

### 0017-9310(95)00024-0

### Heat and mass transfer bibliography— CIS works

#### O. G. MARTYNENKO

Heat and Mass Transfer Institute, Minsk, 220072, Belarus

(Received 15 July 1994)

#### **BOOKS**

Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol.2—Radiative and Combined Heat Transfer. Izd. ITMO, Minsk (1992).

Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3—Heat and Mass Transfer in Chemically Reacting Systems. Izd. ITMO, Minsk (1992).

Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5—Heat Transfer in Disperse Systems. Izd. ITMO, Minsk (1992).

Heat and Mass Transfer in the Elements of the Constructions of Aviation Engines (Collected Papers of the Moscow Aviation Institute). Izd. MAI, Moscow (1992).

- I. I. Krashin (Editor), Numerical Simulation of the Processes of Filtration and Heat and Mass Transfer in Underground Waters (Collected Papers). Izd. VSEGINGEO, Moscow (1992).
- E. Ya. Rapoport (Editor), Algorithmic and Engineering Provision in the Systems of Control of Technological Processes (Collected Papers). Izd. SPI, Samara (1991).
- A. G. Usmanov (Editor), Heat and Mass Transfer in Chemical Engineering (Collected Papers). Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).

### PAPERS-GENERAL

- A. A. Aleksashenko, Methods for determining the characteristics of mass transfer in capillary-porous media, *Teor. Osnovy Khim. Tekhnol.* 25(5), 638-644 (1991).
- G. I. Arenchik, A method of iterative splitting in the problems of complex heat transfer. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 96–99. Izd. ITMO, Minsk (1992).
- V. I. Baranov, The method for measuring specific heat, Vestsi Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk No. 1, 61-63 (1992).
- A. Sh. Bikbulatov, Description of momentum transfer in nonideal multicomponent liquid systems. In *Heat and Mass Transfer in Chemical Engineering*, pp. 22–25. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- M. M. Chernyakova and Yu. R. Voitsekhov, The resolving power of an isooptic heat converter in the temperature field investigations, *Kholod. Tekh. Tekhnol.* No. 53, 62–70 (1991). I. B. Goldenberg, M. V. Varganov, O. V. Tyshov and K. K. Chudetskiy, Heating of a plate by a variable technique. In *The Heat Engineering of the Processes of Melting Steel and Alloys*, pp. 140–142. Izd. MGMI, Magnitogorsk (1991).
- L. A. Gorbunov and Ye. D. Lyumki, Specific features of the effect of an axial-radial magnetic field on hydrodynamics,

- heat and mass transfer in the processes of obtaining silicon single crystals, *Magnitn. Gidrodinam.* No. 4, 67–76 (1991).
- K. V. Isayev, Heat receiver for determining temperature fields in destructing materials. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 180–183. Izd. ITMO, Minsk (1992).
- V. S. Khokhulin, Algorithmic support of a combinatorial computational experiment in the problems of thermal design. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 170–173. Izd. ITMO, Minsk (1992).
- S. A. Korykhov, A technique to account for the effect of heat and mass transfer on the results of a thermogravimetric analysis. In *Collected Papers of the Moscow Timber Engineering Institute* No. 237, pp. 33–39. Izd. MLTI, Moscow (1991).
- Kh. K. Kurbanov, B. A. Permyakov and A. A. Zomov, The technique of investigating heat transfer in z-like tube bundles, *Izv. Akad. Nauk Turkmenistana, Ser. Fiz.-Mat., Tekh., Khim., Geol. Nauk*, No. 1, 88-93 (1992).
- A. V. Latyshev, An analytical solution of the Boltzmann ellipsoidal-statistical model equation, *Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza* No. 2, 151–164 (1992).
- B. L. Levitin and M. A. Samsonov, Determination of the plasma flow velocity from the shape of a droplet, *Sib. Fiz.-Tekh. Zh.* No. 2, 108–111 (1992).
- V. S. Loginov, About the law of relationship between excess temperatures in an active element, *J. Engng Phys.* **62**(3), 486–490 (1992).
- L. G. Lelevkina, Regularization of the problem of optimal control of induction heating on the solutions of variational inequalities. In *Mathematical Methods of Optimization*, pp. 93–100. Izd. Inst. Avtomat., Bishkek (1992).
- Yu. K. Malikov, A. V. Saplin and V. G. Lisiyenko, Simulation of heat transfer in systems with quasi-closed structures. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9. Part 1, pp. 124–131. Izd. ITMO, Minsk (1992).
- D. S. Mikhatulin, Yu. V. Polezhayev and I. V. Repin, Methods and means for simulating heat transfer in high-velocity heterogeneous flows, *Teplofiz. Vysok. Temp.* **30**(3), 573–579 (1992).
- V. P. Motulevich, A. I. Mamedniyazova and Ya. Kakalyev, Differential equations of heat, moisture and salt transfer, *Izv. Akad. Nauk Turkmenistana, Ser. Fiz.-Mat., Tekh., Khim., Geol. Nauk* No. 2, 92–94 (1992).
- E. S. Mukhtarov and A. M. Semyonov, Toward the development of reference data on the coefficients of transfer of lithium and sodium vapours, *Teplofiz. Vysok. Temp.* **30**(3), 476–487 (1992).
- M. B. Pozin, V. P. Kovalevskiy and A. V. Sudarev, A numerical non-linear distributed conjugated model of periodically

- operating regenerators with a movable matrix. In Collected Papers of the All-Union Scientific-Research Technological Inst. of Energy Engineering, pp. 199–212. Izd. VNI-Tienergomash, Moscow (1992).
- A. A. Prikhodko, A package of applied programs for numerical simulation of heat and mass transfer processes. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9. Part 1, pp. 152–155. Izd. ITMO, Minsk (1992). V. D. Raizer and R. A. Shasheva, Stochastic thermal stability of membrane coatings, *Stroit. Mekh. Raschyot Sooruzh*. Nos. 5/6, 74–79 (1991).
- S. Rimkyavichyus, V. Survila and R. Yankauskas, Thermohydraulic characteristics of bundles consisting of circular cylinders and twisted rods, *Energetika* No. 1, 134-143 (1991). A. A. Saidov, Yu. P. Karayanis and P. K. Khabibullayev, Enhancement of mass transfer in a structural system. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 6, pp. 202-206. Izd. ITMO, Minsk (1992).
- P. L. Shmachkov and S. V. Rusakov, A universal algorithm for calculating diffuse mean angular coefficients. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 122–124. Izd. ITMO, Minsk (1992).
- V. P. Skripov, Thermodynamic stability of fluid during superheating and supercooling. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 3-11. Izd. ITF, Ekaterinburg (1992).
- N. G. Tamurov and Yu. N. Pyshnograyev, Nonstationary temperature field of a multilayer sphere with point sources on interfaces. In *Technological Problems of the Strength of Carrying Structures (All-Union Conference*, 24–26 September, 1991), Vol. 6, Part 1, pp. 193–197.
- A. G. Temkin, Geometric decomposition of the temperature field of an inhomogeneous body of complex shape. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 162–165. Izd. ITMO, Minsk (1992). V. V. Terpilo, Calculation of heat transfer and optimization of heat transfer complexes. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 181–184. Izd. ITMO, Minsk (1992).
- Ye. V. Toropov and A. G. Resh, Heating of bodies having internal heat sources under the 2nd-kind boundary conditions. In *The Heat Engineering of the Processes of Melting Steel and Alloys*, pp. 21–25. Izd. MGMI, Magnitogorsk (1991).
- G. A. Tretiyakov and Ye. V. Dilevskaya, Adaptation of a package of applied programs "Teplo" (Heat) to the new conditions of the design of converters. In *Collected Papers of the Moscow Institute of Railway Engineers*, No. 822, pp. 46–51. Izd. MIIZhT, Moscow (1991).
- P. N. Vabishchevich, Extension over the spatial variable in the boundary-value inverse heat exchange problem, *Mat. Modelir.* **4**(4), 44–54 (1992).
- P. N. Vabishchevich, Numerical solution of heat and mass transfer problems on composite grids. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 24–31. Izd. ITMO, Minsk (1992).
- Ye. M. Veksler and L. I. Tuchinskiy, The efficiency of heat transfer surfaces on the basis of multichannel tubes, *Sib. Fiz.-Tekh. Zh.* No. 4, 87–92 (1992).
- N. P. Volkov, About the controllability of some processes of mass transfer, In *Collected Papers of the All-Union Scientific-Research Institute of the Systems of Investigation* No. 4, pp. 33–36. Izd. VNII Sistem Issled., Moscow (1991).
- Ye. G. Vorontsov, Use of mean statistical wave characteristics for calculating heat and mass transfer in films. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 43–46. Izd. ITMO, Minsk (1992).

I. A. Yevtushenko, S. Yu. Smolentsev and A. V. Tananayev, Hydrodynamics and heat transfer of thin layers of metal in a magnetic field, *Magnitn. Gidrodinam.* No. 3, 58–62 (1991). I. T. Zakharova, Yu. N. Karamzin and V. A. Trofimov, Numerical simulation of thermal self-effect of scanned light pulses, *Mat. Modelir.* 4(3), 84–90 (1992).

#### **HEAT CONDUCTION**

- E. N. Bogachek and I. O. Kulik, Heat conduction and thermoelectric effects in superconducting microcontacts under ballistic conditions, *Fiz. Nizk. Temp.* **18**(7), 785–787 (1992).
- A. V. Bulyga, Conditions for partial reversibility of the processes of heat conduction in macroscopic systems of neutral and charged particles. In *Thermodynamics of Irreversible Processes*, pp. 39–48. Izd. Inst. Obshch. Neorg. Khim., Moscow (1992).
- A. G. Dubina, Application of programmable calculators for determining the rate of cooling in the course of the study of heat capacity and thermal conductivity of materials used for clothes, *Shvein. Prom.* No. 2, 26–28 (1992).
- G. I. Gorchakov, I. I. Lifanov, A. A. Bagautdinov and S. S. Akhmedov, Prediction of the thermal conductivity of composite materials of different structure, *Stroit. Mater.* No. 4, 4 (1992).
- F. M. Gumerov and A. N. Sabirzyanov, Thermal conductivity and thermal diffusity of neon in a wide vicinity of stagnation point. In *Heat and Mass Transfer in Chemical Engineering*, pp. 38–43. Izd. Kazan Khim.-Tekhnol. Inst., Kazan (1991).
- F. M. Gumerov, A. N. Sabirzyanov and A. T. Usmanov, Thermal diffusivity of steam within a wide vicinity of the stagnation point. In *Heat and Mass Transfer in Chemical Engineering*, pp. 30-38. Izd. Kazan Khim.-Tekhnol. Inst., Kazan (1991).
- N. I. Ivanchov, Inverse heat conduction problem in a two-component medium, *Differents. Uravn.* **28**(4), 666–672 (1992).
- K. A. Kazakyavichyus and G. R. Ramanauskas, Concerning the technique of determining the temperature dependence of the thermal conductivity of material by the method of two plates, *Zavod. Lab.* **58**(3), 21–23 (1992).
- N. S. Kenbayev, Ye. N. Lanskoy and Ye. N. Sosenushkin, Calculation of heat transfer in semi-hot extrusion, *Kuznech.-Shtamp. Proizv.* No. 3, 19–20 (1992).
- Yu. M. Kolyano, B. V. Protsyuk and B. A. Drapkin, Green's function for spatial stationary problems of heat conduction in a multilayer body, *Differents. Uravn.* **28**(3), 524–527 (1992).
- Ye. K. Kostousova, Concerning the observability for a onedimensional heat conduction equation, *Differents. Uravn.* **28**(3), 543–545 (1992).
- V. A. Kudinov, A. A. Kudinov, V. V. Gnedenko and B. V. Vorobiyov, The Bubnov-Galerkin and finite element methods in calculations of three-dimensional heat conduction problems for multilayer structures, *Izv. VUZov*, *Energetika*. Nos 5/6, 81–86 (1992).
- R. A. Mustafayev, S. I. Tagiyev and N. M. Bairamov, Experimental investigation of the thermal conductivity of liquid propylbenzoate at high temperatures and pressures, *Teplofiz. Vysok. Temp.* **29**(6), 1241–1242 (1991).
- I. V. Pershin and V. A. Titov, Approximation of the solutions of heat conduction equations for fast processes in moving media. In *Problems of Control with Guaranteed Results (Ural Branch of the Russian Academy of Sciences)*, pp. 52–65. Izd. IMM, Ekaterinburg (1992).
- Yu. V. Polezhayev and G. A. Frolov, Effect of the thermal conductivity of material on the parameter of unsteady-state entrainment, *J. Engng Phys.* **62**(4), 546-551 (1992).
- P. A. Popov, N. N. Sirota, Ye. V. Zharikov, Yu. D. Zavartsev and G. B. Luts, Thermal conductivity of alloyed yttrium-

scandium-gallium garnets within the temperature range from 6 to 300 K, *Energiya*: *Ekon.*, *Tekh.*, *Ekol.* No. 9, 12–14 (1992).

