

III International Seminar with elements of scientific school for young scientists (ISHM-III)

“Topical issues of heat and mass transfer at phase transitions and multiphase flows in modern chemical technology and energy equipment”

October 08-09, 2015

Novosibirsk, Russia

PROGRAM

Kutateladze Institute of Thermophysics SB RAS (IT SB RAS)
Tianjin University (TJU)
Russian Scientific Foundation (RSF)

BRIEF DESCRIPTION:

International Seminar **ISHM-III** will be held in Novosibirsk at the Kutateladze Institute of Thermophysics SB RAS **08-09 October 2015**. At the seminar the invited topical reports and oral presentations on the key issues of heat and mass transfer at phase transitions and multiphase flows with application to the development and design of modern chemical technology apparatuses and energy equipment will be presented.

The International Seminar with elements of scientific school for young scientists will be held two times in one year at support of the **Russian Science Foundation** of the Project No. 14-49-00010 "*Comprehensive investigation of relationship between self-organization of the flows and non-equilibrium interfacial heat and mass transfer under the conditions of multiscale interaction relating to development of high technologies in distillation and energy equipment*". The first seminar (ISHM-I) held on December 1-2, 2014 in the Kutateladze Institute of Thermophysics.

Organizations:

- [Kutateladze Institute of Thermophysics SB RAS \(Novosibirsk, Russia\)](#)
- [Tianjin University \(TJU, r. Tianjin, China\)](#)
- [Russian Science Foundation \(Moscow, Russia\)](#)

Seminar dates: 08-09 October 2015

Location: Kutateladze Institute of Thermophysics, 630090, Russia, Novosibirsk, Acad. Lavrentiev ave. 1.

TOPICS

The scope of the Seminar covers the following areas:

- Multiscale transfer processes at multiphase flows
- Wave processes and heat and mass transfer at the liquid film flows
- Heat and mass transfer at distillation, including that of the structured packing
- Interface instability in multiphase flows
- Boiling and evaporation of single-component liquids and their mixtures. Heat and mass transfer enhancement methods
- Low-temperature thermophysics
- Contemporary techniques and methods of thermophysical and hydro-gas-dynamic experiment
- Ecological problems in power engineering and chemical technology

LANGUAGES

Working language of the Seminar - English. Presentation of the reports should be prepared in English in format of PowerPoint.

PROCEEDINGS

Abstracts of the ISHM-II and ISHM-III will be published to the Third International Seminar ISHM-III.

REGISTRATION DESK

Registration fee for participants is not provided.

| | | |
|-----------------------|------------|---|
| 08 October (Thursday) | 9:00-15:00 | Kutateladze Institute of Thermophysics, 3rd floor |
| 09 October (Friday) | 9:00-12:00 | Kutateladze Institute of Thermophysics, 3rd floor |

COMMITTEES

Chair

Corr. Member of RAS A.N. Pavlenko (IT SB RAS, Novosibirsk, Russia)

Co-Chairs

Prof. V.V. Kuznetsov (IT SB RAS, Novosibirsk, Russia)
Prof. X. Li (Tianjin University, Tianjin, China)

Scientific Secretary

Ph.D A.S. Surtaev (IT SB RAS, Novosibirsk, Russia)

CONTACTS

630090, Novosibirsk, acad. Lavrentiev ave. 1
Kutateladze Institute of Thermophysics SB RAS
tel. (383) 328-43-87 Seminar Chair – Corr. Member of RAS Pavlenko Aleksandr Nikolaevich
tel. (383) 330-87-00 mob. +79137559769 Scientific Secretary – Ph.D. Surtaev Anton Sergeevich
e-mail ishm@itp.nsc.ru
web <http://www.itp.nsc.ru/conferences/ishm3/index.html>

LIST OF PARTICIPANTS

In total 33 Russian scientists, 23 foreign scientists and 57 young scientists, post-graduates, full-time students of Novosibirsk State University (NSU) and Novosibirsk State Technical University (NSTU) will take part in the Seminar.

