

**2006 16-th International Conference
«Microwave & Telecommunication Technology»
11-15 September 2006
Sevastopol, Crimea, Ukraine
<http://www.crimico.org>
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C O N F E R E N C E P R O G R A M

**WORKSHOP PROGRAM:
«TRAINING OF RADIOENGINEERS AND SPECIALISTS
IN THE FIELD OF TELECOMMUNICATIONS»**



Organized and Sponsored by:

Sevastopol National Technical University (Ukraine)
Belarus State University of Informatics and Radioelectronics (Minsk)
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News agency «BELTA» (Minsk, Belarus)
Education Portal (Kiev, Ukraine)
«Technology & Designing in Electronic Equipment» Magazine (Odessa,
Ukraine)
COST Action/Network 284 on «Innovative Antennas for Emerging
Terrestrial & Space-based Applications»
IEEE ED Society
IEEE MTT/ED Central Chapter, Ukraine Section
IEEE AP Chapter, Russia Section

FOREWORD

439 papers have been submitted for presentation at the 16-th conference. The Program Committee has selected and included 423 claimed papers into the program of the conference at the sessions, which took place in Minsk (Belarus) on 5 June, 2006. During the four working days of this year's conference the papers covering different topics, such as solid state devices; electro-vacuum and micro-vacuum SHF devices; systems of microwave communication, broadcasting and satellite navigation; antennas and antenna elements; passive components and materials; technology of microwave devices production; nanoelectronics and nanotechnology; super high power microwave electronics and effects; microwave measurements; radar application; medical and ecological application; radio-astronomy; microwave remote sensing; radiowaves propagation will be presented at the four plenary and 36 technical sessions by scientists and specialists from 161 universities and companies of Belarus, China, Germany, Great Britain, Ireland, Israel, Moldova, Netherlands, Poland, Russia, Spain, Ukraine and USA. On September 14 the workshop "Training of radioengineers and specialists in the field of telecommunications", as well as round-table discussion "Biophysical mechanisms of low-intensive mm-waves influence on human organism" will be held simultaneously with the conference.

Since 2001, the leading scientific libraries of the CIS countries get 20 copies of CriMiCo proceedings for free (Belarus, Moldova and Russia – CDs; Ukraine – books and CDs). Some part of the edition (books and CDs) is sent to the leading foreign libraries.

Since 2005 CriMiCo Organizing Committee has instituted prizes for young scientists and post-graduates for the best papers presented at the Conference.

This year the first plenary session will be broadcasted at www.crimico.org. During the conference a free hot-spot will be provided.

Organizing Committee would like to express its gratitude to all the delegates who deemed it possible to share the practical results of their work with others. We hope that the Crimean autumn season will make for holding of the Conference, as it always was: the sea is warm enough and the weather is not so hot!

Organizing Committee is glad to welcome the delegates whose papers have been included into the program of the Conference, as well as everyone who would be interested in CriMiCo'2006!

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GENERAL INFORMATION

VENUE

The Conference will be held between 11 and 15 September, 2006 at the Sevastopol National Technical University.

CONFERENCE SCHEDULE

(local time)

September 10	7.00 a.m. - 6.00 p.m.	Registration and accommodation
September 11	7.00 a.m. - 9.00 a.m. 9.15 a.m. - 10.45 a.m. 10.45 a.m. - 11.15 a.m. 11.45 a.m. - 6.45 p.m.	Delegates registration Opening Session. 1-st Plenary Session Photographing Technical Sessions
September 12	8.30 a.m. - 6.00 p.m. 7.00 p.m. - 11.00 p.m.	Technical Sessions Banquet ("Omega" lodging house)
September 13	From 9.00 a.m.	Excursions
September 14	8.30 a.m. - 10.30 a.m. 11.00 a.m. - 1.00 p.m. 2.00 p.m. - 4.00 p.m. 4.30 p.m. - 6.00 p.m.	2-nd Plenary Session Round-Table Discussion Workshop W/1 Workshop W/2
September 15	8.30 a.m. - 1.00 p.m. 3.00 p.m. - 4.00 p.m.	Technical Sessions 3-rd Plenary Session. Presentation of Organizing Committee Prizes. Closing Session

REGISTRATION

Delegates of the Conference and Workshops will be registered:

- on Sunday, September 10, from 7.00 a.m. to 6.00 p.m. in the vestibule of "Omega" lodging house. Organizing Committee offers its services in transporting the delegates from the railway station to "Omega" lodging house. Departure from the railway station square at 6.45 a.m., 8.00 a.m., 11.00 a.m., 1.30 p.m. and 4.45 p.m.

- on Monday, September 11, from 7.00 a.m. to 9.00 a.m. in the vestibule of SevNTU main building (Studgorodok).

Delegates are requested to produce papers confirming their registration fee payments.

ARRANGEMENTS & COSTS

Participants

Registration fee includes: Invitation for visa, Conference Proceedings, Interpreter service, Banquet, Excursion related to the subject of the Conference.

Paid before July 31: \$275 (\$220 for IEEE members)

Paid after July 31: \$300 (\$240 for IEEE members)

Accompanying persons

Invitation for visa, Interpreter service, Banquet, Excursion

Paid before July 20: \$100

Paid after July 20: \$110

Please, pay at:

BENEFICIARY:

ACCOUNT 021-26008257
Weber Co., Sevastopol, Ukraine

BENEFICIARY'S BANK:

JS POSTAL PENSIONARY BANK AVAL
Kiev, Ukraine
S.W.I.F.T.: AVAL UA UK SEV
In favour of SEVASTOPOL BRANCH

CORRESPONDENT BANK:

COR. ACC. N 04-400-503
with DEUTSCHE BANK
TRUST COMPANY AMERICAS
New York, USA
S.W.I.F.T.: BKTR US 33

Please, indicate the purpose of payment:

Registration payment, CriMiCo'2006

Please, enter the data of payment into applied registration form and send it via e-mail: fin@sinfo.net.ua

OBTAINING UKRAINIAN VISA

In most cases, in order to visit Crimea you will need Ukrainian visa. Please, fill in the following Questionnaire for yourself and all accompanying persons and forward it to the Conference Chairman Dr. Pavel P. Yermolov via e-mail. The Organizing Committee will issue and send you the Official Invitation Letter for obtaining Ukrainian Visa via e-mail. In order to get your visa, submit that Letter to the Ukrainian Embassy or Consulate in your country. Please make sure you apply well in advance.

Questionnaire (please fill in a Questionnaire for each of the accompanying persons also):

First name(s)*:	E-mail:
Middle name*:	Citizenship:
Surname*:	Country & town where you'll get visa:
Date of birth:	Passport number*:
Country:	Number of accompanying persons:
Company (full name):	Passport is valid until:
Position:	When passport was given:
Company address:	By Whom passport was given:
Male/Female:	Registration fee \$... will be paid by transfer
Phone:	to the bank account on ... June (July,
Fax:	August)

* - transcription here should be identical to the one in the passport!

Official invitation letter for Ukrainian visa will be sent only after receiving your e-mail letter of inquiry before August 15.

TRANSPORTATION

The Organizing Committee offers its services in transporting the delegates on September, 10 from Simferopol Airport (80 km from Sevastopol) to Sevastopol by taxi, as well as return transportation on September, 16. Representatives of the Organizing Committee will meet you at the airport and accompany to the hotel. Taxi fare is approx. USD40 one way. You should inform the Organizing Committee about your arrival via e-mail, advising of your name and name(s) of the accompanying person(s). It would be better, if you take the flight 408 Frankfurt – Simferopol on 9 September, which leaves Frankfurt at 11:10 a.m. and arrives to Simferopol at 3:15 p.m. and flight 409 Simferopol – Frankfurt on 16 September, which leaves Simferopol at 4:35 p.m. and arrives to Frankfurt at 6:50 p.m. In case of necessity, car transportation from hotel to the airport can be provided after the conference.

HOTEL ACCOMMODATION

The Conference delegates are entitled to accommodation in hotel «Morskoy». The hotel room categories are from 200 to 500 grivnya (grn) per night. Rate of grivnya exchange is about 5.0 grivnyas (grn) for \$1 and 6.3 grivnyas (grn) for €1.

Prices for accommodation (grn per night) in hotel «Morskoy»

Room, category	Price per night, grn.
Single	200
Double	250
First class	350
Apartments	500

SOCIALS

Conference participants will be offered a cultural program. On 10 September (the day of registration) you can take part in the excursion and learn about history, sights and cultural life of the Crimea. The excursion will be conducted by «RAMUT-SEVASTOPOL-TUR» tour agency, whose representative will attend at the registration. 13 September is the day of excursion related to the subject of the Conference. It has become usual for participants of the last year CriMiCo conferences. That's why those people who come at the Conference for the first time show great interest to it. The trip lies through Katsiveli, where Crimean Astrophysical Observatory is situated. There will be an opportunity to see radio-telescope RT-22 and some other equipment. Wine-testing at Massandra Wine Works will close the excursion.

Please, fill in the registration form at www.crimico.org/pay regarding accommodation and send it via e-mail: accomodation@sinfo.net.ua. IT IS OBLIGATORY!

The deadline for CriMiCo'2006 registration forms submission is 25 AUGUST!!!

CriMoCo'2006 Registration Form
please, send the form to accomodation@sinfo.net.ua
BEFORE 25 AUGUST!!!

First name:

Middle name:

Surname:

Country:

Company (full name):

Registration fee \$... will be paid by transfer to the bank
account on ... June (July, August)

ACCOMMODATION

Hotel «Morskoy»

Room, price per night ... grn

DURATION OF STAY (save * where needed)

9/10 September *

10/11 September *

11/12 September *

12/13 September *

13/14 September *

14/15 September *

15/16 September *

16/17 September *

Please find the registration form at: www.crimico.org/pay

SevNTU (Studgorodok)
Monday, 11 September

9.15		1st PLENARY SESSION <i>aud. 420</i>	Welcome address INV.1: N. A. Ivanchuk					
10.45			PHOTOGRAPHING (10.45-11.15), COFFEE BREAK (11.15-11.45)					
11.45	Festo	1/1. Receiving and Transforming Devices	read. hall 206	INV.6 2/1. Common Problems of Vacuum Microwave Electronics	read. hall 304	INV.7, INV.8 3/1. Advanced Solutions in Telecommunication Networks	read. hall 310	INV.9 4/1. Antennas and Phased Antenna Arrays
13.45								
LUNCH								
14.45	Festo	1/2. Oscillators and Diode Devices	read. hall 206	2/2. Microwave Devices with Open Resonators	read. hall 304	3/2. Telecommunication Systems Theory	read. hall 310	INV.10 4/2. Antenna Elements and Antennas Numerical Simulation
16.45								
COFFEE BREAK								
17.15	Festo	1/3. Power Amplifiers and Transistors	read. hall 206	2/3. Microwave Devices. Theory and Simulation	read. hall 304	3/3. Information Systems	read. hall 310	4/3. Optic and Optoelectronic Devices and Systems
18.45								

SevNTU (Studgorodok)
Tuesday, 12 September

8.30	Festo	5/1. Microwave Filters	read. hall 206	INV.11 6/1. Plasma-Beam Systems	read. hall 304	7/1. Material Parameters Measurement	read. hall 310	9/1. Radio-astronomy and Earth Atmosphere Investigation
10.30								
COFFEE BREAK								
11.00	Festo	5/2. Passive Elements Design Techniques	read. hall 206	6/2. Effects in Intensive Electromagnetic Fields	read. hall 304	7/2. Workflow Parameters Measurement	read. hall 310	9/2. Waves Propagation in Earth Atmosphere
13.00								
LUNCH								
14.00	Festo	5/3. Microwave Resonators and Other Passive Elements	read. hall 206	8/1. Materials Testing and Processing Equipment	read. hall 304	7/3. Circuits & Signals Parameters Measurement	read. hall 310	9/3. Radiotelescopes and Earth Remote Sensing
16.00								
COFFEE BREAK								
16.30	Festo	«Beta TV Com» Session	read. hall 206	INV.12, INV.13 8/2. Moving Objects Telemetric Control	read. hall 304	7/4. Antenna Measurements and Applications	read. hall 310	9/4. Radio-Detection Techniques
18.00								

SevNTU (Gogolya Str., 14, assembly hall)
Thursday, 14 September

8.30	2nd PLENARY SESSION	INV.2: V. A. Yemelyanov and authors INV.3: Ye. Ye. Nechayev INV.4: V. D. Yeryomka and authors INV.5: A. V. Galdetsky and authors
10.30		
COFFEE BREAK		
11.00	ROUND TABLE DISCUSSION	«BIOPHYSICAL MECHANISMS OF LOW-INTENSIVE MM-WAVES INFLUENCE ON HUMAN ORGANISM»
13.00		
LUNCH		
14.00	Workshop W/1	«TRAINING OF RADIOENGINEERS AND SPECIALISTS IN THE FIELD OF TELECOMMUNICATIONS»
16.00		
COFFEE BREAK		
16.30	Workshop W/2	«COMMON PROBLEMS OF HIGH SCHOOL PEDAGOGICS»
18.00		

SevNTU (Studgorodok)
Friday, 15 September

8.30	Festo	1/4. Monolithic Integrated Circuits	read. hall 206	5a/1. Technology of Materials & Microwave Devices...	read. hall 304	5b/1. Nanostructures Physics and Simulation	read. hall 310	8a/1. Medical and Ecological Applications
10.30								
COFFEE BREAK								
11.00	Festo	1a. Solid State Devices CAD/CAM	read. hall 206	5a/2. Physical Properties of Materials & Microwave Devices ...	read. hall 304	5b/2. Nanoelectronics and Nanotechnology Application	read. hall 310	8a/2. Medical and Ecological Applications
13.00								
LUNCH (13.00-15.00)								
15.00	3rd PLENARY SESSION <i>aud. 420</i>	Presentation of Organizing Committee Prizes. Closing Session.						
16.00								

MONDAY, 11 SEPTEMBER

1st PLENARY SESSION
SevNTU (Studgorodok), aud. 420

MONDAY, 9.15-10.45

WELCOME ADDRESS

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M. Ye. ILCHENKO, Corresponding Member of NAS of Ukraine, Professor*

*Chief Deputy of Radioelectronics Industry and Control System Department
of Federal Industry Agency of Russian Federation
Program Committee Co-Chairman,
N. A. IVANCHUK, Professor*

INV.1	COOPERATION OF CIS COUNTRIES IN THE FIELD OF RADIOELECTRONICS	Ivanchuk N. A.	Federal Industry Agency of Russian Federation	Moscow	Russia	*
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SESSION 1/1: RECEIVING AND TRANSFORMING DEVICES

**SevNTU (Studgorodok)
aud. Festo**

MONDAY, 11.45-13.45

Co-Chairmen:

M. I. POYGINA, C.Sc.
Microtek Co., Kiev, Ukraine
N. F. KARUSHKIN, C.Sc.
SRI "Orion", Kiev, Ukraine

1.1	Q-BAND LOW-NOISE RECEIVER MODULE WITH PROTECTION AGAINST SYNCHRONOUS AND NONSYNCHRONOUS INCIDENT SIGNALS UP TO 500 W IMPULSE POWER	Gamuletskaya P. B. Dobrov V. A. Kirillov A. V. Savin A. M. Smirnov V. A. Shifman R. G.	Joint-Stock Company «Svetlana-Electronpribor»	Saint-Petersburg	Russia	109
1.2	SUPER BROADBAND FREQUENCY CONVERTER WITH CONTROLLED AMPLITUDE-FREQUENCY CHARACTERISTIC	Semenov E. A. Posadskiy V. N. Tyazhlov V. S. Kuzmin Yu. A. Kovalchuk A. G.	Scientific and Production Center «Almaz-Phazotron»	Saratov	Russia	111
1.3	FREQUENCY-SELECTIVE TV-CANNEL AMPLIFIERS BASED ON SAW - FILTERS	Lvov V. F. Mashinin O. V. Praporchtshikov V. V. Sinitsyna T. V.	«BUTIS-M», Ltd.	Moscow	Russia	113
1.4	DESIGNING OF RAPID-TUNABLE PASS-BAND (PBF) AND BAND-ELIMINATION (BEF) FILTERS ON MAGNETOSTATIC WAVES (MSW)	Buvin G. M. Popina S. M. Simanchuk B. P. Chechetin A. V.	NP OAO «Faza»	Rostov-on-Don	Russia	115
1.5	2 mm WAVE LENGTH RECEIVER MODULE	Kosov A. S. Zotov V. A. Skulachev D. P. Vald-Perlov V. M.	IKI, Space Research Institute RAS	Moscow	Russia	117
1.6	LOW NOISE WIDEBAND MICROWAVE AMPLIFIER WITH SWITCHING GAIN	Boyko K. V. Kuznetsov Y. V. Prischenko A. M. Smirnov V. M.	Rostov Research institute of Radio-communication	Rostov-on-Don	Russia	119
1.7	COOLABLE Ka-BAND LNA FOR RT-22 PRAO ACC FIAN	Minnebaev V. M. Krasnov V. V.	SRI «Pulsar» FIAN	Moscow	Russia	121
1.8	MILLIMETER-WAVE WAVEGUIDE DIOIDE LIMITER	Gudkova N. B. Shnitnikov A. S.	«Istok» Moscow Power Engineering Institute	Fryazino Moscow	Russia	123
1.9	ULTRA-LOW SMALL SIGNAL INSERTION LOSS COPLANAR MMIC OF THE BROADBAND POWER LIMITER	Abolduyev I. M. Vald-Perlov V. M. Veits V. V. Garbetr G. Z. Zubkov A. M. Minnebaev V. M.	SRI «Pulsar»	Moscow	Russia	125

1.10	OPTIMIZATION OF THE MM WAVE RANGE POWER LIMITER DESIGN	Katok V. B. Manko A. A.	State University of Communication Technology	Kiev	Ukraine	127
1.11	THE RESEARCH OF LIMITING CHARACTERISTICS X-BAND SEMICONDUCTOR LIMITERS	Krutov A. V. Rebrov A. S.	«Istok»	Fryazino	Russia	129
1.12	ULTRA WIDEBAND MICRO-WAVE POWER SWITCHER WITH ELEMENT KEYS ON P-I-N DIODES	Pronin A. V.	«Salut-27»	Nizhny Novgorod	Russia	131

SESSION 1/2: OSCILLATORS AND DIODE DEVICES

**SevNTU (Studgorodok)
aud. Festo**

MONDAY, 14.45-16.45

Co-Chairmen:
N. F. KARUSHKIN, C.Sc.
SRI "Orion", Kiev, Ukraine
M. I. POYGINA, C.Sc.
Microtek Co., Kiev, Ukraine

1.13	EXPERIENCE IN DEVELOPMENT OF HIGH POWER IMPATT DIODE SOURCES FOR MM-WAVE RANGE	Karushkin N. F. Kasatkin L. V. Malcev S. B.	SRI "Orion"	Kiev	Ukraine	135
1.14	INFLUENCE OF PEAK CHARACTERISTICS OF ELEMENTS IN THE CIRCUIT OF THE FEEDBACK ON THE LEVEL OF PHASE NOISE IN OSCILLATOR ON MAGNETOSTATIC WAVES	Rudyi Yu. B. Gubarev V. F. Galdetskiy A. V.	Research and Production Corporation «ISTOK»	Fryazino	Russia	138
1.15	CHAOTIC DYNAMICS IN MILLIMETRE-WAVE GUNN OSCILLATOR	Shalatonin V. I.	BSUIR	Minsk	Belarus	141
1.16	FEATURES OF SEMICONDUCTOR HIGH-STABLE MICROWAVE GENERATORS DESIGN	Sokolovskiy I. I. Plaksin S. V. Pogorelaya L. M.	Institute of Transport Systems and Technologies «Transmag»	Dnepropetrovsk	Ukraine	143
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SESSION 1/3: POWER AMPLIFIERS AND TRANSISTORS

**SevNTU (Studgorodok)
aud. Festo**

MONDAY, 17.15-18.45

Co-Chairmen:

A. A. KISTCHINSKY, C.Sc.

"Microwave systems" Close Corporation, Moscow, Russia

M. I. POYGINA, C.Sc.

Microtek Co., Kiev, Ukraine

1.25	COMBINING OF THREE POWER FET's OPERATING IN 2-CM WAVELENGTH	Galdetskii A. V. Klimova A. V. Manchenko L. V. Pchelin V. A.	«Istok»	Fryazino	Russia	165
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**SevNTU (Studgorodok)
reading hall 206**

MONDAY, 11.45-13.45

Co-Chairmen:

A. V. GALDETSKY, C.Sc.

FSUE "SPC Istok", Moscow, Russia

V. D. YERYOMKA, C.Sc.

Usikov Institute of Radio-Physics and Electronics at NASU, Kharkov, Ukraine

INV.6	ON CORRECT REPRESENTATION OF EXCITED FIELD IN TWT THEORY	Batura M. P. Kravchenko B. F. Kurayev A. A. Pustovoyt V. I. Sinitsyn A. K.	BSUIR IRE RAN Scientific and Technological Center of Unique instrument-making of RAS	Minsk Moscow	Belarus Russia	235
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SevNTU (Studgorodok)
reading hall 206

MONDAY, 14.45-16.45

Co-Chairmen:

A. A. KURAYEV, Professor

Belarus State University of Informatics and Radioelectronics, Minsk

A. K. SINITSYN, Professor

Belarus State University of Informatics and Radioelectronics, Minsk

2.10	OPERATION OF THE SHORT-MILLIMETER-WAVE OROTRON ON THE SECOND SPACE HARMONIC	Myasin E. A. Ilyin A. Yu. Evdokimov V. V. Chigarev S. G.	IRE RAS	Fryazino	Russia	259
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SevNTU (Studgorodok)
reading hall 206

MONDAY, 17.15-18.45

Co-Chairmen:

A. I. TSVYK, Professor

Usikov Institute of Radiophysics and Electronics, NAS, Kharkov, Ukraine

A. A. SHMATKO, Professor

Karazin Kharkov National University, Ukraine

2.25	3-D SIMULATION OF COLD CATHODE MAGNETRONS OPERATING ON A SPACE HARMONIC IN A DRIFT-ORBITAL RESONANCE MODE	Yeryomka V. D. Kopot' M. A. Kulagin O. P. Naumenko V. D.	IRE NASU Institute of Radio Astronomy NASU	Kharkov	Ukraine	293
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**SevNTU (Studgorodok)
reading hall 304**

MONDAY, 11.45-13.45

Co-Chairmen:

M. Ye. ILCHENKO, Corresponding Member of NASU, Professor
National Technical University of Ukraine "KPI", Kiev

K. S. SUNDUCHKOV, Professor
SE "UkrSPACE", Kiev Ukraine

INV.7	MICROWAVE SYSTEM FOR WIRELESS PROVIDING OF MULTIMEDIA SERVICES UMDS MITRIS	Ilchenko M. Ye. Narytnik T. N. Kazimirenko V. Ya. Gyunter V. Ya. Skirta Yu. V. Plotnikov A. A.	NTUU "KPI" UANSP Micran Co. Radio SRI	Kiev Tomsk Moscow	Ukraine Russia	311
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SESSION 3/2: TELECOMMUNICATION SYSTEMS THEORY

**SevNTU (Studgorodok)
reading hall 304**

MONDAY, 14.45-16.45

Co-Chairmen:

V. P. KOMOR, C.Sc.

SRI of Radiocommunications, Rostov-on-Don, Russia

A. A. LIPATOV, Professor

Scientific Center at Kiev Military Institute of Communications & Control, Ukraine

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SESSION 3/3: INFORMATION SYSTEMS

**SevNTU (Studgorodok)
reading hall 304**

MONDAY, 17.15-18.45

Co-Chairmen:
L. S. GLOBALA, Professor
National Technical University of Ukraine "KPI", Kiev
A. SCHILL, Professor
Dresden University of Technology, Germany

3.31	MODELS AND METHODS FOR WLAN / WIMAX- NETWORK DESIGN	Luntovskyy A. Gütter D. Schill A.	Dresden University of Technology	Dresden	Germany	391
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SESSION 4/1: ANTENNAS AND PHASED ANTENNA ARRAYS

**SevNTU (Studgorodok)
reading hall 310**

MONDAY, 11.45-13.45

Co-Chairmen:

V. A. OBUKHOVETS, Professor
Taganrog University of Radioengineering, Russia

A. N. BRATCHIKOV, Professor
Moscow Aviation Institute (Technical University), Russia

INV.9	NUMERICAL RESEARCH OF MATCHING CHARACTERISTICS FOR PRINTED DIPOLES ON SUPPORTED RACKS	Kasiyanov A. O. Obukhovets V. A. Mushnikov V. V.	Taganrog State University of Radio Engineering	Taganrog	Russia	431
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4.3	LOSSY DIELECTRICS INFLUENCE ON RADIATING CHARACTERISTICS OF WAVEGUIDE-SLOT ANTENNAS	Lyaschenko V. A. Katrich V. A. Berdnik S. L.	KhNU	Kharkov	Ukraine	437

4.4	K-BAND RADIATOR BASED ON PLANAR DIELECTRIC RESONATOR	Buslov O. A. Golovkov A. A. Krasilnikov S. V.	LETI	Saint-Petersburg	Russia	439
4.5	COAXIAL-COLLINEAR PRINTED ANTENNAS WITH SERIAL BRANCHINGS IN FEEDING SCHEME	Mishoostin B. A. Slyozkin V. G. Redkina E. A.	Moscow Power Engineering Institute SevNTU	Moscow	Russia	441
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4.8	EFFECT OF GROUND PLANE WITH CONFINED DIMENSIONS ON COIL ANTENNA PERFORMANCE	Babushkina O. A. Bilodid V. I. Golovkov A. A. Mamrukov A. V. Pivovarov I. U.	LETI	Saint-Petersburg	Russia	447
4.9	ANALYSIS OF PHASE FAR FIELD PATTERN FOR ANTENNAS WITH ELLIPTICAL POLARIZATION	Protsenko M. B. Nesteruk S. V.	Odessa National Academy of Communication SevNTU	Odessa Sevastopol	Ukraine	449
4.10	ANTENNA WITH ORTHOGONAL POLARIZATIONS	Mikryukov A. S. Ilyinov M. D. Maznichenko Y. A. Rybka N. I. Cherkasova Y. A. Urtsev O. A.	Military Unit A 0375	Kiev	Ukraine	451
4.11	CONTROLLING RADIATION PATTERN OF SPHERICAL ANTENNA	Lobkova L. M. Redin M. I. Melnik A. A. Stoiev Yu. V.	SevNTU	Sevastopol	Ukraine	452
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SESSION 4/2: ANTENNA ELEMENTS AND ANTENNAS NUMERICAL SIMULATION

**SevNTU (Studgorodok)
reading hall 310**

MONDAY, 14.15-16.45

Co-Chairmen:

L. M. LOBKOVA, Professor

Sevastopol National Technical University, Ukraine

Ye. Ye. NECHAYEV, Professor

Moscow State Technical University of Civil Aviation, Russia

INV.10	NUMERICAL SIMULATION OF IRREGULAR-FRACTAL BASED ANTENNAS	Kolesov V. V. Krupenin S. V. Petrova N. G. Potapov A. A.	IRE RAS	Moscow	Russia	459
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4.13	GENERAL AMBIGUITY FUNCTION FOR NOISE ORTHOGONAL WAVEFORMS IN MULTIPLE RING ANTENNAS SYSTEM	Chapursky V. V. Kalinin V. I.	Bauman Moscow State Technical University IRE RAS	Fryazino Moscow	Russia	461
4.14	INCREASING OF WIRE ANTENNAS SIMULATION EFFICIENCY	Romanenko S. N. Karpukov L. M. Pulov R. D.	Zaporozhye National Technical University	Zaporozhye	Ukraine	463
4.15	MODELLING OF ORIENTATION CHARACTERISTICS FOR THE TWO-WAVE MIRROR ANTENNA	Rostokin I. N. Samohin A. V. Rostokina E. A.	Murom Institute of the Vladimir State University	Murom	Russia	465
4.16	ITERATIVE RECONSTRUCTION METHOD OF PHASE DISTRIBUTION FOR A PHASED ARRAY ANTENNA WITH A CONSIDERATION THE GROUND INFLUENCE	Nechaev E. E., Rozdestvenskij I. N.	Moscow State Technical University of Civil Aviation	Moscow	Russia	467
4.17	ANALYSIS OF EIGEN IMPEDANCE SURFACE WAVES USING THE METHOD OF REFERENCE PROBLEM	Zvyagintsev A. A. Ivanov A. I. Katkov D. V.	KhNU	Kharkov	Ukraine	469
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4.19	MONOPULSE ANTENNA IRRADIATOR FOR CIRCULAR POLARIZED WAVES	Rusov Yu. S. Krekhtunov V. M.	Bauman Moscow State Technical University	Moscow	Russia	473
4.20	WAVEGUIDE FERRITE PHASE SHIFTERS FOR ELEMENTS OF MICROWAVE BAND PHASED ARRAY ANTENNAS	Krekhtunov V. M. Golubtsov M. Ye.	Bauman Moscow State Technical University	Moscow	Russia	475
4.21	THE RADIATING CHARACTERISTICS OF MULTIELEMENT HYBRID METAL-DIELECTRIC STRUCTURE	Katrich V. A. Mayboroda D. V. Pogarsky S. A. Pshenichnaya S. V. Saprykin I. I. Shaulov E. A.	Kharkov National University	Kharkov	Ukraine	477
4.22	ANTENNA ASSEMBLY FOR PROVISION THE COMMUNICATION IN THE REGIONS DIFFICULT TO ACCESS	Korbut V. N. Podlubny V. A.	National Technical University of Ukraine «KPI»	Kiev	Ukraine	479
4.23	BIFILAR CYLINDRICAL HELICAL IRRADIATOR FOR SPHERICAL REFLECTOR ANTENNA	Lobkova L. M. Troitsky A. V. Vigolov S. A. Beliy A. L.	SevNTU	Sevastopol	Ukraine	481
4.24	FIELD FLUCTUATIONS IN FRESNEL ZONE OF CIRCULAR APERTURE WITH RANDOM PHASE ERRORS	Dolzhiikov V. V. Serbin A. V.	KhNURE	Kharkov	Ukraine	483

SESSION 4/3: OPTIC AND OPTOELECTRONIC DEVICES AND SYSTEMS

**SevNTU (Studgorodok)
reading hall 310**

MONDAY, 17.15-18.45

Co-Chairmen:

