	I-21 M.Petrov
9:45-10:20	I-01 V.Tereshin	I-05 G. Van Oost	I-10 A.Kobayashi	I-14 M.Sadowski	I-19 A.Zagorodny	I-22 K.Muraoka
10:20-10:55	I-02 K.Ida	I-06 J.Stockel	I-11 A.Lyssoivan	I-15 K.Shamrai	I-16 I.Anisimov	9-1 M.Rabinski
10:55-11:30	I-03 S.Neudatchin	I-07 Yu.Kuznetsov	I-12 B.Bazylev	I-18 S.Vladimirov	I-20 I.Onishchenko	4-2 V.Girka 4-18 V.Taranov
11:30-11:50	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
Chairmen	Session II (adjoint Workshop) G. Van Oost A. Zagorodny	Session V (adjoint Workshop) J. Stockel V. Chechkin	Session VII A. Kobayashi K. Shamrai	Session IX A. Lyssoivan S. Neudatchin	Session XI O. Agren I. Anisimov	Session XIII N. Azarenkov S. Mirnov
11:50-12:10	1-1 V.Shafranov	I-08 D.Bruna	3-1 V. Safronov	1-12 S.Mirnov	8-1 O.Fedorovich	4-6 I.Timofeev
12:10-12:30	1-2 V.Chechkin		3-2 V.Makhlay	1-13 A.Popryadukhin	8-2 K.Polozhiy	5-1 A.Kryshtal
12:30-12:50	1-3 E.Sorokovoj	1-7 L.Krupnik	3-3 G.Glazunov	1-14 I.Semenov	8-3 A.Veklich	5-2 Yu.Kyzyurov
12:50-13:10	1-4 V.Mikhailenko	1-8 A.Melnikov	6-1 E.Skladnik-Sadowska	1-15 A.Danilov	8-4 Yu.Virko	5-3 E.Sirenko
13:10-13:30	1-5 V.Maslov	1-9 L.Askinazi	6-2 A.Kozlov	1-16 A.Ivanov	8-5 V.Yukhimenko	CLOSING
13:30-13:50	1-6 A.Gordeev	1-10 V.Rozhansky	6-3 V.Voitsenya	2-1 V.Moiseenko	8-7 O.Manuilenko	
13:50-14:10	4-1 I.Girka	1-11 V.Budaev				
14:10	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
16:45	Coffee	Coffee		Coffee	Coffee	Departure
Chairmen	Session III A. Ivanov A. Egorov	Poster Session I V. Buts	Excursions	Workshop – Round Table Discussion	Poster Session III V. Taran	
				Poster Session II V. Chebotarev		
17:00-17:20	1-17 A.Burdakov	Topics:		Topics:	Topics:	
17:20-17:40	7-1 V.Karas'	Magnetic Confinement		ITER and FR Aspects	Magnetic Confinement	
17:40-18:00	7-2 V.Buts	Plasma Dynamics		Basic Plasma Physics	Plasma Heating	
18:00-18:20	7-3 A.Agafonov	Plasma Electronics		Space Plasma	Plasma Electronics	
18:20-18:40	7-4 G.Sotnikov	Plasma Technologies		Plasma Dynamics	Plasma Technologies	
18:40-19:00	7-5 A.Tolstoluzhsky			Plasma Technologies	Plasma Diagnostics	
19:30-22:30	Welcome Party				Conference Dinner	

Monday 11th September

9.15-11.35 SESSION I (Hall A)

Chaired by K.N. Stepanov and F. Wagner

9.25

Opening Ceremony

9.45 I-01 RESEARCHES ON PLASMA PHYSICS AND CONTROLLED FUSION
IN IPP NSC KIPT

V.I.Tereshin, K.N.Stepanov, E.D.Volkov

10.20 I-02 INTERACTIONS BETWEEN RADIAL ELECTRIC FIELD, TRANSPORT AND
STRUCTURE IN HELICAL PLASMAS

Katsumi Ida

10.55 I-03 DYNAMICS OF FORMATION AND TRANSPORT PROPERTIES OF INTERNAL
TRANSPORT BARRIERS AT T-10, JT-60U AND LHD

S.V. Neudatchin, S. Inagaki, T. Takizuka, K. Itoh, N. Hayashi, A. Ya. Kislov,
Yu. D. Pavlov, Y. Sakamoto, K. Tamura

11.30-11.50 Coffee Break

11.50- 14.10 SESSION II and ADJOINT WORKSHOP (Hall A)

Chaired by G. Van Oost and A.G. Zagorodny

11.50 1-1 STELLARATOR CONFIGURATIONS: PROBLEMS AND POSSIBILITIES

V.D. Shafranov

12.10 1-2 FAST ION GENERATION, CONFINEMENT AND LOSS
DURING RF DISCHARGE EVOLUTION IN THE U-3M TORSATRON

V.V. Chechkin, L.I. Grigor'eva, Ye.L. Sorokovoy, E.L. Sorokovoy, A.A. Beletskii,
A.S. Slavnij, Ye.D. Volkov, P.Ya. Burchenko, A.V. Lozin, S.A. Tsybenko,
A.P. Litvinov, A.Ye. Kulaga, Yu.K. Mironov, V.S. Romanov, D.V. Kurilo

12.30 1-3 SPECTRAL AND STATISTICAL CHARACTERISTICS OF EDGE TURBULENCE
IN THE U-3M TORSATRON WITH ETB FORMATION

E.L. Sorokovoy, L.I. Grigor'eva, A.A. Beletskii, V.V. Chechkin, Ye.L. Sorokovoy,
Ye.D. Volkov, P.Ya. Burchenko, S.A. Tsybenko, A.V. Lozin, A.P. Litvinov,

12.50 1-4 PECULIARITIES OF THE ANOMALOUS TRANSPORT IN SHEAR FLOW OF
TOROIDAL DEVICES

V.S. Mikhailenko, N.A. Azarenkov, K.N. Stepanov, V.V. Mikhailenko

13.10 1-5 THEORY OF TWO MECHANISMS OF INTERNAL TRANSPORT BARRIER
FORMATION

V.I. Maslov, F. Porcelli

13.30 1-6 ON THE POSSIBILITY FOR THE RESONANCE ELM-GENERATION
MECHANISM BY THE INJECTION OF THE NEUTRAL PARTICLE
BEAM IN TOKAMAK

A.V. Gordeev

13:50 4-1 EFFECT OF A NONCIRCULARITY OF A CROSS - SECTION OF THE OUTER
MAGNETIC SURFACE ON THE DISPERSION PROPERTIES OF SURFACE
FLUTE MODES

I.O. Girka, O.I. Girka, V.O. Girka, I.V. Pavlenko

14.10-15.00 Lunch

16.45-17.00 Coffee break

17.00-19.00 SESSION III (Hall A)

Chaired by A.A. Ivanov and A.M. Yegorov

- 17.00 1-17 STUDIES OF PLASMA CONFINEMENT IN GOL-3 MULTI MIRROR TRAP
A.Burdakov, A.Azhannikov, V.Astrelin, A.Beklemishev, V.Burmasov,
G.Derevyankin, V.Ivanenko, I.Ivanov, M.Ivantsivsky, I.Kandaurov, V.Konyukhov,
I.Kotelnikov, V.Kovenya, T.Kozlinskaya, K.Kuklin, A.Kuznetsov, S.Kuznetsov,
K.Lotov, I.Timofeev, A.Makarov, K.Mekler, V.Nikolaev, S.Popov, V.Postupaev,
S.Polosatkin, A.Rovenskih, A.Shoshin, I.Shvab, S.Sinitsky, Yu.Sulyaev,
V.Stepanov, Yu.Trunyov, L.Vyacheslavov, V.Zhukov, Ed.Zubairov
- 17.20 7-1 BREAKDOWN AND DISCHARGE IN LOW PRESSURE GAS CREATED BY A
MICROWAVE RADIATION UNDERGOING STOCHASTIC PHASE JUMPS
V.I. Karas`, A.F. Alisov, A.M. Artamoshkin, R. Bingham¹, I.V. Gavrilenko,
A.G. Zagorodny, I.A. Zagrebel`ny, M. Lontano, V.I. Mirny, I.F. Potapenko, V.S. Us
- 17.40 7-2 TWO FEATURES OF DYNAMICS OF THE CHARGED PARTICLES
IN EXTERNAL ELECTROMAGNETIC FIELDS
V.A. Buts
- 18.00 7-3 PARAMAGNETIC STATES OF HIGH-CURRENT ELECTRON BEAMS IN A
BEAM-PLASMA SYSTEM
A.V.Agafonov, V.P.Tarakanov
- 18.20 7-4 COMPARATIVE ANALYSIS OF EXCITATION OF LSM AND LSE WAVES BY
A BUNCH TRAIN IN DIELECTRIC LOADED RECTANGULAR RESONATOR
T.C. Marshall, I.N. Onishchenko, G.V Sotnikov
- 18.40 7-5 EVOLUTION OF OSCILLATOR SPECTRUM
IN PERIODICAL POTENTIAL
V.A. Buts, A.M. Yegorov, V.I. Marekha, A.P. Tolstoluzhsky