Russian scientists

1. A.N. Pavlenko (Corr. Member of RAS, doctor of sciences, head of laboratory, IT SB RAS);
2. D.M. Markovich (Corr. Member of RAS, doctor of sciences, deputy Director, IT SB RAS, NSU);
3. V.V. Kuznetsov (Professor, doctor of sciences, head of department, IT SB RAS);
4. O.A. Kabov (Professor, doctor of sciences, head of laboratory, IT SB RAS);
5. S.A. Isaev (Professor, doctor of sciences, Saint Petersburg State University of Civil Aviation, Saint Petersburg, Russia)
6. A.L. Kupershtokh (Professor, doctor of sciences, head of laboratory, Lavrentyev Institute of Hydrodynamics of SB RAS, Novosibirsk);
7. D.A. Medvedev (Candidate of sciences, senior researcher, Lavrentyev Institute of Hydrodynamics of SB RAS, Novosibirsk);
8. V.M. Aniskin (Khristianovich Institute of Theoretical and Applied Mechanics, Novosibirsk, Russia)
9. Farakhov T.M. (LLC EPC "Inzhekhim", Kazan);
10. Laptev A.G. (FGBOU VPO "Kazan State Power Engineering University", Kazan);
11. A. S. Stoporev (Nikolaev Institute of Inorganic Chemistry, Novosibirsk, Russia);
12. A.Yu. Manakov (Nikolaev Institute of Inorganic Chemistry, Novosibirsk, Russia);
13. S.I. Lezhnin (Doctor of sciences, leading researcher, IT SB RAS);
14. Basharov M.M. (FGBOU VPO "Kazan State Power Engineering University", Kazan);
15. I.V. Marchuk (Doctor of sciences, leading researcher, IT SB RAS);
16. A.D. Nazarov (Doctor of sciences, leading researcher, IT SB RAS);
17. M.I. Nizovtsev (Doctor of sciences, head of laboratory, IT SB RAS);
18. N.I. Pecherkin (Candidate of sciences, senior researcher, IT SB RAS);
19. V.E. Zhukov (Candidate of sciences, senior researcher, IT SB RAS);
20. S.P. Aktershev (Candidate of sciences, senior researcher, IT SB RAS);
21. V.I. Zhukov (Candidate of sciences, associate professor, NSTU);
22. E.A. Lapteva (FGBOU VPO "Kazan State Power Engineering University", Kazan);
23. E.Ya. Gatapova (Candidate of sciences, senior researcher, IT SB RAS);
24. V.I. Kalita (Baikov Institute of Metallurgy and Materials Science, Moscow, Russia);
25. D.I. Komlev (Baikov Institute of Metallurgy and Materials Science, Moscow, Russia);
26. A.A. Radyuk (Baikov Institute of Metallurgy and Materials Science, Moscow, Russia);
27. A.Yu. Ivannikov (Baikov Institute of Metallurgy and Materials Science, Moscow, Russia);
28. A.N. Sterlyagov (Candidate of sciences, senior researcher, IT SB RAS);
29. Yu.V. Lyulin (Research fellow, IT SB RAS; Tomsk Polytechnic University, Tomsk, Russia);
30. I.P. Starodubtseva (Candidate of sciences, Research fellow, IT SB RAS);
31. A.S. Shamirzaev (Candidate of sciences, senior researcher, IT SB RAS);
32. O.A. Volodin (Candidate of sciences, Research fellow, IT SB RAS);
33. V.Yu. Borodulin (Leading engineer, IT SB RAS).