G. D. PETRUKHIN, Professor

Moscow Aviation Institute (Technical University), Russia

G. V. MERKISHIN, Professor

Moscow Aviation Institute (Technical University), Russia

4.25	OUTPUT CURRENT AND DYNAMIC MODEL OF PHOTOMULTIPLIER CATHODE CAMERA IN THE ELECTRONIC MICROWAVE MIXER REGIME	Petrukhin G. D.	Moscow Aviation Institute	Moscow	Russia	487
4.26	IRRADIATION INDUCED ABERRATIONS IN SPACEBORNE OPTICAL SYSTEMS	Ignatiev F. N.	Moscow Aviation Institute	Moscow	Russia	489
4.27	RADIATION INDUCED LIMITATION OF OPTICAL FIBER CAPACITY	Ignatiev F. N.	Moscow Aviation Institute	Moscow	Russia	491
4.28	ANALYSIS OF OPTICAL FIBER CAPACITY IN A WDM SYSTEMS	Ignatiev F. N.	Moscow Aviation Institute	Moscow	Russia	493
4.29	SIGNAL PROCESSING IN COHERENT SYSTEMS FOR MONITORING THE SURROUNDING ATMOSPHERE	Evstigneev V. L. Merkishin G. V. Michailov S. S.	Moscow Aviation Institute	Moscow	Russia	495
4.30	VIDEO SURVEILLANCE SYSTEMS FOR MOVING OBJECTS	Merkishin G. V. Medvedev S. V.	Moscow Aviation Institute	Moscow	Russia	497
4.31	ESTIMATION OF COHERENT SIGNAL PHASE SHIFT INSIDE THE ENVIROMENT WITH ACOUSTIC VARIATIONS	Merkishin G. V. Afonin K. N.	Moscow Aviation Institute	Moscow	Russia	499
4.32	THE ANALYSIS OF PROCESS OF FOCUSED IMAGES GOLOGRAPHY RECEPTION	Leontyev A. S. Semyonova E. N. Fomichev N. I.	Yaroslavl State University	Yaroslavl	Russia	501

TUESDAY, 12 SEPTEMBER

SESSION 5/1: MICROWAVE FILTERS

**SevNTU (Studgorodok)
aud. Festo**

TUESDAY, 8.30-10.30

Co-Chairmen:

Yu. M. POPLAVKO, Professor

National Technical University of Ukraine "KPI", Kiev

A. I. DEMCHENKO, D.Sc.

Research and Production Corporation «Integral», Minsk, Belarus

5.1	DOUBLE ZONE BANDSTOP FILTER ON DIELECTRIC RESONATORS	Trubin A. A. Archipov D. V.	"KPI"	Kiev	Ukraine	505
5.2	RIDGED WAVEGUIDE FILTERS WITH IMPROVED PERFORMANCE	Manuilov M. B. Kobrin K. V. Obrezanova L. A.	¹ Rostov State University "Spetsvuzavtomatika" Faza Co.	Rostov-on-Don	Russia	507
5.3	L-XC-BAND DIELECTRIC RESONATOR FILTERS FOR HIGH POWER APPLICATIONS	Bunin A. V. Vishnyakov S. V. Gevorkyan V. M. Kazantsev J. A. Mikhailin S. N. Polukarov V. I.	Moscow Power Engineering Institute	Moscow	Russia	509
5.4	MICROWAVE FILTERS «VISUAL» DESIGN ON THE BASIS OF NEURAL MODELS	Kondratenko A. V. Varaksin M. Y. Babak L. I.	MICRAN Co., TUSCR	Tomsk	Russia	511
5.5	BANDPASS FILTERS DESIGN ON THE BASIS OF PHASE CHARACTERISTIC OF REFLECTION FACTOR	Kondratenko A. V. Shevliakov M. L.	MICRAN Co.	Tomsk	Russia	513
5.6	STRIPLINE BANDPASS FILTER ON SUSPENDED SUBSTRATE	Belyaev B. A. Serzhantov A. M.	Institute of Physics	Krasnoyarsk	Russia	515
5.7	THE METHOD FOR MICROSTRIP FILTERS PARAMETRICTY SYNTHESIS	Belyaev B. A. Yurnev V. V.	Institute of Physics	Krasnoyarsk	Russia	517
5.8	RESONATORS' COUPLING COEFFICIENTS IN MICROSTRIP FILTER MODEL ON PHOTON CRYSTAL	Belyaev B. A. Serzhantov A. M. Shabanov V. F.	Institute of Physics	Krasnoyarsk	Russia	520
5.9	OPTIMIZATION OF HARMONIC FILTER PERFORMANCE ON THE BASIS OF A RECTANGULAR WAVEGUIDE WITH IMPEDANCE WALLS	Logacheva L. M. Kutsak S. V. Bondarev V. P.	Zaporizhzhia National Technical University	Zaporozhye	Ukraine	523
5.10	WAVEGUIDE FILTER USING RING RESONATORS	Glubokov A. A. Shelkovnikov B. N.	"KPI"	Kiev	Ukraine	525
5.11	FREQUENCY-SELECTION DIVIDER	Soskov Yu. A.	NIEMI PS	Moscow	Russia	527

SESSION 5/2: PASSIVE ELEMENTS DESIGN TECHNIQUES

**SevNTU (Studgorodok)
aud. Festo**

TUESDAY, 11.00-13.00

Co-Chairmen:
B. N. SHELKOVNIKOV, C.Sc.
NTUU "Kiev Polytechnic Institute", Ukraine
S. I. TOLSTOLUTSKY, C.Sc.
SRI of Radiocommunications, Rostov-on-Don, Russia

5.12	A METHOD FOR CALCULATION OF ELECTRICAL PARAMETERS OF TRANSFORMING DEVICES WITH THE DIAGONAL LOADED SECTION OF TWO-COUPLED LINES	Oborzhytskyy V. I.	Lviv Polytechnic National University	Lviv	Ukraine	531
5.13	SPECTRAL AND ENERGY PROPERTIES OF DISC QUASI-OPTICAL DIELECTRIC RESONATOR WITH CONDUCTING ENDPLATES AND CILINDRICAL HETEROGENEITY	Lavrinovich A. A. Gubin A. I. Kirichenko A. Ya. Cherpak N. T.	IRE NASU	Kharkov	Ukraine	533
5.14	ELECTRODYNAMIC ACCOUNT OF WAVEGUIDE BRANCHING WITH ISOTROPIC AND ANISOTROPIC LAYERS	Mizernik V. N. Shmat'ko A. A.	Scientific Physical-Technologic Center KhNU	Kharkov	Ukraine	535
5.15	USE OF GENETIC ALGORITHM FOR PASSIVE MICROSTRIP DEVICES DESIGN	Belov Y. I. Morozov A. A. Khanov S. D.	JSC SPE «Salut-27»	Nizhny Novgorod	Russia	537
5.16	WAVES IN THE SHIELDED TRANSMISSION LINE, CONTAINING CIRCULAR CYLINDRICAL WIRES AND COPLANAR WAVEGUIDES ON THE SHIELD	Tyurnev V. V.	Institute of Physics	Krasnoyarsk	Russia	539
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5.18	ELECTROMAGNETIC WAVES SCATTERING ON THE PLATE WITH CHANGING PERMITTIVITY PLACED IN A WAVEGUIDE	Bondaryev V. P. Samojlick S. S.	Zaporozhje National Technical University	Zaporozhye	Ukraine	544
5.19	RE-REFLECTION OF WAVE BEAMS IN KALEIDOSCOPIIC ELEMENT	Rudnitsky A. S. Poleschuk N. N.	Belarusian State University	Minsk	Belarus	546
5.20	THIN VIBRATOR WITH VARIABLE IMPEDANCE IN RECTANGULAR WAVEGUIDE	Nesterenko M. V. Katrich V. A. Belogurov E. Yu.	Kharkov National University	Kharkov	Ukraine	548

5.21	THE SCATTERING MATRIX MODEL OF THE QUASIOPTICAL RESONATOR COUPLED TO A SINGLE MODE WAVEGUIDE	Glamazdin V. V. Natarov M. P. Skresanov V. N.	IRE NASU	Kharkov	Ukraine	550
5.22	MODELING OF MULTIPLE TWO-LAYER CYLINDRICAL POSTS IN A RECTANGULAR WAVEGUIDE	Gaidukevich Y. A. Drobot S. V.	BSUIR	Minsk	Belarus	552

SESSION 5/3: MICROWAVE RESONATORS AND OTHER PASSIVE ELEMENTS

**SevNTU (Studgorodok)
aud. Festo**

TUESDAY, 14.00-16.00

Co-Chairmen:
Yu. M. POPLAVKO, Professor
National Technical University of Ukraine "KPI", Kiev
S. I. TOLSTOLUTSKY, C.Sc.
SRI of Radiocommunications, Rostov-on-Don, Russia

5.23	COUPLED CHARACTERISTICS OF A SAPPHIRE QUASIOPTICAL DIELECTRIC RESONATOR TO THE MICROSTRIP LINE	Nechaev O. G. Skresanov V. N.	IRE NASU	Kharkov	Ukraine	557
5.24	E-POLARIZATION MODES OF MULTI-MIRROR OPEN RESONATOR WITH ECHLETTE	Belous O. I. Korneyenkov V. K. Sukhoruchko O. N. Fisun A. I.	IRE NASU	Kharkov	Ukraine	559
5.25	H-TYPE OSCILLATIONS IN WAVEGUIDE-COAXIAL RESONATOR	Bilous R. I. Motornenko A. P.	IRE NASU	Kharkov	Ukraine	561
5.26	STRIPLINE DOUBLE-WIRE RESONATOR ON SUSPENDED SUBSTRATE	Leksikov A. A. Sukhin F. G.	Institute of Physics	Krasnoyarsk	Russia	563
5.27	COMPOSITE DISC DIELECTRIC RESONATOR	Kirichenko A. Ya. Martynyuk S. P. Motornenko A. P. Skuratovskiy I. G.	IRE NASU	Kharkov	Ukraine	565
5.28	EFFECT OF AXIAL AND RADIAL INHOMOGENEITIES ON ELECTRODYNAMIC PROPERTIES OF WHISPERING GALLERY MODE DIELECTRIC RESONATOR	Lavrinovich A. A. Cherpak N. T.	IRE NASU	Kharkov	Ukraine	567
5.29	DISTRIBUTION OF AN ELECTROMAGNETIC FIELD OF EIGEN OSCILLATIONS IN A RADIALY TWO-LAYERED RESONATOR	Prokopenko Yu. V. Filipov Yu. F. Shipilova I. A.	IRE NASU	Kharkov	Ukraine	569

5.30	QUASIOPTICAL RESONANT SYSTEM FOR SEMICONDUCTOR OSCILLATORS	Arkhipov A. V. Belous O. I. Kuzmichev I. K. Tischenko A. S.	IRE NASU	Kharkov	Ukraine	571
5.31	OSCILLATIONS OF WHISPERING GALLERY IN THE OPEN CYLINDRICAL RESONATOR RAISED BY THE CAPACITOR CRACK	Kirichenko A. Ya. Krivenko H. V. Lutsenko V. I.	IRE NASU	Kharkov	Ukraine	573
5.32	LOW LOSSES WIDE BAND DIPLEXER FOR MM WAVE HETERODYNE RECEIVER	Shulga V. M. Myshenko V. V. Myshenko A. V.	Institute of Radio Astronomy NASU	Kharkov	Ukraine	575
5.33	S, C-BAND DIELECTRIC RESONATOR DIPLEXER	Bunin A. V. Vishnyakov S. V. Gevorkyan V. M. Kazantsev J. A. Mikhalin S. N. Polukarov V. I.	Moscow Power Engineering Institute	Moscow	Russia	577
5.34	STUDY OF MECHANICAL ATTENUATOR CHARACTERISTICS	Parlikov V. I. Soskov Yu. A.	NIEMI PS	Moscow	Russia	579
5.35p	RESEARCH AND MANUFACTURE OF THE MICROMECHANICAL RELAY FOR VHF DEVICES	Timoshenkov S. P. Kalugin V. V. Klochko A. V. Kalugina I. V. Zotov S. A. Prokop'ev E. P.	Moscow Institute of Electronic Technology, Alikhanov Institute for Theoretical and Experimental Physics	Moscow	Russia	581
5.36p	CLASSIFICATION OF FOREIGN RADIO FREQUENCY CONNECTORS FOR MICROWAVE ELECTRONICS	Djurinsky K. B.	Research and Production Corporation "Istok"	Fryazino	Russia	583

SESSION «BETA TV COM»

**SevNTU (Studgorodok)
aud. Festo**

TUESDAY, 16.30-18.00

Co-Chairmen:

V. P. KOMOR, C.Sc.

SRI of Radiocommunications, Rostov-on-Don, Russia

A. A. MOROZOV

Beta TV Com Co., Donetsk, Ukraine

B.1	34 Mbit/s RRL DATA TRANSMISSION	Tatarinsky S. N. Trembach D. N. Kavun M. V. Gorbanov N. A.	Betatvcom Ltd.	Donetsk	Ukraine	1005
B.2	RRL FOR UHF RANGE DATA TRANSMISSION	Tatarinsky S. N. Kavun M. V. Trembach D. N.	Betatvcom Ltd.	Donetsk	Ukraine	1008
B.3	VIDEOSIGNAL RETRANSLATOR	Tatarinsky S. N. Kavun M. V. Trembach D. N. Makeenko I. V.	Betatvcom Ltd.	Donetsk	Ukraine	1010

B.4	SUBSCRIBER TRANSMITTER FOR MMDS RANGE INTER-NET	Sviridenko V. I. Sologub V. V. Gunnskiy S. V. Tarasov M. A. Terehov A. V. Dudnik K. V. Makeenko I. V.	Betatvcom Ltd.	Donetsk	Ukraine	1012
B.5	DIVERSITY RECEPTION SYSTEM	Tatarinskiy S. N. Kavun M. V. Trembach D. N.	Betatvcom Ltd.	Donetsk	Ukraine	1014
B.6	FLOW FORMER MPEG-2 AND TRAFFIC MULTIPLEXER	Britkov A. V. Nosov O. A. Gontarev V. A.	Betatvcom Ltd.	Donetsk	Ukraine	1015
B.7	1kHz+16GHz WAVEMETER	Gontarev V. A. Britkov A. V. Gorbanov N. A. Nosov O. S. Shapovalov D. O.	Betatvcom Ltd.	Donetsk	Ukraine	1017
B.8	SELECTIVE METER OF SAT RANGE SIGNAL LEVEL	Shapovalov D. O. Nosov A. S. Trembach D. N.	Betatvcom Ltd.	Donetsk	Ukraine	1019
B.9	MEASURING DEVICE FOR FIELD MAINTENANCE OF RADIO ELECTRONIC EQUIPMENT	Britkov A. V. Gorbanov N. A. Nosov A. S. Shapovalov D. A. Prohorenko A. V. Dyachenko V. N.	Betatvcom Ltd.	Donetsk	Ukraine	1021
B.10	OPTICAL TRANSMITTER	Potyliitsin N. P. Belonozhko M. A.	Betatvcom Ltd.	Donetsk	Ukraine	1023

SESSION 6/1: PLASMA-BEAM SYSTEMS

**SevNTU (Studgorodok)
reading hall 206**

TUESDAY, 8.30-10.30

Co-Chairmen:

I. I. MAGDA, Professor

National Scientific Center "KhIPT", Kharkov, Ukraine

V. V. STAROSTENKO, D.Sc.

Tavria National University, Simferopol, Ukraine

INV.11	RECENT PROGRESS IN THE PASOTRON STUDIES	Bliokh Yu. P. Felsteiner J. Nusinovich G. S. Carmel Y. Shkvarunets A. G. Rodgers J. C. Granatstein V. L.	Technion-Israel Institute of Technol- ogy, Institute for Research in Elec- tronics and Applied Physics, University of Maryland	Haifa College Park	Israel USA	697
6.1	A PHENOMENON OF THE GENERALIZED SYNCHRONIZATION IN MODELS OF KLYSTRON CHAOS GENERATORS	Koronovskii A. A. Starodubov A. V. Hramov A. E. Dmitriev B. S. Zharkov Y. D.	Saratov State Uni- versity	Saratov	Russia	699

