

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

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

July 12-13, 2018

Novosibirsk, Russia

PROGRAM

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

Novosibirsk – 2018

Web: <http://www.itp.nsc.ru/conferences/ishm7/>

BRIEF DESCRIPTION:

International Seminar **ISHM-VII** will be held in Novosibirsk at the Kutateladze Institute of Thermophysics SB RAS **12-13 July 2018**. 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 \(Tianjin, China\)](#)
- [Russian Science Foundation \(Moscow, Russia\)](#)

Seminar dates: 12-13 July 2018

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 and interface instability 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
- Boiling and evaporation of single-component liquids and their mixtures. Heat and mass transfer enhancement methods
- Low-temperature thermophysics
- New materials including micro-nanocoatings for power engineering and chemical technology
- Contemporary techniques and methods of thermophysical and hydro-gasdynamic 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

The materials of the seminar ISHM VII will be published in a special book of abstracts.

REGISTRATION DESK

Registration fee for participants is not provided.

12 July (Thursday)	9:00-15:00	Kutateladze Institute of Thermophysics, 3rd floor
13 July (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

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

Seminar Secretary

I.V. Gozhenko (IT SB RAS, Novosibirsk, Russia)

CONTACTS

Kutateladze Institute of Thermophysics SB RAS

630090, Novosibirsk, acad. Lavrentiev ave. 1

tel. (383) 328-43-87 Seminar Chair – Corr. Member of RAS Pavlenko Aleksandr Nikolaevich

tel. (383) 330-87-00 Scientific Secretary – Dr. Surtaev Anton Sergeevich

tel. (383) 330-87-00 Seminar Secretary – Gozhenko Irina Vasilievna

e-mail ishm@itp.nsc.ru

web <http://www.itp.nsc.ru/conferences/ishm7/index.html>

LIST OF PARTICIPANTS

In total 23 Russian scientists, 34 foreign scientists and 47 young scientists, post-graduates, full-time students from different scientific, educational and commercial organizations of Russia and China will take part in the Seminar.

Russian scientists

1. A.N. Pavlenko (Corr. Member of RAS, Head of laboratory, IT SB RAS);
2. V.V. Kuznetsov (Professor, Doctor of sciences, Head of department, IT SB RAS);
3. I.I. Gogonin (Professor, Doctor of sciences, Leading researcher, IT SB RAS);
4. V.I. Terekhov (Professor, Doctor of sciences, Head of department, IT SB RAS);
5. A.D. Nazarov (Doctor of sciences, Leading researcher, IT SB RAS);
6. M.I. Nizovtsev (Doctor of sciences, Head of laboratory, IT SB RAS);
7. N.N. Zubkov (Professor, Doctor of sciences, Bauman Moscow State Technical University, Moscow);
8. N.I. Pecherkin (PhD, Senior researcher, IT SB RAS);
9. V.E. Zhukov (PhD, Senior researcher, IT SB RAS);
10. V.I. Zhukov (PhD, Associate professor, NSTU);
11. A.N. Sterlyagov (PhD, Senior researcher, IT SB RAS);
12. O.A. Volodin (PhD, Research fellow, IT SB RAS);
13. V.Yu. Borodulin (Leading engineer, IT SB RAS);
14. V.N. Letushko (Leading engineer, IT SB RAS);
15. B.V. Perepelitsa (PhD, Leading researcher, IT SB RAS);
16. S.V. Dimov (PhD, Senior researcher, IT SB RAS);
17. I.P. Starodubtseva (PhD, Research fellow, IT SB RAS);
18. A.S. Shamirzaev (PhD, Senior researcher, IT SB RAS);
19. D.V. Kozlov (Professor, Scientific Secretary, IC SB RAS);
20. A.V. Okotrub (Professor, Head of laboratory, NIIC SB RAS);
21. V. L. Sennitskii (Doctor of sciences, Senior researcher, LIH SB RAS);
22. A.F. Serov (Doctor of sciences, Leading researcher, IT SB RAS);
23. N.A. Dvornikov (Doctor of sciences, Leading researcher, IT SB RAS).