Foreign scientists

1. X. Li (Professor, Tianjin University, School of Chemical Engineering and Technology, NERCCT Director, "National PeiYang Distillation Tech. Eng. Limited Company" Director, China);
2. B. Jiang (Professor, Tianjin University, School of Chemical Engineering and Technology, NERCCT Deputy Director, China);
3. H. Sui (Ph.D. in Chemical Engineering, Associate Professor in School of Chemical Engineering and Technology, Tianjin University, China);
4. L. Zhang (PhD in Chemical Engineering, Professor, School of Environmental Science and Engineering, Tianjin-Basic Chemical Experiments Dept., Tianjin University, China);
5. H. Li (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
6. X. Gao (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);

7. Na Yang (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
8. Pengfei Liu (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
9. Qiaoyu Liu (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
10. L. Fu (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
11. Zhen Han (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
12. K. Hanjalić (Professor, Delft University of Technology, Delft, Netherlands);
13. J.C. Legros (Professor, Université Libre de Bruxelles, Brussels, Belgium);
14. S. Sunder (PhD, research engineer, "Air Products and Chemicals, Inc.", Allentown, USA);
15. G. Meski (PhD, research engineer, "Air Products and Chemicals, Inc.", Allentown, USA);
16. P. Houghton (PhD, research engineer, "Air Products and Chemicals, Inc.", Allentown, USA);
17. Y. Kawazoe (Professor, Tohoku University, Sendai, Japan);
18. D. Eskin (Senior researcher, Schlumberger DBR Technology Center, Edmonton, Canada);
19. F. Varnik (ICAMS, Ruhr University, Bochum, Germany);
20. I. Steinbach (ICAMS, Ruhr University, Bochum, Germany);
21. A. Graur (Professor, Aix-Marseille Université, Marseille, France);
22. F. Sharipov (Professor, Universidade Federal do Paraná, Curitiba, Brazil);
23. V.S. Ajaev (Professor, Southern Methodist University, Dallas, USA);

Young scientists, post-graduates, students

1. I.A. Kozulin (Candidate of sciences, Research fellow, IT SB RAS);
2. A.S. Surtaev (Candidate of sciences, Senior Researcher, IT SB RAS);
3. M.V. Bartashevich (Candidate of sciences, Research fellow, IT SB RAS);
4. M.S. Makarov (Candidate of sciences, Research fellow, IT SB RAS);
5. M.V. Shestakov (Engineer, IT SB RAS);
6. A.Yu. Sakhnov (Candidate of sciences, Research fellow, IT SB RAS);
7. S.A. Safonov (Post-graduate, research engineer, IT SB RAS);
8. M.V. Timoshevskiy (Post-graduate, research engineer, IT SB RAS);
9. K.S. Pervunin (Research fellow, IT SB RAS);
10. A.Yu. Kravtsova (Post-graduate, research engineer, IT SB RAS);
11. A.N. Chernyavskiy (Research engineer, IT SB RAS);
12. V.S. Serdyukov (Post-graduate, research engineer, IT SB RAS);
13. A.V. Meleshkin (Post-graduate, research engineer, IT SB RAS);
14. D.V. Kuznetsov (Post-graduate, research engineer, IT SB RAS);
15. A.S. Nebuchinov (Post-graduate, IT SB RAS);
16. M.I. Moiseev (Post-graduate, research engineer, IT SB RAS);
17. E.N. Shatskiy (Post-graduate, IT SB RAS);
18. A.A. Borisov (Post-graduate, IT SB RAS);
19. V.V. Guzanov (Engineer, IT SB RAS);
20. A.A. Pil'nik (Post-graduate, IT SB RAS);
21. K.I. Stepanov (Research fellow, IT SB RAS);
22. A.S. Agazhanov (Post-graduate, IT SB RAS);
23. O.A. Gobizov (Post-graduate, IT SB RAS);
24. V.S. Naumkin (Post-graduate, IT SB RAS);
25. S.V. Starinsky (Post-graduate, IT SB RAS);
26. M.A. Serebryakova (Post-graduate, IT SB RAS);
27. A.O. Zamchiy (Post-graduate, IT SB RAS);
28. S.S. Abdurkaripov (Post-graduate, IT SB RAS);
29. E.M. Bochkareva (Post-graduate, IT SB RAS);
30. E.B. Butakov (Post-graduate, IT SB RAS);
31. P.N. Karpov (Post-graduate, IT SB RAS);
32. E.Yu. Slesareva (Post-graduate, IT SB RAS);
33. M.V. Cherdantsev (Post-graduate, IT SB RAS);
34. A.A. Yagodnicina (Post-graduate, IT SB RAS);
35. M.V. Timoshevsky (Post-graduate, IT SB RAS);
36. V.S. Morozov (Post-graduate, IT SB RAS, research engineer, IT SB RAS);
37. A.S. Mordovskikh (Student, NSU, laboratory assistant, IT SB RAS);