19.30 -22.30 Welcome Party

Tuesday 12th September

9.10-11.30 SESSION IV and ADJOINT WORKSHOP (Hall A)

Chaired by K. Ida and V.I. Tereshin

- 9.10 I-04 TRANSPORT BARRIER PHYSICS IN HELICAL SYSTEMS
F. Wagner
- 9.45 I-05 THE ROLE OF MICROTURBULENCE AND ELECTRIC FIELDS IN THE ESTABLISHMENT OF IMPROVED CONFINEMENT IN TOKAMAK PLASMAS
G. Van Oost
- 10.20 I-06 PERIODIC COLLAPSE OF TRANSPORT BARRIER AT PLASMA BIASING ON THE CASTOR TOKAMAK
J. Stockel, P. Peleman, M. Spolaore, E. Martines, M. Hron, R. Dejarnac, O. Bilykova, J. Brotankova, J. Sentkerestiova, I. Duran, J. Horacek, L. van de Peppel, J. Gunn, G. Van Oost
- 10:55 I-07 BIASED H-MODE EXPERIMENTS ON TCABR
I. C. Nascimento, Yu. K. Kuznetsov, R. M. O. Galvao, I. El Chamaa-Neto, A. M. M. Fonseca, I. B. Semenov, J. H. F. Severo, J. I. Elizondo, E. Sanada

11.30-11.50 Coffee break

11.50-14.10 SESSION V and ADJOINT WORKSHOP (Hall A)

Chaired by J. Stockel and V.V.Chechkin

- 11.50 I-08 EXPERIMENTAL INTERTWINEMENT OF RADIAL ELECTRIC FIELDS, FLUCTUATIONS AND TRANSPORT WITH DENSITY IN TJ-II PLASMAS
D. López-Bruna
- 12.30 1-7 RECENT RESULTS OF PLASMA POTENTIAL MEASUREMENTS IN *ECRH* AND *NBI* PLASMAS IN THE TJ-II STELLARATOR
L. Krupnik, A. Melnikov C. Hidalgo, A. Alonso, A. Chmyga, L. Eliseev, S. Lysenko, Yu. Dnestrovskij, C. Fuentes, A. Komarov, A. Kozachok, M. Liniers, S. V. Perfilov, M.A. Pedrosa, J. L. de Pablos, M.A. Ochando, A.I. Zhezhera, TJ-II team
- 12.50 1-8 STUDY OF THE PLASMA POTENTIAL STRUCTURE AT THE PERIPHERY OF THE T-10 TOKAMAK
A.V. Melnikov, L.G. Eliseev, S.E. Lysenko, V.A. Mavrin, S.V. Perfilov, R.A. Shurygin, L.I. Krupnik
- 13.10 1-9 RADIAL ELECTRIC FIELD EVOLUTION IN THE VICINITY OF A ROTATING MAGNETIC ISLAND IN THE TUMAN-3M TOKAMAK
L. G Askinazi, V.E. Golant, V.A. Kornev, S.V. Lebedev, A.S. Tukachinsky, M.I. Vildjunas, N.A. Zhubr
- 13.30 1-10 PROGRESS IN UNDERSTANDING OF RADIAL ELECTRIC FIELD AND TOROIDAL ROTATION STRUCTURE IN A TOKAMAK
V. Rozhansky
- 13.50 1-11 EXTENDED SELF-SIMILARITY OF INTERMITTENT TURBULENCE IN EDGE MAGNETIZED PLASMAS
V.P. Budaev

14.10-15.00 Lunch

16.45-17.00 Coffee break

17.00-19.00 POSTER SESSION I (Hall B) (48 Posters – see page 9)

Chaired by V. Buts

Topics: 1- Magnetic confinement (reports 1.18-1.27)

6 - Plasma Dynamics and Plasma-Wall Interaction (reports 6.4-6.8)

7 - Plasma Electronics (reports 7.6-7.13)

8 - Low Temperature Plasma and Plasma Technologies (reports 8.6-8.30), PD-1

Wednesday 13th September

9.15-11.35 SESSION VI (Hall A)

Chaired by M.P. Petrov and V.S. Voitsenya

- 9.10 I-09 COMPREHENSIVE SIMULATION OF DISCHARGE AND LASER PRODUCED PLASMAS IN EUV LITHOGRAPHY DEVICES
A. Hassanein
- 9.45 I-10 PERFORMANCE OF THERMAL BARRIER COATINGS PRODUCED BY SMART PLASMA PROCESSING
A. Kobayashi
- 10.20 I-11 ICRF PLASMAS FOR FUSION REACTOR APPLICATIONS
A. Lyssoivan, R. Koch, D. Van Eester, M. Vervier, R. Weynants, H.G. Esser, O. Neubauer, G. Sergienko, V. Philipps, D.A. Hartmann, J.-M. Noterdaeme, V. Bobkov, V. Rohde, B. Beaumont, E. Gauthier, O.M. Shvets, N.I. Nazarov, V.E. Moiseenko, G.P. Glazunov, A.V. Lozin, K.N. Stepanov, V.E. Volkov
- 10.55 I-12 MULTIPLE ELMS CONSEQUENCES FOR CFC AND W MACROBRUSH TARGET DAMAGE IN ITER. NUMERICAL SIMULATIONS vs. EXPERIMENTS
B. Bazylev, G. Janeschitz, I. Landman, G. Federici, A. Loarte, M. Merola, N. Klimov, V. Podkovyrov, A. Zhitlukhin, J. Linke, J. Compan, T. Hirai

11.35-11.55 Coffee break

11.50-13.50 SESSION VII (Hall A)

Chaired by A. Kobayashi and K.P. Shamrai

- 11.50 3-1 TESTING OF CFC TARGETS BY PLASMA HEAT FLUXES RELEVANT TO ELMS AND MITIGATED DISRUPTIONS IN ITER
N.I. Arkhipov, I.S. Landman, V.M. Safronov, V.M. Strunnikov, D.A. Toporkov, A.M. Zhitlukhin
- 12.10 3-2 EXPERIMENTAL STUDY OF PLASMA-SURFACE INTERACTION AND MATERIAL DAMAGE RELEVANT TO ITER TYPE I ELMS
V. A. Makhraj, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, I.E. Garkusha, V.V. Garkusha, N.V. Kulik, I. Landman, S.I. Lebedev, V.V. Staltsov, V.I. Tereshin
- 12.30 3-3 PD-W BIMETALLIC SYSTEMS: EROSION BEHAVIOR AND HYDROGEN PERMEABILITY
G.P. Glazunov, A.A. Andreev, D.I. Baron, M.N. Bondarenko, R.A. Causey, A.M. Hassanein, A.L. Konotopskiy, A.P. Patokin, I.M. Neklyudov, N.D. Rybal'chenko, I.K. Tarasov, E.D. Volkov
- 12.50 6-1 PRELIMINARY STUDY OF PLASMA STREAM INTERACTION WITH TUNGSTEN TARGET WITHIN RPI-IBIS FACILITY
E. Skladnik-Sadowska, K. Malinowski, M.J. Sadowski, K. Czaus, A. Marchenko, A.V. Tsarenko
- 13.10 6-2 FORMATION OF THE CURRENT ATTACHMENTS IN PLASMA ACCELERATOR CHANNEL UNDER INFLUENCE OF THE LONGITUDINAL MAGNETIC FIELD
A.N. Kozlov, A.M. Zaborov
- 13.30 6-3 IMPACT OF N₂+H₂ MIXTURE PLASMA ON CARBON-CONTAINING FILM
V.S. Voitsenya, S. Masuzaki, O. Motojima, A. Sagara, W.J. Acob

