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International Journal of HEAT and MASS TRANSFER

International Journal of Heat and Mass Transfer 47 (2004) 2511-2521

www.elsevier.com/locate/ijhmt

Heat and mass transfer bibliography—CIS works O.G. Martynenko^{*}

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1. Books

- A.F. Galkin, Thermal Regime of Underground Constructions in the North, Nauka, Novosibirsk, 2000.
- D.A. Labuntsov, Physical Foundations of Power Engineering: Selected Papers on Heat Transfer, Hydrodynamics and Thermodynamics, Izd. MEI, Moscow, 2000.
- K.A. Podgornyi, Calculation of the Parameters of Thermohydrodynamic Interaction, Characteristics of Heat Balance and Water Temperature in Unstratified Water Reservoirs, Izd. Yaroslavsk. Gos. Tekh. Univ., Yaroslavl, 2000.
- A.D. Polyanin, A.V. Vyazmin, A.I. Zhurov, D. A Kazenin, Handbook on Exact Solutions of Heat and Mass Transfer Equations, Factorial, Moscow, 1998.
- V.I. Velichko, V.A. Pronin, Intensification of Heat Transfer and Increase of Energy Efficiency of Convective Surfaces of Heat Transfer, Izd. MEI, Moscow, 1999.

2. Papers—general

- E.A. Adomavichyus, G.V. Alekseev, Theoretical analysis of inverse extremal problems for stationary equations of mass transfer, Preprint No. 7 of the Institute of Applied Mathematics of the Far-East Branch of the Russian Academy of Sciences, 1999.
- G.V. Alekseev, Inverse extreme problems for stationary heat and mass transfer equations, Dokl. Ross. Akad. Nauk 375 (3) (2000) 315–319.
- V.M. Aleksenko, Investigation of the heat field of a wheel during rolling over the rail, Nauch. Mysl Kavkaza No. 3, 2000, pp. 75–91.
- O.M. Alifanov, About the construction of mathematical models of the processes of heat transfer, Kosmonavt. Raketostr., 2000, pp. 144–151.
- A.A. Anisin, Heat transfer intensification in channels with complex shape of tubular and plane surfaces in a transverse flow, Author's Abstract of Dissertation, St. Petersburg State Tech. Univ., St. Petersburg, 2000.
- A.V. Attetkov, P.A. Vlasov, I.K. Volkov, The temperature field of a semispace with a thermally thin coating in impulse

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regimes of heat exchange with outer medium, Inzh.-Fiz. Zh. 74 (3) (2001) 81–86.

- L.A. Bakaleinikov, E.V. Galaktionov, V.V. Tretiyakov, E.A. Tropp, Calculation of thermal effect of an electronic probe on a gallium nitride sample, Fiz. Tverd. Tela 43 (5) (2001) 779–785.
- D.N. Bikmukhametova, Nonstationary temperature fields in bodies of complex geometric shape in the presence of inner heat sinks and heat exchange with the environment, Preprint of the Kazan State Technical University, 2000.
- M.K. Bologa, I.A. Kozhukhar, Electroconvective heat transfer, Prom. Teplotekh. 22 (2) (2000) 11–16.
- V.I. Budnikov, O.I. Butnev, A.N. Bykov, V.A. Pronin, About visualization of the results of calculation of multidimensional problems, Vopr. Atomn. Nauki Tekh., Ser. Mat. Model. Fiz. Prots., 1999, pp. 34–37.
- E.V. Chernyavskaya, G.N. Avaev, Regularities of hydrodynamics and mass transfer, Inzh.-Fiz. Zh. 74 (3) (2001) 184–188.
- T.A. Duyun, S.S. Kuzminykh, A program complex for investigating the thermal and stressed-deformed state of threedimensional objects, Avtomatiz. Sovr. Tekhnol. No. 4, 2001, pp. 3–6.
- I.A. Ermolaev, A.I. Zhbanov, Investigation of the stability of a slightly conductive dielectric liquid in a plane-parallel system of electrodes by the method of computational experiment, Vopr. Prikl. Fiz. No. 6, 2000, pp. 103–104.
- A.I. Fesenko, I.N. Ishchuk, Method of determining the thermophysical characteristics of materials under the action of a pulse point heat source, Inzh.-Fiz. Zh. 73 (2) (2000) 458.
- N.N. Grinchik, V.A. Zhuk, A.A. Khmyl, V.A. Tsurko, Interaction of thermal and electrical phenomena in polarized media, Mat. Model. 12 (11) (2000) 67–76.
- V.N. Groshev, S.A. Golushko, D. Yu. Muromtsev, Stressed operational regimes of energy-saving control in heating of bodies, Prom. Teplotekh. 23 (1–2) (2001) 28–30.
- A.I. Karpov, A.A. Galat, A.I. Prokopenko, Application of the principle of minimal production of the entropy to the solution of heat transfer problems, Collected Papers of the Scientific-Research Inst. of Computer Technologies No. 10, 2000, pp. 11–14.
- O.L. Kritsky, Numerical investigation of temperature fields in anisotropic regions, Issled. Ballist. Smezhn. Vopr. Mekh. No. 3, 1999, pp. 73–74.
- A.A. Kudinov, Investigation of thermal stresses and displacements in composite bodies with a central and axial symmetry, Vestn. Uliyanovsk. Gos. Tekh. Univ. No. 1, 2000, pp. 75–81.