6.2	STABILITY OF THE SYNCHRONOUS STATE OF ACTIVE NONLINEAR ANTENNA ARRAY ON BASIS OF THE PIERCE DIODE	Koronovskii A. A. Khramov A. E. Khramova A. E.	Saratov State University	Saratov	Russia	701
6.3	ELECTRON BEAM OSCILLATIONS CONTROL IN DOUBLE-STREAM VIRCATOR	Rempen I. S. Hramov A. E.	Saratov State University	Saratov	Russia	703
6.4	MAGNETIC SEPARATOR OF ELECTRONS FOR GYRODEVICES WITH MULTISTAGE DEPRESSED COLLECTOR	Glyavin M. Yu. Morozkin M. V. Petelin M. I.	Institute of Applied Physics RAS	Nizhny Novgorod	Russia	705
6.5	AMPLITUDE-FREQUENCY CHARACTERISTICS OF MULTIFREQUENCY SIGNAL AMPLIFICATION IN COAXIAL SLOW-WAVE TRANSMISSION LINE	Galaydych K. V. Markov P. I. Sotnikov G. V.	Kharkov Institute of Physics and Technology	Kharkov	Ukraine	707
6.6	THE NONLINEAR MODE PIC-MODELLING OF THE WAKE FIELD EXCITATION IN THE CYLINDRICAL RESONATOR	Markov P. I. Onishchenko I. N. Sotnikov G. V.	Kharkov Institute of Physics and Technology	Kharkov	Ukraine	709
6.7	GYROTRON PHASE LOCKED BY RESONANT LOAD: THEORY	Ishenko A. S. Novozhilova Yu. V. Fernandez A. Martin R.	Institute of Applied Physics RAS CIEMAT	Nizhny Novgorod Madrid	Russia Spain	711
6.8p	THE INFLUENCE OF RESIDUAL GASES IONIZATION ON THE VIRTUAL CATHODE DYNAMICS IN THE LOW-VOLTAGE VIRCATOR	Filatov R. A. Hramov A. E. Kalinin Yu. A. Egorov E. N.	Saratov State University	Saratov	Russia	713
6.9p	STUDY OF INFLUENCE OF MAGNETIC FIELD ON THE PROCESSES OF VIRTUAL CATHODE FORMATION AND THE NON-STATIONARY DYNAMICS OF PARTICLES OF ELECTRON BEAM IN LOW-VOLTAGE VIRCATOR	Egorov E. N. Kalinin Yu. A. Koronovskiy A. A. Trubetskov D. I. Khramov A. E.	Saratov State University	Saratov	Russia	715

SESSION 6/2: EFFECTS IN INTENSIVE ELECTROMAGNETIC FIELDS

SevNTU (Studgorodok)
reading hall 206

TUESDAY, 11.00-13.00

Co-Chairmen:

V. V. STAROSTENKO, D.Sc.

Tavria National University, Simferopol, Ukraine

I. I. MAGDA, Professor

National Scientific Center "KhIPT", Kharkov, Ukraine

6.10	PROBABILITY OF INTEGRATED CIRCUITS FAILURES ON INFLUENCE OF PULSED RADIO-WAVE RADIATION	Solodov A. V.	Moscow Radiotechnical Institute RAS	Moscow	Russia	719
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6.11	INFLUENCE OF PULSED ELECTROMAGNETIC FIELDS UPON INTEGRAL MEMORY MICROCIRCUIT	Ahramovich L. N. Gribski M. P. Grigoriev E. V. Zuev S. A. Starostenko V. V. Churyumov G. I. Borisov A. A. Petrov A. M.	Tavrical National University KhNURE 22 CSII Department of Military of Russia	Simferopol Kharkov Moscow	Ukraine Russia	721
6.12	INFLUENCES OF THE SILICON SCHOTTKI FET ACTIVE AREA IRREGULARITY UPON VOLT-AMPERE CHARACTERISTICS AND WUNSCH-BELL DEPENDENCY	Ahramovich L. N. Zuev S. A. Starostenko V. V. Tereschenko V. Y. Churyumov G. I. Borisov A. A. Petrov A. M.	Tavrical National University KhNURE 22 CSII Department of Military of Russia	Simferopol Kharkov Moscow	Ukraine Russia	723
6.13	FUNCTIONAL FAILURES OF PERSONAL COMPUTERS CAUSED BY SUBNANOSECOND PULSE EMR	Berdin S. A. Zagvozdkin B. V. Magda I. I. Chupikov P. T.	Institute of Physics and Technology	Kharkov	Ukraine	725
6.14	SPECIFIC FEATURES OF SENSITIVITY VARIATIONS IN SUPERCONDUCTIVE LIMITER SENSORS	Kucher D. B. Zaytsev S. A. Kharlanov A. I. Stepanova M. V.	Sevastopol Naval Institute	Sevastopol	Ukraine	729
6.15	COMPACT AUTONOMOUS REPETITIVELY PULSED OSCILLATOR	Bezroukov M. Yu. Gorbachev K. V. Isaenkov Yu. I. Nesterov E. V. Mikhailov V. M. Petrov V. Yu. Plaksina S. D. Roschoupkin S. A. Semenov Yu. V. Stroganov V. A.	Institute for High Energy Density Associated, Institute for High Temperatures RAS	Moscow	Russia	731
6.16	TREATMENT AND METROLOGY OF IMPULSE UWB ANTENNA	Gadetski N. P. Magda I. I. Muhin V. S. Chupikov P. N.	Institute of Physics and Technology	Kharkov	Ukraine	733
6.17	RADIATING PROPERTIES OF WEAK ELECTROLYTES IN ELECTRIC DISCHARGE FIELD	Yefimov B. P. Khorunzhiy M. O. Kuleshov A. N.	IRE NASU	Kharkov	Ukraine	735
6.18p	THE TRANSISTOR SHAPER OF A HIGH-VOLTAGE PULSE	Batrakov A. B. Glushko E. G. Zalkind V. M. Lonin Yu. F. Sereda B. V.	Institute of Physics and Technology	Kharkov	Ukraine	**
6.19p	HIGH-VOLTAGE SWITCHER FOR SUPPLY VOLTAGE CONTROL IN MAGNETRON GENERATORS OF MICROWAVE THERAPY DEVICES	Nedbaylo Yu. A.	RADMIR, JSC SRIREM	Kharkov	Ukraine	737

SESSION 8/1: MATERIALS TESTING AND PROCESSING EQUIPMENT

**SevNTU (Studgorodok)
reading hall 206**

TUESDAY, 14.00-16.00

Co-Chairmen:
S. D. VOTOROPIN, C.Sc.
"NIIPP" Public Corporation, Tomsk, Russia
S. V. PLAKSIN, C.Sc.

Institute of Transport Systems and Technology, NASU, Dnepropetrovsk, Ukraine

8.1	THE PYRAMIDAL MICRO-WAVE THERMAL MODULE	Kizhlai I. N. Kurayev A. A. Sinitsyn A. K. Scherbakov A. V.	BSUIR	Minsk	Belarus	853
8.2	NONRESONANCE SYSTEMS FOR MICROWAVE HEATING OF DIELECTRIC MATERIALS	Demiyanchuk B. A.	Odessa State National University	Odessa	Ukraine	855
8.3	IN HIGH-FREQUENCY ELECTRO-MAGNETIC FIELD PROCESSING OF BEER	Vichkan' A. V. Melyanovskiy P. A.	IRE NASU	Kharkov	Ukraine	857
8.4	IMPLEMENTATION OF HOMODYNE MEASURING DEVICES FOR SUBSTANCE PARAMETERS IN THE FOOD PRODUCTION	Shirokov I. B. Koshovsky Ya. I. Zimin S. M.	Sevastopol National Technical University	Sevastopol	Ukraine	859
8.5	RADIOWAVE METHOD OF INTERNAL COMBUSTION ENGINES' CONDITION ESTIMATION	Skripnik Yu. Gorkun V. Shevchenko K. Gorkun V.	Kiev National University of Technologies and Design, National Agrarian University	Kiev	Ukraine	861
8.6	PRODUCTIVITY INCREASING AND BIOSYSTEMS EFFICIENCY AT THE USE OF MM-WAVES	Dmitriev B. Ol'shevsky A. Pokataev V. Martynenko D. Romanenko Y. Lykholat J. Vinnichenko A. Oginova I. Filonik I. Purshen B. Yatsunenka A. Privalov Y.	Yuzhnoye SDO Dnepropetrovsk National University Institute of Technical Mechanics, NASU and NCAU	Dnepropetrovsk	Ukraine	864
8.7	ESTIMATION OF PHYSICAL PROPERTIES OF CLOTHING MATERIALS IN THE MICRO-WAVE BAND	Skripnik Yu. Shevchenko K. Yanenko A.	Kiev National University of Technologies and Design	Kiev	Ukraine	866
8.8	THE EXPERIMENTAL INVESTIGATIONS OF MICROWAVE ENERGY STERILIZATION INFLUENCE ON PHARMACEUTICAL PRODUCTS THE AUTOMATION FEATURES OF THE TECHNOLOGICAL PROCESSES	Solodilov A. A. Voloshko A. J. Kisil' E. M. Pinchukova N. A. Samoilov V. L. Shishkin O. V. Borzykh. N. V.	Institute for Scintillation Materials NAS of Ukraine, State Plant for Chemical Reagents	Kharkov	Ukraine	869

8.9	ICATION OF MICROWAVE IRRADIATION FOR CONCENTRATING OF THE COCARBOXYLASE WATER SOLUTIONS	Pinchukova N. A. Vinnichenko T. Yu. Voloshko A. Yu. Grinashuk A. I. Kisil' E. M. Samoilov B. L. Solodolov A. A. Sofronov D. S. Shishkin O. V.	State Plant for Chemical Reagents, Technological park «Institute for Single Crystals»	Kharkov	Ukraine	871
8.10	ROTATION OF COCARBOXYLASE HYDROCHLORIDE UNDER MICROWAVE IRRADIATION	Pinchukova N. A. Vinnichenko T. Yu. Voloshko A. Yu. Grinashuk A. I. Kisil' E. M. Kudin K. A. Samoilov B. L. Solodolov A. A. Sofronov D. S. Shishkina S. V. Shishkin O. V.	State Plant for Chemical Reagents, Technological park «Institute for Single Crystals»	Kharkov	Ukraine	873

SESSION 8/2: MOVING OBJECTS TELEMETRIC CONTROL

**SevNTU (Studgorodok)
reading hall 206**

TUESDAY, 16.30-18.00

Co-Chairmen:
S. D. VOTOROPIN, C.Sc.
"NIIPP" Public Corporation, Tomsk, Russia
I. B. SHIROKOV, C.Sc.
Sevastopol National Technical University, Ukraine

INV.12	MILLIMETER WAVES BALLISTIC RADAR	Zubkov A. N. Gavrilov V. S. Kempa Ya. M. Dufanets Z. V. Naumets N. A.	Lviv Radio Engineering Research Institute	Львов	Ukraine	877
INV.13	TEST APPARATUS FOR LOW-ALTITUDE RADIO ALTIMETERS	Dmitriev N. Babkovsky A. Seleznev N.	Measuring Systems Research Institute	Nizhny Novgorod	Russia	879
8.11	STATION FOR TELEMETRIC CONTROL OF MOVING OBJECTS	Miskiv V.-M. V. Datsko R. V. Kapshiy V. N. Kashin S. V. Naumets N. A. Savycky V. M. Synyavska N. Y.	Lviv Radio Engineering Research Institute	Львов	Ukraine	882
8.12	CONSTRUCTION FEATURES OF THE MILLIMETER WAVE DOPPLER RADAR FOR METROLOGICAL MAINTENANCE OF RUNNING TRIALS OF VEHICLES	Budaretskiy Y. I. Mytnik Y. F.	Lviv Radio Engineering Research Institute, "Ukravtotest"	Львов	Ukraine	884

8.13	DYNAMIC RANGE EXTENSION OF THE STEPPED-FREQUENCY RADAR	Mikhnev V. A. Palto A. A.	Institute of Applied Physics of NAS of Belarus	Minsk	Belarus	886
8.14	AUTODYNE RADAR DETECTING THE MOTION DIRECTION OF REFLECTING OBJECTS	Votoropin S. D. Noskov V. Ya.	USTU	Tomsk Yekaterinburg	Russia	888
8.15	POSITIONING OF THE MOBILE OBJECT ON THE PLANE BY THE HOMODYNE METHOD	Shirokov I. B. Koshovsky Ya. I. Zimin S. M.	Sevastopol National Technical University	Sevastopol	Ukraine	891
8.16	AUTOMATED SYSTEM OF TRAFFIC ACCIDENTS PREVENTION	Kovbasa A. P. Pidgurskiy A. M. Shayda V. A.	SRI «Kvant-Radioelektronika»	Kiev	Ukraine	893

SESSION 7/1: MATERIAL PARAMETERS MEASUREMENT

SevNTU (Studgorodok)
reading hall 304

TUESDAY, 8.30-10.30

Co-Chairmen:

V. F. MANOYLOV, Professor

Zhitomir State University of Technology, Ukraine

I. B. SHIROKOV, C.Sc.

Sevastopol National Technical University, Ukraine

7.1	AUTOGENERATOR SPECIAL METHOD FOR TESTING OF ELECTROPHYSICAL PROPERTIES OF MATERIALS IN MILLIMETER-WAVE BAND	Skresanov V. N. Shubnyj A. I.	IRE NASU	Kharkov	Ukraine	741
7.2	MICROSTRIP SENSORS FOR LOCAL MEASURING SURFACE RESISTANCE ON MILLIMETER WAVES	Leksikov A. A. Daviduk A. A. Kovalenko A. A.	Institute of Physics	Krasnoyarsk	Russia	743
7.3	MICROWAVE MEASUREMENT OF HIGH LOSS LIQUID PERMITTIVITY IN SMALL VOLUME	Eremenko Z. E. Ganapolskii E. M.	IRE NASU	Kharkov	Ukraine	746
7.4	AN EIGEN Q-FACTOR OF ELECTROMAGNETIC MODES IN SEMI-OPENED WAVEGUIDE JUNCTIONS OF VARIOUS CONFIGURATIONS WITH DIELECTRIC	Zvyagintsev A. A. Strizhachenko A. V. Chizhov V. V. Reshetnyak Y. B.	Kharkov National University	Kharkov	Ukraine	748
7.5	RELATIVE PERMITTIVITY MEASUREMENT USING THE POLARIZATION Z-METER	Berdyshev S. N. Salamatn V. V.	Sevastopol National Technical University	Sevastopol	Ukraine	750
7.6	OPEN RESONANT CELL FOR MEASUREMENT OF MATERIALS PERMITTIVITY AND PERMEABILITY	Brovenko A. V. Miroshnichenko V. S. Melezhik P. N. Senkevich Ye. B.	IRE NASU	Kharkov	Ukraine	752

7.7	COMPLEX PARAMETERS' MEASUREMENT OF A PARALLEL-SIDED PLATE MATERIAL LOCATED IN THE WAVEGUIDE	Salamatin V. V. Lukyanchuk G. A. Lemeshko G. V.	Sevastopol National Technical University	Sevastopol	Ukraine	754
7.8	EXPERIMENTAL DEFINITION OF DIPOLE RESONATOR POLARIZABILITY	Lagarkov A. N. Belokopytov G. V. Semenenko V. N. Syupakov A. V. Chistyayev V. A.	Institute for Theoretical and Applied Electromagnetics RAS, Moscow State University	Moscow	Russia	756
7.9	INVESTIGATION OF THE LOW-LOSS DIELECTRIC MATERIALS IN THE WIDE TEMPERATURE RANGE	Derkach V. N. Golovashchenko R. V. Goroshko O. V. Nedukh S. V. Tarapov S. I.	IRE NASU	Kharkov	Ukraine	758
7.10	THE LAYERED HEMISPHERICAL RESONATOR FOR DIELECTROMETRY	Prokopenko Yu. V. Suvorova O. A. Filippov Yu. F.	IRE NASU	Kharkov	Ukraine	760
7.11	RADIOMETRIC INSPECTION OF STRUCTURE AND PROPERTIES OF DIELECTRIC MATERIALS	Kutsenko V. P. Skripnik U. O. Tregubov M. F. Shevchenko K. L. Janenko O. P.	«Kvarsit» Kiev National University of Technologies and Design	Konstantinivka, Kiev	Ukraine	762
7.12	INVERSE PROBLEM OF SCATTERING IN SCANNING NEAR-FIELD TOMOGRAPHY	Gaikovich K. P.	Institute for Physics of Microstructures RAS	Nizhny Novgorod	Russia	765