14.10-15.00 Lunch

EXCURSION

Thursday 14th September

9.10-11.30 SESSION VIII (Hall A)

Chaired by A. Hassanein and I.N. Onishchenko

- 9.10 I-13 OPEN ENDED AXIALLY SYMMETRIC SYSTEMS:
RESULTS AND PERSPECTIVES
E.P. Kruglyakov, A.V. Burdakov, A.A. Ivanov
- 9.45 I-14 PROGRESS IN PLASMA RESEARCH AT *IPJ* AND *IPPLM*, POLAND
M.J. Sadowski, E. Skladnik-Sadowska, M. Scholz and J. Wolowski
- 10.20 I-15 NONLINEAR PHENOMENA IN HELICON PLASMAS
K.P. Shamrai, V.F. Virko, V.M. Slobodyan, A.A. Gurin, Yu.V. Virko, G.S. Kirichenko
- 10.55 I-18 COLLECTIVE PARTICLE DYNAMICS IN A COMPLEX PLASMA
S.V. Vladimirov

11.30-11.50 Coffee break

11.50-13.50 SESSION IX (Hall A)

Chaired by A.I. Lyssoivan and S.V. Neudatchin

- 11.50 1-12 T-11M TOKAMAK EXPERIMENTS WITH LITHIUM LIMITER AND
PERSPECTIVES OF THE LITHIUM LIMITER TOKAMAK-REACTOR
S.V. Mirnov, E.A. Azizov, V.A. Evtikhin, V.B. Lazarev,
I.E. Lyublinski, A.V. Vertkov, D.Yu. Prokhorov, S.M. Sotnikov
- 12.10 1-13 ABOUT THE IMPROVED PLASMA CONFINEMENT IN TOROIDAL
SYSTEMS-MEASURING OF INHOMOGENITY OF A DENSITY OF PLASMA
NEAR THE GAS VALVE
A.A. Petrov, V.G. Petrov, A.P. Popriadukhin
- 12.30 1-14 VERIFICATION OF A NONLINEAR VAN DER POL COUPLED-OSCILLATOR
MODEL FOR SUPPRESSING MHD INSTABILITIES IN A TOKAMAK
I.B. Semenov, N.L. Marusov
- 12.50 1-15 PARTICLE TRANSPORT SIMULATIONS BASED ON SELF-CONSISTENCY
OF PRESSURE PROFILES IN TOKAMAKS
V.F. Andreev, S.V. Cherkasov, A.V. Danilov, A.Yu. Dnestrovskij,
Yu.N. Dnestrovskij, S.E. Lysenko, V.A. Vershkov
- 13.10 1-16 THE EXPERIMENTS WITH COMPACT MIRROR CELL AT GDT DEVICE
A.A. Ivanov, A.V. Anikeev, P.A. Bagryansky, P.P. Deichili, A.V. Kireenko,
A.A. Lizunov, S.V. Murakhtin, V.V. Prikhodko, A.L. Solomakhin, A.V. Sorokin,
N.V. Stupishin, S. Collatz, K. Noack
- 13.30 2-1 A NUMERICAL MODEL FOR SECOND HARMONIC ION CYCLOTRON
HEATING OF SLOSHING IONS IN MIRROR TRAP
V. Moiseenko, O. Ågren

14.10-15.00 Lunch

16.45-17.00 Coffee break

17.00-19.00 WORKSHOP – Round Table Discussion (Hall A)

Chaired by G. Van Oost

17.00-19.00 POSTER SESSION II (Hall B) (49 Posters - see page 12)

Chaired by V.V. Chebotarev

Topics: 3 - ITER and Fusion Reactor Aspects (reports 3.5-3.8)

4 - Basic Plasma Physics (reports 4.5-4.29)

5 - Space Plasma (reports 5.4, 5.5)

6 - Plasma Dynamics and Plasma-Wall Interaction (reports 6.9-6.13)

8 - Low Temperature Plasma and Plasma Technologies (reports 8.31-8.47)

Friday 15th September

9.10-11.30 SESSION X (Hall A)

Chaired by M. Sadowski and V.V. Shafranov

- 9.10 I-17 FOUR MOTIONAL INVARIANTS IN AXISYMMETRIC TORI EQUILIBRIA
O. Ågren and V.E. Moiseenko
- 9.45 I-19 EFFECTIVE INTERACTION OF GRAINS IN DUSTY PLASMAS:
THEORY AND SIMULATION
A.G. Zagorodny
- 10.20 I-16 PLASMA DYNAMICS IN THE VICINITY OF THE LOCAL PLASMA
RESONANCE POINT EXCITED BY PUMPING ELECTRIC FIELD OR
MODULATED ELECTRON BEAM
I.O. Anisimov, O.I. Kelnyk, T.Eu. Litoshenko, S.V. Soroka, D.M. Velykanets'
- 10.55 I-20 PROGRESS IN PLASMA WAKEFIELD ACCELERATION DRIVEN BY A
SHORT INTENSE BUNCH OF RELATIVISTIC ELECTRONS
I.N. Onishchenko

11.30-11.50 Coffee break

11.50-14.10 SESSION XI (Hall A)

Chaired by O. Ågren and I.A. Anisimov

- 11.50 8-1 MODERNIZATION OF THE PLASMA CHEMICAL ETCHING EQUIPMENT
FOR ISOLATION OF THE P-N JUNCTION AT THE PHOTOCONVERTERS
PRODUCTION
O.A. Fedorovich, M.P. Kruglenko, D.V. Lukomskij, A.A. Marinenko, B.P. Polozov
- 12.10 8-2 SUPPRESSION OF CAPACITIVE COUPLING IN AN INDUCTIVELY COUPLED
RF DISCHARGE
K. Polozhiy, T. Schwarz-Selinger, W. Jacob
- 12.30 8-3 PLASMA OF ELECTRIC ARC DISCHARGE BETWEEN Cu-Mo ELECTRODES
I.L. Babich, D.V. Chukhalenko, N.I. Grechanyuk, A.I. Knurenko, R.V. Minakova,
V.Ye. Osidach, A.N. Veklich
- 12.50 8-4 CHARACTERIZATION OF PLASMA AND EMERGENT ION BEAM
IN A COMPACT HELICON SOURCE WITH PERMANENT MAGNETS
Yu.V. Virko, V.F. Virko, K.P. Shamrai, G.S. Kirichenko
- 13.10 8-5 COMBUSTION OF ETHANOL+AIR MIXTURE SUPPORTED
BY TRANSVERSE ARC PLASMA
V. Yukhymenko, V. Chernyak, V. Naumov, Iu. Veremii, V. Zrazhevskij
- 13.30 8-7 ION ENERGY AND ION ANGULAR DISTRIBUTIONS IN RF CAPACITIVELY
COUPLED PLASMA SOURCES:
PURE ARGON AND ARGON-OXYGEN MIXTURES
O.V. Manuilenko, K.M. Minaeva, V.I. Golota

14.10-15.00 Lunch

16.45-17.00 Coffee break

17.00-19.00 POSTER SESSION III (Hall B) (48 Posters - see page 15)

Chaired by V.S. Taran

Topics: 1- Magnetic Confinement Systems (reports 1.28-1.45)

2 - Plasma Heating and Current Drive (reports 2.2, 2.3, PD-2, PD-3)

7 - Plasma Electronics (reports 7.14-7.24)

8 - Low Temperature Plasma and Plasma Technologies (reports 8.49-8.54)

9 - Plasma Diagnostics (reports 9.2-9.10)

19.30- 22.30 CONFERENCE DINNER

Saturday 16th September

9.00-11.30 SESSION XII (Hall A)