- A. Yu. Shcheglov, A method for approximate solution to a certain inverse problem for the heat conduction equation, Zh. Vychisl. Mat. Mat. Fiz. 32(6), 904-916 (1992).
- V. N. Sheveleva, Concerning a certain problem of contact heat conduction, *Differents. Uravn.* **28**(4), 729–730 (1992).
- A. V. Vachayev and N. I. Ivanov, Concerning the problem of refining the concept of the thermal conductivity coefficient. In *The Heat Engineering of the Processes of Melting Steel and Alloys*, pp. 57–62. Izd. MGMI, Magnitogorsk (1991).
- I. Yu. Vandakurov and Ye. V. Galaktionov, A technique for constructing an asymptotic solution for the problem of the heat conduction theory for an anisotropic rod of multirelated cross-section, Preprint No. 1583 of the Physico-Engineering Institute of the Russian Academy of Sciences, Moscow (1992)
- R. A. Yudin, Equivalent thermal conductivity of the packets of bars heated in a protecting atmosphere, *Stal* No. 4, 60–63 (1992).
- V. S. Zarubin and G. N. Kuvyrkin, Numerical solution of the problems of hyperbolic heat conduction for a radiation-absorbing multilayer body, In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 63–66. Izd. ITMO, Minsk (1992).

# HEAT AND MASS TRANSFER BETWEEN A SOLID BODY AND A FLUID

- V. Ye. Abaltusov, N. N. Alekseyenko, V. M. Kisel, T. N. Nemova, V. S. Tsyganenko and A. A. Ivanchuk, Heat transfer and flow pattern around porous bodies with blowing of a gaseous coolant, *Teplofiz. Vysok. Temp.* **30**(3), 542–546 (1992).
- V. A. Andrushchenko and M. V. Meshcheryakov, Paired explosion above a heated surface, *J. Engng Phys.* **62**(3), 465–472 (1992).
- N. V. Atapina, D. N. Garipogly, A. S. Drobyshev and S. L. Maksimov, Heat and mass transfer at low temperatures on the phase interface 'gas-solid body'. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 77–80. Izd. ITMO, Minsk (1992).
- Ye. T. Bartosh, Theoretical foundations of the calculation of heated paired collector tube bundles In *Collected Papers of the Moscow Institute of Railway Engineers*, No. 822, pp. 74–83. Izd. MIIZhT, Moscow (1991).
- V. G. Bashtovoy, Nguen Kuet Thang and V. A. Chernobay, Heat transfer and resistance of a cylinder covered by a layer of magnetic liquid in a cross flow, *Magnitn. Gidrodinam.* No. 3, 39–42 (1991).
- E. A. Boltenko, S. M. Gamina and G. A. Zinina, A technique for calculating the temperature conditions of heat-emitting elements with two-sided removal of heat and account for axial heat flows, Preprint No. 2217 of the Institute of Physics and Power Engineering Institute, Obninsk (1992).
- A. V. Bureyev, K. N. Yefimov and V. I. Zinchenko, Calculation of spatial flow around bodies under different flow conditions in a shock layer and with gas injection from the surface. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 30–33. Izd. ITMO, Minsk (1992).
- P. Daunoras and R. Ulinskas, Thermal and hydrodynamic characteristics of the extended heat transfer surfaces in a transverse liquid flow, *Energetika* No. 1, 49–60 (1991).
- O. R. Dornyak, Thermal and hydrodynamic characteristics of thixotropic fluid forced flows in long channels. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk

- International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 6, pp. 50-54. Izd. ITMO, Minsk (1992).
- B. V. Dzyubenko, A. B. Bagdonavichyus, A. V. Kalyatka and M. D. Segal, Unsteady-state heat and mass transfer in the case of simultaneous change in heat loading and coolant flow rate, *J Engng Phys.* **62**(3), 349–355 (1992).
- V. F. Formalev, Numerical investigation of conjugated heat transfer in the conditions of filtration and film cooling of blunt anisotopic bodies, *Teplofiz. Vysok. Temp.* **30**(2), 334–344 (1992).
- L. F. Fyodorov, V. A. Bryantsev and G. B. Gusev, Hydraulic resistance of a locally-swirled single-phase flow in vertical rod assemblies. In *Collected Papers of the Moscow Institute of Railway Engineers*, No. 822, pp. 10–16. Izd. MIIZhT, Moscow (1991).
- V. Yu. Galkin, Investigation of heat transfer of a plane subsonic jet incident on a concave surface. In *Heat and Mass Transfer in the Elements of the Constructions of Aviation Engines*, pp. 13–16. Izd. MAI, Moscow (1992).
- V. Garbyanis and V. Makaryavichyus, Investigation of the structure of a strongly nonisothermal turbulent boundary layer in an air flow around a plate, *Energetika* No. 1, 35–48 (1991).
- L. G. Genin, A. P. Koval, S. P. Manchkha and V. G. Sviridov, Hydrodynamics and heat transfer in pulsing liquid flow in tubes, *Teploenergetika* No. 5, 30–34 (1992).
- V. A. Ilgarubis, I. V. Zhyugzhda and A. Á. Zhukauskas, Heat transfer of a cylinder in a blocked flow at critical *Re* numbers, *Energetika* No. 1, 82–94 (1991).
- V. M. Kapinos, V. N. Pustovalov and G. Ye. Zagoruiko, Investigation of heat transfer in rotating cylindrical cavities with radical coolant flow. In *Heat and Mass Transfer—MIF*-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 60–64. Izd. ITMO, Minsk (1992).
- V. Katinas, A. Tumosa and A. Zhukauskas, Effect of the wall on flow and heat transfer of tubes in bundles, *Energetika* No 1, 144–155 (1991).
- A. N. Kekalov, V. I. Popov, L. A. Samylina and Ye. M. Khabakhpasheva, Heat transfer in a pulsing flow of liquid with internal heat sources. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 17–20. Izd. ITMO, Minsk (1992).
- A. L. Korolyov, Thermal and hydrodynamic processes in a flow-through channel of a cryogenic system on excitation of thermoacoustic vibrations. In *The Dynamics of Thermophysical Processes*, pp. 56–63. Izd. ChGTU, Chelyabinsk (1991).
- V. N. Korovkin, Calculation of vertical mixing in plane buoyant jets on the algebraic model of turbulence. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 87–91. Izd. ITMO, Minsk (1992).
- A. S. Korsun, O. V. Mitrofanova and M. S. Sokolova, Simulation of hydrodynamics and heat transfer in channels with heat carrier swirling. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 80–85. Izd. ITMO, Minsk (1992).
- I. T. Kuliyeva, I. T. Arabova, F. Kh. Mamedov and G. I. Isayev, Improved mode of heat transfer at supercritical pressures of organic heat carriers, *J. Engng Phys.* **62**(3), 356–359 (1992).
- V. A. Kurganov, Heat transfer of gases in turbulent flow in tubes, *Teploenergetika* No. 5, 2-9 (1992).
- A. G. Laptev, V. I. Yelizarov and S. G. Diyakonov, Mathematical simulation of heat transfer in swirled turbulent flows. In *Heat and Mass Transfer in Chemical Engineering*, pp. 25–30. Izd. Kazan Khim.-Tekhnol. Inst., Kazan (1991). V. K. Migai, P. G. Bystrov and V. V. Fedotov, Heat transfer in transverse flow past bundles of tubes with petal-type fins, *Tyazh. Mashinostroyeniye* No. 7, 8–10 (1992).

- V. D. Mikhailik, Specific features of heat transfer of a thin bed with jet flows. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 5, pp. 15-18. Izd. ITMO, Minsk (1992).
- D. S. Mikhatulin, Yu. V. Polezhayev and I. V. Repin, Heat transfer under the conditions of immersion in heterogeneous supersonic flows. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 3, pp. 7-10. Izd. ITMO, Minsk (1992).
- V. P. Motulevich and Dzh. N. Samedov, Heat transfer in a three-dimensional tube with different positions of the heated zone, Izv. Akad. Nauk Turkmenistana, Ser. Fiz.-Mat., Tekh., Khim., Geol. Nauk No. 2, 29-34 (1992).
- V. M. Murtazina and N. N. Pilyugin, Numerical investigation of mass entrainment from a burning body in supersonic flow. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 3, pp. 37-40. Izd. ITMO, Minsk (1992).
- L. Ye. Mushegyan, B. L. Paskar and V. B. Yurkovskiy, Unsteady-state heat transfer of a high temperature surface cooled by a jet liquid flow. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 10, pp. 114-117. Izd. ITMO, Minsk (1992).
- V. A. Naumov, Calculation of a gas-disperse laminar boundary layer on a plate with account for the liquid film being formed on it, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 2, 179–181 (1992).
- M. V. Nikulin, V. K. Savin and A. S. Strongin, Experimental investigation of heat transfer of the air curtain jets. In The Hydromechanics of Heaters and Ventilators, pp. 14-21. Izd. KISI, Kazan (1991).
- N. M. Ogurechnikova, Combined heat transfer in a turbulent high-temperature gas, flow in a channel. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum. 18-22 May 1992), Vol. 2, pp. 174-177. Izd. ITMO, Minsk (1992).
- S. R. Okunevich and Ye. L. Tarunin, Numerical investigation of EDH-flows in an annular gap, Modelir. Mekh. **6**(1), 87–94 (1992).
- Ye. N. Pismennyi, Specific features of heat transfer and flow in the bundles of laterally finned tubes. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 10, pp. 13-18. Izd. ITMO, Minsk (1992).
- D. G. Podkorytov, Z. S. Buturishvili and V. Yu. Chekhovich, Complex investigation of natural circulation in circular channels. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum. 18-22 May 1992), Vol. 4, Part 1, pp. 80-83. Izd. ITMO, Minsk (1992).
- V. N. Pul', A. F. Red'ko and N. M. Basova, Heat transfer of a finned tube in a high-temperature pulsating bed. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 5, pp. 23-26. Izd. ITMO, Minsk (1992)
- A. Pyadishyus, G. Zigmantas, S. Yapertas and N. Yurchenko, Intensification of heat transfer in a turbulent boundary layer by transverse barriers with cavities, In Energetics, Collected Papers of the Academy of Sciences of Lithuanian SSR No. 1, 3-16 (1991),
- A. I. Rzayev, L. L. Filatov, G. V. Tsiklauri and Ye. B. Kabanova, Effect of the geometry of an intensifier (spiral grooves) on convective heat transfer in tubes, Teploenergetika No. 2, 53-55 (1992).
- M. V. Solntsev and A. A. Nozdrin, Heat transfer during interaction of jets with the wall with the influence of a stalling flow. In Heat and Mass Transfer in the Elements of the Constructions of Aviation Engines, pp. 27-30. Izd. MAI, Moscow (1992).

- V. B. Sudarev, Mean heat transfer in channels with bridgesturbulizers, Trudy TsKTI No. 271, 34-40 (1992).
- Ye. L. Tarunin and Yu. A. Yamshinina, Specific features of the calculation of EHD-flows in a closed region in the presence of a sharp electrode, Modelir. Mekh. 6(1), 115-122
- L. G. Tsitsin and V. V. Sinyavskiy, Analysis of heat and mass exchange processes in heat-emitting fuel elements. In Heat and Mass Tranfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 10, pp. 166–168. Izd. ITMO, Minsk (1992). Ye. V. Vaichulis, Analysis of dynamic processes in cooling a channel with a supercritical pressure helium. In The Dynamics of Thermophysical Processes, pp. 48-56. Izd. ChGTU, Chelyabinsk (1991).
- I. S. Vatkovskaya and M. A. Gorokhovskiy, Turbulent mixed convection of a conducting fluid in a vertical channel in a transverse magnetic field, Magnitn, Gidrodinam. No. 1, 118-121 (1991).
- V. A. Vlasov and Yu. G. Zhulev, A technique for thermal shielding of an area from a gas jet incident on it, J. Engng Phys. 62(4), 555-558 (1992).
- E. P. Volchkov, N. A. Dvornikov and V. I. Terekhov, Friction and heat transfer in a turbulent boundary layer of rotating systems, Prikl. Mekh. Tekh. Fiz. No. 2, 109-115 (1992). N. P. Voronko and L. S. Krylova, A mathematical model for calculating heat transfer and hydrodynamics in a threedimensional porous body. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 9, Part 1, pp. 48-51. Izd. ITMO, Minsk (1992).
- Z. M. Yemeliyanova, V. M. Paskonov and S. V. Rusakov, Effect on heat transfer of separation flows formed by injection in longitudinal flow around a cylinder. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 9, Part 2, pp. 44-51. Izd. ITMO, Minsk (1992).
- V. G. Zubkov, Experimental and numerical investigation of heat transfer in nozzles. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 10, pp. 110-113. Izd. ITMO, Minsk (1992).
- V. G. Zubkov, Mathematical simulation of heat and mass transfer in two- and three-dimensional channels of complex shape. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 9, Part 1, pp. 99-102. Izd. ITMO, Minsk (1992).