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- V.B. Kuntysh, Investigation of thermal contact resistance of bimetal finned tubes with inner screw knurling, Izv. Vyssh. Uchebn. Zaved., Probl. Energ. Nos. 1–2, 2001, pp. 16–22.
- K. Kusadynov, S.M. Mukhamedin, S.E. Sakipova, E.B. Ualiev, Concerning the problem of heat and mass transfer intensification, Prom. Teplotekh. 23 (3) (2001) 10–12.
- A.N. Moskvin, Yu.A. Moiseenko, G.A. Popovidchenko, Program of RDV-visualization of the results of calculations of two-dimensional and three-dimensional problems, Vopr. Atomn. Nauki Tekh., Ser. Mat. Model. Fiz. Prots., 1999, pp. 67–71.
- I.I. Novikov, Heat transfer in the region of the critical point, Dokl. Ross. Akad. Nauk 376 (2) 191–194.
- V.I. Panferov, Identification of the model of temperature distribution over the heat pipeline length, in Thermal Power Engineering and Thermal Power Engineering in Metallurgy, Magnitogorsk State Tech. Univ., Magnitogorsk, 1999, pp. 94–99.
- V.I. Polezhaev, G.G. Yankov, Free convection (Review), Vestn. MEI No. 2, 2000, pp. 56–73.
- V.M. Popov, I. Yu. Kondratenko, Generalized dependences of contact heat resistance, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, pp. 70–75.
- S.M. Sergeev, Experimental investigation and development of the methods for increasing the thermal efficiency of bundles of smooth tubes on installing of outer agitators, Author's Abstract of Dissertation, Moscow State Open Univ., Moscow, 2000.
- Ya.K. Shlyapin, Mathematical simulation of heat regimes of the sections of gas industry apparatuses, Gaz. Prom. No. 2, 2000, pp. 16–19.
- A.M. Slidenko, About the correctness of some heat and mass transfer models, Mat. Kompiyut. Obraz. No. 7, 2000, p. 300.
- I.M. Tagun, Temperature field of a thin-wall envelope under the conditions of nonstationary heat transfer, Izv. Tulsk. Gos. Univ., Ser. Fiz. No. 2, 1999, pp. 150–154.
- A.V. Tovstonog, Models and simulation of heat loads as applied to the conditions of extremal situations, Vestn. Mosk. Gos. Tekh. Univ., Ser. Mashinostr. No. 1, 2000, pp. 48–69.
- N.M. Tsirelman, Determination of temperature fields in a multidimensional region with a mobile boundary, Izv. Ross. Akad. Nauk, Energetika No. 6, 2000, pp. 131–141.
- V.A. Tsvyashchenko, D. Maitsin, R.I. Kutas, A.V. Tsvyashchenko, Simulation of a stationary heat field of heterogeneous media, Dop. Nats. Akad. Nauk Ukrainy No. 4, 2000, pp. 134–138.
- V.A. Tyukov, Estimation of the thermal state of an isolated conductor, Collected Papers of the Novosibirsk State Tech. Univ. No. 2, 2001, pp. 26–28.
- M.G. Verdiev, B.S. Yusufov, N.R. Salmanov, A high-precision method of measuring the heat flux, Izv. Vyssh. Uchebn. Zaved., Priborostroenie 43 (5) (2000) 54–57.
- V.M. Volchkov, Control of the processes with intense heat release, Collected Papers of the Voronezh State Tech. Acad., Faculty of Food Processing Equipment No. 4, 2000, pp. 174–177.
- A.V. Vyazmin, I.A. Denisov, A.D. Polyanin, A method of asymptotic interpolation in the problems of chemical hydrodynamics and mass transfer, Teor. Osnovy Khim. Tekhnol. 35 (1) (2001) 3–11.

- M.V. Yankovskaya, Near-wall intensification of heat transfer in divergent and convergent flows, Author's Abstract of Dissertation, Kazan State Tech. Univ., Kazan, 1999.
- I.S. Zaguzov, A.F. Fedechev, The interconnected problem of thermoelasticity for a two-layer wall, Proceedings of the Ninth Interinstitutional Conference "Mathematical Simulation and Boundary-Value Problems," Samara, 25–27 May 1999, Pt. 1, Mathematical Models of Mechanics, Strength and Reliability of Constructions, Izd. SamGTU, Samara, 1999, pp. 89–91.
- A.A. Zaitsev, V.A. Zaitsev, B.G. Pokusaev, Mass transfer in a three-phase (gas-liquid-solid) medium, Proceedings of the Twelfth International Scientific Conference "Mathematical Methods in Engineering and Technology—MMTT-12," Veliky Novgorod, 1–3 June 1999, Veliky Novgorod, 1999, p. 50.
- Yu.I. Zhavrin, V.N. Kosov, D.U. Kulzhanov, K.K. Karataeva, Investigation of mass transfer in some hydrocarbon-containing gas mixtures, Teplofiz. Aeromekh. 8 (2) (2001) 245– 249.