Chaired by E.P. Kruglyakov and Yu.K. Kuznetsov

- 9.10 I-21 DIAGNOSTIC SYSTEMS DEVELOPED IN IOFFE INSTITUTE FOR ITER
(NEUTRAL PARTICLE ANALYSIS, THOMSON SCATTERING
AND HARD GAMMA SPECTROSCOPY)
M.P. Petrov, G.T. Razdobarin, I.N. Chugunov
- 9.45 I-22 LASER THOMSON SCATTERING DIAGNOSTICS-DEVELOPMENTS
AND APPLICATIONS TO HIGH-TEMPERATURE PLASMAS
AND PLASMAS FOR INDUSTRIAL APPLICATIONS
K Muraoka
- 10.20 9-1 FEASIBILITY STUDY AND DESIGN OF CHERENKOV-TYPE DETECTORS
FOR MEASUREMENTS OF FAST ELECTRONS WITHIN TOKAMAKS
L. Jakubowski, M. Rabiński, J. Stanisławski, M.J. Sadowski, J. Żebrowski
- 10.40 4-2 THEORY OF SURFACE FLUTE MODES PROPAGATING ALONG PLASMA-
METAL INTERFACE IN THE PRESENCE OF AN EXTERNAL AXIAL
MAGNETIC FIELD
I. Girka, O. Girka, V. Girka
- 11.00 4-18 ELECTRON-POSITRON PLASMA: KINETIC SYMMETRIES
AND EXACT SOLUTIONS
V. B. Taranov

11.30-11.50 Coffee break

11.50-13.30 SESSION XIII (Hall A)

Chaired by N.A. Azarenkov and S.V. Mirnov

- 11.50 4-6 RELAXATION OF A RELATIVISTIC ELECTRON BEAM IN PLASMA
IN THE TRAPPING REGIME
I.V. Timofeey, K.V. Lotov
- 12.10 5-1 SMALLSCALE WAVE PROCESSES IN THE PREFLARE PLASMAS
OF THE LOOPS IN ACTIVE REGION
A.N. Kryshnal, S.V. Gerasimenko, O.K. Sirenko
- 12.30 5-2 SPECTRUM OF SMALL-SCALE PLASMA STRUCTURES
IN THE PHOTOSPHERE
Yu.V. Kyzuyurov
- 12.50 5-3 NONLINEAR DAMPING OF ELECTRON BEAM-DRIVEN LANGMUIR
WAVES DUE TO LANGMUIR-KINETIC ALFVÉN-WHISTLER COUPLING
IN THE SOLAR CORONA
O. Sirenko, Yu. Voitenko, M. Goossens, A.C.-L. Chian

13.10 CLOSING

14.10-15.00 Lunch

Departure

POSTER SESSION I

12th September

Poster №	Abstr №	Title
1	1-18	MODELING OF PLASMA ACCUMULATION, HEATING AND CONFINEMENT IN A SOURCE OF THERMONUCLEAR NEUTRONS O.A. Lavrent'ev, V.A. Maslov, S.V. Germanova, B.A. Shevchuk, N.A. Skoryk
2	1-19	THERMAL-PHYSICAL ANALYSIS OF LOW-RADIOACTIVE THERMONUCLEAR PLASMA IN THE MAGNETIC FUSION DEVICE <u>S.V. Ryzhkov</u> , V.S. Kononikhin
3	1-20	LOW FREQUENCY FLUCTUATIONS OF DIVERTED PLASMA FLOW AND THEIR RELATION TO EDGE PLASMA FLUCTUATIONS IN THE URAGAN-3M TORSATRON <u>A.A. Beletskii</u> , L.I. Grigor'eva, E.L. Sorokovoy, V.V. Chechkin, Ye.L. Sorokovoy, Ye.D. Volkov, P.Ya. Burchenko, S.A. Tsybenko, A.V. Lozin, A.P. Litvinov
4	1-21	IDENTIFICATION OF HARMONICS OF RF FIELD, WHICH IS USED FOR PRODUCTION AND HEATING OF PLASMA IN THE TORSATRON "U-3M" <u>V.L. Berezhniy</u> , V.L. Ocheretenko, O.S. Pavlichenko, I.B. Pinos, A.V. Prokopenko, S.A. Tsybenko, A.V. Lozin
5	1-22	SOME ASPECTS OF RF DISCHARGE IN THE "U-3M" TORSATRON <u>V.L. Berezhniy</u> , V.L. Ocheretenko, O.S. Pavlichenko, I.B. Pinos, A.V. Prokopenko, S.A. Tsybenko, A.V. Lozin
6	1-23	MULTIPLE DEUTERIUM PELLET INJECTION IN T-10 TOKAMAK WITH ECR HEATING A.A. Borshegovskij, <u>M.M. Dremín</u> , A.M. Kakurin, S.V. Krylov, M.Yu. Nikulin, Yu.D. Pavlov, I.N. Roi, V.A. Zhuravlev
7	1-24	PLASMA DIAGNOSTICS IN THE OPTICAL AND X-RAY REGIONS ON THE PLASMA FOCUS DEVICE PF-4 (TULIP) <u>S.P. Eliseev</u> , V.Ya. Nikulin, A.V. Oginov, A.A. Tikhomirov
8	1-25	INVESTIGATION OF NONLINEAR INTERACTIONS OF PLASMA FLUCTUATIONS ON THE EDGE OF THE T-10 TOKAMAK <u>S.A. Grashin</u> , V.P. Budaev, G.S. Kirnev, L.N. Khimchenko
9	1-26	MHD-STABILITY OF COLLISIONLESS ANISOTROPIC-PRESSURE PLASMAS CONFINED BY HIGH-CURVATURE MAGNETIC FIELD <u>I.A. Grigoriev</u> , V.P. Pastukhov
10	1-27	STUDY OF NEOCLASSICAL TRANSPORT IN THE $1/\nu$ REGIME FOR A RESEARCH FUSION REACTOR <u>V.N. Kalyuzhnyi</u> , S.V. Kasilov, V.V. Nemov
11	6-4	SYMMETRIC SURFACE ELECTROMAGNETIC WAVES AT FLAT INTERFACE PLASMA – VACUUM <u>V.K. Galaydych</u> , K.V. Galaydych
12	6-5	EROSION BEHAVIOR OF MATERIALS ON BASIS OF TUNGSTEN HOT PRESSED IN VACUUM UNDER MIRROR PENNING DISCHARGE PLASMA IMPACT G.P. Glazunov, D.I. Baron, M.N. Bondarenko, <u>A.L. Konotopskiy</u> , I.M. Neklyudov, N.P. Odeychuk, S.Yu. Saenko, A.E. Surkov, I.K. Tarasov, E.D. Volkov
13	6-6	DYNAMICS OF DUST CLOUDS IN PLASMAS <u>O.Yu. Kravchenko</u> , M.M. Yurchuk, O.M. Radchenko
14	6-7	INVESTIGATIONS OF PULSED PLASMA STREAMS GENERATED BY "PROSVET" DEVICE OPERATED WITH DIFFERENT GASES O.V. Byrka, A.N. Bandura, V.V. Chebotarev, I.E. Garkusha, <u>M.S. Ladygina</u> , A.K. Marchenko, S.A. Trubchaninov, A.V. Tsarenko, P.V. Shevchuk, V.I. Tereshin