### RADIATIVE HEAT TRANSFER

- L. G. Astafiyeva, A. P. Prishivalko and S. T. Leiko, Radiative heating of aluminum particles, Teplofiz. Vysok. Temp. 30(3), 579-583 (1992).
- M. A. Arguchintseva and N. N. Pilyugin, Effect of the shape of a body on convective and radiative heat transfer in the atmospheres of planets. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 2, pp. 146-149. Izd. ITMO, Minsk (1992).
- V. V. Averin and A. S. Dmitriev, Radiative heat transfer in ordered and disordered flows of monodisperse particles. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 2, pp. 187–190. Izd. ITMO, Minsk (1992). L. A. Bakaleinikov and M. G. Vasiliyev, Effect of reflection from the boundaries on temperature distribution under the conditions of the predominance of radiative transfer. In Heat and Mass Transfer-MIF-92 (Proceedings of the 2nd Minsk
- International Heat and Mass Transfer Forum, 18-22 May E. A. Belskaya, Radiative properties and electric resistence

1992), Vol. 2, pp. 210-213. Izd. ITMO, Minsk (1992).

- of titanium in the region of polymorphic transformation, *Teplofiz. Vysok. Temp.* **30**(2), 272–280 (1992).
- Yu. V. Belyayev, O. B. Zhdanovich and A. N. Kuz'min, Investigation of the laws governing radiation of the products of combustion of hydrocarbons passed through the atmosphere, Sib. Fiz.-Tekh. Zh. No. 4, 77–80 (1992).
- L. G. Blokh, Yu. A. Zhuravlyov and E. I. Gorb, The problems of calculations and investigations of heat transfer in the furnaces of powerful boilers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 3–11. Izd. ITMO, Minsk (1992).
- A. L. Burka, Radiative-conductive heat transfer in a porous semitransparent body. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 203–206. Izd. ITMO, Minsk (1992).
- V. I. Deshko, S. G. Kalenichenko and A. Ya. Karvatskiy, The conditions of temperature nonmonotonicity near the boundary in radiative-convective heat transfer. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 218–221. Izd. ITMO, Minsk (1992).
- N. Ye. Galich and V. A. Petrushchenkov, Numerical simulation of free convection in thermal self-effect of a vertical radiation flux. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 9, Part 2, pp. 37-39. Izd. ITMO, Minsk (1992).
- F. M. Galimov, T. N. Shigabiyev and A. G. Usmanov, Boiling heat transfer of reactive fuels under the conditions of natural convection. In *Heat and Mass Transfer in Chemical Engineering*, pp. 14–21. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- K. B. Galitseiskiy and G. A. Glebov, High-frequency radiation in a shock layer. In *Heat and Mass Transfer in the Elements of the Constructions of Aviation Engines*, pp. 19–23. Izd. MAI, Moscow (1992).
- A. V. Gorbatov and Ye. V. Samuilov, Analysis of the anisotropy of scattering. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 178–181. Izd. ITMO, Minsk (1992).
- N. B. Goryachkin, About the maximal solar radiation fluxes incident on external protections of rolling-stock. In *Collected Papers of the Moscow Institute of Railway Engineers*, No. 822, pp. 83–87. Izd. MIIZhT, Moscow (1991).
- A. N. Ivanov and M. M. Prudnikov, Investigation of non-equilibrium radiation of slightly ionized helium plasma, *Teplofiz. Vysok. Temp.* **30**(2), 230–235 (1992).
- V. V. Ivanov and Yu. V. Vidin, Conjugated heat transfer in systems with radiating surfaces. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 166–169. Izd. ITMO, Minsk (1992).
- S. G. Kalenichenko, A. Ya. Karvatskiy and V. I. Deshko, Radiative-conductive heat transfer in a nontransparent crucible in the course of the growing of crystals. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 166–169. Izd. ITMO, Minsk (1992). V. V. Kalinchak, S. G. Orlovskaya and A. I. Kalinchak, Effect of radiation on the limits of a heterogeneous combustion of a particle. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 11–14. Izd. ITMO, Minsk (1992).
- V. V. Kalinchak, S. G. Orlovskaya and A. I. Kalinchak, Heterogeneous ignition and extinction of a particle with account for radiative heat transfer, *J. Engng Phys.* **62**(3), 436–442 (1992).
- B. Ya. Kamenetskiy, The role of radiation of a burning fuel layer in furnace heat exchange. In *Heat and Mass Transfer*—

- MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 125–128. Izd. ITMO, Minsk (1992).
- I. A. Kapulov, G. S. Blokhina and Yu. M. Smirnov, Temperature dependence of the IR radiation absorption in a germanium single crystal. In *The Physics of Crystallization*, pp. 31–38. Izd. TGU, Tver' (1992).
- R. S. Kashapov and D. A. Maksimov, Radiation transfer in oxidation of soot in a turbulent flame. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 137–139. Izd. ITMO, Minsk (1992).
- V. G. Kochanov, V. P. Levin and V. P. Markov, Interaction of intense laser radiation with the surface material under vacuum. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 57–63. Izd. ITMO, Minsk (1992).
- I. P. Kolchenogova and V. A. Uglov, Transport of radiation energy through a scattering textile material. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 115–118. Izd. ITMO, Minsk (1992).
- V. T. Kumskov and V. R. Polonikov, Toward the account for the effect of gas radiation selectivity in the working chamber of a heating furnace. In *Collected Papers of the Moscow Institute of Railway Engineers*, No. 822, pp. 29–35. Izd. MIIZhT, Moscow (1991).
- V. A. Kuzmin and Ye. I. Maratkanova, Mathematical simulation of the process of thermal radiation of high-temperature power plants. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 104–110. Izd. ITMO, Minsk (1992).
- V. A. Kuznetsov, An efficient method for calculating radiative and combined heat transfer. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 89–92, Izd. ITMO, Minsk (1992).
- S. V. Makarychev and G. D. Smekhov, Investigation of the active media of a short-wave gas-dynamic laser, *Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza* No. 2, 165–173 (1992).
- I. S. Molchadskiy, A. N. Borodkin and V. M. Makarov, Heat transfer in the course of free combustion of fuel. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 119–121, Izd. ITMO, Minsk (1992).
- A. A. Nekrasov, N. V. Paramonov and T. N. Kravchik, Measurement of the emissivity of stainless steel samples. In *Heat and Mass Transfer in the Elements of the Constructions of Aviation Engines*, pp. 68–71. Izd. MAI, Moscow (1992).
- A. V. Paimov, V. M. Seledkin and O. Yu. Kuleshov, Determination of the local characteristics of radiative heat transfer in flame systems. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 43–45, Izd. ITMO, Minsk (1992).
- K. B. Panfilovich and V. V. Sagadeyev, Generalized relation for integral thermal radiation fluxes of liquid metals. In *Heat and Mass Transfer in Chemical Engineering*, pp. 88–98. Izd. Kazan. Khim. Tekhnol. Inst., Kazan (1991).
- N. R. Pavlukhin and N. V. Nikolayev, A system for controlling radiative heating with the extremal tuning of regulator parameters. In *Means for Automatic Systems of Testing*, pp. 33–41. Izd. ITK, Minsk (1992).
- A. G. Plita and Ye. A. Yefremova, Radiation heat transfer in a two-phase medium bounded by an isothermal cylinder with a toroidal base. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 100–102. Izd. ITMO, Minsk (1992).
- P. V. Prosuntsov and S. V. Stepanov, Radiative-conductive

- heat transfer in a plane layer of a highly scattering medium in the mode of temperature waves. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 76–82. Izd. ITMO, Minsk (1992).
- S. V. Reznik, Radiative-conductive heat transfer in large space structures. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 195–198. Izd. ITMO, Minsk (1992).
- B. I. Rudnev, Calculation of local heat fluxes in the combustion chamber of a transport diesel engine with the use of zonal methods. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 93–95. Izd. ITMO, Minsk (1992).
- V. I. Sagadeyev and V. V. Sagadeyev, The ways for increasing the efficiency of radiative heat transfer. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum. 18–22 May 1992), Vol. 2, pp. 129–132. Izd. ITMO, Minsk (1992).
- M. Yu. Sakhnovskiy, B. M. Timochko, V. B. Karavanov, M. G. Kunetskiy and V. A. Novoselov, The Fourier-radiometric method for determining the spectrum, radiosity and the temperature of bodies, *Opt. Spektrosk.* 71(5), 804–808 (1991).
- V. I. Shcherbinin, Calculation of radiative-convective heat transfer in a rectangular channel with jet supply to the stalling flow. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 191–194. Izd. ITMO, Minsk (1992).
- E. N. Sobol, The mechanism of accelerated mass transfer in solid bodies exposed to laser radiation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 128–130. Izd. ITMO, Minsk (1992).
- S. T. Surzhikov, Numerical simulation of the processes of radiative-convective heat transfer in the laser waves of combustion. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 9, Part 1, pp. 159-166. Izd. ITMO, Minsk (1992).
- V. N. Tkachev, Toward the calculation of the angular coefficients of irradiation. In *Simulation and Optimization of the Rocket-Space Systems, Ground Complexes and Their Elements*, pp. 60-66. Izd. MAI, Moscow (1992).
- V. A. Tovstonog, I. N. Popkov and A. M. Popkova, Radiative-conductive heat transfer in a scattering material exposed to a limited beam of collimated radiation—II. Experimental evalution of the correctness of the mathematical model, Sib. Fiz.-Tekh. Zh. No. 1, 24–27 (1992).
- V. Vishnyauskas and D. Mizeikis, Spectral emissivity of magnium and circonium oxides measured on material heating by a radiative flux, *Energetika* No. 1, 104–112 (1991).
- V. I. Volodin and A. G. Lukashevich, Radiative heat transfer in composite closed regions of finite and infinite extension. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 162–165. Izd. ITMO, Minsk (1992).
- A. Yu. Vorobiyov, V. A. Petrov, V. E. Titov and A. P. Chernyshev, Thermoradiative characteristics of magnium oxide when heated up to the temperatures of intense evaporation, *Teplofiz. Vysok. Temp.* **30**(2), 281–289 (1992).
- M. V. Zake and I. N. Yatchenko, Radiative processes in a gas-disperse flow of a low-temperature plasma of complex composition. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 154–157. Izd. ITMO, Minsk (1992).
- A. I. Zhbanov, A. Ye. Smirnov, V. V. Khromenkov and V. N. Shevtsov, Calculation of three-dimensional thermal fields

with account for radiation by the method of final elements. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 87–90. Izd. ITMO, Minsk (1992).