SESSION 7/2: WORKFLOW PARAMETERS MEASUREMENT

**SevNTU (Studgorodok)
reading hall 304**

TUESDAY, 11.00-13.00

Co-Chairmen:

V. F. MANOYLOV, Professor

Zhitomir State University of Technology, Ukraine

A. F. YANENKO, Professor

'Vidguk' Research & Development Centre for Quantum Medicine, Ukraine

7.13	DIAGNOSTIC OF THE BOILING BED USING A RESONANCE MICROWAVE PROBE BASED ON THE TWO-WIRE LINE SECTION	Kostrov A. V. Kostrov V. A. Smirnov A. I. Strikovskiy A. V. Yanin D. V.	Institute of Applied Physics, Russian Academy of Sciences	Nizhny Novgorod	Russia	769
7.14	METHOD FOR MEASURING THE PERMITTIVITY OF LIQUID CRYSTALS CONFINED IN POLY-CAPILLARY MATRIX	Drokin N. A. Timashov V. A.	Institute of Physics	Krasnoyarsk	Russia	771
7.15	MICROWAVE METHOD FOR MEASURING CONDUCTIVITY OF NANOMETER METAL FILMS IN MULTILAYER STRUCTURES	Usanov D. Skripal A. Abramov A. Bogolubov A.	Saratov State University	Saratov	Russia	773

7.16	INVESTIGATION OF MAGNETIC INHOMOGENEITY IN Co-FILMS WITH SCANNING FERROMAGNETIC RESONANCE SPECTROMETER	Belyaev B. A. Kiparisov S. Ya. Skomorohov G. V.	Institute of Physics	Krasnoyarsk	Russia	775
7.17	MEASUREMENTS OF SLOW RELAXATION TIMES OF FERROELECTRIC FILMS BY MEANS OF RESONANCE METHOD	Kozyrev A. B. Gaidukov M. M. Gagarin A. G. Altynnikov A. G.	LETI	Saint-Petersburg	Russia	778
7.18	MICROWAVE CONTACTLESS METHOD TO MEASURE THE NONEQUILIBRIUM CARRIERS' EFFECTIVE LIFETIME IN Si WAFERS	Karpovich I. A. Adakimchik A. V. Kozlova E. I. Odzhaev V. B. Yankovsky O. N.	Belorussian State University	Minsk	Belarus	780
7.19	GRAZING INCIDENCE REFLECTIVITY TECHNIQUE OF HTS AND RELATED MATERIALS MICROWAVE CHARACTERIZATION	Gubin A. I. Lavrinovich A. A. Cherpak N. T.	IRE NASU	Kharkov	Ukraine	782
7.20	WAVEGUIDE DIELECTRIC RESONATOR METHOD FOR MEASURE MICROWAVE DIELECTRIC FILMS PROPERTIES	Kotelnikov I. V. Buslov O. Yu. Keis V. N. Kozyrev A. B.	Saint-Petersburg State Electro Technical University	Saint-Petersburg	Russia	784
7.21	MEASUREMENT OF MOBILE PHONE AND MICROWAVE OVEN EFFECTIVE RADIATION	Ruhovec O. V. Dzisiak A. B. Gusinskiy A. V.	BSUIR	Minsk	Belarus	786

SESSION 7/3: CIRCUITS & SIGNALS PARAMETERS MEASUREMENT

**SevNTU (Studgorodok)
reading hall 304**

TUESDAY, 14.00-16.00

Co-Chairmen:

Yu. B. GUIMPILEVICH, Professor

Sevastopol National Technical University, Ukraine

A. V. GUSINSKY, C.Sc.

Belarus State University of Informatics and Radioelectronics, Minsk

7.22	THE WAY OF MEASUREMENT OF THE TWO-PORT NETWORK STABILITY INVARIANT FACTORS	Filinyuk N. A. Ogorodnik K. V. Lishchinskaya L. B. Shveykina S. E. Lazarev A. A.	Vinnitsa National Technical University	Vinnitsa	Ukraine	791
7.23	EXACT RECIPROCAL FORMULATION FOR RIGOROUS MODELING OF BROADBAND WAVEGUIDE BOLOMETRIC SYSTEMS IN TRANSMITTING MODE	Yurchenko V. B. Yurchenko E. V.	National University of Ireland IRE NASU	Maynooth Kharkov	Ireland Ukraine	793

7.24	MEASUREMENT OF DISPERSIVE RESPONSES OF WAVEGUIDES WITH DIELECTRIC FILLING	Chukhov V. V.	Zhytomyr State Technological University	Zhytomyr	Ukraine	795
7.25	SPECIALIZED MICROWAVE NETWORK ANALYZER	Alekseev A. S. Barov A. A. Roshchin K. N. Oulianov V. N. Fedorchuk I. D.	Micran Co.	Tomsk	Russia	797
7.26	ALGORITHM OF FULL CALIBRATION OF SWITCHING TRANSDUCER OF REFLECTION COEFFICIENT	Gimpilevich Yu. B. Smailov Yu. Ya.	SevNTU	Sevastopol	Ukraine	799
7.27p	ANALYSIS OF SYMMETRIC 12-POLE PROPERTIES	Trushkin A. N.	SevNTU	Sevastopol	Ukraine	801
7.28p	1420 MHz MICROWAVE RADIOMETER	Skulachev D. P. Rukavicyan A. F.	Space Research Institute (IKI)	Moscow	Russia	803
7.29p	POWER TRANSDUCERS REALIZED ON THE FLAT BELOW-CUTOFF WAVEGUIDE FILLED WITH DIELECTRIC FOR MICROWAVE CONVERTERS OF COMPLEX PARAMETERS	Gimpilevich J. B. Lashchenko I. V. Noskovich V. I. Ovcharov P. P.	Sevastopol National Technical University	Sevastopol	Ukraine	805
7.30p	REMOTE CALIBRATION SYSTEM FOR AUTOMATIC CIRCUIT ANALYZERS	Gusinskiy A. V. Deryabina M. Yu. Gusynina Yu. A. Kostrikin A. M. Tolochko T. K.	BSUIR	Minsk	Belarus	807
7.31p	CALIBRATOR FOR LOW POWER WATTMETERS CALIBRATION IN 37,5-178,6 GHZ FREQUENCY RANGE	Gusinski A. V. Kostrikin A. M. Derjabina M. Yu. Ruchovets O. V. Gousuinina J. A. Novik I. V.	BSUIR	Minsk	Belarus	809
7.32p	EXPERIMENTAL INVESTIGATION OF SIGNAL DELAY IN A MULTISCALE RETRANSMISSION METER	Velichko D. A. Levantovsky V. Yu. Roenko A. N.	IRE NASU	Kharkov	Ukraine	811
7.33p	PM 0.01+20.00 GHZ POWER ABSORPTION METER	Hurlo Yu. Ye. Voroshen A. V. Gusinskiy A. V. Kostrikin A. M.	BSUIR	Minsk	Belarus	813
7.34p	THE EFFICIENCY FACTOR UNCERTAINTY ESTIMATE OF POWER METERS	Tolochko T. K. Voroshen A. V. Galiglo A. V. Gusinski A. V. Kostrikin A. M. Rombak S. M.	BSUIR	Minsk	Belarus	815
7.35p	HARDWARE AND SOFTWARE COMPLEX FOR MM-WAVE SPECTROSCOPIC RESEARCH	Golovashchenko R. V. Goroshko O. V. Varavin A. V. Plevako A. S. Derkach V. N.	IRE NASU	Kharkov	Ukraine	817

SESSION 7/4: ANTENNA MEASUREMENTS AND APPLICATIONS

**SevNTU (Studgorodok)
reading hall 304**

TUESDAY, 16.30-18.00

Co-Chairmen:
V. A. USIN, Professor
Kharkov National University of Radioelectronics, Ukraine
I. L. AFONIN, C.Sc.
Sevastopol National Technical University, Ukraine

7.36	SPATIALLY DISTRIBUTED MULTI-PROBE SYSTEM IN PHASED ARRAY MEASUREMENTS	Usin V. A. Markov V. I. Rozhnayatskaya L. V. ² Usina A. V.	KhNURE, Ukrspetstechnika	Kharkov Kiev	Ukraine	821
7.37	ABSORBING PROPERTIES OF SEPARATE SECTIONS OF COMPACT ANTENNA POLYGON IN MICROWAVE BAND	Ol'shevskiy A. L. Popel' V. M. Kostenko G. A. Ovsyanikov V. V.	Yuzhnoe State Design Office Dnepropetrovsk National University	Dnepropetrovsk	Ukraine	823
7.38	PROVISION ELECTROMAGNETIC SAFETY AT REALIZATION THE ANTENNA MEASUREMENTS	Hurlo Y. E. Gusinskiy A. V. Belsky A. Y. Kostrikin A. M.	BSUIR	Minsk	Belarus	825
7.39	MEASUREMENTS OF SMALL DOPPLER FREQUENCY SHIFTS USING MICROWAVE HOMODYNE VELOCIMETERS	Shirokov I. B. Serbin A. M. Arutyunyan M. L. Palgov F. Ye.	SevNTU	Sevastopol	Ukraine	827
7.40	K-BAND WAVEGUIDE BRAGG STRUCTURES	Danilov V. Oliyrik V.	National University of Kyiv	Kiev	Ukraine	830
7.41p	MEASURING ANTENNAS OF 17,44-37,5 GHz BAND	Kasimenko V. B. Kopusov V. N. Gordeev A. N.	«MNIPI»	Minsk	Belarus	832
7.42p	ELECTRIC FIELD DISTRIBUTION IN A BACKLASH OF THE COAXIAL RESONATOR OF A MICROWAVE MICROSCOPE	Poletaev D. A. Taran Ye. P. Shadrin A. A.	Tavrical National University	Simferopol	Ukraine	833
7.43p	SWITCHABLE DELAY LINE MODULE	Babkovsky A. Seleznev N.	Center Measuring Systems	Nizhny Novgorod	Russia	835
7.44p	SINGLE-FREQUENCY TUNABLE LASER FOR CAESIUM FREQUENCY STANDARD	Zhuravleva O. V. Ivanov A. V. Isaev D. S. Leonovich A. I. Kurnosov V. D. Kurnosov K. V. Chernov R. V. Shishkov V. V. Pleshnikov S. A.	«Polus»	Moscow		837
7.45p	SIX-CHANNEL SWITCHED NOISE GENERATOR	Vladimirov V. M. Vink A. V. Kulinich S. N. Shihov Yu. G. Novichenkov V. M.	Krasnoyarsk scientific center of RAS	Красноярск	Russia	839

7.46p	COMPUTER-AIDED FREQUENCY SYNTHESIZER FOR MILLIMETER BAND QUASI-OPTICAL ESR-SPECTROMETER	Varavin A. V. Ermak G. P. Nedukh S. V. Poznahirev P. I. Tarapov S. I. Khodzitskiy M. K.	IRE NASU	Kharkov	Ukraine	841
7.47p	THE PHASE STATISTICAL CHARACTERISTICS FOR THE SIGNAL REFLECTED FROM FLUCTUATING REFLECTOR AT THE RETRANSMISSION METHOD	Vdovychenko Y. I. Velichko D. A.	IRE NASU	Kharkov	Ukraine	843
7.48p	AUTOMATED CALIBRATION OF SATELLITE COMMUNICATION SET SOLID-STATE AMPLIFIERS	Ivanov D. S. Doronichev Yu. V. Tarasenko V. M.	«ELSOV»	Moscow	Russia	845
7.49p	HARDWARE-SOFTWARE SOLUTION FOR THE DEVELOPMENT OF MULTILEVEL DISTRIBUTED INFORMATION-MEASURING AND CONTROL SYSTEMS	Belous A. I. Vlasov V. V. Demchenko A. I. Yemelyanov V. A. Syakerskiy V. S.	“Integral”	Minsk	Belarus	847

SESSION 9/1: RADIOASTRONOMY AND EARTH ATMOSPHERE INVESTIGATION

**SevNTU (Studgorodok)
reading hall 310**

TUESDAY, 8.30-10.30

Co-Chairmen:

L. I. TSVETKOV, D.Sc.

Crimean Astrophysical Observatory, Katsiveli, Ukraine

Dr. Kees van't KLOOSTER

ESA-Estec, Noordwijk, The Netherlands

9.0	SPIN-OFF OF ADVANCED SPACE TECHNOLOGY: ACCURATE REFLECTOR PANELS FOR SUB MM RADIO TELESCOPE ANTENNAS	Kees van 't Klooster	ESA Estec	Noordwijk	Netherlands	935
9.1	EMISSION TIME OF SOLAR NOISE STORM RADIO BURSTS	Yurovsky Y. F. Yurovsky Y. Y.	Crimean astrophysical observatory	Nauchnyy,	Ukraine Crimea	938
9.2	THE SPECTRAL OBSERVATIONS IN 18-cm HYDROXYL EMISSION LINE WITH RT-22 CrAO	Volvach A. E. Volvach L. N. Strepka I. D.	Crimean Astrophysical Observatory	Yalta	Ukraine	940
9.3	5 GHz RECEIVER FOR MASER SOURCES OBSERVATIONS WITH RT-22 CrAO	Volvach A. E. Volvach L. N. Strepka I. D. Shulga V. M.	Crimean Astrophysical Observatory, Radio Astronomical Institute of NASU	Yalta	Ukraine Kharkov	942

9.4	MICROWAVE SPECTROMETER 85...115 GHz FREQUENCY BAND FOR MASER LINES OBSERVATIONS ON RT-22	Zubrin S. J. Antyufeev A. V. Korolev A. M. Myshenko V. V. Myshenko A. V. Pidyachiy V. I. Shulga V. M.	Institute for Radio Astronomy Ukrainian Academy of Sciences	Kharkov	Ukraine	944
9.5	THE MICROWAVE HELIOSPECTROMETER ACTING MODEL WITH THE PARALLEL ANALYSIS OF RECTIFIED SIGNAL	Syreyschikov V. P. Fridman V. M.	Research Radio Physical Institute	Nizhny Novgorod	Russia	946
9.6	OUTPUT EQUIPMENT OF RADIOMETERS FOR RT-2 RADIO TELESCOPE OF THE SRI CrAO SUN SERVICE	Tsvetkov L. I. Syreyschikov V. P.	Crimean Astrophysical Observatory, Research Radio-physical Institute	Nauchny, Crimea Nizhny Novgorod	Ukraine Russia	948
9.7	IDENTIFICATION OF CORONAL HOLES ON THE SUN BY OBSERVATIONS AT THE RT-22 SRI CrAO	Tsvetkov L. I. Samisko S. A.	Crimean Astrophysical Observatory	Nauchny, Crimea	Ukraine	950
9.8	EXPERIMENTAL INVESTIGATIONS OF THE ELECTRON DENSITY VARIATIONS IN THE MIDDLE LATITUDE IONOSPHERIC D-REGION DURING A SOLAR ECLIPSE	Gokov A. M. Gritchin A. I. Tyrnov O. F.	Karazin National University	Kharkov	Ukraine	952
9.9	THE FACILITY FOR REMOTE SENSING OF THE NEAR-EARTH SPACE ENVIRONMENT	Garmash K. P. Kostrov L. S. Rozumenko V. T. Tsymbal A. M. Tyrnov O. F.	Karazin National University	Kharkov	Ukraine	954