- 15 6-8 ANALYSIS OF TUNGSTEN SPECTRAL-LINES RECORDED
FROM LASER-TARGET EXPERIMENT
A.V. Tsarenko, A.K. Marchenko, M.J. Sadowski, E. Skladnik-Sadowska,
K. Malinowski, J. Wolowski, A. Czarnecka, P. Gąsior, P. Parys, M. Rosiński
- 16 7-6 MEASUREMENT OF PLASMA WAKEFIELD STRENGTH BY A PROBING
ELECTRON BEAM
V.A.Kiselev, A.F.Linnik, I.N.Onishchenko, V.V.Uskov
- 17 7-7 LOW-ENERGY HIGH-CURRENT ELECTRON BEAM GENERATION IN
PLASMA SYSTEMS AND BEAM-PLASMA INTERACTION
A.V. Agafonov, V.A. Bogachenkov, O.S. Suleymanov, V.P. Tarakanov
- 18 7-8 BEAM INSTABILITY OF SURFACE WAVES IN CYLINDRICAL PLASMA
WAVEGUIDE
Yu.A. Akimov, V.P. Olefir, N.A. Azarenkov
- 19 7-9 2D ELECTROSTATIC SIMULATION OF THE MODULATED ELECTRON
BEAM INTERACTION WITH INHOMOGENEOUS PLASMA
I.O. Anisimov, T.Eu. Litoshenko
- 20 7-10 INTERACTION OF THE MODULATED ELECTRON BEAM WITH
PLASMA: KINETIC EFFECTS
I.O. Anisimov, M.J. Kiyanchuk, S.V. Soroka, D.M. Velykanets'
- 21 7-11 THE MULTIFREQUENCY LOW-VOLTAGE PLASMA-BEAM
GENERATOR
V.S. Antipov, A.V. Arhipov, I.A. Bez'yazychny, I.V. Berezhnaya, E.A. Kornilov
- 22 7-12 NUMERICAL INVESTIGATION OF THE RELATIVISTIC ELECTRON
BEAM REFLECTION FROM SEMI-BOUNDED PLASMA
S.V. Barchuk, A.O. Harchenko, V.I. Tkachenko
- 23 7-13 METHOD OF POTENTIAL OPTIMIZATION IN MAGNETOELECTROSTATIC
PLASMA LENSES
V.I. Butenko, B.I. Ivanov
- 24 8-6 THE STUDY OF THE OXIDE COATING EFFECT ON BONE-IMPLANT
INTERFACE FORMATION BY MEANS OF ELECTRON MICROSCOPY
METHOD WITH ENERGY DISPERSIVE X-RAY ANALYSIS
A.A. Gudakova, S.N. Danilchenko, L.F. Sukhodub, V.V. Luk'yanchenko,
A.V. Zykova , V.I. Safonov
- 25 8-8 PULSE DISCHARGE IN THE DIELECTRIC CELL: SIMULATION VIA PIC
METHOD
O.I. Kelnyk, O.V. Samchuk, I.O. Anisimov
- 26 8-9 ANODE LAYER SOURCE WITH CONVERGING BEAM FOR LOW-
ENERGY ION IRRADIATION OF SURFACES
A.A Bizyukov, A.Y. Kashaba, K.N. Sereda, E.V. Romaschenko
- 27 8-10 ANALYTICAL CALCULATION OF IONIZATION FREQUENCY OF RARE
GASES IN RF ELECTRIC FIELD
N.A. Bogatov
- 28 8-11 EXPERIMENTAL RESEARCH OF AN ICP REACTOR FOR PLASMA-
CHEMICAL ETCHING
S.V. Dudin, A.V. Zykov, A.N. Dahov, V.I. Farenik
- 29 8-12 CYLINDRICAL MAGNETRON BASED ON THE PLASMAOPTICAL
PRINCIPLES
A.M. Dobrovol's`kii, A.N. Evsyukov, A.A. Goncharov, I.M. Protsenko
- 30 8-13 2D FLUID MODEL FOR INTERACTIVE DEVELOPMENT OF ICP
TECHNOLOGICAL TOOLS
A.V. Gapon, A.N. Dahov, S.V. Dudin, A.V. Zykov, N.A. Azarenkov

- 31 8-14 STABLE PLASMA FORMATIONS SUSTAINED BY RESONANT ABSORPTION
N.A. Azarenkov, A.V. Gapon
- 32 8-15 APPLICATION OF ATMOSPHERIC AIR PLASMA FOR POLYETHYLENE POWDER MODIFICATION
Jan Píchal, Luděk Aubrecht, Jan Hladík, Petr Špatenka
- 33 8-16 STATE OF MACROPARTICLES IN THE PLASMA OF BEAM-PLASMA DISCHARGE
A.A.Bizyukov, K.N.Sereda, E.V.Romaschenko, A.D.Chibisov
- 34 8-17 ATMOSPHERIC DBD DISCHARGE MODIFICATION OF POLYESTER FABRIC
Y. Klenko, J. Pichal, L. Aubrecht
- 35 8-18 PHOTOCONDUCTIVITY OF TiO_2 FILMS DEPOSITED BY PECVD
A. Kolouch, P.Hájková, M. Horáková, P. Špatenka, S. Hucek, J. Zemek
- 36 8-19 NEARFIELD OF A CURRENT-CARRYING LOOP IN MAGNETIZED PLASMAS
M.E. Gushchin, S.V. Korobkov, A.V. Kostrov, A.V. Strikovskiy
- 37 8-20 A COMPUTER SIMULATION OF THE EFFECT OF DUSTY PARTICLES ON THE CHARACTERISTICS OF RF DISCHARGES
O.Yu. Kravchenko, A.V. Vakulenko, T.E. Lisitchenko, G.I. Levada, Yu.A. Yastrub
- 38 8-21 PLASMA GENERATION IN THE LOW- PRESSURE GAS D.C. DISCHARGE WITH A SIMPLE EXAMPLE OF THE NOBLE GAS SYSTEM
P. F. Kurbatov
- 39 8-22 COMPUTER MODELING OF CHARGE PARTICLE BEAM EXTRACTION AND TRANSPORT
I. Litovko, E. Oks
- 40 8-23 MODEL OF DISCHARGE IN CROSSED EXH-FIELDS WITH CLOSED ELECTRON DRIFT'S UNDER LOW PRESSURE
I. Litovko, A. Goncharov
- 41 8-24 DISCHARGE OF ATMOSPHERIC PRESSURE AT HIGH-VOLTAGE PULSE SUPPLY FOR OZONE SYNTHESIS
V.I. Golota, L.M. Zavada, B.B. Kadolin, S.N. Mankovsky, I.A. Paschenko, S.G. Pugach
- 42 8-25 MACROPARTICLE SCREENING IN PLASMA WITH EXTERNAL SOURCES OF IONIZATION
A.V. Filippov, A.G. Zagorodny, A.I. Momot, A.F. Pal', A.N. Starostin
- 43 8-26 DEPOSITION OF REFRACTORY METAL FILMS WITH PLANAR ECR PLASMA SOURCE
V.D.Fedorchenko, V.V.Chebotarev, I.E.Garkusha, A.V.Medvedev, V.I.Tereshin
- 44 8-27 THEORETICAL AND EXPERIMENTAL INVESTIGATION OF CHARACTERISTICS OF NON-SIMULTANEOUS ARC DISCHARGE IN TITANIUM VAPORS IN GLOW DISCHARGE ELECTRON EVAPORATORS
V.I. Melnyk, I.V. Melnyk, B.A. Tugay, P.V. Porytsky
- 45 8-28 DYNAMICS OF THE ORDERED STRUCTURES FORMATION IN AN AZIMUTHAL ELECTRON CURRENT
Yu.K. Moskvitina, I.V. * Tkachenko, V.I. Tkachenko
- 46 8-29 SHOCK ALLOYING OF METAL BY CUMULATIVE STREAMS IN PLASMA FOCUS
L.I. Ivanov, A.I. Dedyurin, I.V. Borovitskaya, O.N. Krokhin, V.Ya. Nikulin, E.N. Peregudova, A.A. Tikhomirov, Yu.S. Avraamov, A.D.Shlyapin

- 47 8-30 RESEARCH OF HALL ACCELERATOR (HA) LOCAL AND INTEGRATED CHARACTERISTICS IN THE EXPENDED RANGE OF DISCHARGE VOLTAGE
S.A. Oghienko, A.I.Oranskiy, V.I. Belokon, A. Bober
- 48 PD-1 CROSS-FIELD MOBILITY IN A NON-NEUTRAL PLASMA.
Lyon B. King and Emily C. Fossum

POSTER SESSION II

14th September

Poster №	Abstr №	Title
1	3-5	EFFECT OF IMPURITY ION CONCENTRATIONS ON POWER AND PARTICLE BALANCE IN FUSION PLASMA <u>A.A. Shishkin</u> , <u>A.V. Eremin</u>
2	3-6	HYDROGEN PERMEATION THROUGH VPD AND CVD TUNGSTEN FILMS ON PALLADIUM G.P. Glazunov, A.A. Andreev, <u>D.I. Baron</u> , R.A. Causey, A.M. Hassanein, A.L. Konotopskiy, A.P. Patokin, E.D. Volkov
3	3-7	EFFECTS OF LONG-TERM ION BOMBARDMENT ON SOME OPTICAL PROPERTIES OF RH FILM MIRRORS AND BULK POLYCRYSTALLINE MIRRORS <u>V.N. Bondarenko</u> , A.F. Bardamid, S.P.Kulik, V.G. Konovalov, V.S. Voitsenya, S.I. Solodovchenko, K.I. Yakimov, M.V. Dobrotvorskaya
4	3-8	TO POSSIBILITY OF USAGE OF FMW PLASMA HEATING SCENARIOS IN THE ICR FREQUENCY RANGE IN THE TORSATRON REACTOR A.V. Longinov
5	4-5	SOLITARY MODEL OF THE CHARGE PARTICLE TRANSPORT IN COLLISIONLESS PLASMA L.V. Simonchik, <u>F.M. Truhachev</u>
6	4-7	EQUILIBRIUM AND STABILITY OF CYLINDER PLASMA CONSISTING OF UNMAGNETIZED IONS BEEN BORN AT REST AND MAGNETIZED ELECTRONS IN CROSSED FIELDS <u>Yu.N. Yeliseyev</u>
7	4-9	NONLINEAR DECAY OF LANGMUIR WAVES INTO COUNTER-PROPAGATING SURFACE ONES <u>Yu.A. Akimov</u> , N.A. Azarenkov
8	4-10	INFLUENCE OF A NORMAL ELECTRIC FIELD ON SURFACE WAVE DYNAMICS <u>Yu.A. Akimov</u> , N.A. Azarenkov
9	4-11	PLASMA FLOW EQUILIBRIUM, CONFINEMENT SCALING LOWS AND FUSION PROSPECTS OF A FIELD REVERSED CONFIGURATION <u>A.Yu. Chirkov</u>
10	4-12	TEMPERATURE GRADIENT DRIVEN INSTABILITY IN THE EDGE PLASMA OF A FIELD REVERSED CONFIGURATION <u>A.Yu. Chirkov</u> , V.I. Khvesyuk
11	4-13	NON-LINEAR PHENOMENA CONNECTED WITH PROPAGATION OF THE DRIFT WAVES INTO PLASMA <u>V.I. Khvesyuk</u>