#### NATURAL CONVECTION

- S. I. Aladiyev and A. A. Dushin, Turbulent natural convection in a radiating and absorbing medium. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 170–173. Izd. ITMO, Minsk (1992).
- V. A. Belyakov, S. A. Danilov, A. G. Ivanov, Ye. N. Kutysh, V. V. Stepanov and V. V. Shakhlevich, Unstedy-state natural convection in the course of pulsed supply of heat to a gas, In *Collected Papers of the Moscow Timber Engng. Inst.*, No. 237, pp. 81–92. Izd. MLI, Moscow (1991).
- A. I. Feonychev and G. A. Dolgikh, Convective heat and mass transfer in the case of vibration of solid boundaries. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 159–163. Izd. ITMO, Minsk (1992). B. P. Golovnaya, Calculation of the laminarization of flow
- B. P. Golovnaya, Calculation of the laminarization of flow in the case of mixed turbulent convection and its effect on heat transfer, *J. Engng Phys.* **62**(3), 366–372 (1992).
- V. V. Gorbey, A method of local potential for investigating the stability of convective flow of a conducting liquid. In *Thermodynamics of Irreversible Processes*, pp. 83–91. Izd. Inst. Obshch. Neorg. Khim., Moscow (1992).
- Yu. Ye. Karyakin, Numerical simulation of unsteady-state natural convection in axisymmetric capacitances of arbitrary cross section. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 71–74. Izd. ITMO, Minsk (1992).
- V. V. Khatitonov and V. I. Subbotin, Convective heat transfer and thermal mechanics in cooled laser mirrors. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 124–127. Izd. ITMO, Minsk (1992).
- L. K. Pervushin, A vertical tube with an internal convective channel, *Vodosnabzh. San. Tekh.* No. 6, 10–11 (1992).
- V. S. Protopopov, I. V. Kurayeva and Tszyan Peisyue, Diffusional mass transfer in the case of laminar thermogravitational convection of water near a vertical heated wall, *Teploenergetika* No. 5, 48–52 (1992).
- Yu. V. Radysh, A. S. Kireyev and G. A. Legeida, Towards the nonlinear dynamics of polyaggregate mechanical systems with thermal convection, *Prikl. Mekh.* (*Kiev*) **28**(4), 56–63 (1992).
- Yu. P. Semyonov and A. V. Khromenko, Heat transfer of a vertical horizontally finned surface under the conditions of natural convection. In *Collected Papers of the Moscow Timber Engng Inst.*, No. 237, pp. 92–96. Izd. MLI, Moscow (1991).
- Ye. V. Ubortseva, G. M. Pashik and Vu Zui Kuang, Heat and mass transfer in a liquid heated by the SHF front. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 235–237. Izd. ITMO, Minsk (1992).
- S. D. Yegorov and V. I. Polezhayev, Thermal convection in the elements of anisotropic porous insulation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 55–58. Izd. ITMO, Minsk (1992).
- V. A. Yelyukhin, The Ginzburg-Landau equation of the absolute and convective inhomogeneous systems. In *The Dynamics of Thermophysical Processes*, pp. 33-47. Izd. ChGTU, Chelyabinsk (1991).
- Yu. A. Yermakov and A. G. Churbanov, Convective heat transfer in the gap between rotating cylinders in the presence

- of eccentricity. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 178–181. Izd. ITMO, Minsk (1992).
- I. F. Zherebyatiyev and Yu. L. Podkopayev, Modelling of convective heat transfer for fluids with temperature-dependent properties. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 91–94. Izd. ITMO, Minsk (1992).

## HEAT AND MASS TRANSFER IN TWO-PHASE FLOWS

- V. I. Abramov, Concerning the method for investigation of erosive wear of turbomachines under the action of mist flow, *Izv. VUZov, Energetika* No. 3, 97–100 (1992).
- V. G. Baidakov and M. A. Simakov, Stability of the metastable Van-der-Waals fluid: V. Phase equilibrium in a microheterogeneous 'liquid-vapour' system. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 12-31. Izd. ITF, Ekaterinburg (1992).
- V. V. Baranov, Yu. Ya. Kachuriner, O. P. Krektunov and A. M. Trevgoda, Computational investigation of the efficiency of the decomposition of the moisture, *Trudy TsKTI* No. 269, 61–70 (1992).
- Ye. I. Blednykh and N. I. Makarova, About the phase state of dissolved carbon dioxide. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 38–42. Izd. ITF, Ekaterinburg (1992).
- M. K. Bologa, S. M. Klimov and S. I. Chuchkalov, Heat transfer and hydrodynamics of two-phase flows in an electric field. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 3–13. Izd. ITMO, Minsk (1992).
- A. I. Bronshtein and N. B. Gyulmamedov, A model of the burn-out heat transfer for solutions in two-phase annular flow, *Teplofiz. Vysok. Temp.* **30**(2), 311–318 (1992).
- V. I. Brounshtein, L. V. Kondratiev and V. A. Naumov, Heat and mass transfer in polydisperse gas-drop flow in a hollow scrubber. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 10, pp. 7-10. Izd. ITMO, Minsk (1992).
- M. Ye. Deich, M. Yu. Oshchepkov, A. A. Tishchenko and Al-Janabi-Sh. Hamadi, Pulsational characteristics of single-and two-phase vapour flow in Laval nozzles under complex conditions, *Izv. Ross. Akad. Nauk, Energ.* No. 2, 104–128 (1992).
- A. A. Dergach, B. L. Paskar, S. V. Slovtsov, V. V. Steklov and A. V. Sudakov, Investigation of heat transfer and temperature regime of moist steam flowing around vertical and horizontal tubes, *Trudy TsKTI* No. 269, 37–46 (1992).
- R. A. Dulevskiy, Investigation of unsteady-state thermohydraulic characteristics of a four-channel section of a steam generator. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 76–79. Izd. ITMO, Minsk (1992).
- N. N. Filina, Optimization of two-phase flows in the systems of gasification and temperature control. In The *Problems of Cryogenic Engineering*, pp. 63-70. Izd. NPO Kriog. Mashinostr., Balashikha (1991).
- N. N. Filina, V. N. Makarenkov and Yu. Ye. Grakov, Hydraulic resistance of two-phase flows of helium in the pipeline of an accelerating-accumulating complex. In *The Problems of Cryogenic Engineering*, pp. 25–30. Izd. NPO Kriog. Mashinostr., Balashikha (1991).
- M. L. German, Ye. F. Nogotov and V. Ye. Fertman, Conjugated heat transfer in a droplet magnetic liquid jet. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk

- International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 1, Part 2, pp. 160–163. Izd. ITMO, Minsk (1992). V. I. Gorbunov, V. M. Zorin and N. G. Rassokhin, A method of the limiting evaluation of the natural circulation of two-phase media in complex spatial loops, *Teploenergetika* No. 2, 46–50 (1992).
- M. Ivanov, M. Kobrinskikh and G. Shikin, Scattering of material on steam exploration, *Energetika* No. 3, 163–170 (1991).
- N. V. Klenitskiy, Behavour of a stationary mist flow in vacuum. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 118–121. Izd. ITMO, Minsk (1992).
- A. G. Laptev and V. A. Danilov, Determination of the volumetric coefficients of heat transfer in a bubbling layer by the mathematical model. In *Heat and Mass Transfer in Chemical Engineering*, pp. 7–11. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- S. A. Laptev, A. A. Ovchinnikov and N. A. Nikolayev, Laws governing the behaviour of a gas-liquid flow in vortical chambers. In *Hydromechanics of Heating-Ventilating Installations*, pp. 37–49. Izd. KISI, Kazan (1991).
- V. A. Maiorov, V. M. Polyayev and L. L. Vasiliyev, Heat transfer between a heated coating and a two-phase evaporating cooler moving through a porous substrate. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 39–42. Izd. ITMO, Minsk (1992).
- R. I. Nigmatulin, Effect of vibrations on heat and mass transfer processes with two-phase flows in a tube. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 40–43. Izd. ITMO, Minsk (1992).
- R. I. Nigmatulin, V. Ye. Kroshilin and Ya. D. Khodzhayev, Hydrodynamics and heat transfer of a mist flow in a channel of complex geometry. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 1, Part 1, pp. 143–145. Izd. ITMO, Minsk (1992).
- M. I. Osipov and V. V. Ivanov, Specific features of heat and mass transfer in two-phase flow in the elements of the flow-through parts of power plants. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 69–72. Izd. ITMO, Minsk (1992).
- A. E. Palatinskiy and A. N. Ryabukhin, Investigation of non-stationary two-phase flow motion in a centrifugal pump. In *The Dynamics of Thermophysical Processes*, pp. 107–116. Izd. ChGTU, Chelyabinsk (1991).
- V. Ye. Poznyak, V. N. Saveliyev and K. S. Gorbachev, Investigation and creation of efficient evaporators of cryogenic plants made of finned tubes, *Teplofiz. Vysok. Temp.* 30(3), 614–620 (1992).
- A. M. Rusak, S. A. Zhuravlyov and N. M. Tsirelman, Investigation of heat and mass transfer in disperse gas—liquid systems. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 118–121. Izd. ITMO, Minsk (1992).
- V. F. Sarantsev, A. I. Lemanov, S. A. Semichev and V. I. Petrov, Investigation of two-phase swirled flows in vortical contact devices. In *Heat and Mass Transfer in Chemical Engineering*, pp. 98–103. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- Yu. L. Sorokin, L. N. Demidova and A. V. Babushkin, Investigation of centrifugal separators of different diameters with air-water and steam-water media, *Trudy TsKTI* No. 269, 10–16 (1992).
- L. B. Tavin and V. A. Medvedev, Numerical simulation of two-phase turbulent jet flows with heterogeneous burning of particles. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer

- Forum, 18-22 May 1992), Vol. 9, Part 1, pp. 52-59. Izd. ITMO, Minsk (1992).
- E. P. Tikhonv, E. A. Tairov, A. N. Gusev and M. P. Selivanova, Measurement of the density of two-phase flow by the radio-isotopic method with a random reference processes, *Teploenergetika* No. 2, 50–52 (1992).
- A. A. Tochigin, S. V. Vasiliev and A. L. Nikitin, Hydraulic resistance of throttling valves with a two-phase flow. *Izv. VUZov, Energetika* No. 3, 100–104 (1992).
- N. A. Usoltsev, A model of the intensity of generation of gas bubbles by gas evolution centers. In *The Dynamics of Thermophysical Processes*, pp. 17–25. Izd. ChGTU, Chelyabinsk (1991).
- F. I. Vafina, I. I. Goldfarb and I. R. Shreiber, About certain specific features of the effect of heat transfer between phases on the propagation of sound in foam. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 32–35. Izd. ITMO, Minsk (1992).
- A. A. Vavilov, M. I. Kolodyazhnyi, A. M. Marinich, V. N. Sokolov and L. D. Ustinova, Mathematical description of transition processes in a system of intermediate separation and superheating of steam, *Trudy TsKTI* No. 269, 17–24 (1992)
- V. Ye. Vinogradov and G. V. Kuskov, Unsteady-state outflow of a boiling-up water through nozzles. In *Metastable Phase States and the Kinetics Relaxation*, pp. 132–136. Izd. ITF, Ekaterinburg (1992).
- A. D. Yefanov, T. V. Ivanova and S. V. Kanukhina, Nonstationary profiles of steam content in heated tubes. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 135–138. Izd. ITMO, Minsk (1992). A. F. Zaletnev, V. V. Khyuchkin, N. N. Romanov and T. D. Babayev, Heat and mass transfer in a distiller with an air lift on the distillation of a solvent from oil miscella. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 203–205. Izd. ITMO, Minsk (1992).
- A. S. Zilbergleit and G. V. Skornyakov, About the thermal characteristics of two-phase systems, *Zh. Tekh. Fiz.* **61**(10), 177–180 (1991).