SESSION 9/2: WAVES PROPAGATION IN EARTH ATMOSPHERE

SevNTU (Studgorodok)
reading hall 310

TUESDAY, 11.00-13.00

Co-Chairmen:

V. V. PUSTOVOYTENKO, C.Sc.

Marine Hydrophysical Institute, NASU, Sevastopol, Ukraine

V. V. PARSHIN

Institute of Applied Physics of RAS, Nizhny Novgorod, Russia

9.10	DEPOLARIZATION BY BACK-SCATTERING OF RADIO WAVES AT THE ATMOSPHERE INHOMOGENEITIES	Petrov V. A. Sheyko S. A. Anohin V. I.	KhNURE	Kharkov	Ukraine	959
9.11	ANGULAR DISTRIBUTION OF SCATTERED FIELD INTENSITY BEYOND THE RADIO HORIZON	Petrov V. A. Zhukova I. A. Anohin V. I.	KhNURE	Kharkov	Ukraine	961

9.12	INFLUENCE OF DIRECTIONAL PATTERN REAL SHAPE ON LONG-DISTANCE TROPOSPHERIC PROPAGATION	Mytsenko I. M. Khalamejda D. D. Khomenko S. I.	IRE NASU	Kharkov	Ukraine	963
9.13	APPLICATION OF HALF-ACTIVE METHODS FOR METEOR BURST RADIO-CHANNEL RESEARCH	Antipov I. E. Koval Ju. A. Obelchenko V. V. Saprykin A. V.	KhNURE	Kharkov	Ukraine	965
9.14	EXPANSION OF THE APPLICATION FIELDS AND DEVELOPMENT PERSPECTIVES OF METEOR BURST RADIO COMMUNICATION AND SYNCHRONIZATION	Antipov I. E.	KhNURE	Kharkov	Ukraine	967
9.15	MEASUREMENT OF THE MESOPAUSE DYNAMIC PARAMETERS OF LOWER THERMOSPHERE USING ACCESSIBLE RADIO FREQUENCY RESOURCES	Oleynikov A. N. Sosnovchik D. M.	KhNURE	Kharkov	Ukraine	969
9.16	STATISTICAL PROPERTIES OF THE PROPAGATION LOSSES OF THE RADIO WAVES, CALCULATED BY OKAMURA-HATA MODELS	Metelsky A. K.	BSUIR	Minsk	Belarus	971
9.17	THE ABSORPTION INVESTIGATION OF MM AND SUBMM WAVES BY METHODS OF PRECISE RESONATOR SPECTROSCOPY	Parshin V. V. Tretyakov M. Yu. Koshelev M. A. Kukin L. M. Koval I. A. Myasnikova S. E.	Institute of Applied Physics RAS	Nizhny Novgorod	Russia	973
9.18	MATHEMATICAL MODEL OF THE ATMOSPHERE OF THE GROUND IN RANGE MMW	Bobrov I. N. Pizuyk D. L.	UKRKOSMOS	Kiev	Ukraine	975

SESSION 9/3: RADIOTELESCOPES AND EARTH REMOTE SENSING

**SevNTU (Studgorodok)
reading hall 310**

TUESDAY, 14.00-16.00

Co-Chairmen:

Yu. I. MACHUYEV, D.Sc.

Special Mechanical Engineering Design Office, Saint-Petersburg, Russia

V. G. GIMMELMAN

Special Mechanical Engineering Design Office, Saint-Petersburg, Russia

9.19	REFLECTING SURFACE FORM DISTORTION OF THE MIRROR ELEMENT OF RADIO ANTENNA	Machujev Yu. I. Gimmelman V. G.	Special Mechanical Engineering Design Office «KBSM»	Saint-Petersburg	Russia	979
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9.20	COMPENSATION OF DEVIATIONS FROM HOMOLOGY OF RT-70 RADIO TELESCOPE MAIN MIRROR	Olskaya S. G. Bondarev A. V. Mozgov A. P. Gimmelman V. G.	JSC «Special Mechanical Engineering Design Office»	Saint-Petersburg	Russia	981
9.21	DEFORMATIONS OF ELEMENTS OF THE REFLECTING SURFACES OF THE 70-METER ANTENNA INSTALLATION CAUSED BY CLIMATIC FACTORS	Kosheleva S. M. Andreyev P. P. Bondarev A. V. Gimmelman V. G.	JSC «Special Mechanical Engineering Design Office»	Saint-Petersburg	Russia	983
9.22	LONGITUDINAL SYNTHETIC APERTURE BISTATIC RADIOMETER FOR THE EARTH SURFACE OBSERVATION	Bunyaeva I. V. Vereschak A. P.	KhAI, SRI for Radio Engineering Measurements	Kharkov	Ukraine	985
9.23	UNIVERSAL L- BAND SATELLITE INFORMATION RECEIVER OF THE EARTH DISTANT ZONDING	Efimov A. G. Panin V. F. Los' V. O.	SPRUT	Moscow	Russia	987
9.24	RESONANT METHOD FOR THE DETERMINATION OF PERMITTIVITY OF ICE	Kirichenko A. Ya. Kogut A. E.	IRE NASU	Kharkov	Ukraine	**

SESSION 9/4: RADIO-DETECTION TECHNIQUES

**SevNTU (Studgorodok)
reading hall 310**

TUESDAY, 16.30-18.00

Co-Chairmen:

I. N. PRUDIUS, D.Sc.

National University "Lviv polytechnic", Ukraine

K. A. LUKIN, Professor

Usikov Institute of Radio-Physics and Electronics at NASU, Kharkov, Ukraine

9.25	CONGRUENCE METHOD FOR SIDELOBE CONTROL IN SAR IMAGES	Glamazdin V. V. Skresanov V. N. Lukin K. A.	IRE NASU	Kharkov	Ukraine	991
9.26	APPLICATION OF PENDULUM SWING MODEL FOR EXPLANATION OF RADIOWAVES BACKSCATTERING FROM BIOLOGICAL OBJECTS IN SHF AND HF WAVEBANDS	Lutsenko V. I. Lutsenko I. V. Khlopov G. I.	IRE NASU	Kharkov	Ukraine	993
9.27	SPECTRAL ANALYSIS OF FOOT-PASSENGER DYNAMIC MODEL	Alexeyev G. A. Belobrova M. V.	IRE NASU	Kharkov	Ukraine	995
9.28	POLARIZATIONARY-SPECTRAL OBJECTS SELECTION ON THE SEA SURFACE BACKGROUND	Lutsenko V. I.	IRE NASU	Kharkov	Ukraine	997
9.29	IMAGE FUSION IN WIDEBAND PASSIVE SATELLITE MONITORING SYSTEMS BASED ON MULTILEVEL APPROACH	Prudyus I. N. Lazko O. V. Lazko L. V. Semenov S. A.	Lviv Polytechnic National University	Lviv	Ukraine	999

9.30	RESEARCH AIRBORNE SYSTEM FOR REMOTE SENSING IN MM-RANGE OF RADIO-WAVES	Khrustalev A. A. Egorov S. N.	Center Measuring System Research Institute	Nizhny Novgorod	Russia	1001
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THURSDAY, 14 SEPTEMBER

2nd PLENARY SESSION
SevNTU (14, Gogolya str.), assembly hall

THURSDAY, 8.30-10.30

Co-Chairmen:

A. A. KURAYEV, Professor

Belarus State University of Informatics and Radioelectronics, Minsk

A. N. BRATCHIKOV, Professor

Moscow Aviation Institute (Technical University), Russia

INV.2	NEW ELEMENTARY BASE OF RPC «INTEGRAL» FOR MODERN DIGITAL AUTOMATIC TELEPHONE STATIONS. SAMPLES OF DIGITAL AUTOMATIC TELEPHONE STATIONS PRODUCED IN BELARUS AND CIS COUNTRIES	Emelyanov V. A. Vecher D. V. Sviridovich V. S.	Research and Production Corporation «Integral»	Minsk	Belarus	3
INV.3	CREATION AND DEVELOPMENT OF GROUND SURVEILLANCE RADARS IN A CIVIL AVIATION OF RUSSIA	Nechaev E. E.	Moscow State Technical University of Civil Aviation	Moscow	Russia	6
INV.4	MULTICAVITY MAGNETRONS WITH COLD SECONDARY EMISSION CATHODE: ACHIEVEMENTS, PROBLEMS, PERSPECTIVES	Yeryomka V. D. Kopot' M. A. Kulagin O. P. Gritsaenko S. V. Naumenko V. D. Suvorov S. N.	IRE NASU, Institute of Radio Astronomy NASU	Kharkov	Ukraine	18
INV.5	TV IOT: ACHIEVEMENTS AND PROSPECTS	Galdetskiy A. V. Korolev A. N.	FSUE «ISTOK»	Fryazino	Russia	37

ROUND TABLE DISCUSSION: BIOPHYSICAL MECHANISMS OF LOW-INTENSIVE MM-WAVES INFLUENCE ON HUMAN ORGANISM

ROUND TABLE SESSION
SevNTU (14, Gogolya str.), assembly hall

THURSDAY, 11.00-13.00

Co-Chairmen:

M.Ye. ILCHENKO, Corresponding Member of NASU, Professor
National Technical University of Ukraine "KPI", Kiev
M. P. BATURA, Professor
Belarus State University of Informatics and Radioelectronics, Minsk
A. N. BRATCHIKOV, Professor
Moscow Aviation Institute (Technical University), Russia

Thesis

prepared by O. V. BETSKY on behalf of CriMiCo'2005
Institute of Radioengineering & Electronics RAS, CC "MTA-KVCh", Moscow, Russia

1. Physical mechanisms of biological structures high sensitivity to mm-waves. Biological objects thermal radiation. Electromagnetic background. Acoustic-electric oscillations. Froelich oscillations in cell plasmatic membranes. Stochastic resonance. Regenerative amplification. Synergetics and electromagnetic fields. Biological structures fractality. Convective motion of water blanket. Evaluation of extremely low value of radiation power density.

2. Primary targets on skin surface layers. The role of skin anatomic structures – receptors, nerve-endings, immune-competent cells, capillaries, etc. Thin sheets of water (proteins aqution, non-additive waves absorption in aqueous solutions, "water memory", water surface layer structurization under the influence of mm-waves). Microthermal heating of skin surface layers at mm-waves irradiation, microthermal temperature gradients, skin receptors microthermal "massage".

3. The role of central nervous system in biological effects realization. Neurocomputing.

4. Basic physics of quantum medicine

WORKSHOP W/1: TRAINING OF RADIOENGINEERS AND SPECIALISTS IN THE FIELD OF TELECOMMUNICATIONS

SESSION of WORKSHOP
SevNTU (14, Gogolya str.), assembly hall

THURSDAY, 14.00-16.00

Co-Chairmen:

A. A. SLOBODYANYUK, Professor
Sevastopol National Technical University, Ukraine
Yu. B. GIMPILEVICH, Professor
Sevastopol National Technical University, Ukraine

W.1	MAIN ASPECTS OF SYSTEMS	Ilchenko M. Ye.	'Kiev Polytechnic	Kiev	Ukraine	43
	APPROACH TO DISTANCE	Lebedev O. N.	Institute'			
	LEARNING MANAGEMENT	Ladik A. I.	National Technical			
		Globa L. S.	University of Ukraine			
		Davidenko Ye. A.				

W.2	LABORATORY MICROCONTROLLER DEBUG SYSTEMS OF ML TYPE	Semenets V. V. Kruk O. J.	Kharkov National University of Radio-electronics	Kharkov	Ukraine	45
W.3	ELECTRONIC COURSE FOR THE DISTANCE EDUCATION ON THE COMMUNICATION SYSTEMS CAD	Bezrukh V. M.	Kharkiv National University of Radio-electronics	Kharkov	Ukraine	49
W.4	ADVANTAGES AND DISADVANTAGES OF INFORMATIONAL TECHNOLOGIES	Kochina M. L. Chumakov V. I. Budianskay E. N. Kochin O. V.	KhNURE, SRI of Labour Hygiene and Occupational Diseases	Kharkov	Ukraine	51
W.5	THE RESULTS OF RESEARCHING OF DYNAMICS FUNCTIONAL INDEXES OF VISUAL SYSTEM AND STUDENT'S PSYCHO PHYSIOLOGICAL INDEXES IN THE WORKING PROCESS ON THE COMPUTER	Kochina M. L. Chumakov L. I. Saykovskay L. F. Lad S. N. Javorskiy A. V. Kovtun M. I.	KhNURE, Kharkov State Medical University	Kharkov	Ukraine	54
W.6	PROMOTION OF CREATIVITY AND SOLUTION OF COMPLICATED SCIENTIFIC-AND-ENGINEERING PROBLEMS USING KNOWLEDGE TRANSPLANTATION METHOD	Podlubny V. A. Podlubny A. A.	National Technical University of Ukraine«KPI»	Kiev	Ukraine	56
W.7	ELECTRONIC TRAINING MANAGEMENT	Davidenko E. A.	NTUU «KPI»	Kiev	Ukraine	58
W.8	INTERACTION OF FUZZY DYNAMIC COGNITIVE TRAINING MODELS WITH LINGVOLOGICAL PREFERENCE PATTERN MODELS	Silov V. B.	Data C Co. Ltd., Sevastop Mercury M, Ltd stopol	Seva-	Ukraine	60

WORKSHOP W/2: COMMON PROBLEMS OF HIGH SCHOOL PEDAGOGICS

SESSION of WORKSHOP

THURSDAY, 16.30-18.00

SevNTU (14, Gogolya str.), assembly hall

Co-Chairmen:

A. A. SLOBODYANYUK, Professor
Sevastopol National Technical University, Ukraine

A. GAVJIK, Professor
Opole University, Poland

W.9p	THE ASSURANCE OF QUALITY OF EDUCATION IN CONTEXT THE HIGHER EDUCATION REFORMING PROCESS (BOLOGNA PROCESS)	Barski T.	Opole University	Opole	Poland	65
W.10p	MOTIVATION OF HEALTHY LIFE-STYLE IN TECHNICAL UNIVERSITIES	Ionov V. A. Lysenko R. B. Slobodyanuk A. A.	Sevastopol National Technical University stopol	Seva-	Ukraine	68