- 12 4-14 PLASMA TURBULENCE IN LOCALIZED SHEARED FLOWS
A.Yu. Chirkov
- 13 4-15 ESTIMATIONS OF RESTRICTIONS ON USE “STANDARD” SOLUTIONS
OF VLASOV EQUATIONS FOR DRIFT WAVES
V.I. Khvesyuk and E.V. Kasilova
- 14 4-16 EXPERIMENTAL INVESTIGATIONS OF THE VORTEX-CHAIN
GENERATED IN THE TWO-COMPONENT PLASMA WITH THE
SHEARED FLOW OF MAGNETIZED ELECTRONS
Yu.N. Chekh, A.A. Goncharov, A.N. Evsyukov
- 15 4-17 NONQUASINEUTRAL CURRENT STRUCTURES IN PLASMAS
WITH A ZERO NET CURRENT
A.V. Gordeev
- 16 4-19 PENETRATION AND COLLISIONLESS DAMPING OF
ELECTROMAGNETIC WAVE IN OVERDENSE PLASMA LAYER
A.V. Kochetov, V.A Mironov
- 17 4-20 AMBIPOLAR DIFFUSION IN LABORATORY AND GEOPHYSICAL
PLASMAS CONTAINING NANO- AND MICROSIZE CHARGED
PARTICLES
T.V. Losseva, S.I. Popel
- 18 4-21 AXIAL SYMMETRIC SURFACE WAVES
IN TUBULAR MAGNETO-ACTIVE PLASMA COLUMN
Yu.A. Akimov, V.P. Olefir, N.A. Azarenkov
- 19 4-22 INFLUENCE OF COLLISIONS AND PLASMA RADIAL NON-
UNIFORMITY ON ELECTROMAGNETIC WAVE IN COAXIAL
STRUCTURE WITH AZIMUTH EXTERNAL MAGNETIC FIELD
V.P. Olefir, A.E. Sporov
- 20 4-23 SELF-CONSISTENT MODEL OF ELECTRON DRIFT MODE
TURBULENCE AND STABILITY OF LARGE SCALE MAGNETIC FIELD
STRUCTURES
M. Jucker, Zh. N. Andrushchenko, V. P. Pavlenko
- 21 4-25 EXACT PLASMA DISPERSION FUNCTIONS FOR COMPLEX
FREQUENCIES
F. Castejon, S.S. Pavlov
- 22 4-26 AUTOMODEL DYNAMICS OF A WAVE COLLAPSE IN PLASMA
DEVELOPMENT
L.S. Rozumenko, V.I.Tkachenko
- 23 4-27 SYMMETRIC SURFACE WAVES IN CYLINDRICAL WAVEGUIDE
STRUCTURES FILLED BY RADIALY NON-UNIFORM COLLISIONAL
PLASMA
V.P. Olefir, V.K. Galaydych, A.E. Sporov
- 24 4-28 THE PHENOMENA OF ELECTRON CHARGE EJECTION DURING THE
HOT ELECTRON BEAM TRANSPORTATION
I.K. Tarasov, D.A. Sytnykov, M.I. Tarasov, E.D. Volkov
- 25 4-29 THE OBSERVATION OF LANDAU-LIKE DAMPING AND DIOCOTRON
ECHOES IN A PURE ELECTRON PLASMA
I.K. Tarasov, M.I. Tarasov, E.D. Volkov
- 26 5-4 WAVES IN PLASMAS WITH TIME-VARYING MAGNETIC FIELD:
FUNDAMENTAL PROBLEMS AND DIAGNOSTIC APPLICATION
A.V. Kostrov, M.E. Gushchin, S.V. Korobkov, A.V. Strikovsky

- 27 5-5 NONLINEAR MECHANISM OF ELECTROMAGNETIC WAVES
GENERATION IN SPACE DUST PLASMA
A.D. Voitsekhovska, A.K. Yukhimuk, O.K.Sirenko
- 28 6-9 OUTGASSING FROM W-PD TWO-LAYER DIFFUSION SYSTEM
G. P. Glazunov, A.N. Morozov, V.G. Kulish, V.I. Zhurba,
A.A. Andreev, K.M. Kitayevskiy, A.P. Patokin
- 29 6-10 DEUTERIUM ABSORPTION AND SPUTTERING YIELD OF THE
MIRRORS FABRICATED FROM AMORPHOUS ALLOY
UNDER DEUTERIUM PLASMA BOMBARDMENT
D.I. Naydenkova, A.F. Bardamid, A.I.Belyaeva, V.N.Bondarenko, A.A.Galuza,
O.G.Kolesnyk, V.G.Konovalov, I.V.Ryzhkov, A.N.Shapoval, A.F.Shtan',
S.I.Solodovchenko, V.S.Voitsenya, K.I.Yakimov
- 30 6-11 FIRST RESULTS OF DUST INJECTION IN T-10 PLASMA
V.G. Skokov, V.Yu. Sergeev, V.M. Timokhin, B.V. Kuteev, S.V. Krylov,
Yu.V. Martynenko, L.N. Khimchenko
- 31 6-12 ANOMALOUS SPUTTERING YIELDS OBSERVED FOR MIRRORS
OF DIFFERENT METALS IN TOKAMAKS *TORE SUPRA*
AND TCV AND IN LABORATORY STANDS
S.I.Solodovchenko, A.F.Bardamid, V.N.Bondarenko, Ch.Gil, V.G.Konovalov,
M. Lipa, D.I.Naidenkova, R.A. Pitts, I.V.Ryzhkov, B.Schunke, A.N.Shapoval,
G. De Temmerman, V.S.Voitsenya
- 32 6-13 DYNAMICS OF NITROGEN AND XENON PLASMA STREAMS
GENERATED BY MPC DEVICE
V.V. Chebotarev, I.E. Garkusha, D.V. Eliseev, M.S. Ladygina, A.K. Marchenko,
Yu.V. Petrov, D.G. Solyakov, A.V. Tsarenko , V.I. Tereshin, S.A. Trubchaninov
- 33 8-31 PARAMETRIC INSTABILITY INFLUENCE ON ISOTOPE SEPARATION
BY ION-CYCLOTRON RESONANCE METHOD
V.V.Olshansky, K.N.Stepanov
- 34 8-32 ON THE INFLUENCE OF METAL IMPURITIES ON THE THERMAL
CONTRACTION OF A NITROGEN ARC
P. V. Porytskyy, A. N. Veklich
- 35 8-33 PLASMA TECHNOLOGIES FOR MANUFACTURING OF MICRO-STRIP
METAL DETECTORS FOR IONIZING RADIATION
V.M. Pugatch, V.L. Perevertaylo, O.A. Fedorovich, A.G. Borisenko,
E.G. Kostin, M.P. Kruglenko, B.P. Polozov, L.I. Tarasenko
- 36 8-34 UTILIZATION OF LOW ENERGY METAL ION BEAMS
FOR MODIFICATION OF SOLID SURFACES
I.A. Bizyukov, A.Y. Kashaba, N.D. Sereda, N.N. Yunakov
- 37 8-35 PRINCIPAL ROLE OF AN IMPEDANCE MATCHING
ON OPERATION OF ICP DISCHARGES
K. Polozhiy, D. Rafalskyi, Vl. Farenik, T. Schwarz-Selinger, V. Vartolomei
- 38 8-36 INVESTIGATION OF THIN FILMS DEPOSITION INTO POROUS MATERIAL
L. Sedláková, A. Kolouch, J. Hladík, P. Špatenka
- 39 8-37 TO THE CHARGING OF SPHERE IN A *EHD* FLOW OF WEAKLY
IONIZED GAS
A.E. Sorokin
- 40 8-38 ON THE OPTICAL PROPERTIES OF A NONIDEAL PLASMA OF
ELECTRICAL PULSE DISCHARGE IN WATER
P.D. Starchyk, P. V. Porytskyy