# HEAT AND MASS TRANSFER IN PHASE AND CHEMICAL CONVERSIONS

- Ye. I. Alekhin and Yu. I. Yalamov, Concerning the evaporation of moderately large drops of binary solutions into a gas mixture, *J. Engng Phys.* **62**(3), 459–464 (1992).
- S. E. Aleksandrov, Investigation of the process of the sintering of a bushing in a non-uniform temperature field. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 103–107. Izd. ITMO, Minsk (1992). Ye. V. Ametistov, V. U. Sidyganov and I. O. Klyuchnikov, Condensation of a superheated vapour on the surface of a superfluid helium. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 51–60. Izd. ITMO, Minsk (1992).
- V. V. Apollonov, I. V. Goncharenko, N. Ye. Ivanov, Ye. V. Khoitsyan and S. A. Chetkin, Dynamic evaporative-condensational cooling of the thermally stressed elements of power plants. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 141–145. Izd. ITMO, Minsk (1992).
- A. A. Avdeyev and N. S. Khalme, Heat transfer in a bubbling layer at pressures above the atmospheric one, *Teplofiz. Vysok. Temp.* **30**(2), 359–366 (1992).
- B. P. Avksentyuk and V. V. Ovchinnikov, About the structure of steam formation of water in the region of high super-

- heats. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 61–64. Izd. ITMO, Minsk (1992).
- V. I. Baranenko, A. I. Piontkovskiy and A. N. Musienko, Heat and mass transfer during the growth of vapour–gas bubbles on the heating surface. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 65–68. Izd. ITMO, Minsk (1992).
- L. G. Belonogov, V. A. Kiseyev and A. M. Sharavin, A model of an evaporating meniscus. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 146–148. Izd ITF, Ekaterinburg (1992).
- A. A. Belyayev, Yu. A. Buyevich and V. M. Kiseyev, Comparative investigation of the thermodynamic efficiency of different schemes of the organization of vapourization in capillary structures, *J. Engng Phys.* **62**(2), 173–179 (1992).
- V. I. Berenin, M. A. Bukraba, O. B. Binkovskiy and A. N. Shepelenko, Investigation of a refrigerant system of cooling involving an evaporative thermosyphon, *Kholod. Tekh. Tekhnol.* No. 3, 31–34 (1991).
- A. P. Beresnev and V. F. Boyarshinov, About the mechanism of heat transfer in a boundary layer with chemical conversions. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 93–96. Izd. ITMO, Minsk (1992).
- I. N. Bobrov and A. P. Kuryachiy, Calculation of the limiting initial moisture content of capillary-porous material in the system of evaporative heat shielding, *Teplofiz. Vysok. Temp.* **30**(2), 351–358 (1992).
- M. K. Bologa, A. N. Maiboroda and A. N. Didkovskiy, The heat transmitting characteristics of evaporative-condensing systems of cooling under the effect of an electric field. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd. Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 133–138. Izd. ITMO, Minsk (1992).
- A. A. Borisov, A. G. Kravchenko and O. V. Sharypov, The model of the formation of a cellular structure in solidifying weak binary solutions, Sib. Fiz.-Tekh. Zh. No. 4, 3–8 (1992). A. M. Brener, Concerning the wave regimes of film condensation. In Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 39–42. Izd. ITMO, Minsk (1992).
- E. T. Bruk-Levinson, A. A. Kolesnikov and I. V. Fain, Heat and mass transfer in the course of mechanical alloying of powders in an attriter. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 11–14. Izd. ITMO, Minsk (1992).
- E. T. Bruk-Levinson, I. Yu. Murokh, Phase equilibrium of inhomogeneous systems as the problem of ordering. In *The Problems of Heat and Mass Transfer*—91, pp. 36-40. Izd. ITMO, Minsk (1991).
- Yu. A. Buyevich, L. Yu. Iskakova and V. V. Mansurov, Heat and mass transfer in a two-phase zone forming in the course of directed solidification of a binary melt. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 51–54. Izd. ITMO, Minsk (1992).
- M. V. Cherednichenko, The kinetics of molecular-diffusive technological processes at reduced pressures. In *Automated Electrotechnical Installations*, pp. 55–58. Izd. NETI, Novosibirsk (1991).
- A. P. Cherepanov, V. P. Morozov and N. D. Zakharov, Investigation of condensation heat transfer of multicomponent cryogenic agents in capillary coils. In *The Problems of Cryogenic Engineering*, pp. 31–38. Izd. NPO Kriog. Mashinostr., Balashikha (1991).
- A. P. Cherepanov, V. P. Morozov and N. D. Zakharov,

- Investigation of the condensation heat transfer of mixtures in capillary spiral channels, *Khim. Neft. Mashinostroyeniye* No. 7, 16–18 (1992).
- G. N. Danilova, V. A. Dyundin, A. V. Borishanskaya and A. V. Tikhonov, Boiling heat transfer of oil refrigerant mixtures. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 118–121. Izd. ITMO, Minsk (1992).
- M. Ye. Deich, M. Yu. Oshchepkov, A. A. Tishchenko and Sh. Hamadi al-Dzhanabi, Transonic flow of a condensing and moist vapour in Laval nozzles. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 90–93. Izd. ITMO, Minsk (1992).
- A. S. Demidov and Ye. S. Yatsenko, A mathematical experiment in the investigation of heat and mass transfer in the evaporative zone of heat pipes, *Teplofiz. Vysok. Temp.* **30**(3), 566–572 (1992).
- Yu. P. Denisov and B. A. Afanasiyev, Experimental investigation of condensation heat transfer in a collector thermosyphon, *Kholod. Tekh. Tekhnol.* No. 53, 15–19 (1991).
- N. A. Dikiy, N. Yu. Koloskova, V. I. Shklyar and V. V. Orlyanskiy, Condensation heat transfer of vapour-gas mixtures in a contact condenser of a two-loop vapour-gas installation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 146–149. Izd. ITMO, Minsk (1992).
- A. S. Dmitriyev, D. A. Ovechkin and S. N. Panasov, The processes of heat and mass transfer in a system of evaporating monodisperse macroparticles. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 88–91. Izd. ITMO, Minsk (1992).
- A. A. Dolinskiy, G. K. Ivanitskiy and B. I. Basak, Investigation of heat and mass transfer and hydrodynamics in an ensemble of bubbles with the efflux of a boiling-up liquid. In Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 127–130. Izd. ITMO, Minsk (1992).
- B. M. Dorofeyev, Concerning the coupling between the heat transfer parameters in boiling with a characteristic accompanying noise. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 21–24. Izd. ITMO, Minsk (1992).
- G. A. Dreitser, V. P. Firsov, V. I. Panevi and M. G. Krayev, Heat transfer in the disperse mode of film boiling. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 68–71. Izd. ITMO, Minsk (1992). G. A. Fateyev, Superadiabatic thermal synthesis of hardmelting materials in a straight-through high-temperature
- reactor. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 141–143. Izd. ITMO, Minsk (1992).
- G. A. Fateyev and S. A. Zelepuga, Simulation of the phase conversions of hydrogen in the course of thermal transformation in the medium of metallohydride. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 95-97. Izd. ITMO, Minsk (1992).
- R. Sh. Fatkullin, A. P. Mishchenko and V. P. Bolshov, Condensation heat and mass transfer of a mixture of ethanol-water vapours on a horizontal pipe. In *Heat and Mass Transfer in Chemical Tekhnology*, pp. 56-60. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- G. Sh. Fatkullin, A. P. Mishchenko and V. P. Bolshov, Optical investigation of condensation heat and mass transfer of a binary ethanol-water mixture. In *Heat and Mass Trans*-

- fer in Chemical Tekhnology, pp. 119–123. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- S. A. Fomin and Sh. M. Chen, An asymptotic solution of the problem about contact melting of the medium with nonlinear properties. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 76–80. Izd. ITMO, Minsk (1992).
- B. G. Froisheter and A. A. Cherkasov, Heat and mass transfer during distillation of moisture in a rotor-film apparatus. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 47–50. Izd. ITMO, Minsk (1992).
- S. V. Golovin and I. Kh. Khairullin, Some aspects of boiling with forced motion in transition region. In *Heat and Mass Transfer in Chemical Technology*, pp. 115–119. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- V. G. Golubev, A. M. Brener and O. S. Babekov, Specific features of heat and mass transfer in the course of the condensation of vapours from dusted vapour–gas mixtures. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 66–69. Izd. ITMO, Minsk (1992).
- A. P. Grinin, F. M. Kuni and N. P. Feshchenko, Thermal and fluctuational effects of nonisothermal nucleation in the post-critical region of the sizes of nuclei. Nucleation on the completion of thermal relaxation, *Vestn. S. Peterburg. Univ. Ser.* 4, No. 2, 72–76 (1992).
- V. P. Grivtsov and A. A. Revelis, The shape of a liquid meniscus at small thermal loadings. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 29–31. Izd. ITMO, Minsk (1992).
- S. Yu. Ishchuk and G. B. Froishteter, Heat transfer in three-phase chemically reacting systems. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 65–68. Izd. ITMO, Minsk (1992).
- O. Ye. Ivashnev, Pulsations originating in the flows of a boiling-up liquid, *Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza* No. 2, 85–90 (1992).
- E. K. Kalinin, G. A. Dreitser and I. Z. Kopp, Present-day methods of the enhancement of heat transfer of liquids boiling on real surfaces, *Izv. Ross. Akad. Nauk, Energ.* No. 3, 121–136 (1992).
- A. G. Knyazeva, Concerning the initiation of chemical conversion in the substance by powerful thermal effect. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 151–154. Izd. ITMO, Minsk (1992).
- N. N. Kochurova, The kinetics of condensation-evaporation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 4, Part 2, pp. 101-104. Izd. ITMO, Minsk (1992).
- A. G. Kolpakov, Averaging in the problem of thermomechanical chemistry, *Differents. Uravn.* **28**(4), 673–680 (1992).
- S. V. Konev, V. L. Dragun, A. S. Zhuravlyov and S. A. Filatov, Heat transfer during vapour generation in capillary structures with bimodal distribution of pores. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 63–67. Izd. ITMO, Minsk (1992). G. F. Kopytov, B. V. Novikov and A. G. Shklyayev, Application of optical superheating of a surface when investigating the beginning of boiling of cryogenic liquids, *J. Engng Phys.* 62(2), 267–270 (1992).
- V. N. Kukharenko, A. P. Fedosova and A. G. Kolgatin, Investigation of the processes taking place in a heat exchanger-freezer of xenon, *Khim. Neft. Mashinostroyeniye* No. 5, 19–21 (1992).

- F. M. Kuni, L. P. Grinin and Yu. Sh. Dzhikayev, The effect of the fluctuation of concentration in two-component nucleation. In *Thermodynamics of Irreversible Processes*, pp. 133–144. Izd. Inst. Obshch. Neorg. Khim., Moscow (1992). V. B. Kurasov, A. P. Grinin and F. M. Kuni, Heterogeneous condensation under the conditions of the stabilization of ideal supersaturation, *Vestn. S. Peterburg. Univ. Ser.* 4(2), 76–80 (1992).
- I. A. Kuznetsova, A. A. Yushkanov and Yu. I. Yalamov, Application of the Moft-Smith method to the solution of the problem of strong evaporation from a flat surface, *Teplofiz. Vysok. Temp.* **30**(2), 345–350 (1992).
- O. A. Lonshchakov and V. G. Diyakonov, Investigation of the laws governing boiling heat transfer of an ethylacetate-water mixture. In *Heat and Mass Transfer in Chemical Engineering*, pp. 60–70. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991).
- A. G. Luchin, A semi-empirical model of vapour condensation heat transfer on the surface of a subcooled layer of water, *Trudy TsKTI* No. 271, 13–17 (1992).
- A. G. Luchin and M. M. Sidorov, Analysis of the techniques for calculating vapour condensation heat transfer on the surface of water layer, *Trudy TsKTI* No. 271, 41–47 (1992). A. M. Lykov and O. I. Chernyshenko, Melting of silicate materials by a periodic pulse heat flux. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 119–122. Izd. ITMO, Minsk (1992).
- V. V. Maksimov, V. P. Malyusov, A. P. Maslov, Yu. N. Petrov and A. M. Prokhorov, Selective evaporation of a binary mixture exposed to laser IR- radiation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 172–175. Izd. ITMO, Minsk (1992).
- A. Ya. Malkin and A. V. Baranov, Nonisothermal effects in motion of solidifying media slipping along a wall. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 71–76. Izd. ITMO, Minsk (1992).
- D. P. Mamedova, M. A. Rzayev, R. F. Kelbaliev and F. A. Ragimov, Heat transfer in vapour generating tubes at supercritical pressures of the material, *Izv. VUZov*, *Neft Gaz* No. 8, 56-59 (1991).
- I. I. Markov, About the process of bubble formation at the interface between two immiscible fluids and heat transfer between them, *Izv. Ross. Akad. Nauk, Energ.* No. 2, 136–143 (1992).
- D. S. Mikhatulin and Yu. V. Polezhayev, Analogy between the processes of thermal and erosive decomposition, *Teplofiz. Vysok. Temp.* **30**(2), 325–333 (1992).
- A. A. Mukhamadiyev, L. S. Yanovskiy, V. P. Bolshov and A. G. Usmanov, Specific features of heat transfer in a flow of thermally decomposing hydrocarbons. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 187–190. Izd. ITMO, Minsk (1992).
- A. I. Nakorchevskiy, Nonequilibrium effects and critical regimes during the escape of a boiling-up liquid. In *Heat and Mass Transfer—MIF-92* (Proc. of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 131–134. Izd. ITMO, Minsk (1992).
- Yu. V. Navruzov, V. P. Mamontov and A. V. Stoichev, Specific features of subcooled liquid boiling on a vibrating surface of heating. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 14–16. Izd. 1TMO, Minsk (1992).
- V. A. Nemtsev and A. M. Cherkashin, The mechanism of the condensation of bubbles in a bubbling layer of chemically reacting solutions. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 58–61. Izd. ITMO, Minsk (1992).