W.11p	CONTROL OF SPECIALISTS TRAINING QUALITY IN TECHNICAL UNIVERSITIES	Sukhinina O. A.	Donbass State Technical University	Alchevsk	Ukraine	**
W.12p	SPECIFIC FEATURES OF THE RATING SYSTEM OF THE KNOWLEDGE LEVEL ESTIMATE	Poddubny V. A. Poddubny A. A.	National Technical University of Ukraine «KPI»	Kiev	Ukraine	71
W.13p	MODERNIZATION OF HIGHER EDUCATION: PROBLEMS AND DECISIONS	Shtelmakh G. B.	Krivoy Rog State Pedagogical University	Krivoy Rog	Ukraine	73
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W.15p	DEVELOPING CREATIVE POTENTIAL OF STUDENTS BY MEANS OF MODULE-AND-BLOCK METHODS IN A HIGHER EDUCATIONAL ESTABLISHMENT	Kondrashova L. V.	Krivoy Rog State Pedagogical University	Krivoy Rog	Ukraine	77
W.16p	SOME PECULIARITIES OF MULTI-LEVEL STRUCTURE OF EDUCATION IN MODERN HIGHER SCHOOL AND IN THE LIGHT OF BULOGNE PROCESS	Kravtsova I. A.	Krivoy Rog State Pedagogical University	Krivoy Rog	Ukraine	80
W.17p	CREATIVENESS AS A FORMING BASE OF A FUTURE SPECIALIST'S CREATIVE POTENTIAL IN HIGHER SCHOOL EDUCATIONAL PROCESS	Adzhumerova L. A.	Industrial-and-Pedagogical University	Simferopol	Ukraine	82
W.18p	MODERN REQUIREMENTS TO THE EDUCATION'S CONTENT IN THE CONTEXT OF BOLOGNA PROCESS	Dmitrieva V. F. Samoilenko P. I.	Moscow State University Of Technology and Management	Moscow	Russia	85
W.19p	CREATIVE PSYCHOPEDEAGOGICS AS CREATIVE TREND IN PSYCHOLOGICAL SCIENCE AND PRACTICE	Vishnyakova N.	Institute of Psychology of Opol University	Ополе	Польша	88
W.20p	CREATIVE TRAINING IN DESCRIPTIVE GEOMETRY	Sereda V. G.	SevNTU	Sevastopol	Ukraine	91
W.21p	EDUCATIONAL TRAINING OF STUDENTS MAJORING IN ECOLOGICAL ENGINEERING: THE EXPERIENCE OF THE SEVASTOPOL NATIONAL TECHNICAL UNIVERSITY	Golovko O. N. Pechenkina Ye. V.	SevNTU	Sevastopol	Ukraine	93
W.22p	FORMATION OF THE CREATIVE PERSON OF TEACHER DURING STUDYING «PEDAGOGICS» IN PEDAGOGIC UNIVERSITY	Beshevec L. V. Kopylova O. N.	Krivoy Rog State Pedagogical University	Krivoy Rog	Ukraine	96

W.23p	EDUCATIONAL PROBLEMS IN TECHNICAL INSTITUTIONS AND POSSIBLE WAYS OF THEIR SOLVING	Negrash V. G.	SevNTU	Sevastopol	Ukraine	98
W.24p	SOME ASPECTS OF PEDAGOGICAL COMMUNICATION	Vasil'ev A. P. Lysenko R. B. Nikiforova M. P.	SevNTU	Sevastopol	Ukraine	100
W.25p	INTENSIFICATION OF DIFFERENT SPHERES OF EDUCATIONAL ACTIVITIES IN HIGH SCHOOL	Baibakov R. A. Lysenko R. B. Podgorecki J.	SevNTU Pedagogical Institute of Opole University	Sevastopol Opole	Ukraine Poland	103

FRIDAY, 15 SEPTEMBER

SESSION 1/4: MONOLITHIC INTEGRATED CIRCUITS

**SevNTU (Studgorodok)
aud. Festo**

FRIDAY, 8.30-10.30

Co-Chairmen:

A. A. KISTCHINSKY, C.Sc.

"Microwave systems" Close Corporation, Moscow, Russia

N. F. KARUSHKIN, C.Sc.

SRI "Orion", Kiev, Ukraine

1.34	X-BAND MMIC LOW NOISE AMPLIFIERS	Krutov A. V. Rebrov A. S.	«Istok»	Fryazino	Russia	183
1.35	FULL-SCALE FAMILY OF DISCRETE GAAS STEERING CIRCUITS	Bogdanov Y. M. Galdetskiy A. V. Krasnik V. A. Lapin V. G. Luk'yanov V. A. Temnov A. M. Scherbakov F. E.	«Istok»	Fryazino	Russia	185
1.36	GaAs WIDEBAND TWO-STAGE POWER AMPLIFIER, COVERING 8 – 18 GHZ FREQUENCY BAND	Zykova G. S. Mjakishev U. B. Rakov Yu. N. Chibaev V. P. Budakov V. G.	«Oktava»	Novosibirsk	Russia	187
1.37	GaAs MMIC SPDT SWITCHER WITH ON-CHIP DRIVERS	Barov A. A.	Micran Co.	Tomsk	Russia	189
1.38	GaAs MMIC PIN DIODES SPDT SWITCHER	Barov A. A. Gushchin S. M.	Micran Co.	Tomsk	Russia	191
1.39	INTEGRATION OF DEPLETION- AND ENHANCEMENT-MODE AlGaAs/GaAs MESFET FOR HIGH-SPEED MMIC APPLICATION	Gusenкова A. V. Shulenkova A. S. Maleev N. A. Mikhrin V. S. Kuzmenkov A. G. Vasil'ev A. P. Kulagina M. M. Zhukov A. E.	Minsk R&D Institute of Radiomaterials, A. F. Ioffe Phys.-Techn. Inst.	Minsk Saint-Petersburg	Belarus Russia	193

1.40	3.0–4.5 GHz GaAs MMIC VARIABLE PHASE SHIFTER 0–45°	Tolstolutsky S. I. Popov M. A. Tolstolutskaia A. V. Lee A. I. Kazatchkov V. V.	Research Institute of Rostov-Radiocommunications	Russia	195
1.41	DC – 6 GHz GaAs MMIC SPDT SWITCH	Tolstolutsky S. I. Popov M. A. Tolstolutskaia A. V. Lee A. I. Kazatchkov V. V. Komor V. P.	Research Institute of Rostov-Radiocommunications	Russia	197
1.42	DC–3 GHz GaAs MMIC VARIABLE ATTENUATOR	Popov M. A. Tolstolutsky S. I. Sinyavskiy G. P. Lerer A. M. Labunko O. S.	Rostov State University	Rostov-on-Don	Russia 199
1.43	BROADBAND MONOLITHIC DIGITAL ATTENUATOR FOR X-BAND PHASED ARRAY	Radchenko A. Radchenko V. Kistchinsky A. Buterin A.	FSUE CNIRTI Microwave systems JSC «ALMAZ-FAZATRON»	Moscow Saratov	Russia 201
1.44	BROADBAND MONOLITHIC PHASE SHIFTER FOR X-BAND PHASED ARRAY	Radchenko A. Radchenko V. Buterin A.	FSUE CNIRTI «ALMAZ-FAZATRON»	Moscow Saratov	Russia 203
1.45	LOW-NOISE AMPLIFIER FOR 84-100 GHz	Sunduchkov I. K.	Saturn JSC	Kiev	Ukraine 205

SESSION 1a: SOLID STATE DEVICES CAD/CAM

**SevNTU (Studgorodok)
aud. Festo**

FRIDAY, 11.00-13.00

Co-Chairmen:

B. N. SHELKOVNIKOV, C.Sc.

NTUU "Kiev Polytechnic Institute", Ukraine

A. A. KISTCHINSKY, C.Sc.

"Microwave systems" Close Corporation, Moscow, Russia

1a.1	A CAD TOOL FOR SYNTHESIS OF MATCHING NETWORKS BASED ON GENETIC ALGORITHM	Babak L. I. Vjushkov V. A.	TUCSR, Micran Co.	Tomsk	Russia	209
1a.2	INTEGRATION OF MATCHING NETWORK SYNTHESIS TOOL INTO MICROWAVE OFFICE DESIGN ENVIRONMENT	Sheherman F. I. Baryshnikov A. S. Nehoroshev M. V. Vjushkov V. A. Babak L. I.	TUCSR, Micran Co.	Tomsk	Russia	211
1a.3	«VISUAL» DESIGN OF 1.5-2.5 GHz MMIC LOW-NOISE AMPLIFIER	Cherkashin M. V. Babak L. I.	TUCSR, Micran Co.	Tomsk	Russia	213

1a.4	MATCHING NETWORKS ETCHED ON HIGH DIELECTRIC CONSTANT SUBSTRATES FOR POWER MESFET MODELING	Galdetskii A. V. Klimova A. V. Manchenko L. V. Pashkovskii A. B. Pchelin V. A. Silin R. A. Chepurnykh I. P.	R&PC «Istok»	Fryazino	Russia	215
1a.5	TWO-LAYER BROADBAND WIRELESS COMMUNICATIONS TRACT OF TRANSCIEVER MODELLING	Apostolov O. V. Shelkovnikov B. N.	National Technical University of Ukraine «Kiev Politechnical Institute»	Kiev	Ukraine	217
1a.6	HARMONIC BALANCE TECHNIQUE IN CONTEXT OF FUNCTIONAL HARDWARE VERIFICATION	Serdyuk G. Shelkovnikov B.	Telecommunication Systems Institute, NTU «KPI»	Kiev	Ukraine	220
1a.7	MODELING OF THE HETEROSTRUCTURE FIELD-EFFECT TRANSISTOR WITH QUANTUM DOTS	Timofeyev V. I. Faleyeva E. M.	National Technical University of Ukraine «KPI»	Kiev	Ukraine	222
1a.8	EXPLANATION OF UNUSUAL DEPENDENCE OF GATE-DRAIN BREAKDOWN VOLTAGE ON GATE POTENTIAL IN SUBMICRON MESFETS	Buvaylik E. V. Martynov Y. B. Pogorelova E. W.	FSUE RPC «Istok»	Fryazino	Russia	224
1a.9	UNLOCAL HEAT GENERATION PICUALITIERS IN HIGH POWER SUBMICROMETER GATE FET'S	Dudinov K. V. Ippolitov V. M. Pashkovsky A. B.	FSUE RPC «Istok»	Fryazino	Russia	226
1a.10	THE SPECTRUM OF CURRENT OSCILLATIONS OF GUNN DIODES WITH THE IMPACT IONIZATION IN MOVING DOMAINS	Pavlenko D. V. Prokhorov E. D.	Kharkiv National University	Kharkov	Ukraine	228
1a.11	GENERATION OF OSCILLATIONS IN MM- AND SUB-MM-RANGES BY GUNN-DIODES ON THE BASE OF THE ALLOY VARIBAND A_3B_5 SEMICONDUCTOR	Arkusha Yu. V. Prokhorov E. D. Storozhenko I. P.	Kharkov National University	Kharkov	Ukraine	230

**SESSION 5a/1: TECHNOLOGY OF MATERIALS & MICROWAVE DEVICES BASED ON
ADVANCED PHYSICAL PRINCIPLES**

**SevNTU (Studgorodok)
reading hall 206**

FRIDAY, 8.30-10.30

Co-Chairmen:

A. I. DEMCHENKO, D.Sc.

Research and Production Corporation «Integral», Minsk, Belarus

Yu. M. POPLAVKO, Professor

National Technical University of Ukraine «KPI», Kiev

5a.1	MOLECULAR BEAM EPITAXY OF HETEROSTRUCTURES ON THE BASIS OF III-V MATERIALS FOR UHF TRANSISTORS	Zhuravlev K. S. Toropov A. I. Mansurov. V. G.	Institute for Semiconductor Physics SB RAS	Novosibirsk	Russia	589
5a.2	FORMATION OF MAGNETOELECTRONIC INTEGRAL DEVICES USING THE «SYSTEM ON CHIP» PRINCIPLE	Vlasov V. V. Bez'yazychnaya A. V. Lukoyanov S. A. Plebanovich V. I.	Research and Production Corporation «Integral»	Minsk	Belarus	591
5a.3	RADIO ABSORPTION MATERIALS ON THE BASIS OF FILLED POLYMERS	Kolesov V. V. Petrova N. G. Fionov A. S. Gorshenev V. N. Kulikovskiy E. I.	IRE RAS, NPP «Radiostrim»	Moscow	Russia	594
5a.4	FERRITE-PIEZOELECTRIC COMPOSITES FOR MICROWAVE DEVICES	Bichurin M. I. Petrov V. M. Tuskov D. S. Belyshev A. A. Srinivasan G. Nan C. W.	Novgorod State University Oakland University Tsinghua University	Veliky Novgorod Rochester Beijing	Russia USA China	596
5a.5	MDM MICROWAVE VARACTORS BASED ON FERROELECTRIC THIN FILMS	Kozyrev A. B. Gaidukov M. M. Gagarin A. G. Tumarkin A. V. Razumov S. V. Altynnikov A. G.	LETI	Saint-Petersburg	Russia	598
5a.6	DEVELOPMENT OF PIEZOOPERATED DIELECTRIC PHASE SHIFTER	Poplavko Y. Golubeva I. Prokopenko Y.	National Technical University of Ukraine	Kiev	Ukraine	600
5a.7	THICKNESS DEPENDENCES OF FERROMAGNETIC RESONANCE IN SINGLE-AXIS BARIUM HEXAFERRITES	Kostenko V. I. Chamor T. G. Chevnyuk L. V. Sorochak A. M.	Taras Shevchenko Kyiv National University	Kiev	Ukraine	604
5a.8	PECULIARITY OF ALUMINIUM ANODIZATION IN MALONIC ACID SOLUTION	Golovataya S. V. Mozalev A. M. Poznyak A. A.	BSUIR	Minsk	Belarus	606

5a.9	INFLUENCE OF INITIAL SILICON DEFECTS ON PROCESSES OF THE DIOXIDE SILICON DEFECT FORMATION	Smytyna V. Kulinich O. Glauberan M. Chemeresuk G. Yatsunskiy I. Sviridova O.	Mechnikov Odessa National University	Odessa	Ukraine	608
5a.10	MICROWAVE MICROELECTRONIC DEVICES BASED ON ARTIFICIAL TRANSMISSION LINES WITH NEGATIVE DISPERSION	Kapitanova P. Serebryakova E. Kholodnyak D. Vendik I.	LETI	Saint-Petersburg	Russia	610
5a.11	3D RFID TAG INVARIANT TO ITS ORIENTATION	Turalchuk P. A. Kholodnyak D. V. Vendik I. B. Mikhailov A. B. Dudnikov S. Yu.	LETI, Aero Solutions	Saint-Petersburg	Russia	613

**SESSION 5a/2: PHYSICAL PROPERTIES OF MATERIALS & MICROWAVE DEVICES
BASED ON ADVANCED PHYSICAL PRINCIPLES**

**SevNTU (Studgorodok)
reading hall 206**

FRIDAY, 11.00-13.00

Co-Chairmen:
A. B. KOZYREV, Professor
Saint-Petersburg Electrotechnical University, Russia
Yu. M. POPLAVKO, Professor
National Technical University of Ukraine "KPI", Kiev

5a.12	ANALYSIS OF FERROELECTRIC-BASED NONLINEAR TRANSMISSION LINES FOR PULSE SHAPING DEVICES	Mikhailov A. K. Samoilova T. B.	LETI	Saint-Petersburg	Russia	619
5a.13	STRUCTURAL FUNCTIONS OF ELECTROMAGNETIC COUPLING OF THE MAGNETODIELECTRIC SPHERE RESONANCE GRATING	Kozar A. I.	KhNURE	Kharkov	Ukraine	621
5a.14	THE TEMPERATURE DEPENDENCE OF REFLECTION COEFFICIENT OF ABSORBER LAYER ON BASE OF HEXAFERRITES SYSTEMS $Co_{2-x}Zn_xW$	Suslyae V. I. Dotsenko O. A.	Tomsk State University	Tomsk	Russia	623
5a.15	MICROWAVE SIGNAL PROCESSING USING DIPOLE-EXCHANGE SPIN WAVES IN FERRITE SPHERES	Melkov G. A. Vasyuchka V. I. Dzyapko D. A. Chumak A. V.	National Taras Shevchenko University of Kiev	Kiev	Ukraine	625
5a.16	PARAMETRIC INTERACTION OF SIGNALS IN RESONANT TRANSMISSION LINE ON MAGNETOSTATIC WAVES	Grishin S. V. Sharaevsky Yu. P.	Saratov State University	Saratov	Russia	627