3. Heat conduction

- P.G. Alekseev, V.V. Shevelev, D. Yu. Leonidov, A method for solving the heat conduction equation for a multilayer plane system simulating the process of vulcanization of tires, Konstr. Kompozits. Mater. No. 4, 2000, pp. 3–8.
- S.G. Atamanov, Simulation of contact heat transfer in longterm-loaded compounds, Author's Abstract of Dissertation, Voronezh State Tech. Univ., Voronezh, 2000.
- A.M. Denisov, Inverse problems for nonlinear one-dimensional stationary heat conduction equation, Zh. Vych. Mat. Mat. Fiz. 40 (11) (2000) 1725–1738.
- Yu.I. Dudarev, Solution of nonstationary nonlinear problems of heat conduction to justify equipment of new technique, Author's Abstract of Dissertation, GNTs RF "Fiz.-Energ. Inst.," Obninsk, 2000.
- V.V. Evstigneev, N.A. Sachavskaya, A.F. Sachavsky, Concerning the possibility of calculating the thermal conductivity using other physical quantities, Polzunovsk. Almanakh No. 3, 2000, pp. 27–33.
- V.V. Izmailov, A.F. Gusev, Toward calculation of contact thermal conductivity, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, pp. 19–26.
- S.A. Korneev, Hyperbolic heat conduction equation, Izv. Ross. Akad. Nauk, Energetika No. 4, 2001, pp. 117–125.
- P.A. Mandrik, Solution of the heat conduction equation under mixed boundary conditions on the surface of an isotropic semispace, Differents. Uravn. 37 (2) (2001) 238–241.
- Yu.V. Nemirovsky, E.V. Balkov, Thermal conductivity of metal-reinforced tubes, Proceedings of the International Scientific-Technical Conference "Problems of Scientific-Technical Progress in Building on the Eve of the New Millennium," Penza, 1999, Izd. PGASA, 1999, pp. 116–118.
- P.T. Petrik, A.R. Bogomolov, E. Yu. Temnikova, Influence of the thermal conductivity of granular bed particles on heat transfer in vapour condensation on a cylinder, Vestn. Kuzbassk. Gos. Tekh. Univ. No. 2, 2000, pp. 30–31.
- V.A. Petrov, Radiative-conductive heat transfer in fibrous materials of indestructible heat shield and joint investigation

of their optical properties and thermal conductivity, Proceedings of the International Symposium "Advanced Technologies and Materials," Katsively, 22–26 September 1997, Pt. 2, Izd. MGTU, Moscow, 1999, pp. 22–25.

- V.A. Tyukov, Solution of the two-dimensional heat conduction equation for a cylindrical region with an orthotropic medium, Collected Papers of the Moscow State Tech. Univ. No. 2, 2000, pp. 117–125.
- P. Vaitekunas, E. Petkyavichene, V. Katinas, Numerical simulation of hydrothermal processes, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer—MIF-2000," Minsk, 22–26 May 2000, Vol. 10, Heat and Mass Transfer in Power Plants, Izd. ITMO, Minsk, 2000, pp. 251–255.
- N.B. Zhivova, Yu.G. Ispolov, A new method of solving the problems of nonstationary heat conduction, Proceedings of the Mathematical Interinstitutional Scientific Conference "XXVII Week of Science at the St. Petersburg State Technical University Dedicated to the 300 Anniversary of St. Petersburg Foundation," St. Petersburg, 7–12 December 1998, Pt. 3, Faculty of Physics and Mechanics, Izd. SPbGTU, St. Petersburg, 1999, pp. 70–72.

4. Heat and mass transfer between a solid body and a fluid

- N.A. Akhramenko, I.I. Pronevich, I.M. Melnichenko, Thermal stresses in a plate with different distributions of heat sources on its surface, Mater., Tekhnol., Instrum. 4 (2) (1999) 16– 19.
- B.G. Aksenov, S.V. Karyakina, Dynamics of heat energy losses through light protecting structures, Izv. Ross. Akad. Nauk, Energetika No. 4, 2000, pp. 150–159.
- B.G. Aksenov, S.V. Karyakina, Simulation of heat transfer in protecting structures, Dokl. Sib. Otd. Ross. Akad. Nauk No. 1, 2000, pp. 43–48.
- A.K. Alekseev, Toward the control of free-convective heat transfer by means of the wall temperature, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer—MIF-2000," Minsk, 22–26 May 2000, Vol. 1, Convective Heat and Mass Exchange, Izd. ITMO, Minsk, 2000, pp. 59–66.
- G.V. Alekseev, A.B. Smyshlyaev, Solvability of extreme problems for stationary equations of heat convection with nonuniform boundary conditions, Preprint No. 17 of the Institute of Applied Mathematics of the Far-East Branch of the Russian Academy of Sciences, 1999.
- A.A. Avramenko, The properties of symmetry of turbulent dynamic and thermal boundary layers, Prom. Teplotekh. 22 (5–6) (2000) 29–36.
- L.E. Avramenko, V.P. Shevchenko, The problem of thermoelasticity for a sloping spherical shell exposed to a moving heat source, Teor. Prikl. Mekh. No. 31, 2000, pp. 177–184.
- I.R. Baikov, A. Yu. Trofimov, The algorithms of determining the thermal characteristics of pipelines using the data of nonstationary investigations, Izv. Vyssh. Uchebn. Zaved., Probl. Energ. Nos. 3–4, 2000, pp. 14–21.
- A. Bartulis, E. Shcherbinin, Heat and mass transfer in rotating flows with nonplane boundaries, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer— MIF-2000," Minsk, 22–26 May 2000, Vol. 1, Convective

Heat and Mass Exchange, Izd. ITMO, Minsk, 2000, pp. 427–430.