38. G.V. Bartkus (Student, NSU, laboratory assistant, IT SB RAS);
39. Yu. Nagaitseva (Student, NSTU);
40. D. Weiss (Student, NSTU);
41. A.A. Shibaev (Student, NSTU);
42. N.A. Demin (Student, NSU, laboratory assistant, IT SB RAS);
43. A.V. Kovalev (Student, NSU, laboratory assistant, IT SB RAS);
44. Z.D. Kravtsov (Student, NSU, laboratory assistant, IT SB RAS);
45. A.S. Kreta (Student, NSU, laboratory assistant, IT SB RAS);
46. S.A. Lizunov (Student, NSU, laboratory assistant, IT SB RAS);
47. A.S. Mitryakov (Student, NSU, laboratory assistant, IT SB RAS);
48. A.V. Mikhaelis (Student, NSU, laboratory assistant, IT SB RAS);
49. I.E. Naidenov (Student, NSU, laboratory assistant, IT SB RAS);
50. S.E. Spesivtsev (Student, NSU, laboratory assistant, IT SB RAS);
51. R.R. Yusupov (Student, NSU, laboratory assistant, IT SB RAS);
52. D.P. Kirichenko (Post-graduate, research engineer, IT SB RAS);
53. P.V. Kungurtsev (Post-graduate, research engineer, IT SB RAS);
54. F.V. Ronshin (Post-graduate, research engineer, IT SB RAS);
55. I.I. Zapryagaev (Post-graduate, research engineer, IT SB RAS);
56. A.P. Vinokurov (Post-graduate, IT SB RAS);
57. R. Osipov (Student, NSTU);