Foreign scientists

1. X. Li (Professor, Tianjin University, School of Chemical Engineering and Technology, NERCDDT Director, "National PeiYang Distillation Tech. Eng. Limited Company" Director, China);
2. M.Y. Liu (Professor, School of Chemical Engineering and Technology, Tianjin University, Tianjin, China);
3. H. Sui (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
4. H. Li (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
5. X. Gao (Ph.D. in Chemical Engineering, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
6. L. He (PhD, Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China);
7. Ping An (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
8. Jijiang Liu (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
9. Zeli Wang (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
10. Peng Jiang (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
11. Hangxi Liu (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
12. Lingyu Sun (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
13. Zhiqiang Hao (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
14. Jaden Murphy (PhD, Associate Professor, Department of Chemical and Biological Engineering, University of Ottawa, Ottawa, Canada)
15. Ziqi Yang (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);

16. Ashish Jain (PhD, Associate Professor, Department of Chemical and Biological Engineering, University of Ottawa, Ottawa, Canada)
17. Yongli Yang (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
18. Zisheng Zhang (PhD, Associate Prof., School of Chemical Engineering and Technology, Tianjin University, China);
19. Xiaolong Ma (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
20. Hongda Li (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
21. Ning Kang (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
22. Jingjing Zhou (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
23. F. Zhang (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
24. Y. Xu (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
25. M.V. Shugaev (Graduate research assistant, PhD candidate, University of Virginia, Charlottesville, United States);
26. Haifeng Cong (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
27. Zhenyu Zhao (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
28. X. N. Li (PhD. student, School of Chemical Engineering and Technology, Tianjin University, China);
29. Y. J. Li (PhD. student, School of Chemical Engineering and Technology, Tianjin University, China);
30. J. L. Zhu (PhD, Associate Professor, Key Laboratory of Efficient Utilization of Low and Medium Grade Energy, Geothermal Research and Training Center, Tianjin University, China);
31. J.C. Song (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
32. X.X. Sun (PhD student, School of Chemical Engineering and Technology, Tianjin University, China);
33. J. S. Wang (PhD, Associate Prof., Key Laboratory of Efficient Utilization of Low and Medium Grade Energy, Geothermal Research and Training Center, Tianjin University, China);
34. Youyi He (PhD student, School of Chemical Engineering and Technology, Tianjin University, China).

Young scientists, post-graduates, students

1. A.S. Surtaev (PhD, Senior Researcher, IT SB RAS);
2. D.S. Selishchev (PhD, Senior Researcher, IC SB RAS);
3. M.V. Bartashevich (PhD, Research fellow, IT SB RAS);
4. I.A. Kozulin (PhD, Research fellow, IT SB RAS);
5. A.A. Pil'nik (PhD student, IT SB RAS);
6. A.N. Chernyavskiy (Research engineer, IT SB RAS);
7. V.S. Serdyukov (PhD student, Research engineer, IT SB RAS);
8. M.I. Moiseev (Junior researcher, IT SB RAS);
9. E.Yu. Slesareva (Research engineer, IT SB RAS);
10. A.Yu. Sakhnov (PhD, Research fellow, IT SB RAS);
11. V.V. Tumanov (Student, NSU, Laboratory assistant, IT SB RAS);
12. D.V. Kuznetsov (PhD student, Research engineer, IT SB RAS);
13. A.A. Radyuk (PhD student, Baikov Institute of Metallurgy and Materials Science, Moscow);
14. M.A. Vorobyev (PhD student, Research engineer, IT SB RAS);
15. A.N. Safonov (PhD, Senior researcher, IT SB RAS);
16. M.V. Timoshevskiy (PhD student, Research engineer, IT SB RAS);
17. K.S. Pervunin (Research fellow, IT SB RAS);
18. E.N. Shatskiy (Research engineer, IT SB RAS);
19. A.A. Borisov (PhD student, IT SB RAS);
20. K.I. Stepanov (Research fellow, IT SB RAS);
21. E.M. Bochkareva (PhD student, IT SB RAS);
22. G.V. Bartkus (PhD student, Research engineer, IT SB RAS);
23. S.E. Spesivtsev (PhD student, Research engineer, IT SB RAS);
24. F.V. Ronshin (PhD student, research engineer, IT SB RAS);
25. V.S. Naumkin (PhD, Research engineer, IT SB RAS);
26. S.V. Starinsky (PhD, Research engineer, IT SB RAS);
27. N.B. Miskiv (PhD student, IT SB RAS);
28. V.E. Mironova (Student, NSTU);
29. A.S. Butko (Student, NSTU);