- A.E. Blazhkov, S.B. Faleev, A.I. Zhitenev, Concerning the efficiency of heat protection of a penetrable surface in gas injection, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, p. 218.
- E. Blums, G. Kronkalis, M. Maiorov, Experimental investigation of thermomagnetic convection in a plane slit, Proceedings of the Eighth International Pless Conference on Magnetic Liquids, Pless, September 1998, Izd. IGEU, Ivanovo, 1998, pp. 152–155.
- V.P. Bobkov, I.P. Smogalev, Concerning the accuracy of description of critical heat fluxes in rod bundles by means of different codes, Teploenergetika No. 3, 2001, pp. 21–28.
- A.G. Boikov, One-sided heating of plane bodies by a constant heat flux, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, pp. 27–28.
- E.A. Boltenko, R.S. Pometko, D.E. Boltenko, Investigation of a heat transfer crisis in an annular channel in the presence of heat sinks on the inner tube, Preprint No. 2712 of the Physical Power Engineering Institute, Obnibsk, 1998.
- E.A. Boltenko, S.E. Tarasevich, L.A. Obukhova, Intensification of heat removal in annular channels with flow twisting. Convective heat exchange, Izv. Ross. Akad. Nauk, Energetika No. 3, 2001, pp. 73–79.
- V. Ya. Borovoi, T.V. Kubyshina, A.S. Skuratov, L.V. Yakovleva, Vortex in a supersonic flow and its influence on streamlining and heat transfer of a blunt body, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 5, 2000, pp. 66–67.
- S.A. Burtsev, Investigation of the effect of the wall thickness of a supersonic channel and its thermal resistance on the thermal stratification of a real gas, Proceedings of the Twelfth School-Seminar of Young Scientists and Specialists Headed by Academician of the Russian Academy of Sciences A.I. Leontiev "Problems of Gas Dynamics and Heat and Mass Exchange in Power Plants," Moscow, 25–28 May 1999, Izd. MEI, Moscow, 1999, pp. 27–30.
- V.I. Deev, V.N. Novikov, K.V. Kutsenko, A.A. Lavrukhin, Heat transfer crisis in forced nitrogen flow in vertical tubes, Inzh.-Fiz. Zh. 72 (1) (1999) 47–49.
- S.V. Fedosov, E.S. Slivchenko, T.V. Labutina, V.N. Isaev, Simulation of nonstationary heat transfer in the "coolant– wall" system of a cylindrical crystallizer with a hemispherical bottom, Izv. Vyssh. Uchebn. Zaved., Khim. Khim. Tekhnol. 44 (2) (2001) 96–102.
- S.M. Gadzhieva, V.V. Muradova, Simulation of stationary regimes of heat transfer intensifiers with cross fins, Izv. Vyssh. Uchebn. Zaved., Priborostroenie 43 (5) (2000) 48–51.
- L.G. Genin, V.G. Sviridov, V.G. Zhilin, Yu.P. Ivochkin, N.G. Razuvanov, Hydrodynamics and heat transfer in flow of electoconductive liquids in a round tube in a transverse magnetic field, Teploenergetika No. 6, 2000, pp. 61–65.
- I. Gilis, S. Shinkunas, M. Yakubchenis, Experimental determination of heat transfer coefficient of bundles of tubes in a transverse foam flow, Prom. Teplotekh. 23 (4–5) (2001) 30–33.
- A.B. Gorshkov, Heat transfer in supersonic flow past a sphere and a cylinder at small Reynolds numbers, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 1, 2001, pp. 156–164.

- S.A. Isaev, Numerical simulation of spatial separating flows, Proceedings of the Twelfth School-Seminar of Young Scientists and Specialists Headed by Academician of the Russian Academy of Sciences A.I. Leontiev "Problems of Gas Dynamics and Heat and Mass Exchange in Power Plants," Moscow, 25–28 May 1999, Izd. MEI, Moscow, 1999, pp. 17–20.
- S.A. Isaev, A.I. Leontiev, P.A. Baranov, A.E. Usachev, Bifurcation of a vortical turbulent flow and intensification of heat transfer in a hole, Dokl. Ross. Akad. Nauk 373 (5) (2000) 615–617.
- M.F. Ivanov, M.E. Povarnitsyn, Numerical simulation of threedimensional vortical structures in the problems of heat convection, Preprint No. 2 of the Joint Institute for High Temperatures of the Russian Academy of Sciences, 2000.
- A.I. Kartushinsky, A.A. Shraiber, About the influence of collisions of particles on average motion of a turbulent gas suspension, Prom. Teplotekh. 22 (5–6) (2000) 14–16.
- A.G. Kataev, Investigation of the characteristics of conjugate heat and mass transfer in supersonic flow past blunt bodies, Issled. Ballist. Smezhn. Vopr. Mekh. No. 3, 1999, pp. 69–70.
- R.F. Kelbaliev, Deterioration of heat transfer at supercritical pressures of a substance, Inzh.-Fiz. Zh. 74 (2) (2001) 115– 118.
- S.N. Kharlamov, Mathematical simulation of turbulent heat transfer in channels with a changing cross section, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer—MIF-2000," Minsk, 22–26 May 2000, Vol. 1, Convective Heat and Mass Exchange, Izd. ITMO, Minsk, 2000, pp. 294–300.
- D.A. Khlestkin, V.P. Kanishchev, A.I. Leontiev, V.V. Usanov, Reaction of a jet in water outflow regimes with homogeneous nucleation, Izv. Ross. Akad. Nauk, Energetika No. 5, 2000, pp. 153–157.
- V.V. Khromenkov, Numerical calculation of the efficiency of the system of cooling a solenoid, Vopr. Prikl. Fiz. No. 6, 2000, pp. 79–80.
- Yu.A. Kirsanov, K.M. Volchenko, A. Sh. Nizamova, Cyclic heat transfer of a package of smooth plates, Izv. Vyssh. Uchebn. Zaved., Aviats. Tekh. No. 2, 2001, pp. 39–43.
- S.A. Kolin, V.V. Budilkin, Optimization of the technique of verifying heat calculation of oil coolers with the finned-tube surfaces, Probl. Energ. Nos. 7–8, 2000, pp. 36–41.
- V.N. Korovkin, A.P. Andrievsky, Toward calculation of freeconvective heat transfer on a vertical semi-infinite plate, Inzh.-Fiz. Zh. 74 (2) (2001) 68–72.
- G.V. Kovalenko, G.G. Geletukha, A.A. Khalatov, Characteristic features of the shapes of surfaces adapting to the flow conditions around them, Prom. Teplotekh. 22 (5–6) (2000) 10–13.
- V.B. Kuntysh, Heat transfer and aerodynamic resistance of tube bundles with ribbon finning for air cooling apparatuses, Khim. Neftegaz. Mashinostr. No. 7, 2000, pp. 11–15.
- N.D. Morozkin, O.G. Korobchinskaya, The problem of optimization of heating an infinite hollow cylinder with allowance for phase limitations, Mat. Model. 12 (3) (2000) 37–38.
- A.G. Muraviev, Mathematical model of cooling a one-component liquid drop by a gas flow, Vestn. Novgorodsk. Gos. Univ. No. 3, 1999, pp. 20–24.