08 OCTOBER (THURSDAY)
Conference Hall of IT SB RAS

| | |
|------------------------------|---|
| 9:00-15:00 | REGISTRATION (Location: Kutateladze Institute of Thermophysics, 3rd floor) |
| 9:00-9:15 | Welcome speech of the Chairman of Seminar Aleksandr N. Pavlenko |
| INVITED PRESENTATIONS | |
| 9:15-9:35 | <u>X. Li, Xin Gao</u> (Tianjin University, National Engineering Research Center of Distillation Technology, Tianjin, China) THE SEPARATION OF THE GAS PRODUCTS FROM LOW TEMPERATURE COAL CARBONIZATION AND WASTE HEAT COMPREHENSIVE UTILIZATION |
| 9:35-9:55 | <u>A.N. Pavlenko, V.E. Zhukov, N.I. Pecherkin, O.A. Volodin, A.D. Nazarov</u> (Kutateladze Institute of Thermophysics SB RAS, Novosibirsk), <u>X. Li, B. Jiang and H. Sui</u> (Tianjin University, Tianjin, China) SEPARATION EFFICIENCY OF THE DISTILLATION COLUMN AT PERIODIC IRRIGATION OF THE STRUCTURED PACKING |
| 9:55-10:15 | <u>Bin Jiang</u> (NERCDT, Tianjin, China), <u>Na Yang, Luhong Zhang</u> (Tianjin University, Tianjin, China) COMPUTATIONAL FLUID DYNAMICS MODELING OF HYDRODYNAMICS OF A NEW TYPE OF FIXED VALVE TRAY |
| 10:15-10:35 | <u>Farakhov T.M.</u> (LLC EPC "Inzhekhim", Kazan), <u>Laptev A.G.</u> (FGBOU VPO "Kazan State Power Engineering University", Kazan) MATHEMATICAL MODELS FOR TRANSFER PHENOMENA IN CHANNELS FILLED WITH RANDOM PACKINGS |
| 10:35-10:55 | COFFEE |
| 10:55-11:15 | <u>A.N. Pavlenko, N.I. Pecherkin, V.E. Zhukov, A.D. Nazarov, O.A. Volodin</u> (Kutateladze Institute of Thermophysics SB RAS, Novosibirsk), <u>S. Sunder, P. Houghton, G. Meski</u> (Air Products and Chemicals, Inc., Allentown, USA) EFFECT OF TURN ANGLE OF STRUCTURED PACKING LAYERS ON SEPARATION EFFICIENCY |
| 11:15-11:35 | <u>Luhong Zhang, Pengfei Liu</u> (Tianjin University, Tianjin, China), <u>Bin Jiang</u> (NERCDT, Tianjin, China) NUMERICAL ANALYSIS OF HYDRODYNAMICS AND MASS-TRANSFER FOR DISTILLATION RIPPLE TRAY |
| 11:35-11:55 | <u>X. Gao, Qiaoyu Liu, Xingang Li, Hong Li</u> (Tianjin University, Collaborative Innovation Center of Chemical Science and Engineering, NERCDT Tianjin, China) A MICROSCOPIC STUDY ON LIQUID FLOW BEHAVIOR IN THE SiC STRUCTURED CORRUGATED SHEETS |
| 11:55-12:15 | <u>H.Li, L.Fu, X. Li, X. Gao</u> (Tianjin University, Collaborative Innovation Center of Chemical Science and Engineering, NERCDT Tianjin, China) MECHANISM AND ANALYTICAL MODELS FOR THE GAS DISTRIBUTION ON THE SIC FOAM MONOLITHIC TRAY |
| 12:15-14:00 | LUNCH |
| 14:00-14:20 | <u>A. S. Stoporev, A.Yu. Manakov</u> (Nikolaev Institute of Inorganic Chemistry, Novosibirsk, Russia), <u>Y. Kawazoe</u> (Kutateladze Institute of Thermophysics SB RAS, Novosibirsk; Tohoku University, Sendai, Japan) SELF-PRESERVATION OF METHANE HYDRATE IN OIL SUSPENSIONS |
| 14:20-14:40 | <u>S.I. Lezhnin</u> (Kutateladze Institute of Thermophysics SB RAS, Novosibirsk), <u>D. Eskin</u> (Schlumberger DBR Technology Center, Edmonton, Canada) FEATURES OF HEAT AND MASS TRANSFER MODELLING IN OIL TRANSPORT PIPELINES |

| | |
|-----------------------------|---|
| 14:40-15:00 | <i>Basharov M.M., Laptev A.G. (FGBOU VPO “Kazan State Power Engineering University”, Kazan), Farakhov M.I. (LLC EPC “Inzhekhim”, Kazan)</i> ENERGY CONSERVATION AND IMPORT SUBSTITUTION AT HEAT AND MASS TRANSFER UNITS IN THE OIL AND GAS CHEMICAL COMPLEX |
| 15:00-15:20 | COFFEE |
| 15:20-15:40 | <i>Hong Sui, Zhen Han, Xingang Li (Tianjin University, Collaborative Innovation Center of Chemical Science and Engineering, NERCDDT Tianjin, China)</i> LOW-TEMPERATURE AND ENERGY CONSERVATION PROCESS FOR FCC ABSORPTION-STABILIZATION SYSTEM |
| 15:40-16:00 | <i>D.A. Medvedev (Lavrentyev Institute of Hydrodynamicsics, Novosibirsk State University, Novosibirsk, Russia), F. Varnik, I. Steinbach (ICAMS, Ruhr University, Bochum, Germany)</i> MESOSCOPIC SIMULATION OF MOBILE DENDRITES IN A FLOW |
| 16:00-16:20 | <i>I.V. Marchuk (Kutateladze Institute of Thermophysics, Novosibirsk, Russia), J.C. Legros (Université Libre de Bruxelles, Brussels, Belgium)</i> THERMOCAPILLARY DEFORMATION AND DRY SPOT FORMATION IN A LOCALLY HEATED THIN HORIZONTAL VOLATILE LIQUID LAYER |
| 16:20-16:40 | <i>Lapteva E.A., Laptev A.G. (FGBOU VPO “Kazan State Power Engineering University”, Kazan)</i> DETERMINING EFFICIENCY OF JET-BARBOTAGE-TYPE MIXERS BASED ON PARAMETERS OF THE ACTIVE REGION |
| CONFERENCE RECEPTION | |