- 41 8-39 ULTRA HIGH VACUUM CATHODIC ARC FOR DEPOSITION OF SUPERCONDUCTING LEAD PHOTO-CATHODES
P. Strzyzewski, J. Langner, R. Mirowski, M.J. Sadowski, J. Witkowski, J. Sekutowicz
- 42 8-40 COATINGS IN ARC DISCHARGE WITH PLASMA FLOW FILTRATION
V.V. Gasilin, V.A. Zavaleev, Yu.N. Nezovibat'ko, O.M. Shvets, E.V. Skorina, V.S. Taran
- 43 8-41 PLASMA CHARACTERISTICS OF TWO-STEP VACUUM-ARC DISCHARGE AND ITS APPLICATION FOR A COATINGS DEPOSITION
A.I. Timoshenko, V.S. Taran, V.I. Tereshin
- 44 8-42 PLASMA STERILIZER WITH ULTRASONIC CAVITATION
V.V. Krasnyj, A.V. Klosovski, T.A. Panasko, O.M. Shvets, O.T. Semenova, V.S. Taran, V.I. Tereshin
- 45 8-43 ACCUMULATION AND CONFINEMENT OF ELECTRONS IN A PENNING TRAP WITH A CENTRAL ELECTRODE
S.N. Man'kovsky, D.A. Sitnikov, I.K. Tarasov, I.V. Tkachenko, V.I. Tkachenko
- 46 8-44 DISPERSION PROPERTIES OF A RADIALLY RIPPLED CYLINDRICAL PLASMA WAVEGUIDE
I.V. Tkachenko, V.I. Tkachenko
- 47 8-45 CURRENT COMPENSATION OF HYDROGEN ION BEAM EXTRACTED FROM PIG WITH METAL-HYDRIDE CATHODE
V.N. Borisko, Ye.V. Klochko, M.A. Kojarina, I.N. Sereda, A.F. Tseluyko
- 48 8-46 CREATION OF THE ATMOSPHERIC PRESSURE GLOW DISCHARGE IN A THREE-ELECTRODE CONFIGURATION
V.I. Arkhipenko, L.V. Simonchik, A.A. Tsyhanok
- 49 8-47 OPTICAL PROPERTIES AND SOME APPLICATIONS OF PLASMA-LIQUID SYSTEM WITH DISCHARGE IN THE GAS CANAL WITH LIQUID WALL
Iu. Veremii, V. Chernyak, V. Naumov, V. Yukhymenko, N. Dudnyk

POSTER SESSION III

15th September

Poster No	Abstr No	Title
1	1-28	THE $L=2$ STELLARATOR BASED ON THE HELICAL WINDINGS OF THE $U-2M$ TORSATRON <u>V.G. Kotenko</u> , S.S. Romanov, V.M. Zalkind
2	1-29	FEATURES OF RADIATIVE LOSSES BEHAVIOUR OF $U - 3M$ TORSATRON PLASMA E.D. Volkov, <u>V.D. Kotsubanov</u> , A.E. Kulaga, I.K., Nikol'skij, S.A. Tsybenko
3	1-30	EVOLUTION OF ENERGY OF DRIFT-LIKE PERTURBATIONS AND REDUCTION OF ANOMALOUS TRANSPORT IN PLASMA SHEAR FLOW <u>V.V. Mikhailenko</u> , V.S. Mikhailenko, N.A. Azarenkov, K.N. Stepanov
5	1-32	A NEW METHOD OF FORMING COMPACT TORUSES <u>A. Mozgovoy</u>

- 6 1-33 CALCULATIONS OF THE GEODESIC CURVATURE OF A MAGNETIC FIELD LINE FOR THE URAGAN-2M TORSATRON WITH TAKING INTO ACCOUNT THE INFLUENCE OF THE CURRENT-FEEDS AND DETACHABLE JOINTS OF THE HELICAL WINDING
V.V.Nemov, V.N.Kalyuzhnyj, S.V.Kasilov, G.G.Lesnyakov, N.T.Besedin
- 7 1-34 THE METHOD OF THE DISCHARGE CURRENT INCREASE IN SUB-MJ PLASMA FOCUS
V.Ya. Nikulin, S.N. Polukhin
- 8 1-35 MAGNETIC FIELD LINE TRACING CALCULATIONS IN DIVERTOR REGION OF TORSATRON "URAGAN-2M"
V.A. Rudakov
- 9 1-36 NUMERICAL MODELLING OF RF PLASMA PRODUCTION IN URAGAN-2M STELLARATOR WITH CRANKSHAFT ANTENNA
V.E. Moiseenko, Yu.S. Stadnik, E.D. Volkov, O.M. Shvets
- 10 1-37 NUMERICAL SIMULATION OF EQUILIBRIUM CONFIGURATIONS IN MAGNETIC TRAP *TRIMIX*
A.I. Morozov, V.V. Savelyev
- 11 1-38 PLASMA CREATION AND HEATING IN THE "URAGAN2-M" TORSATRON INSTALLATION
O.M. Shvets, E.D.Volkov, A.V.Loizin
- 12 1-39 EXCITATION OF PLASMA FLUCTUATIONS NEAR ION GIROFREQUENCIES DURING RF PLASMA HEATING IN URAGAN-3M TORSATRON
A.I. Skibenko, V.L. Berezhniy, P.Ya. Burchenko, A.E. Kulaga, V.L. Ocheretenko, O.S. Pavlichenko, I.B. Pinos, A.V. Prokopenko, A.S. Slavniy, I.K. Tarasov, E.D. Volkov, O.Yu. Volkova
- 13 1-40 A STUDY OF FAST ION OUTFLOW TO THE DIVERTOR REGION OF THE U-3M TORSATRON
Ye.L. Sorokovoy, L.I. Grigor'eva, V.V. Chechkin, E.L. Sorokovoy, A.A. Beletskii, A.S. Slavnyj, Ye.D. Volkov, D.V.Kurilo, P.Ya. Burchenko, S.A. Tsybenko, A.V. Lozin, A.P. Litvinov
- 14 1-41 PECULIARITY OF HEAT TRANSPORT NEARBY THE $Q=1$ MAGNETIC SURFACE IN T-10 TOKAMAK
A.V. Sushkov, V.F. Andreev, I.S. Bel'bas, A.V. Gorshkov, A.V. Danilov, Yu.N. Dnestrovskij, M.V. Ossipenko, K.A. Razumova
- 15 1-42 NUMERICAL SIMULATION OF THE INITIAL STAGE OF PLASMA COLUMN FORMATION IN TOKAMAK JUST-T
A.D. Barkalov, G.G. Gladush
- 16 1-43 TWO-DIMENSIONAL MODELING OF PLASMA CONFINEMENT IN A TOROIDAL ELECTROMAGNETIC TRAP
O.A.Lavrent'ev, V. A. Maslov, S. V. Germanova, B. A. Shevchuk, N. A. Skoryk
- 17 1-44 MULTISLIT ELECTROMAGNETIC TRAP "JUPITER 2M3"
O.A. Lavrent'ev, V. A. Maslov, M.G. Nozdrachov, V.P. Oboznyj, S.A. Goljuk, N.A. Skoryk
- 18 1-45 A SCENARIO OF VACUUM SURFACES CLEANING IN THE URAGAN - 3M TORSATRON
P.Ya. Burchenko, V.Ya. Chernichenko, A.Ye. Kulaga, A.V. Lozin, Yu.K. Mironov, V.S. Romanov, E.D. Volkov
- 19 2-2 O-X TRANSFORMATION IN TWO-DIMENSIONALLY INHOMOGENEOUS MAGNETIZED PLASMAS
E.D. Gospodchikov, A.G. Shalashov, E.V. Suvorov