- R. Mutukumarasvami, P. Ganesan, Influence of a chemical reaction and injection on flow characteristics in nonstationary upward motion of an isothermal plate, Prikl. Mekh. Tekh. Fiz. 42 (4) (2001) 119–126.
- Yu.V. Naumenko, Numerical calculation of flow regimes of the liquid partially filling a horizontal rotating heat-exchanging cylinder, Inzh.-Fiz. Zh. 74 (3) (2001) 145–150.
- V.R. Nikulshin, L.P. Andreev, A.M. Andryushchenko, Generalized equation of heat transfer with free motion of liquid (gas) in a large volume, Trudy Odessk. Polytekh. Univ. No. 1, 2001, pp. 46–47.
- S.G. Obukhov, Influence of long-term residence of a heatgenerating surface in water on the critical heat flux under stationary and gradual conditions of heat release, Inzh.-Fiz. Zh. 73 (2) (2000) 232–236.
- V.I. Polezhaev, E.B. Soboleva, Thermal gravitational convection of a near-critical liquid in an enclosed region with a side heating, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 3, 2001, pp. 143–154.
- Yu.V. Polezhaev, M.V. Protasov, E.M. Seliverstov, A model of a channel as a means of describing hydrodynamics and heat transfer in porous media, Teplofiz. Vys. Temp. 39 (1) (2001) 146–153.
- A.V. Popeta, Investigation of heat transfer in convective bundles of z-shaped tubes, Energosberezh. Vodopodgot. No. 3, 2001, p. 65.
- V.M. Popov, S.G. Atamanov, I. Yu. Kondratenko, Identification of contact thermal resistances of two-layer systems, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, pp. 52–57.
- V.M. Popov, V.I. Kopaneva, Identification of contact thermal resistances in two-layer thermally stressed systems, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, pp. 58–63.
- A.V. Pozdnyakova, V.B. Kuntysh, Heat transfer of transitional in-line-staggered bundles of finned tubes with natural convection of air, Izv. Vyssh. Uchebn. Zaved., Probl. Energ. Nos. 9–10, 2000, pp. 15–19.
- A.A. Prikhodko, A.V. Zinchenko, Control of separation of compressible multiphase flows, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer— MIF-2000," Minsk, 22–26 May 2000, Vol. 1, Convective Heat and Mass Exchange, Izd. ITMO, Minsk, 2000, pp. 301–308.
- V.G. Rifert, V.I. Sidorenko, V.I. Usenko, Technique and results of measurement of local heat transfer in liquid film flow in horizontal finned tubes, Prom. Teplotekh. 23 (3) (2001) 31–35.
- A.B. Ryskin, N.I. Yavorsky, Exact solutions of the problem concerning free heat convection between two disks, Teplofiz. Aeromekh. 8 (1) (2001) 157–170.
- A.V. Shchukin, I. Ya. Khasanshin, R.S. Agachev, A.P. Kozlov, Convective heat transfer in a flow past a convex surface with transverse protrusions, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 3, 2001, pp. 73–79.
- V.P. Shevchenko, A.S. Goltsev, The problem of thermoelasticity for orthotropic spherical shells heated by concentrated heat sources, Teor. Prikl. Mekh. No. 31, 2000, pp. 103–108.
- I.V. Shevchuk, Integral method for calculating laminar heat transfer of a rotating disk at Prandtl numbers smaller than unity, Prom. Teplotekh. 22 (2) (2000) 25–30.