- Ye. D. Nikitin, Concerning the estimation of the lag time in boiling-up of binary solutions. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 93–96. Izd. ITF, Ekaterinburg (1992).
- Ye. D. Nikitin, P. A. Pavlov and A. P. Popov, Spontaneous boiling-up and critical parameters of the aqueous solutions of hydrogen peroxide, *Teplofiz. Vysok. Temp.* **30**(3), 508–512 (1992).
- S. G. Obukhov, Boiling heat transfer under the conditions of a sudden increase in thermal power, *Izv. VUZov*, *Energetika* No. 4, 74–77 (1992).
- A. N. Osiptsov, I. L. Pankratiyeva, V. A. Polyanskiy and V. I. Sakharov, Stationary channel flow of a "liquid-particles" mixture in the presence of the boiling-up of a carrying phase, *Teplofiz. Vysok. Temp.* **30**(3), 583–594 (1992).
- S. M. Ostroumov, Effect of heat loading on the heat transfer coefficient in porous-sublimation cooling, *J. Engng Phys.* **62**(6), 783–785 (1992).
- I. M. Paderin, Ye. N. Sinitsyn and V. S. Uskov, Initiation of boiling-up of superheated liquids exposed to α-radiation. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 71–75. Izd. ITF, Ekaterinburg (1992).
- I. M. Paderin and V. S. Uskov, Investigation of the boilingup of superheated liquids on capillary-porous surface. In Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 55–58. Izd. ITMO, Minsk (1992).
- V. I. Panevin, Ye. N. Abashichev and A. A. Kurilenko, Boiling heat transfer of liquid nitrogen in a helical slit channel. In *Heat and Mass Transfer in the Elements of the Constructions of Aviation Engines*, pp. 31–34. Izd. MAI, Moscow (1992).
- P. A. Pavlov, Calculation of the temperature field near a moving line of wetting in the course of intense evaporation. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 43-50. Izd. ITF, Ekaterinburg (1992).
- P. A. Pavlov and A. I. Linchak, About the nonhydrodynamic reasons for the burnout heat transfer in boiling. In *Metastable Phase States and the Kinetics of Relaxation*, pp. 119–125. Izd. ITF, Ekaterinburg (1992).
- O. Ye. Petrenko, S. D. Voyevidka and V. V. Ostrovskiy, Fluctuational kinetics of the formation of nuclei in electrical crystallization of metals. In *Thermodynamics of Irreversible Processes*, pp. 108–118. Izd. Inst. Obshch. Neorg. Khim., Moscow (1992).
- V. V. Pilipenko, N. L. Dorosh and A. A. Kharitonov, Heat and mass transfer of condensing jets of superheated vapour. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 94–97. Izd. ITMO, Minsk (1992).
- V. T. Popov, About the variety of the states of droplets (bubbles) on the heat transfer surface. Hysteresis of the melting angle. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 69–72. Izd. ITMO, Minsk (1992).
- A. Yu. Postnikov and R. A. Dulevskiy, About two possible forms of the instability of working processes in the channels of internal condensation. In *The Dynamics of Thermophysical Processes*, pp. 71–78. Izd. ChGTU, Chelyabinsk (1991).
- A. V. Reshetnikov, O. A. Isayev, N. A. Mazheiko and N. V. Bulanov, Decomposition of a boiling-up water jet. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 115–117. Izd. ITMO, Minsk (1992). A. I. Sardak, Concerning the calculation of condensation heat transfer within horizontal tubes, *J. Engng Phys.* 62(1), 16–23 (1992).
- M. G. Semena, V. Yu. Kravets, Yu. V. Fridrikhson and Ye. A. Nabochenko, Specific features of the effect of pressure on the intensity of heat transfer in water boiling on a porous surface, *J. Engng Phys.* **62**(6), 779–782 (1992).

- Z. P. Shul'man, B. M. Khusid and S. P. Levitskiy, Evolution of vapour bubbles in a polymer fluid and the specific features of boiling of the solutions of macromolecules. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 174–182. Izd. ITMO, Minsk (1992).
- M. I. Sibirev and A. I. Moshinskiy, Crystallization in columns with chemically produced supersaturation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 113–115. Izd. ITMO, Minsk (1992).
- V. N. Slesarenko and G. A. Zakharov, Characteristics of heat transfer during boiling on tube bundles under vacuum, *J. Engng Phys.* **62**(6), 786–791 (1992).
- A. P. Solodov and A. K. Ustinov, Determination of the integral and spectral pulsational characteristics of a jet condensation of vapour in the volume of liquid by the optical laser method. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 85–89. Izd. ITMO, Minsk (1992).
- I. G. Styushin and V. I. Astafiyev, Correlation of experimental data on pool boiling heat transfer of the aqueous solutions of inorganic salts. *Teor. Osnovy Khim. Tekhnol.* **26**(3), 434–438 (1992).
- Ya. Tekhver and H. Sui, About the crisis of boiling on a plasma-sputtered porous surface, *Teplofiz. Vysok. Temp.* **30**(3), 561–565 (1992).
- L. L. Tovazhnyanskiy, P. A. Kapustenko and M. S. Kedrov, Condensation heat and mass transfer of multicomponent vapour—gas mixtures in plate heat exchangers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 62–65. Izd. ITMO, Minsk (1992).
- V. A. Troshenkin, Heat transfer in the reactions between aluminium-silicon alloys and water with the release of hydrogen. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 89–92. Izd. ITMO, Minsk (1992).
- A. A. Uglov and O. G. Sagdedinov, About the calculation of the melting of a metallic plate by a concentrated energy flux, *J. Engng Phys.* **62**(3), 480–485 (1992).
- V. M. Zhukov and I. L. Yarmak, Nonstationary heat transfer of boiling cryogenic fluids in a channel. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 47–50. Izd. ITMO, Minsk (1992).
- V. V. Zrodnikov and G. F. Smirnov, Resonance thermoacoustic phenomena in subcooled liquid boiling in channels. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 2, pp. 36–39. Izd. ITMO, Minsk (1992).

# HEAT AND MASS TRANSFER IN RHEOLOGICALLY COMPLEX FLUIDS

- Kh. A. Barnes, V. K. Krainov and N. V. Shakirov, Non-isothermal pulsing flow of a viscoelastic fluid. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 55–57. Izd. ITMO, Minsk (1992).
- V. I. Begachev, Heat transfer of viscous non-Newtonian fluids in the courses of mixing. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 31–34. Izd. ITMO, Minsk (1992)
- I. G. Brykina, V. V. Rusakov and V. T. Shcherbak, Similarity relations for calculating three-dimensional chemically non-equilibrium viscous flows, *Teplofiz. Vysok. Temp.* **30**(3), 521–528 (1992).

- A. Bulozha, P. Vaitekunas and A. Zhukauskas, Calculation of viscous liquid flow around cylinders located in tandem, *Energetika* No. 1, 61–71 (1991).
- V. A. Chugunov and S. L. Eskina, The group analysis methods in simulation of isothermal flow of thin nonlinear-viscous fluid films. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 35–39. Izd. ITMO, Minsk (1992).
- G. B. Froishteter, Heat transfer of highly viscous non-Newtonian fluids in rotating flows. In *Heat and Mass Transfer—M1F-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 40–44. Izd. ITMO, Minsk (1992).
- Yu. A. Kuznetsov, V. A. Marshak and E. V. Ivashkevich, Evaluation of the role of the rheological factor for highly plastic medium flow in short channels. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass transfer Forum, 18–22 May 1992), Vol. 6, pp. 212–215. Izd. ITMO, Minsk (1992).
- Yu. G. Nazmeyev, I. A. Konakhina, B. Donevski, Zh. R. Du Plessis, Nonlinear viscoelastic liquid flow in tubes with helical knurling. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 7–11. Izd. ITMO, Minsk (1992).
- I. A. Novikov, Resonance generation of harmonic heat waves in media with memory. *J. Engng Phys.* No. 3, 491–497 (1992).
- G. B. Okonishnikov, N. V. Novikov, P. A. Pavlov and S. L. Tsurkov, Heat transfer in water-polymer solutions under unsteady-state conditions. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 3–6. Izd. ITMO, Minsk (1992).
- V. P. Pervadchuk, A. R. Davydov and V. M. Levin, Effect of nonisothermal conditions of flow on the character of interaction of viscoelastic fluids in two-layer flows. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 32–34. Izd. ITMO, Minsk (1992).
- V. I. Popov and Yu. A. Altukhov, About the resonance mode of flow and heat transfer of nonlinear viscoelastic fluids in channels, Sib. Fiz.-Tekh. Zh. No. 4, 22–26 (1992).
- R. M. Sattarov and R. M. Mamedov, Nonstationary features of nonisothermal flow of rheologically complex fluids in tubes. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 45–49. Izd. ITMO, Minsk (1992).
- S. V. Vasil 'chenko and A. G. Potapov, The dynamics of a gas bubble in a viscoelastic medium. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 183–189. Izd. ITMO, Minsk (1992).
- V. N. Zadvornykh and V. I. Sysoyev, About the non-isothermal stability of viscoelastic fluid flow between disks. In *Heat and Mass Transfer*—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 58–60. Izd. ITMO, Minsk (1992).
- Yu. Ye. Zverkovskiy, Hydrodynamics of clay suspension falling gravitationally down a vertical cylindrical surface, *Izv. VUZov, Energetika* Nos. 5/6, 87–91 (1992).
- Yu. Ye. Zverkovskiy, Stationary and nonstationary mass transfer of a cylinder in a developed rotational flow of clay suspensions, *Vestsi Akad. Novuk Belarusi*, *Ser. Fiz.-Energ. Navuk* No. 2, 81–85 (1992).

### HEAT AND MASS TRANSFER IN DISPERSE SYSTEMS

A. M. Abramets, Mass transfer in deformable porous media. In *Heat and Mass Transfer—MIF-92* (Proceedings of the

- 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 7, pp. 37-40. Izd. ITMO, Minsk (1992).
- I. G. Aperovich, I. V. Sergeyeva and N. V. Silayeva, A technique to account for the deviations from ideal heat transfer in the opposite flows of a charge and a gas in chemical reactors. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 116–118. Izd. ITMO, Minsk (1992).
- N. M. Balayan and A. V. Kosterin, Mathematical simulation of tixotropic liquid filtration. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 190–193. Izd. ITMO, Minsk (1992).
- B. V. Berg, V. G. Podshivalov, V. R. Keler and T. F. Bogatova, Heat and mass transfer of a droplet of a water-coal mixture with a fluidized bed. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 48–51. Izd. ITMO, Minsk (1992).
- I. A. Bokun, Ya. P. Shlapkova and A. P. Nesenchuk, Heat transfer between a surface and pulsating bed of moist material. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 40–43. Izd. ITMO, Minsk (1992).
- L. M. Buchatskiy and A. M. Stolin, Thermal regimes of the packing of viscous porous media, *Poroshk. Metallurgiya* (*Kiev*) No. 5, 23–28 (1992).
- N. V. Bulanov, V. N. Skripov and V. A. Khmylnin, Heat transfer to an emulsion involving a low-boiling dispersed phase. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 48–51. Izd. ITMO, Minsk (1992).
- Yu. A. Buyevich and V. A. Ustinov, Dispersion effects and heat and mass transfer of filtration flows in porous media with random inhomogeneities, *J. Engng Phys.* **62**(3), 396–404 (1992).
- N. G. Chubakov, T. N. Isakov and V. A. Chubakova, Simulation of heat and mass transfer in swelling materials. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 194–201. Izd. ITMO, Minsk (1992). I. V. Derevich, I. A. Krestova and L. S. Yanovskiy, Calculation of the intensity of the formation of deposits during the flow of organic heat carriers in heated channels, *Teor. Osnovy Khim. Tekhnol.* **25**(5), 677–685 (1991).
- V. I. Drobyshevich, Mathematical simulation of dynamic processes in reactors with a stationary, catalyst bed. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 137–140. Izd. ITMO, Minsk (1992).
- Hassan Abbas Falih and T. I. Palchenok, Heat transfer to extended surface in the volume above a fluidized bed. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 19–22. Izd. ITMO, Minsk (1992).
- B. Khuzhayerov, Capture and elution of particles in porous filters. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 156–158. Izd. ITMO, Minsk (1992).
- Yu. T. Klimenko and L. F. Voronina, Heat transfer between a gas suspension and a wall. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 7–10. Izd. ITMO, Minsk (1992).
- S. A. Koshkarev and V. N. Azarov, Heat and mass transfer of disperse materials for different means of their supply to a gutter-type apparatus. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass

- Transfer Forum, 18-22 May 1992), Vol. 11, pp. 88-91. Izd. ITMO, Minsk (1992).
- L. I. Krasovskaya, Numerical simulation of the plasma treatment of dispersed salt solutions for obtaining metal oxides. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 173–176. Izd. ITMO, Minsk (1992).
- M. S. Kurbangaleyev, V. G. Diyakonov and L. G. Usmanov, Determination of the coefficient of heat transfer from a packed bed to a transformer oil flow by the method of steady heat waves. In *Heat and Mass Transfer in Chemical Engineering*, pp. 103–114. lzd. Kazan. Khim. Tekhnol. Inst. Kazan (1991).
- O. G. Lysenko and N. A. Karbalevich, Investigation of the processes of heat and mass transfer of liquid media in capillaries by the method of holographic interferometry. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 133–135. Izd. ITMO, Minsk (1992).
- D. S. Mikhatulin, Thermoerosive distruction of carbon materials. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 19–21. Izd. ITMO, Minsk (1992).
- S. V. Mishchenko and S. V. Ponamarev, An automated system of scientific investigations of the thermophysical properties of disperse media, *Khim. Neft. Mashinostroyeniye* No. 1, 34–36 (1992).
- A. I. Moshinskiy, Some problems of heat and momentum transfer in disperse media. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 50–51. Izd. ITMO, Minsk (1992).
- L. P. Mozhayev, Concerning the effect of the porous wall thickness on the heat transfer parameters. In *Heat and Mass Transfer in the Constructions of Aviation Engines*, pp. 53–58. Izd. MAI, Moscow (1992).
- B. V. Pankov, S. A. Nagornov, S. N. Kuzmin and I. A. Cherepennikov, The use of a three-phase fluidized bed for hardening steel articles. In *Heat and Mass Transfer—MIF*-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 52–55. Izd. ITMO, Minsk (1992).
- Yu. Ya. Pechenegov, About heat transfer of a gas suspension flow in a wall with a high wall temperature. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 3–6. Izd. ITMO, Minsk (1992).
- V. M. Polyayev and A. A. Genbach, Effect of the form and material of a porous structure on the intensity of heat transfer, *Vestn. MGTU*, *Ser. Mashinostr*. No. 1, 57–63 (1992)
- V. I. Psarev, Kinetic laws governing the enlargement and solution of microparticles in disperse systems. In *Thermodynamics of Irreversible Processes*, pp. 169–177. Izd. Inst. Obshch. Neorg. Khim., Moscow (1992).
- T. A. Tarasova, N. S. Orlov and Yu. I. Dytnerskiy, Determination of kinetic coefficients in the process of ultrafiltration, *Teor. Osnovy Khim. Tekhnol.* **26**(3), 336–346 (1992). Z. Yu. Titushkina, Simulation of heat and mass transfer in dispersed media. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 166–169. Izd. ITMO, Minsk (1992).
- R. Sh. Vainberg, E. G. Tutova, T. E. Fruman and S. A. Bogdanov, Effect of heat and mass transfer on the thermomechanical behaviour of organic capillary-porous polymers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 68–71. Izd. ITMO, Minsk (1992).
- V. A. Yelyukhin, G. F. Kuznetsov, Ye. V. Toropov, Heat

transfer and hydrodynamics in inhomogeneous unstable fluidized beds. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 133–136. Izd. ITMO, Minsk (1992).

V. M. Zadorskiy, S. V. Yegorov and Yu. V. Petrenko, Impregnation of capillary-porous bodies. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 100–104. Izd. ITMO, Minsk (1992).

N. N. Zhilyayeva and A. M. Stolin, Transient processes in the compaction of hot powdery materials, *J. Engng Phys.* **62**(3), 411–415 (1992).

S. V. Zhubrin and M. I. Yashkin, Analysis and development of computational models for the processes of transfer in disperse flows. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 5, pp. 125-128. Izd. ITMO, Minsk (1992).

## HEAT AND MASS TRANSFER IN TECHNOLOGICAL PROCESSES

- V. A. Antonenko, G. R. Kudritskiy and Yu. G. Chistyakov, Increase in the efficiency of boiling-type heat exchangers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 77–79. Izd. ITMO, Minsk (1992). V. A. Babenko, Flow and heat transfer in exit pipes of cryostats. In *Heat and Mass Transfer—MIF-92* (Proceedings
- oryostats. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 169–172. Izd. ITMO, Minsk (1992).
- B. M. Berkovskiy, Ye. V. Dilevskaya and V. V. Marin, A computational experiment in the problems of simulation of thermal regimes of powerful electronic devices. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 16–23. Izd. ITMO, Minsk (1992). I. I. Bezruchko and V. I. Fedorov, A traditional method for calculating heat losses through the lining of the inductor of a forge heater with account for the real conditions of heating, *Kuzn.-Shtamp. Proizv.* No. 6, 25–27 (1992).
- A. V. Bryantsev and V. N. Chernyshov, Analysis of certain constructions of louvres for the systems of natural cooling of the cupboards of static converters. In *Collected Papers of the Moscow Institute of Railway Engineers* No. 822, pp. 51–57. Izd. MIIZhT, Moscow (1991).
- V. T. Buglayev, F. V. Vasilev and O. V. Soroka, Heat transfer of tubular-plate heat transfer surfaces with collective finning, *Teploenergetika* No. 3, 64–67 (1992).
- A. V. Burdakov and V. V. Postupaev, Specific features of heat transfer in bundle heating of plasma in the experiments on a GOL-3 installation, Preprint No. 92-9 of the Institute of Nuclear Physics of the Siberian Branch of the Russian Academy of Sciences, Novosibirsk (1992).
- V. A. Chetkarev, V. B. Dementiyev, G. Kh. Yusupov and N. N. Stolovich, Computational experiment for developing the thermal technologies of the treatment of materials. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 186–189. Izd. ITMO, Minsk (1992).
- V. A. Chistyakov and G. A. Arkhipov, An automatized system of thermohydraulic calculations and optimal arrangement of tube bundles of steam turbine condensers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 197–200. Izd. ITMO, Minsk (1992).
- P. Dauyotas, V. Golovachev, K. Martsinauskas and V. Pyachkus, Increase of the thermohydraulic efficiency of

- shell-and-tube heat exchangers, *Energetika* No. 1, 122-133 (1991)
- G. N. Delyagin, Heat and mass transfer in a burning droplet of a water-coal fuel. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18-22 May 1992), Vol. 5, pp. 163-167. Izd. ITMO, Minsk (1992).
- N. S. Dugin, Optimization of the induction heating of cylindrical ingots of magnetic steel and calculation of inductors in the first stage of heating. In *Mathematical Methods of Optimization*, Izd. Inst. Avtomat., pp. 75–81, Bishkek (1992). I. N. Dulkin, Optimization of the dimensions of a radiator in the form of a plane wall with straight fins of rectangular shape, *Teplofiz. Vysok. Temp.* 30(2), 406–417 (1992).
- V. I. Dunayevskiy, A. B. Yegorov, A. I. Titarenko and L. G. Mishurenko, A mathematical model of the temperature field of the belt of a heat exchanging roller, *Metallurg. Gorn. Prom.* No. 1, 57-59 (1992).
- Ye. P. Dyban, E. Ya. Erik and V. D. Melnik, Heat transfer of the prismatic elements of electronic instrumentation. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 29–32. Izd. ITMO, Minsk (1992).
- G. A. Filippov, B. L. Kreidin and I. L. Kreidin, Heat and mass transfer in multichannel vapour condensing high-pressure systems. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 106–109. Izd. ITMO, Minsk (1992).
- P. M. Gavrilov and A. V. Kuzmin, Calculation of the dynamics of surface bubbles in processes with emergency depressurization of a nuclear reactor. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 4, Part 1, pp. 88–91. Izd. ITMO, Minsk (1992).
- Yu. Ye. Gorbachev, M. A. Zatevakin and I. D. Kaganovich, Modelling of the growth of amorphous silicon films from a HF-discharge plasma. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 180–183. Izd. ITMO, Minsk (1992).
- S. V. Gurov and S. Z. Kopelev, Application of the method of regular thermal regime for controlling the quality of the fabrication of the cooled blades of HDE, *Teplonergetika* No. 5, 37–40 (1992).
- D. Sh. Iskanderov, Effect of the heat capacity of the wall of the main gas line on the thermal mode, *Izv. Ross. Akad. Nauk.*, *Energ.* No. 3, 151–153 (1992).
- V. I. Iskryannikov, The incipience of thermal structure in a nonhomogeneous metal conductor during the passage of electric current of high density, *J. Engng Phys.* **62**(4), 617–623 (1992).
- A. Khmelevskaya, A. Volodarskiy and I. Sysoyev, Heat and mass transfer in drying of short pastry rusks, *Khleboprodukty* No. 4, 20–22 (1992).
- A. I. Kirillov, V. V. Ris, Ye. M. Smirnov and S. I. Kharchuk, Heat transfer in the channels of rotating systems of cooling power plants. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 122–125. Izd. ITMO, Minsk (1992).
- I. G. Kiselev and V. I. Krylov, Effect of thermal insulation on the thermal stress of the housing of the heat-conducting fittings of power plants. In *Collected Papers of the Institute of Railway Engineers* No. 822, pp. 62–66. Izd. MIIZhT, Moscow (1991).
- I. A. Kiyko and S. Yu. Gvozdev, Investigation of forced vibrations of a viscoelastic plate with account for heat generation, *Prikl. Mekh.* (Kiev) 28(6), 61–66 (1992).
- Yu. P. Konakov and O. V. Chekmazov, Experimental investigations of the effect of hermetic sealing of an air gap in the system of electric heating of railway baloon. In *Collected Papers of the Institute of Railway Engineers* No. 822, pp. 22–29. Izd. MIIZhT, Moscow (1991).

- G. V. Konyukhov, A. S. Koroteyev and A. I. Petrov, Specific features of heat transfer in transport nuclear power plants. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 154–157. Izd. ITMO, Minsk (1992).
- M. M. Korotkevich, A. D. Sergeyev and A. V. Sigalov, A computational experiment in thermal design of electronic devices. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 107–110. Izd. ITMO, Minsk (1992).
- T. V. Koshkina, Stresses and deformations of a viscoelastic cylinder exposed to the effect of temperature. In *Numerical Simulation of Statically and Dynamically Deformed Constructions*, pp. 65–69. Izd. UrO Akad. Nauk, Sverdlovsk (1990).
- V. P. Kovalevskiy, Correlation of experimental data on heat transfer in the furnace of liquid-fuel boilers, In *Collected Papers*, pp. 114–131. Izd. VNITIEnergomash., Moscow (1992).
- Yu. B. Kovalguk and V. V. Pritula, Modelling of cross-wise countercurrent heat exchangers, *Kholod. Tekh. Tekhnol.* No. 53, 24–27 (1991).
- P. G. Krukovskiy, Calculational optimization of the thermal stressed state of the ceramic elements of engines. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part. 2, pp. 96–103. Izd. ITMO, Minsk (1992). I. S. Kulikov, V. L. Yermakov and S. V. Shapovalov, Experimental investigation of temperatures and stresses in bimetallic specimens of a cutter, *Vestsi Akad. Navuk Belarusi, Ser. Fiz.-Energ. Navuk* No. 2, 86–90 (1992).
- Yu. K. Lingart, S. V. Mukhin, A. S. Sapozhnikov and N. A. Tikhonova, Mathematical simulation of heat transfer in compression growers, *J. Engng Phys.* **62**(3), 473–479 (1992). V. K. Luzhin, Specific features of heat and mass transfer in electrochemical systems. In *Heat and Mass Transfer—MIF*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 191–194. Izd. ITMO, Minsk (1992).
- S. A. Makarov and Yu. V. Chovnyuk, Effect of nonlinear wave formations on heat transfer in power plants. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 150–153, Izd. ITMO, Minsk (1992).
- V. P. Malamyzhev, V. P. Morozov and V. M. Yermakov, The starting period of two-step throttlong system. In *The Problems of Cryogenic Engineering*, pp. 57–62. Izd. NPOKriog. Mashinostr., Vol. 1, Balashikha (1992).
- E. M. Malaya, Complex optimization of heat transfer and combustion processes in industrial set-ups. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 2, pp. 103–106. Izd. ITMO, Minsk (1992).
- A. G. Merzhanov, A. S. Rogachev and V. A. Shugayev, Heat and mass transfer in a reaction cell of the wave of gas-free burning of powdery mixtures. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 6, pp. 96–102. Izd. ITMO, Minsk (1992).
- O. O. Milman, The principles of the creation of a highly efficient vapour condenser. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 100–105. Izd. ITMO, Minsk (1992).
- Ye. F. Nogotov, M. L. German, V. I. Kovenskiy and V. P. Trofimov, Numerical simulation of the thermal regime of combustion process in a coal dust furnace. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 209–212. Izd. ITMO, Minsk (1992).
- V. P. Parfenov and I. A. Yanvarev, Numerical simulation of