30. P.N. Karpov (PhD student, IT SB RAS);
31. Yu. A. Demytyev (Student, NSU, Laboratory assistant, IT SB RAS);
32. A.S. Mordovskoy (Student, NSU, Laboratory assistant, IT SB RAS);
33. N.S. Kovalevskiy (Student, NSU, Laboratory assistant, IC SB RAS);
34. D.V. Gorodetskiy (Research engineer, NIIC SB RAS);
35. A.G. Kurenya (Research engineer, NIIC SB RAS);
36. S.S. Arsentiev (Student, NSU, Laboratory assistant, IT SB RAS);
37. K.I. Borinyak (Student, NSU, Laboratory assistant, IT SB RAS);
38. K.A. Dubrovin (Student, NSU, Laboratory assistant, IT SB RAS);
39. V.A. Ivashenko (Student, NSU, Laboratory assistant, IT SB RAS);
40. M.Yu Nichik (Student, NSU, Laboratory assistant, IT SB RAS);
41. E.M. Tkachenko (Student, NSU, Laboratory assistant, IT SB RAS);
42. K.A. Stepanov (Student, NSU, Laboratory assistant, IT SB RAS);
43. A.A. Rodionov (Student, NSU, Laboratory assistant, IT SB RAS);
44. A.L. Bogoslovtseva (Student, NSU, Laboratory assistant, IT SB RAS);
45. D.P. Nezavitin (Student, NSU, Laboratory assistant, IT SB RAS);
46. K.A. Kunz (Student, NSU, Laboratory assistant, IT SB RAS);
47. I.E. Sergeev (Student, NSU, Laboratory assistant, IT SB RAS);

12 JULY (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 ISHM-VII Aleksandr N. Pavlenko
INVITED PRESENTATIONS	
9:15-9:35	<u>V.V. Kuznetsov</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>) MICROSTRUCTURED REACTORS FOR FUEL PROCESSING
9:35-9:55	<u>X. Li, P. An, H. Sui, J. Liu, Z. Wang, P. Jiang, H. Liu, L. Sun, L. He</u> (<i>National Engineering Research Center of Distillation Technology, School of Chemical Engineering and Technology, Collaborative Innovation Center of Chemical Science and Engineering, Tianjin University, Tianjin, China</i>) REMOVAL AND RECOVERY OF VOC'S USING VACUUM SWING ADSORPTION
9:55-10:15	A.N. Pavlenko, <u>V.E. Zhukov</u>, N.I. Pecherkin, A.D. Nazarov, E.Yu. Slesareva (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>), X. Li, H. Sui, X. Gao, H. Li and L. He (<i>School of Chemical Engineering and Technology, National Engineering Research Center of Distillation Technology, Tianjin University, Tianjin, China</i>) CONTROLLED IRRIGATION OF SULZER 500X AND MELLAPACK 350 Y STRUCTURED PACKING AT DISTILLATION IN LARGE-SCALE COLUMNS
10:15-10:35	<u>H. Li, Z. Hao, X. Li, X. Gao</u> (<i>National Engineering Research Center of Distillation Technology, School of Chemical Engineering and Technology, Collaborative Innovation Center of Chemical Science and Engineering, Tianjin University, Tianjin, China</i>), J. Murphy (<i>Department of Chemical and Biological Engineering, University of Ottawa, Ottawa, Canada</i>) EXPERIMENTAL STUDY OF LIQUID RENEWAL ON THE SHEET OF STRUCTURED CORRUGATION SIC FOAM PACKING AND ITS DISPERSION COEFFICIENTS
10:35-10:55	COFFEE
10:55-11:15	<u>H. Sui, Z. Yang, L. He, Y. Yang, X. Li</u> (<i>National Engineering Research Center of Distillation Technology, School of Chemical Engineering and Technology, Collaborative Innovation Center of Chemical Science and Engineering, Tianjin University, Tianjin, China</i>), A. Jain (<i>Department of Chemical and Biological Engineering, University of Ottawa, Ottawa, Canada</i>) A HYBRID PROCESS FOR OIL-SOLID SEPARATION BY A SWITCHABLE SOLVENT
11:15-11:35	Z. Zhang, X. Ma, H. Li, X. Li, <u>X. Gao</u> (<i>National Engineering Research Center of Distillation Technology, School of Chemical Engineering and Technology, Collaborative Innovation Center of Chemical Science and Engineering, Tianjin University, Tianjin, China</i>) UNDERSTANDING THE PYROLYSIS PROGRESS PHYSICAL CHARACTERISTICS OF INDONESIAN OIL SANDS BY VISUAL EXPERIMENTAL INVESTIGATION
11:35-11:55	H. Li, N. Kang, H. Sui, <u>L. He</u>, X. Li, J. Zhou, Z. Zhang (<i>National Engineering Research Center of Distillation Technology, School of Chemical Engineering and Technology, Collaborative Innovation Center of Chemical Science and Engineering, Tianjin University, Tianjin, China</i>) SYNTHESIS AND APPLICATION OF HYDROPHILIC MAGNETIC NANOPARTICLES IN OIL SANDS SEPARATION