- I.V. Shevchuk, Solution of inverse problem on heat transfer of a rotating disk: determination of the wall temperature at a given Nusselt number, Prom. Teplotekh. 22 (5–6) (2000) 5–9.
- I.V. Shevchuk, Turbulent heat transfer of a rotating disk at a constant temperature or density of a heat flux on the wall, Teplofiz. Vys. Temp. 38 (3) (2000) 521–523.
- I.V. Shevchuk, A.A. Avramenko, Laminar heat transfer of a rotating disk: broadening and refining database for exact numerical solution, Prom. Teplotekh. 23 (1–2) (2001) 11–14.
- A.P. Solodov, Heat transfer in the vicinity of the forward stagnation point of a tube in a cross flow (analysis in Mathcad software), Teploenergetika No. 3, 2000, pp. 75–77.
- A.V. Starchenko, A.M. Bubenchikov, E.s. Burlutsky, Investigation of heat transfer in an ascending and descending turbulent flow of a "gas–solid particles" mixture in a tube, Teplofiz. Vys. Temp. 39 (2) (2001) 304–310.
- A.A. Stepanenko, V.A. Kuznetsov, A mathematical model of heat transfer in flows of glass mass, Collected Papers of the Belgorod State Tech. Acad. of Building Materials, Pt. 3, 1999, pp. 257–261.
- A.M. Terekh, O.E. Shapoval, E.N. Pismennyi, Surface-average heat transfer of in-line bundles of tubes with cut spiralribbon finning in a cross flow, Prom. Teplotekh. 23 (1–2) (2001) 35–41.
- V.I. Terekhov, S.V. Kalinina, Yu.M. Mshvidobadze, Heat transfer from a spherical hole located in the wake of another hole, Teplofiz. Aeromekh. 8 (2) (2001) 237–243.
- Yu.N. Tsvetkov, A.M. Abdulgalimov, Sh.A. Yusufov, Investigation of heat transfer intensifiers with longitudinal fins, Izv. Vyssh. Uchebn. Zaved., Priborostroenie 43 (5) (2000) 51–54.
- L.M. Uliev, Laminar heat transfer in diffusor liquid flow in a coaxial conic channel with a variable temperature of the inner wall, Teor. Osnovy Khim. Tekhnol. 35 (1) (2001) 31–41.
- E.P. Valueva, Characteristic features of the process of convective heat transfer in turbulent tube flow of a compressible liquid under the conditions of flow rate resonance oscillations, Teploenergetika No. 3, 2001, pp. 29–33.
- E.P. Valueva, Heat transfer in a pulsed turbulent flow of a compressible gas in a tube, Teploenergetika No. 3, 2000, pp. 9–13.
- V.I. Velichko, D.A. Lavrov, Optimal compactness of smoothtube staggered bundles, Teploenergetika No. 10, 2000, pp. 53–54.
- A.M. Vorobiev, K.N. Egorov, D.V. Eliseev, V.V. Kozlov, Nonstationary gas filtration occurring on intense thermal effect on a porous moisture-containing medium, Prikl. Mekh. Tekh. Fiz. 42 (2) (2001) 106–110.
- L.I. Zaichik, V.M. Alipchenkov, Turbulent free convection on an inclined surface at large Rayleigh numbers, Teplofiz. Vys. Temp. 38 (3) (2000) 445–451.
- Yu.B. Zudin, Analysis of the processes of heat transfer with a periodical intensity with allowance for temperature pulsations in a heat transfer agent, Inzh.-Fiz. Zh. 73 (2) (2000) 250–254.
- Yu.B. Zudin, Interrelation between the space and time periodicity of convective heat transfer under the conditions of thermal coupling with a wall, Teploenergetika No. 2, 2001, pp. 46–49.

Yu.B. Zudin, Yu.A. Kuzma-Kichta, V.G. Bakunin, Pulsational model of vapour bubble detachment from a solid wall, Teor. Osnovy Khim. Tekhnol. 35 (1) (2001) 26–30.

5. Heat and mass transfer in disperse and two-phase systems

- V.E. Alemasov, A.P. Repin, Ya.I. Kravtsov, Solution of the boundary-value problem of heat and mass transfer in a foam layer, Izv. Ross. Akad. Nauk, Energetika No. 3, 2001, pp. 61–67.
- V.M. Alipchenkov, L.I. Zaichik, O.I. Melikhov, Simulation of disperse-annular gas-liquid flows in vertical channels, Teploenergetika No. 3, 2001, pp. 9–16.
- M.K. Bezrodnyi, Concerning the hydrodynamic theory of heat transfer crises in free-convective two-phase systems, Prom. Teplotekh. 22 (5–6) (2000) 37–45.
- A.O. Bogopolsky, A.N. Ivanov, A.A. Fatkullin, General and specific features of filtration of microbubble gas-liquid solutions in porous media, Inzh.-Fiz. Zh. 73 (2) (2000) 274–282.
- I.V. Boiko, B.V. Kichatov, F.V. Pelevin, Forced filtration of a vapour-liquid mixture through a porous medium, Teploenergetika No. 3, 2001, pp. 45–48.
- E.A. Boltenko, Yu.N. Kornienko, Yu.A. Smirnov, D.E. Boltenko, Methods and means of measuring the characteristics of thermally nonequilibrium two-phase flow, Teploenergetika No. 3, 2001, pp. 34–39.
- V.T. Buglaev, A.S. Strebkov, Relative disperse characteristics in coolant drop evaporation in different vapour flow regimes, in Investigation of the Elements of Heat-Power Stations, Bryansk State Tech. Univ., Bryansk, 1999, pp. 98–106.
- N.A. Evtyukhin, E.V. Bubygina, T.A. Bakiev, Analysis of the process of heat transfer of the "gas-liquid phase–liquid" system, Proceedings of the International Conference "Problems of Effective Use of Energy Carriers and Low-Grade Fuel in Industry," Saratov, 24–25 September 1998, Izd. SGTU, Saratov, 1998, pp. 75–78.
- N.I. Grigorieva, V.E. Nakoryakov, Simulation of heat and mass transfer during absorption in binary two-phase systems used in heat pumps, Prikl. Mekh. Tekh. Fiz. 42 (1) (2001) 115–123.
- N.I. Grigorieva, V.E. Nakoryakov, Simulation of the processes of heat and mass transfer during absorption in binary twophase systems, Vestn. Mezhdunar. Akad. Kholoda No. 3, 2000, pp. 11–15.
- A. Lyashuk, M.G. Berengarten, Simulation of the heat transfer process in an apparatus with a three-phase fluidized bed, Teor. Osnovy Khim. Tekhnol. 35 (3) (2001) 331–334.
- A.N. Melsitov, V.A. Petushkov, High-speed dynamics of a twophase gas-liquid medium with heat exchange between the phases, Mat. Model. 12 (12) 35–54.
- L.R. Obruchkova, Yu.E. Pokhvalov, Influence of pressure on the structural parameters of an ascending plug vapourwater flow in a tube, Teploenergetika No. 3, 2001, pp. 49– 52.
- G.G. Oganyan, Concerning the influence of interphase heat transfer on linear propagation of waves in a gas–liquid mixture, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 5, 2000, pp. 77–87.