09 OCTOBER (FRIDAY)
Conference Hall of IT SB RAS

| | |
|------------------------------|---|
| 9:00-12:00 | REGISTRATION (Location: Kutateladze Institute of Thermophysics, 3rd floor) |
| INVITED PRESENTATIONS | |
| 9:00-9:20 | <i>V.V. Kuznetsov, S.A. Safonov (Kutateladze Institute of Thermophysics SB RAS, Novosibirsk)</i> FLUID FLOW AND HEAT TRANSFER WITH PHASE CHANGE IN COMPACT HEAT EXCHANGERS |
| 9:20-9:40 | <i>A.L. Kupershtokh (Lavrentyev Institute of Hydrodynamicsics, Novosibirsk State University, Novosibirsk, Russia)</i> DECAY OF DIELECTRIC LIQUID WITH CENTERS OF HETEROGENEITY INTO GAS-VAPOR CHANNELS IN LIQUID |
| ORAL PRESENTATIONS | |
| 9:40-9:55 | <i>E.Ya. Gatapova, O.A. Kabov (Kutateladze Institute of Thermophysics SB RAS, Novosibirsk), I.A. Graur (Aix-Marseille Universite, Marseille, France), V.M. Aniskin (Khristianovich Institute of Theoretical and Applied Mechanics, Novosibirsk, Russia), F. Sharipov (Universidade Federal do Parana, Curitiba, Brazil)</i> MEASUREMENTS WITH UNIQUE MICROTHERMOCOUPLE AND CALCULATIONS OF THE TEMPERATURE PROFILE IN TWO-LAYER MICROSYSTEMS |
| 9:55-10:10 | <i>I.A. Kozulin, V.V. Kuznetsov (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia)</i> NEW APPROACH TO DETERMINING GAS-LIQUID FLOW PATTERN IN MINICHANNEL USING DATA OF LASER FLOW SCANNING |
| 10:10-10:25 | COFFEE |
| 10:25-10:40 | <i>A.S. Surtaev, A.N. Pavlenko, D.V. Kuznetsov, V.S. Serdyukov (Kutateladze</i> |