11:55-12:15	<u>D.S. Selishchev</u>, N.S. Kovalevskiy, D.V. Kozlov (Boreskov Institute of Catalysis, Novosibirsk State University, Novosibirsk, Russia) MULTIFUNCTIONAL NANOPHOTOCATALYSTS FOR AIR PURIFICATION AND DEGRADATION OF HAZARDOUS POLLUTANTS
12:15-12:35	<u>D.V. Gorodetskiy</u>, A.G. Kurennya, A.V. Okotrub (Nikolaev Institute of Inorganic Chemistry, Novosibirsk, Russia), V.S. Serdyukov, A.S. Surtaev, A.N. Pavlenko (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) CCVD GROWTH OF CARBON NANOTUBE ARRAYS ON COPPER SUBSTRATES
12:35-14:00	LUNCH
INVITED PRESENTATIONS	
14:00-14:20	J.C. Song, <u>M.Y. Liu</u>, X. Sun (School of Chemical Engineering & Technology, Tianjin University, Tianjin, China), J.S. Wang, J.L. Zhu (School of Mechanical Engineering, Tianjin University, Key Laboratory of Efficient Utilization of Low and Medium Grade Energy, Tianjin University, Tianjin, China) EXPERIMENTAL INVESTIGATIONS OF FOULING AND CORROSION ON DIFFERENT COATINGS IN SIMULATED HOT-DRY-ROCK GEOTHERMAL WATER
14:20-14:40	<u>I.I. Gogonin</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) HEAT TRANSFER AT BOILING IN A FILM IRRIGATING A BUNDLE OF FINNED TUBES
14:40-15:00	A.S. Surtaev, V.S. Serdyukov, A.N. Pavlenko (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia), D.S. Selishchev, D.V. Kozlov (Boreskov Institute of Catalysis, Novosibirsk State University, Novosibirsk, Russia) BOILING PHENOMENA ON THE SURFACES WITH DIFFERENT WETTABILITY
ORAL PRESENTATIONS	
15:00-15:15	<u>M.I. Moiseev</u> (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia), M.V. Shugaev (University of Virginia, Charlottesville, United States) LATTICE BOLTZMANN SIMULATION OF BOILING ON SURFACES WITH DIFFERENT WETTABILITY
15:15-15:30	<u>I.A. Kozulin</u>, V.V. Kuznetsov (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) DYNAMICS OF EXPLOSIVE BOILING OF WATER IN MICROHEATER
15:30-15:45	COFFEE
ORAL PRESENTATIONS	
15:45-16:00	H. Cong, Z. Zhao, X. Li, H. Li, <u>X. Gao</u> (Collaborative Innovation Center of Chemical Science and Engineering, State Key Laboratory of Chemical Engineering, Tianjin University, Tianjin, China) LIQUID-BRIDGE FLOW IN THE CHANNEL OF HELICAL STRING AND ITS APPLICATION TO GAS-LIQUID CONTACTING PROCESS
16:00-16:15	<u>A.S. Shamirzaev</u>, A.S. Mordovskoy (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) BOILING HEAT TRANSFER FOR REFRIGERANT R-236 fa IN MICROCHANNEL COOLING SYSTEM
16:15-16:30	X.N. Li, <u>M.Y. Liu</u>, Y. J. Li (School of Chemical Engineering & Technology, Tianjin University, Tianjin, China) HYDRODYNAMICS OF GAS-LIQUID-SOLID MICRO-FLUIDIZED BEDS IN SUB-MILLIMETER CAPILLARY
16:30-16:45	<u>V. L. Sennitskii</u> (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia)