- S.V. Panchenko, V.I. Bobkov, Optimal control of the purposeful processes of thermal preparation of raw materials in a reacting dense bed, Prom. Teplotekh. 23 (1–2) (2001) 51–56.
- P.T. Petrik, E. Yu. Starikova, P.V. Dadenov, Boiling of coolant R 227 in a granular bed at different inclination angles of a pipe, Vestn. Kuzbassk. Gos. Tekh. Univ. No. 1, 2001, pp. 13–15.
- A.N. Semenenko, Concerning the measurement of two-phase flow rate (velocity) by the method of cross-correlation, in Scientific Investigations in Nuclear Power Engineering at the Higher Educational Technical Institutions of Russia, Izd. MEI, Moscow, 1999, pp. 167–169.
- L. Ya. Sheludchenko, Development and investigation of the methods of calculation of heat and mass transfer processes in porous materials of industrial heat power engineering, Author's Abstract of Dissertation, Moscow State Textile Acad., 1999.
- M.A. Smirnova, Concerning the control of the heat transfer process in a disperse system, Mat. Kompiyut. Obraz. No. 7, 2000, p. 302.
- M.A. Smirnova, Toward the problem of heat transfer process optimization in a disperse system, Mat. Kompiyut. Obraz. No. 6, 1999, pp. 334–338.
- Yu.F. Snezhkin, N.A. Dabizha, Investigation of the adsorption characteristics of colloid capillary-porous materials to determine drying regimes, Prom. Teplotekh. 22 (3) (2000) 26–29.
- E.I. Vitkin, A.P. Ivanov, Heat processes in a multicomponent disperse layer, Teplofiz. Vys. Temp. 38 (5) (2000) 799–804.

6. Heat and mass transfer in phase and chemical conversions

- B.G. Aksenov, V.V. Fomina, A model of the mechanism of ice segregation around cool tubes, Izv. Ross. Akad. Nauk, Energetika No. 3, 2001, pp. 135–141.
- A.V. Akulich, B.S. Sazhin, P.V. Akulich, A method for calculating the kinetics of drying of plane textile materials on intense energy supply with deepening of an evaporation zone, Izv. Vyssh. Uchebn. Zaved., Tekhnol. Tekstil. Prom. No. 6, 1999, pp. 116–121.
- A.F. Albu, V.I. Zubov, Concerning the modification of one scheme to calculate the melting process, Zh. Vych. Mat. Mat. Fiz. 41 (9) (2001) 1434–1443.
- S.B. Alekseev, S.V. Svetlov, Yu.N. Ilyukhin, V.O. Kukhtevich, V.G. Sidorov, Crisis of heat transfer in vertical vapourgenerating channels in the absence of heat transfer agent circulation, Teplofiz. Vys. Temp. 39 (1) (2001) 132–137.
- V.V. Alekseev, T.M. Krasovskaya, Moisture condensation on the underlying surface as a resource of fresh water for the regions of Arabian peninsula, in Renuable Power Engineering, Faculty of Geography of the Moscow State Univ., Moscow, 1999, pp. 6–13.
- V.G. Belik, I.I. Kostanzhi, The mathematical model of thermal processes with distributed parameters of boiling tube of the heat exchange equipment of sugar industry, Prom. Teplotekh. 23 (1–2) (2001) 46–51.
- V.N. Buz, Simulation of thermohydraulic self-oscillations on total vapour condensation inside straight tubes, Teploenergetika No. 5, 2001, pp. 44–48.