| | |
|--------------------|---|
| | <i>Institute of Thermophysics, Novosibirsk, Russia), V.I. Kalita, D.I. Komlev, A.A. Radyuk, A.Yu. Ivannikov (Baikov Institute of Metallurgy and Materials Science, Moscow, Russia)</i> MICROPOROUS COATINGS FOR ENHANCEMENT OF HEAT TRANSFER AT POOL BOILING |
| 10:40-10:55 | <i>A.S. Shamirzaev, V.V. Kuznetsov (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> UPFLOW BOILING HEAT TRANSFER IN COMPACT HEAT EXCHANGER WITH PERFORATED FINS |
| 10:55-11:10 | <i>M.I. Nizovtsev, A.N. Sterlyagov, V.Yu. Borodulin (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> EXPERIMENTAL AND NUMERICAL STUDIES OF WATER DROPLET EVAPORATION ON THE POROUS SURFACE |
| 11:10-11:25 | <i>E.Ya. Gatapova, O.A. Kabov (Kutateladze Institute of Thermophysics, Novosibirsk, Russia), V.S. Ajaev (Southern Methodist University, Dallas, USA)</i> DRAG REDUCTION IN TWO-PHASE VISCOUS FLOWS OVER SURFACE WITH NANOCOATING |
| 11:25-11:40 | <i>M.V. Timoshevskiy, S.A. Churkin, K.S. Pervunin, A.Yu. Kravtsova, D.M. Markovich (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia), K. Hanjalić (Delft University of Technology, Delft, Netherlands)</i> UNSTEADY CAVITATING FLOW AROUND A SCALED-DOWN MODEL OF GUIDE VANE OF A FRANCIS TURBINE |
| 11:40-14:00 | LUNCH |
| 14:00-14:15 | <i>V.I. Zhukov (Novosibirsk State Technical University, Novosibirsk, Russia), A.N. Pavlenko (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> EFFECT OF THE HORIZONTAL LAYER HEIGHT ON HEAT TRANSFER AND THE CRITICAL HEAT FLUX IN EVAPORATION OF A FLUID UNDER LOW PRESSURE |
| 14:15-14:30 | <i>Yu.V. Lyulin, O.A. Kabov (Kutateladze Institute of Thermophysics, Novosibirsk, Russia, Tomsk Polytechnic University, Tomsk, Russia), S.E. Spesivtsev (Novosibirsk State University, Novosibirsk, Russia), I.V. Marchuk (Kutateladze Institute of Thermophysics, Novosibirsk State Agrarian University, Novosibirsk, Russia), J.C. Legros (Université Libre de Bruxelles, Brussels, Belgium)</i> BREAKDOWN DYNAMICS OF A HORIZONTAL EVAPORATING LIQUID LAYER WHEN HEATED LOCALLY |
| 14:30-14:45 | <i>A.Yu. Sakhnov (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> INFLUENCE OF LOW PRANDTL NUMBER ON STREAMWISE VELOCITY OVERSHOOT IN THE ACCELERATED BOUNDARY LAYER OVER HEATED WALL |
| 14:45-15:00 | <i>D. Weiss, V.I. Zhukov (Novosibirsk State Technical University, Novosibirsk, Russia), A.N. Pavlenko (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> STUDY OF HEAT TRANSFER AND CRITICAL HEAT FLUX AT EVAPORATION IN A HORIZONTAL LAYER OF LIQUID UNDER CONDITIONS OF REDUCED PRESSURE |
| 15:00-15:15 | COFFEE |
| 15:15-15:30 | <i>S.P. Aktershev, M.V. Bartashevich (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> THE EFFECT OF INTERFACIAL SHEAR STRESS ON GAS-DRIVEN FLOW OF HEATING LIQUID FILM |
| 15:30-15:45 | <i>I.P. Starodubtseva (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> |

| | |
|--------------------|--|
| | FEATURES OF HEAT TRANSFER DURING QUENCHING OF SUPERHEATED SURFACE BY THE FALLING CRYOGENIC LIQUID FILM |
| 15:45-16:00 | <i>A.N. Chernyavskiy, A.N. Pavlenko (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> SIMULATION OF NONSTEADY HEAT TRANSFER IN FALLING WAVY LIQUID FILMS |
| 16:00-16:15 | <i>G.V. Bartkus (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia), V.V. Kuznetsov (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> FILM THICKNESS MEASUREMENTS FOR ELONGATED BUBBLE FLOW IN MICROCHANNEL USING LIF |
| 16:15-16:30 | <i>R. Osipov, V.I. Zhukov (Novosibirsk State Technical University, Novosibirsk, Russia), A.N. Pavlenko (Kutateladze Institute of Thermophysics, Novosibirsk, Russia)</i> STUDY OF THE EVAPORATION MECHANISM OF A THIN LIQUID LAYER UNDER REDUCED PRESSURES |
| 16:30-16:45 | Closing of the Seminar ISHM-III. Results and discussion. |