	THE MOTION OF A VISCOUS LIQUID IN THE PRESENCE OF SOLID WALLS
16:45-17:00	<u>I.A. Kozulin, V.V. Kuznetsov</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia</i>) INVESTIGATION OF HORIZONTAL GAS-LIQUID FLOW IN THE RECTANGULAR MINICHANNEL
17:00-17:15	<u>Yu. A. Dementyev, F.V. Ronshin</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia</i>) THE EXPERIMENTAL INVESTIGATION OF TWO-PHASE FLOW PATTERNS AND PRESSURE DROP IN NARROW RECTANGULAR MICROCHANNELS
CONFERENCE RECEPTION	

13 JULY (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	<u>A.Yu. Sakhnov</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>) A SHORT REVIEW OF MULTIPHASE FLOW INVESTIGATIONS DONE WITH OPENFOAM
9:20-9:40	<u>B.V. Perepelitsa</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>) EXPERIMENTAL INVESTIGATION OF ROUND JET IN A TRANSVERSE ACOUSTIC FIELD
9:40-10:00	<u>O.A. Volodin, N.I. Pecherkin, A.N. Pavlenko</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>), <u>N.N. Zubkov</u> (<i>Bauman Moscow State Technical University, Moscow, Russia</i>) BOILING HEAT TRANSFER IN FALLING LIQUID FILM ON THE ENHANCED SURFACES
ORAL PRESENTATIONS	
10:00-10:15	<u>A.N. Pavlenko, D.V. Kuznetsov</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia</i>), <u>V.V. Tumanov</u> (<i>Novosibirsk State University, Novosibirsk, Russia</i>) EFFECT OF STRUCTURED CAPILLARY-POROUS COATING ORIENTATION ON THE REWETTING DYNAMICS OF THE OVERHEATED SURFACE BY A FALLING FILM OF LIQUID NITROGEN
10:30-10:45	<u>I.P. Starodubtseva</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>) PECULIARITIES OF THE QUENCH FRONT DYNAMICS ON THE PLATE WITH CAPILLARY-POROUS COATING
10:30-10:45	COFFEE
10:45-11:00	<u>A.N. Chernyavskiy, A.N. Pavlenko</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>) SIMULATION OF WAVE FORMATION AND HEAT TRANSFER IN FALLING LIQUID FILMS ON UNSTEADY HEAT RELEASE
11:00-11:15	<u>P.N. Karpov, A.D. Nazarov, A.F. Serov and V.I. Terekhov</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>) COOLING OF A FLAT HEAT EXCHANGER BY A PERIODIC SPRAY
11:15-11:30	<u>A.N. Pavlenko, V.E. Zhukov, N.I. Pecherkin, A.D. Nazarov, E.Yu. Slesareva</u> (<i>Kutateladze Institute of Thermophysics, Novosibirsk, Russia</i>), <u>X. Li, H. Sui, H. Li, X. Gao, and L. He</u> (<i>School of Chemical Engineering and Technology, National Engineering Research Center of Distillation Technology, Tianjin University, Tianjin, China</i>) SEPARATION EFFICIENCY OF SULZER 500X PACKING FOR