5a.17	FORMATION OF STRUCTURES UNDER PARAMETRIC COUPLING OF TWO-DIMENSIONAL NONLINEAR PULSES OF MAGNETOSTATIC WAVES IN MAGNETIC FILMS	Rapoport Yu. G.	Kiev National Taras Shevchenko University	Kiev	Ukraine	629
5a.18	HIGH QUANTUM EFFICIENCY OF INTERSUBBAND TRANSITION ON COMBINED PARITY LEVELS IN TRIPLE-BARRIER STRUCTURES	Pashkovskii A. B.	«Istok»	Fryazino	Russia	631
5a.19	NANOSECOND RELAXATION IN GaAs	Moskalyuk V. A. Kulikov K. V.	NTUU «KPI»	Kiev	Ukraine	633
5a.20	PECULIARITIES OF GATE DESIGN AND INFLUENCE ON PHEMT CHARACTERISTICS	Koslovsky E. Y. Seleznev B. I. Schteingart A. P.	R&P «Planeta-Argall»	Velikiy Novgorod	Russia	635
5a.21	AUTOMATED COORDINATOGRAPH FOR MANUFACTURE OF MICROSTRIP CIRCUITS	Agafonov K. V. Belyaev B. A. Leksikov A. A.	Institute of Physics	Krasnoyarsk	Russia	637
5a.22	FULL-CYCLE SYSTEM REALIZATION FOR MICROWAVE STRIPLINE CAD IN LambdaMDS	Danilochkina E. N. Pronina G. A. Sergeev A. A.	Almaz Scientific Industrial Corporation	Moscow	Russia	639
5a.23p	PHYSICS-TECHNOLOGICAL FABRICATION FEATURES AND PARAMETERS OF InP MM-WAVE GUNN DIODES	Arsentiev I. N. Belyaev A. E. BobyI A. V. Boltovets N. S. Ivanov V. N. Kovtonyuk V. M. Konakova R. V. Kudryk Ya. Ya. Milenin V. V. Tarasov I. S. Markovskiy E. P. Red'ko R. A. Russu E. V.	Ioffe Physico-Technical Institute RAN, Institute of Semiconductor Physics NASU, SRI "Orion", 4Institute of Applied Physics ANM	Saint-Petersburg Kiev Кишинев	Russia Ukraine Молдова	642
5a.24p	HEAT-RESISTANT Au-TIB _x -n-GaN SCHOTTKY DIODES	Belyaev A. E. Boltovets N. S. Ivanov V. N. Kladko V. P. Konakova R. V. Kudryk Ya. Ya. Kuchuk A. V. Lytyyn O. S. Milenin V. V. Sveshnikov Yu. N.	Institute of Semiconductor Physics NASU, SRI "Orion", «Elma-Malakhit»	Kiev Zelenograd	Ukraine Russia	644

SESSION 5b/1: NANOSTRUCTURES PHYSICS AND SIMULATION

**SevNTU (Studgorodok)
reading hall 304**

FRIDAY, 8.30-10.30

Co-Chairmen:

I. A. OBUKHOV, C.Sc.

Interface-MFG Co., Moscow, Russia

I. I. ABRAMOV, Professor

Belarus State University of Informatics and Radioelectronics, Minsk

5b.1	CONTACT AREAS INFLUENCE ON QUANTUM WIRES ELECTRIC CHARACTERISTICS	Obukhov I. A. Kvjatkevich I. I. Lavrenchuk A. A.	Interface-MFG	Moscow	Russia	649
5b.2	EFFECT OF THE QUANTUM WIRE'S EMITTER CONTACT COOLING	Obukhov I. A.	Interface-MFG	Moscow	Russia	655
5b.3	CALCULATION OF ELECTRON MOBILITY IN THIN UNDOPED GaAs QUANTUM WIRES	Pozdnyakov D. V. Borzdov A. V. Galenchik V. O. Borzdov V. M.	Belarus State University	Minsk	Belarus	657
5b.4	INFLUENCE OF GATE BIAS ON SURFACE ROUGHNESS SCATTERING RATE IN GaAs/AIAs TRANSISTOR STRUCTURE	Borzdov A. V. Pozdnyakov D. V. Galenchik V. O. Borzdov V. M.	Belarus State University	Minsk	Belarus	659
5b.5	SIMULATION OF SINGLE-ELECTRON SILICON-BASED STRUCTURES USING PHYSICAL MODELS	Abramov I. I. Baranov A. L.	BSUIR	Minsk	Belarus	661
5b.6	SIMULATION OF ISLANDS SIZE INFLUENCE ON IV-CHARACTERISTICS	Abramov I. I. Lavrinovich A. M.	BSUIR	Minsk	Belarus	663
5b.7	SIMULATION OF GaAs/ Al-GaAs RTD USING ONE-BAND COMBINED MODEL	Abramov I. I. Goncharenko I. A.	BSUIR	Minsk	Belarus	665
5b.8	THE INFLUENCE OF «LACING» INTERFACE POSITIONS ON I-V CHARACTERISTICS FOR RTD COMBINED MODEL	Abramov I. I. Goncharenko I. A. Kolomejtseva N. V.	BSUIR	Minsk	Belarus	667
5b.9	VACANCIES IN NANOTUBES AND FULLERENES	Griadun V. I.	Zaporozhye National Technical University	Zaporozhye	Ukraine	669
5b.10p	MODELLING NEW ACTIVE MEDIA BASED ON METAMATERIALS WITH ARTIFICIAL MOLECULES	Rapoport Yu. G. Malnev V. N. Kanevskiy V. I. Boardman A. D. King N. J. Velasco L.	Kiev National Taras Shevchenko University University of Information and Communication Technologies Joule Physics Laboratory Salford University of Salford	Kiev	Ukraine	671

SESSION 5b/2: NANO-ELECTRONICS AND NANOTECHNOLOGY APPLICATION

**SevNTU (Studgorodok)
reading hall 304**

FRIDAY, 11.00-13.00

Co-Chairmen:

I. I. ABRAMOV, Professor

Belarus State University of Informatics and Radioelectronics, Minsk

I. A. OBUKHOV, C.Sc.

Interface-MFG Co., Moscow, Russia

5b.11	SYNTHESIS OF NICKEL NANOWIRES IN ANODIC ALUMINA PORES	Gorokh G. Mozalev A. Solovei D. Sakharuk V.	BSUIR	Minsk	Belarus	673
5b.12	PECULIARITY OF ALUMINIUM ANODIZATION IN SULPHOSALICYLIC ACID SOLUTIONS	Kleschenko I. V. Rezvanova M. O. Poznyak A. A.	BSUIR	Minsk	Belarus	675
5b.13	METAL-POLYMERIC NANOSTRUCTURED MATERIALS	Kolesov V. V. Petrova N. G. Fionov A. A. Dotsenko I. P. Yurkov G. Yu.	IRE RAS, Institute of General and Inorganic Chemistry, RAS	Moscow	Russia	677
5b.14	SYNTHESIS AND PHOTOLUMINESCENCE OF LANTHANIDE-DOPED XEROGELS IN MESOPOROUS MATRIX	Gaponenko N. V. Borisenko V. E. Unuchek D. M. Maliarevich G. K. Stepikhova M. V. Krasilnikova L. V.	BSUIR, Institute for Physics of Microstructures RAS	Minsk Nizhny Novgorod	Belarus Russia	679
5b.15	INFLUENCE OF ALUMINIUM ON PHOTOLUMINESCENCE OF ERBIUM-DOPED TITANIA XEROGEL	Tsyrukunov D. A.	BSUIR	Minsk	Belarus	682
5b.16	SUPERCONDUCTING SINGLE-PHOTON DETECTOR FOR NEAR- AND MIDDLE IR WAVELENGTH RANGE	Smirnov K. Korneev A. Minaeva O. Divochij A. Rubtsova I. Antipov A. Ryabchun S. Okunev O. Milostnaya I. Chulkova G. Voronov B. Kaurova N. Seleznev V. Korotetskaya Yu. Gol'tsman G.	Moscow State Pedagogical University	Moscow	Russia	684

5b.17	SUPERCONDUCTING HOT ELECTRON BOLOMETER MIXER FOR MIDDLE IR RANGE	Svechnikov S. I. Finkel M. I. Maslennikov S. N. Vachtomin Yu. B. Smirnov K. V. Seleznev V. A. Korotetskaya Yu. P. Kaurova N. S. Voronov B. M. Gol'tsman G. N.	Moscow State Pedagogical University	Moscow	Russia	686
5b.18	QUASIOPTICAL HOT ELECTRON BOLOMETER MIXERS BASED ON THIN NBN FILMS FOR TERAHERTZ REGION	Vachtomin Yu. B. Antipov S. V. Maslennikov S. N. Smirnov K. V. Polyakov S. L. Zhang W. Svechnikov S. I. Kaurova N. S. Grishina E. V. Voronov B. M. Gol'tsman G. N.	Moscow State Pedagogical University	Moscow	Russia	688
5b.19	PARAMAGNETIC PROPERTIES OF MICROCRYSTALLINE SYNTHETIC DIAMOND POWDERS	Azarko I. I. Dutov A. G. Odzhaev V. B. Tolstykh P. V. Yankovsky O. N.	Belarusian State University	Minsk	Belarus	690
5b.20	STUDIES OF DEFECTFORMATION IN A-C: H FILMS, FABRICATED BY MEANS OF DUAL INDUCTIVE-CAPACITY SYSTEM	Tolstykh P. V. Karpovich I. A. Azarko I. I. Poukhovoi A. Buck V.	Belarusian State University, University of Duisburg-Essen	Minsk Essen	Belarus Germany	692

SESSION 8a/1: MEDICAL AND ECOLOGICAL APPLICATIONS

**SevNTU (Studgorodok)
reading hall 310**

FRIDAY, 8.30-10.30

Co-Chairmen:

S. P. SIT'KO, Professor

'Vidguk' Research & Development Centre for Quantum Medicine, Ukraine

O. V. BETSKY, Professor

Institute of Radioengineering and Electronics RAS, "MTA-KVCh", Moscow, Russia

8a.1	HUMAN GENOME REALIZATION FROM THE VIEWPOINT OF PHYSICS OF THE ALIVE	Sit'ko S. P.	Scientific Research Center of Quantum Medicine "VIDHUK"	Kiev	Ukraine	897
8a.2	QUANTUM MEDICINE AND THE AGE-RELATED PATHOLOGY	Chayalo P. P. Grubnik B. P.	Scientific Research Center of Quantum Medicine "VIDHUK"	Kiev	Ukraine	901

8a.3	APPLICATION OF RADIO-LOCATION METHODS IN RADIO FREQUENCY AND OPTICAL BANDS TO DETECT HUMAN LIVING TISSUE PATHOLOGIES	Verba V. S. Gandurin V. A. Gudkov A. G. Leushin V. Yu. Plushev V. A.	Corporation «Vega», Moscow HYPERION LTD.	Russia	903
8a.4	QUICK DIAGNOSTICS OF HUMAN BLOOD CONDITION BY MEANS OF GAS-DISCHARGE VISUALIZATION METHOD	Kolomiyetz R. A.	Zhytomyr State Technological University	Zhytomyr	Ukraine 905
8a.5	DIAGNOSTICS OF THE BODY CONDITION BY THERMAL FIELDS DISTRIBUTION	Azarkhov A. Yu. Sakalo S. N.	Kharkiv National University of Radioelectronics	Kharkov	Ukraine 907
8a.6	METHOD OF COMPLEX DIAGNOSTICS OF BIOTECHNICAL OBJECTS' CONDITION	Klotchko T.	NTUU "Kyiv Politechnical Institute"	Kiev	Ukraine 909
8a.7	A MICROWAVE RADIOMETRY TECHNIQUE FOR DYNAMIC MONITORING OF THERMOREGULATION SYSTEM USING RT-01 'NATALKA' RADIO THERMOMETER	Bulgakov V. I. Bulgakova N. V. Sakalo S. N.	Kharkiv National University of Radio Electronics	Kharkov	Ukraine 911
8a.8	DYNAMICS OF MOTOR SYSTEM FUNCTIONAL STATE DURING MICROWAVE RESONANCE THERAPY	Grubnik B. P. Rusanova T. J. Bajandina E. I. Chajalo P. P.	Centre of the quantum medicine «Vidguk», Institute of Traumatology and Orthopaedy of Ukraine	Kiev	Ukraine 913

SESSION 8a/2: MEDICAL AND ECOLOGICAL APPLICATIONS

**SevNTU (Studgorodok)
reading hall 310**

FRIDAY, 11.00-13.00

Co-Chairmen:

V. F. MANOYLOV, Professor

Zhitomir State University of Technology, Ukraine

A. F. YANENKO, Professor

'Vidguk' Research & Development Centre for Quantum Medicine, Ukraine

8a.9	SEPARATE ACTION OF E- AND H-COMPONENTS OF ELECTROMAGNETIC FIELD AT THE BUCCAL EPITHELIUM CELLS	Sirenko S. P. Grigoreva N. N. Fisun A. I. Belous O. I.	IRE NASU, National University of Kharkov	Kharkov	Ukraine 915
8a.10	NON-HEME IRON METABOLISM INDEXES IN NEWBORN INFANTS OF VARIOUS GESTATIONAL AGE IN EARLY NEONATAL PERIOD	Pyasetskaya N. M. Orlova T. A. Dudchenko N. A.	Academy of Post-graduate Education OHMATDET Institute for Applied Problems of Physics and Biophysics, NASU	Kiev	Ukraine 917

8a.11	METROLOGICAL SUPPLY OF LOW-INTENSITY MICRO-WAVE EQUIPMENT FOR MEDICAL APPLICATION	Yanenko A. F. Matsibura A. P. Peregudov S. N. Krasiuk A. D.	Center of Quantum Medicine «VIDHUK» Centre for Standardization, Certification and Quality	Kiev	Ukraine	919
8a.12	SUBMINIATURE OSCILLATORY MODULES FOR MILLIMETER-WAVE THERAPY AND TECHNOLOGY FOR THEIR MANUFACTURING	Yatsunenکو A. G. Dzhevinsky V. P. Vintman Z. L. Pokataev V. N.	Institute of Technical Mechanics NASU and NSAU State Design Office «Yuzhnoye»	Dnepropetrovsk	Ukraine	921
8a.13	APPLICATION OF EHF EM-WAVE REFLECTOMETERS IN MEDICAL DIAGNOSTICS	Ivanovskaya A. V. Krylov V. M. Rudko B. F.	Center of Quantum Medicine «VIDHUK»	Kiev	Ukraine	923
8a.14	INFLUENCE OF CONSTANT AND REVOLVING MAGNETIC FIELD ON VIABILITY OF DROSOPHILA AT EMBRYONIC STAGE AND ON CHROMATIN STATE IN HUMAN CELLS	Pasyuga V. N. Grabina V. A. Shckorbatov Y. G.	Kharkov National University	Kharkov	Ukraine	925
8a.15	EFFECTS OF MM-WAVE EMR ON METABOLIC ACTIVITY OF HUMAN LYMPHOCYTES EXPOSED TO IONIZING RADIATION IN VITRO	Asayenok I. S. Valenko V. S. Drobot S. V. Sergiyenko T. F. Svirnovskiy A. I.	BSUIR Center of Hematology and Transfusiology	Minsk	Belarus	927
8a.16	EHF-THERAPY EQUIPMENT	Betsky O. V. Lebedeva N. N. Yaremenko Yu. G.	IRE RAN, «MTA-EHF»	Moscow	Russia	930

3rd CLOSING SESSION

PLENARY SESSION

SevNTU (Studgorodok), aud. 420

FRIDAY, 15.00-16.00

Co-Chairmen:

M. Ye. ILCHENKO, Corresponding Member of NASU, Professor

National Technical University of Ukraine "KPI", Kiev

P. P. YERMOLOV, C.Sc.

Sevastopol-Inform Ltd., Sevastopol, Ukraine

Change of views, Conference decree.
Presentation of Organizing Committee Prizes.