- the processes of heat transfer in the channels of combined heat exchangers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 148–151. Izd. ITMO, Minsk (1992).
- V. P. Popov, Heat and mass transfer in the process of chemical deposition of zinc selenide layers from a gas phase in a vertical plane reactor. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 57–60. Izd. ITMO, Minsk (1992).
- N. V. Poshchatskiy and V. F. Obesnyuk, About the temperature asymptotics in heating a silicate surface by a mobile and extended heat source, *Fiz. Khim. Obrab. Mater.* No. 3, 135–137 (1992).
- V. I. Prasolov, Calculation of the process of heat and mass transfer in gas-phase deposition of hard-melting materials. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 195–198. Izd. ITMO, Minsk (1992).
- V. V. Pritula, A mathematical model of heat transfer in the walls of a recuperator, *Kholod. Tekh. Tekhnol.* No. 53, 27–31 (1991).
- Ye. N. Prozorov, D. A. Kazenin, L. N. Muchkin and V. K. Baryshnikov, Mass transfer of a dense blown bed of solid particles with the surface immersed into it, *Khim. Neft. Mashinostroyeniye* No. 6, 1-3 (1992).
- A. M. Ptitsin and V. A. Generalov, Thermal processes in the tuyere zone of the Vanyukov furnace, *Tsvet. Metallurgiya* Nos. 4/5, 18-19 (1992).
- A. V. Rasskazov and S. K. Myasnikov, Heat and mass transfer in two-phase crystalline layers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 109–112. Izd. ITMO, Minsk (1992).
- V. R. Romanovskiy, Stability of combined superconductors against internally localized temperature perturbations, *Izv. Ross. Akad. Nauk, Energ.* No. 2, 129–135 (1992).
- I. O. Rylov, G. G. Yankov, S. P. Gorbachev, A. A. Krikunov, A. I. Skovorodkin and V. I. Artemov, Simulation of the processes of cooling and blasting of helium reservoirs. In Heat and Mass Transfer—MIF-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 146–153. Izd. ITMO, Minsk (1992).
- V. K. Samoilikov and S. N. Batutik, Heat and mass transfer in the processes of local deposition of the layers of material from a gas phase. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 3, pp. 41–44. Izd. ITMO, Minsk (1992).
- Yu. I. Shanin and O. I. Shanin, Intensification of heat transfer in systems of cooling metal optics. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 33–36. Izd. ITMO, Minsk (1992).
- A. M. Semernin, A. Ye. Yerinov, V. A. Povarenkov and D. M. Grinblat, Operation of a W-like radiative tube on a coke gas, *Stal'* No. 4, 70–73 (1992).
- A. N. Serenko, V. A. Shaferovskiy and N. I. Pivtorak, Temperature fields in double-beam welding with programming of operational conditions, *Svaroch. Proizvod.* No. 7, 23–25 (1992).
- V. V. Shchipanov and A. V. Shchipanov, Determination of contact temperatures in diamond-abrasive treatment of nonmetals, *Rezan. Instrument* No. 46, 111-112 (1991).
- I. S. Shchukina, G. N. Pshenichnaya and M. N. Barskaya, Mathematical simulation of the two-dimensional process of the thermal treatment of cylindrical envelopes made of polymer composite materials. In *Heat and Mass Transfer—MIF*-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 84–87. Izd. ITMO, Minsk (1992).

- D. A. Shishkin, Ye. A. Kosolapov, A. V. Malakhov and A. I. Tukhin, Calculation of heat transfer processes in aerocooling tube AKhBT-06, *Izmerit. Tekh.* No. 6, 40-43 (1992).
- A. L. Shuyakov and A. I. Smorodin, Investigation of the process of the orthoparaconversion in an adiabatic converter. In *The Problems of Cryogenic Engineering*, pp. 18–24. Izd. NPOKriog. Mashinostr., Balashika (1991).
- A. L. Shiyakov, A. I. Smorodin and V. A. Kirpikov, Investigation of the process of heat and mass transfer in an adiabatic converter. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 158–161. Izd. ITMO, Minsk (1992).
- Yu. N. Skrynnik, Yu. D. Zakharov and O. S. Chekhov, Heat and mass transfer characteristics of a counter-flow tray for non-adiabatic processes. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 51–53. Izd. ITMO, Minsk (1992).
- A. F. Slitenko, A. I. Tarasov and V. I. Chelak, Numerical investigation of the system of cooling and three-dimensional temperature field of the gas turbine blade. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 56–59. lzd. ITMO, Minsk (1992).
- I. G. Soloviyov, L. V. Titova and A. V. Belyayev, The sets for thermal treatment of coiled materials. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 80–83. lzd. ITMO, Minsk (1992).
- L. N. Toritsin, Deformation and hydraulic resistance of loose packing of a regenerative heat exchanger, *Ogneupory* No. 6, 26–31 (1992).
- A. Yu. Valdberg and N. M. Savitskaya, Investigation of the efficiency of wet dust collection in condencational cooling of a gas in scrubbers. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 149–152. Izd. ITMO, Minsk (1992).
- V. G. Veselago and A. O. Kuzubov, A computer model of an ejector-type magnetoliquid heat exchanging device. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 34–36. Izd. ITMO, Minsk (1992).
- V. G. Veselago and A. O. Kuzubov, Evaluation of the parameters of magnetic-liquid heat exchanging device, *Magnitn. Gidrodinam.* No. 1, 77–80 (1991).
- I. P. Vilyanskiy, A. G. Podguzov and V. V. Rubakov, A mathematical model of the system of cooling of an inductive crucible furnace. In *Algorithmic and Technical Provision in the Systems of Monitoring Technological Processes*, pp. 73–78. Izd. SPI, Samara (1991).
- V. T. Volkov, V. L. Shaposhnikov and A. V. Vyazmin, Calculation of heat transfer in composite shielding coatings of power plants. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 176–179. Izd. ITMO, Minsk (1992).
- Yu. I. Volovik, Heat and mass transfer in a heterogeneous jet formed by a sprayer. In *Heat and Mass Transfer—MIF*-92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 5, pp. 88–91. Izd. ITMO, Minsk (1992).
- V. I. Yeliseyev, Yu. P. Sovit and L. A. Fleyer, Heat transfer in blown shafts when forming complex threads. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 27–30. Izd. ITMO, Minsk (1992).
- G. P. Yeryomenko and M. V. Cherednichenko, A mathematical model of the kinetics of molecular processes of electrotechnological installations. In *Automated Electrotechnical Installations*, pp. 58-67. Izd. NETI, Novosibirsk (1991).

Yu. K. Yevdokimov and R. Sh. Nigmatulin, Electric models of the boundary between a one-dimensional electrode and electrolyte and their application in measuring flows and mass transfer. In *Heat and Mass Transfer in Chemical Technology*, pp. 77–87. Izd. Kazan. Khim.-Tekhnol. Inst., Kazan (1991). V. N. Zverev, Specific features of heat and mass transfer in plasma centrifuges. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 11, pp. 166–168. Izd. ITMO, Minsk (1992).

## HEAT AND MASS TRANSFER IN THE ENVIRONMENT

- B. V. Arkhipov, Application of conservative schemes for calculating the temperature regime of water reservoirs, *Matem*, *Modelir*. 3(12), 11-15 (1991).
- M. Kh. Ashyrbayev and K. P. Azimov, A mathematical model of the unsteady-state thermal conditions of a geothermally heated film-covered hothouse, *Izv. Akad. Nauk Turkmenistana*, *Ser. Fiz.-Mat.*, *Tekh.*, *Khim.*, *Geol. Nauk* No. 3, 53–58 (1992).
- Yu. S. Datsenko and S. A. Ivanenko, Simulation of water exchange in the Uchinskiy reservoir forestimating its effect on the chromaticity of water, *Vodnye Resursy* No. 1, 70–83 (1992).
- P. I. Dydyshko, Thermoelectrokinetic phenomenon in grounds and other capillary systems. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 52–54. Izd. ITMO, Minsk (1992).
- A. M. Grishin, V. V. Trofimov, N. S. Shulev and A. S. Yakimov, Numerical solution of the problem of heat transfer of thermally treated concrete, *J. Engng Phys.* **62**(4), 608–616 (1992).
- A. A. Konovalov, Concerning the prediction of temperature regime of a frozen ground in the case of the climate getting globally warmer. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 33–36. Izd. ITMO, Minsk (1992).
- Ye. V. Korneyev, G. Ye. Starova and Ye. I. Yakovlev, An algorithm for estimating the factual state of a gas main with account for the heat of crystallization of paraffin, energy dissipation and correction for the nonisothermicity of flow over the radius, *Neft Gaz. Promyshl.*, *Ser. Transp. Khranen. Nefti Nefteprod.* No. 1, 12–15 (1992).
- A. D. Kurushin, P. S. Kostyayev and V. P. Voronov, Heat and mass transfer of permafrost grounds with concretes containing antifrost additives. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 47–49. Izd. ITMO, Minsk (1992).
- T. V. Kuznetsov and V. P. Pudzhinskiy, Investigation of the process of the distruction of the surface of heat shielding and constructional materials in the course of intense exchange with the environment, *Teplofiz. Vysok. Temp.* **30**(3), 529–533 (1992).
- A. L. Makarevich and V. M. Sedelkin, Numerical simulation of moisture migration in a frozen swelling ground. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 25–27. Izd. ITMO, Minsk (1992).
- I. S. Molchadskiy and I. F. Astakhova, Calculation of the heating of metallic structures under the conditions of local fire. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 2, pp. 127–130. Izd. ITMO, Minsk (1992).
- V. Ye. Ostroumov, Investigation of the transfer of ions in the samples of disperse grounds under the influence of the temperature gradient. In *Heat and Mass Transfer—MIF-92*

- (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 28–32. Izd. ITMO, Minsk (1992).
- P. P. Permyakov, P. G. Romanov and V. V. Mandarov, Prediction of the quaternary pollution of frozen grounds. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 7, pp. 21–24. Izd. ITMO, Minsk (1992).
- V. V. Pokotilov, A. D. Shalak, V. S. Larin and N. G. Dolgikh, Heat exchanging processes in the geliosystems of heat supply to energetically efficient houses in the rural regions of Belarus. In *Heat and Mass Transfer—MIF-*92 (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 162–165. Izd. ITMO, Minsk (1992).
- I. G. Shekriladze, G. B. Gogishvili and Abo El-Hanafi, Simulation of the thermodynamic cycle of energy transformation in a thermally stratified atmosphere. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 10, pp. 96–99. Izd. ITMO, Minsk (1992).
- A. S. Tsurikov, Removal of gas condensate from the above-ground gas main as a result of the elevation of temperature in the summer period, *Stroit. Truboprovodov*, No. 5, 23–25 (1992).
- Yu. G. Veryovochkin and S. A. Startsev, Mathematical simulation of heat transfer between water with a free surface and the atmosphere at different temperatures, *Izv. Ross. Akad. Nauk. Fiz. Atm. Okeana* 28(5), 552-557 (1992).

I. I. Zolotov, Thermal calculation of a reservoir with water on extremal drop in temperature, *Vodosnabzhen. San. Tekh.* No. 6, 8-9 (1992).

#### HEAT AND MASS TRANSFER IN BUILDINGS

- V. I. Derevyanko, L. F. Mironov and V. Ye. Sivoraksha, A programing-computational complex for optimizing the structure and parameters of the system of mining air conditioning. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 72–78. Izd. ITMO, Minsk (1992).
- G. V. Geras'kov and A. N. Voinov, Self-similar solution to the problem of the destruction of building constructions with account for interrelated heat and moister transfer. In *Fire in Buildings and Constructions*, pp. 86–91. Izd. VNII-Protivopozh. Obor., Moscow (1992).
- A. P. Khrupov, V. N. Papushkin, S. V. Zhurbin and N. I. Klevchenkov, Heat and air exchange in a one-storey dwelling house. In *Heat and Mass Transfer—MIF-92* (Proceedings of the 2nd Minsk International Heat and Mass Transfer Forum, 18–22 May 1992), Vol. 9, Part 1, pp. 185–195. Izd. ITMO, Minsk (1992).
- B. A. Krupnov, Thermal engineering estimation of vapourpurpose buildings of different geometries, *Vodosnabzhen*. *Santekh*. No. 6, 14–16 (1992).