	DIFFERENT REFLUX NUMBERS WITH PERIODIC IRRIGATION
11:30-11:45	<u>A.S. Butko</u> , <u>V.I. Zhukov</u> (Novosibirsk State Technical University, Novosibirsk, Russia), <u>A.N. Pavlenko</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) HARACTERISTICS OF PULSATION OF PRESSURE IN EVAPORATION AND BOILING OF LIQUIDS IN A THIN FILM AT LOW PRESSURE
11:45-12:00	<u>V.E. Mironova</u> , <u>V.I. Zhukov</u> (Novosibirsk State Technical University, Novosibirsk, Russia), <u>A.N. Pavlenko</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) CALCULATION OF THE CRITICAL HEAT FLUX IN BOILING THIN LAYER OF LIQUID UNDER REDUCED PRESSURE
12:00-14:00	LUNCH
14:00-14:15	<u>V.S. Serdyukov</u> , <u>A.S. Surtaev</u> , <u>V.V. Tumanov</u> (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia) VAPOR BUBBLES DYNAMICS AT POOL BOILING OF WATER AND ETHANOL AT LOW AND HIGH HEAT FLUXES
14:15-14:30	<u>F. Zhang</u> , <u>M.Y. Liu</u> , <u>Y. Xu</u> (Collaborative Innovation Center of Chemical Science and Engineering, School of Chemical Engineering and Technology, State Key Laboratory of Chemical Engineering, Tianjin University, Tianjin, China) CORROSION AND FOULING BEHAVIORS ON ANODIZATION COATINGS OF TITANIUM DIOXIDE NANOTUBES IN GEOTHERMAL WATER
14:30-14:45	<u>D.V. Kuznetsov</u> , <u>V.V. Tumanov</u> , <u>A.N. Chernyavskiy</u> , <u>A.S. Surtaev</u> (Kutateladze Institute of Thermophysics, Novosibirsk State University, Novosibirsk, Russia), <u>A.A. Radyuk</u> (Baikov Institute of Metallurgy and Materials Science, Moscow) HEAT TRANSFER AND EVAPORATION DYNAMICS ON STRUCTURED CAPILLARY-POROUS COATINGS AT POOL BOILING OF LIQUID NITROGEN
14:45-15:00	<u>S.V. Dimov</u> , <u>V.V. Kuznetsov</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) EXPERIMENTAL STUDY OF THE RETENTION OF SiO ₂ NANOPARTICLES IN POROUS MEDIA
15:00-15:15	<u>E.M. Bochkareva</u> , <u>A.D. Nazarov</u> , <u>N.B. Miskiv</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) DYNAMICS OF EVAPORATION RATE AND SURFACE TEMPERATURE OF A NANOFLUID DROPLET
15:15-15:30	<u>A.N. Sterlyagov</u> , <u>M.I. Nizovtsev</u> , <u>V.Yu. Borodulin</u> , <u>V.N. Letushko</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) EVAPORATION SESSILE WATER DROPLETS ON A HYDROPHOBIC SURFACE
15:30-15:45	<u>Y. He</u> , <u>X. Li</u> , <u>H. Sui</u> , <u>L. He</u> , <u>Y. Yang</u> (National Engineering Research Center of Distillation Technology, School of Chemical Engineering and Technology, Collaborative Innovation Center of Chemical Science and Engineering, Tianjin University, Tianjin, China) EFFICIENT REMOVAL OF DYES BY DUAL RESPONSIVE NANOPARTICLES
15:45-16:00	<u>V.S. Naumkin</u> , <u>N.A. Dvornikov</u> (Kutateladze Institute of Thermophysics, Novosibirsk, Russia) SIMULATION OF CLAY PARTICLES DRYING IN DRYING-CRUSHING VORTEX APPARATUS
16:00-16:15	Closing of the Seminar ISHM-VII. Results and discussion.