- 20 2-3 EFFECT OF EIGEN SURFACE WAVE ABSORPTION ON EDGE TEMPERATURE PROFILE DURING ICRH
I.V. Pavlenko, I.O. Girka, V.O. Girka
- 21 PD-2 INSTABILITY OF ION-CYCLOTRON WAVES IN A TWO-DIMENSIONAL MAGNETOSPHERIC PLASMA WITH ANISOTROPIC TEMPERATURE
N.I. Grishanov, N.A. Azarenkov
- 22 PD-3 ELECTRON LANDAU DAMPING OF RADIO-FREQUENCY WAVES IN A TOROIDAL PLASMA WITH SOLOV'EV EQUILIBRIUM
N.I. Grishanov, N.A. Azarenkov
- 23 7-14 EXPERIMENTAL INVESTIGATION OF CONDITIONS OF THE BEAM-PLASMA HIGH-FREQUENCY BREAK-DOWN OF GAS
B.I. Ivanov, V.I. Butenko, V.P. Prishchepov
- 24 7-15 ELECTRON HEATING AND ACCELERATION WHILE MAGNETOSPHERE SUBSTORM DUE TO VARYING WHISTLER WAVE PHASE VELOCITY
V.I. Karas', I.F. Potapenko
- 25 7-16 USING STOCHASTIC DECOMPOSITION PROCESSES FOR FORMATION SPECTRA OF OSCILLATIONS
A.N. Antonov, V.A. Buts, O.F. Kovpik, E.A. Kornilov, I.K. Kovalchuk, V.G. Svichensky
- 26 7-17 DYNAMICS OF THE CHARGED PARTICLES IN A FIELD OF INTENSIVE ELECTROMAGNETIC WAVES
V.A. Buts, V.V. Kuzmin
- 27 7-18 THE PECULIARITIES OF ELECTRON DISTRIBUTION FUNCTION IN DUSTY PLASMA
E.V. Martysh, Yu.M. Orlova
- 28 7-19 HEATING OF CHARGED PARTICLES AT THOMSON SCATTERING OF A MONOCHROMATIC ELECTROMAGNETIC WAVE
V.V. Ognivenko
- 29 7-20 SIMULATION OF BEAM FORMATION TRIODE SYSTEMS IN ELECTRONS SOURCES WITH THE PLASMA EMITTER
O.N. Petrovich, V.A. Gruzdev
- 30 7-21 NUMERICAL MODELING OF THE INTENSIVE CHARGED PARTICLE BEAMS WITH INCREASED ACCURACY
V.M. Sveshnikov
- 31 7-22 A STUDY ON THE COAXIAL PLASMA SOURCE FOR THE SEPARATOR
V.B. Yuferov, Yu.V. Kovtun, V.A. Seroshtanov, D.V. Vinnikov, S.V. Sharyj
- 32 7-23 INTERNAL-ELECTRODE THERMAL CHARACTERISTICS OF A PULSED COAXIAL PLASMA ACCELERATOR WITH A LONGITUDINAL MAGNETIC FIELD
V.B. Yuferov, N.A. Kosik, E.V. Mufel', V.F. Tikhonov, V.I. Tkachev, V.A. Seroshtanov, S.V. Sharyj, V.V. Yegorenkov
- 33 7-24 ON THE PLASMA DENSITY IN A SPATIALLY DISTRIBUTED ELECTRIC DISCHARGE IN A LIQUID
E.I. Skibenko, V.B. Yuferov, I.V. Buravilov, A.N. Ponomaryov
- 34 8-49 OXYGEN ACTIVATION EFFECT ON REACTIVE MAGNETRON SYNTHESIS OF ALUMINA COATINGS
J. Walkowicz, A.V. Zykov, S.V. Dudin, S.D. Yakovin
- 35 8-50 TO A THEORY OF THE SYNTHESIS OF FILMS OF BINARY COMPOUNDS WITH REACTIVE SPUTTERING AND CONTROLLING SPUTTERING REGIME
A. Evsyukov, Yu. Zavialov, B. Stetsenko, A. Schurenko

- 36 8-51 THE FORMATION OF THE LOW-SIZED HIGH DENSITY PLASMA STRUCTURES IN THE SELF-MAINTAINED PLASMA-BEAM DISCHARGE
V.N. Borisko, A.F.Tseluyko, D.V.Zinov'ev, V.T.Lazurik, I.K.Tarasov
- 37 8-52 BREAK-DOWN OF THE MAGNETICALLY INSULATED DIODE
I.A. Zagrebelnyy, A.V. Zykov, M. Glaznev
- 38 8-53 THE INFLUENCE OF SURFACE PARAMETERS OF COATINGS DEPOSITED BY VARIOUS VACUUM PLASMA METHODS ON THE CELL/ MATERIAL INTERACTION IN VITRO TESTS
A. Zykova, V. Safonov, V. Luk'yanchenko, J. Walkowicz, R. Rogowska
- 39 8-54 THE INFLUENCE OF DC LOW-VOLTAGE BIAS ON THE CHARACTERISTICS OF THE HV PULSED POINT-TO-PLANE DISCHARGE
V.I. Golota, L.M. Zavada, V.I. Karas', O.V. Kotyukov, A.V. Polyakov, S.G.Pugach
- 40 9-2 IMAGE QUALITY AS A POSSIBLE METHOD OF IN SITU MONITORING OF THE IN-VESSEL MIRRORS
V.G. Konovalov, A.N. Shapoval, M.N. Makhov, V.S.Voitsenya, D.I. Naidenkova, I.V. Ryzhkov, S.I. Solodovchenko, A.F. Shtan'
- 41 9-3 MICROWAVE RESONATOR PROBE DIAGNOSTICS OF PLASMA DENSITY FLUCTUATIONS
A.V. Kostrov, A.I. Smirnov, A.V. Strikovskiy, D.V. Yanin
- 42 9-4 THE ALKALI METAL HIGH CURRENT ION INJECTOR
I.S. Bondarenko, A.A. Chmyga, G.N. Deshko, S.M. Khrebtov, A.D. Komarov, A.S. Kozachek, L.I. Krupnik, I.N. Torianik, A.I. Zhezhera
- 43 9-5 FIRST EXPERIMENTS WITH USE OF THE T-10 VISIBLE ENDOSCOPE
A.A. Medvedev, E.V. Alexandrov, D.K.Vukolov, K.Yu. Vukolov, A.V. Gorshkov, M.M. Dremine
- 44 9-6 OPTICAL AND PROBE DIAGNOSTICS OF PLASMA-LIQUID SYSTEMS WITH SECONDARY DISCHARGE
I. Prysiashnevych, V. Chernyak, E. Safonov
- 45 9-7 THE PROPERTIES OF CONTAMINATING FILMS DEPOSITED ON IN-VESSEL MIRRORS IN LARGE HELICAL DEVICE, TORE SUPRA AND TRIAM-1M
V.N.Bondarenko, A.I.Belyaeva, K.A.Slatin, Ch.Gil, V.G.Konovalov, M.Lipa, D.I.Naidenkova, I.V.Ryzhkov, A.Sagara, B.Schunke, A.N.Shapoval, A.F.Shtan', G. De Temmerman, V.S.Voitsenya, H.Zushi
- 46 9-8 CHARACTERIZATION OF THE QUASI-COHERENT OSCILLATIONS BY HIBP DIAGNOSTICS IN THE TJ-II STELLARATOR
L. Krupnik, R. Jimenez, A. Alonso, E. Ascasibar, A. Chmyga, L. Eliseev, T. Estrada, C. Hidalgo, A. Komarov, A. Kozachok, A. Melnikov, J.L. de Pablos, M.A. Pedrosa, S. Perfilov, A. Zhezhera
- 47 9-9 NEW METHOD OF THE PASSIVE RF COMPENSATION FOR LANGMUIR PROBES
K. Polozhiy, T. Schwarz-Selinger, W. Jacob
- 48 9-10 THE ANALYSIS OF PROPERTIES OF PLASMA TURBULENCE AND ROTATION INFERRED FROM POLOIDAL CORRELATION REFLECTOMETRY
A.I. Skibenko, O.S. Pavlichenko, A.E. Kulaga, V.L. Ocheretenko, I.B. Pinos, A.V. Prokopenko, E.D. Volkov, O.Yu. Volkova