- A.A. Dolinsky, B.I. Basok, Discrete-impulse transformation of energy in an adiabaticly boiling-up flow, Prom. Teplotekh. 23 (4–5) (2001) 5–20.
- A.R. Dorokhov, G.I. Shtaiger, Determination of the evaporating component of a heat flux in air-water mixture flow in a vertical channel, Teploenergetika No. 3, 2001, pp. 40– 44.
- A.V. Ezhov, A test bench and experiment procedure for investigating the influence of oil on boiling heat transfer of nonazeotropic mixtures in a horizontal tube, Vestn. Astrakhansk. Gos. Tekh. Univ., Mekhanika, 2000, pp. 224– 228.
- S.V. Fedosov, A.I. Sokolsky, D.V. Bokinov, A.V. Kozlov, Simulation of heat and mass transfer in drying of disperse materials in an apparatus with an active hydrodynamic regime, Uchen. Zap. Inzh.-Tekhnol. Fak. Ivanovsk. Gos. Arkhit.-Stroit. Akad. No. 1, 1997, pp. 28–36.
- I.S. Gainutdinov, E.A. Nesmelov, A.N. Borisov, Fluctuations of layer thicknesses occurring in condensation from a molecular beam, Opt. Zh. 67 (8) (2000) 84–87.
- A.I. Gavrilov, E.V. Khairyuzova, E.V. Posmitnyi, Simulation of vapour-phase cooling with regard for natural convection, Nauka Kubani, Ser. Probl. Fiz.-Mat. Model. Estestv. Tekh. Nauki No. 1, 1999, pp. 35–38.
- A.F. Glazovsky, M.S. Krass, A.V. Krymsky, Yu. Ya. Macheret, Hydrothermal regime of polythermal glaciers and its relation to their dynamics, Mater. Glyatsiol. Issled. No. 89, 2000, pp. 134–145.
- I.I. Gogonin, A.I. Kataev, Methodical errors in experimental investigations of condensation heat transfer, Teploenergetika No. 12, 2000, pp. 48–53.
- V.V. Gorin, Experimental investigation of boiling heat transfer of refrigerant R 22 inside tubes with intensified surfaces, Kholod. Biznes No. 2, 1999, pp. 28–30.
- L.N. Grabov, V.I. Mershy, V.N. Vashchenko, T.V. Pisarenko, Optimization of the process of thermal contact melting of materials, Prom. Teplotekh. 22 (1) (2000) 94–99.
- A.P. Grigin, A.D. Davydov, Ion transfer on anode solution of tungsten in alkali under the conditions of natural convection, Elektrokhimiya 37 (2) (2001) 237–240.
- M.A. Grishin, N.I. Pogozhikh, V.A. Potapov, Effect of dynamic structurization of moisture in the process of drying, Prom. Teplotekh. 23 (4–5) (2001) 100–105.
- I.M. Isabekov, Investigation of the process of heat transfer in the evaporation zone of a two-phase thermosiphon, Izv. Vyssh. Uchebn. Zaved., Priborostroenie 43 (5) (2000) 44–48.
- D.A. Khlestkin, V.P. Kanishchev, A.I. Leontiev, V.V. Usanov, Reactive force in outflow of a metastable liquid in regimes with heterogeneous vapour formation, Izv. Ross. Akad. Nauk, Energetika No. 5, 2000, pp. 148–152.
- P.L. Kirillov, P.A. Ushakov, Heat transfer of liquid metals in rod bundles, Teploenergetika No. 2, 2001, pp. 40–45.
- I.P. Kornyukhin, L.I. Zhmakin, L.I. Kozyreva, Estimation of the distribution of air suction over the length of a drying chamber, Izv. Vyssh. Uchebn. Zaved., Tekhnol. Tekstil. Prom. No. 3, 2000, pp. 115–119.
- V.G. Kotelnikov, E.A. Lemenov, Identification of the rate of ablation of bodies by the method of solving inverse heat conduction problems, Proceedings of the Russian Scientific-Practical Conference "Shooting Grouping of Artillery Systems and Ways of Its Improvement," St. Petersburg,

28-29 October 1997, Izd. BGTU, St. Petersburg, 1998, pp. 175-179.

- Yu.A. Kuzma-Kichta, Yu.B. Zudin, V.G. Bakunin, E.V. Saltykova, Investigation of oscillations of an interface during boiling by means of laser diagnostics, Proceedings of the Twelfth School-Seminar of Young Scientists and Specialists Headed by Academician of the Russian Academy of Sciences A.I. Leontiev "Problems of Gas Dynamics and Heat and Mass Exchange in Power Plants," Moscow, 25–28 May 1999, Izd. MEI, Moscow, 1999, pp. 237–239.
- I.A. Kuznetsova, A.A. Yushkanov, Yu.I. Yalamov, Supersonic condensation of a molecular gas, Teplofiz. Vys. Temp. 38 (4) (2000) 639–645.
- D.P. Lebedev, B.N. Bykhovsky, Methods of intensification of freeze drying of preparations in vacuum and development of new continuous apparatuses, Prom. Teplotekh. 23 (1–2) 67– 75.
- M.O. Lutset, S.V. Zhukov, V. Yu. Chekhovich, A.D. Nazarov, A.N. Pavlenko, V.E. Zhukov, Investigation of nonstationary heat transfer on the heater surface during liquid boiling, Prib. Tekh. Eksp. No. 3, 2000, pp. 143–148.
- A.A. Markov, Numerical simulation of mixture flow in a tube with chemical reactions and condensation, Izv. Ross. Akad. Nauk, Mekh. Zhidk. Gaza No. 5, 2000, pp. 96–102.
- V.A. Mazarchenkov, Yu.V. Pavutnitsky, S.I. Khankov, A.N. Cherepanov, Engineering technique for calculating the parameters of heating and melting artificial fatty acids in containers, Khim. Prom. No. 8, 2000, pp. 50–56.
- G.M. Mikhailov, L.A. Kondakova, V.G. Mikhailov, Concerning the prediction of the coefficient of heat transfer from a condensing vapour, in Rheology, Processes and Apparatuses of Chemical Technology, Volgograd Tech. Univ., Volgograd, 1999, pp. 112–114.
- G.M. Mikhailov, L.A. Kondakova, V.G. Mikhailov, Concerning the prediction of the coefficient of heat transfer to boiling aqueous solutions, in Rheology, Processes and Apparatuses of Chemical Technology, Volgograd Tech. Univ., Volgograd, 1999, pp. 109–111.
- V.V. Mikhalevich, B.N. Protsyshin, Investigation of the processes of dehydration and granulation of alkaline protease and alkali-resistant lipase, Prom. Teplotekh. 22 (5-6) (2000) 54-59.
- I.V. Mitrofanov, Influence of electrostatic processing of fuel on the process of heat and mass exchange of a drop with environment, Papers of the Volzhsk. State Acad. of Water Transport No. 283, Pt. 1, 1999, pp. 79–87.
- V.I. Naumov, V. Yu. Kotov, Simulation and investigation of the processes in boundary layers on evaporation of the liquid component, Izv. Ross. Akad. Nauk, Energetika No. 3, 2001, pp. 92–98.
- S.A. Nazarov, Simulation of the process of granular material drying in a vibrofluidized bed, Proceedings of the Thirty Seventh Summary-Scientific Conference for the Year 1998, Voronezh, 1999, Pt. 1, Izd. VGTA, Voronezh, 1999, pp. 130–132.
- N.I. Nikitenko, Yu.F. Snezhkin, N.N. Sorokovaya, A mathematical model and a method of calculation of heat and mass transfer and phase transformations in drying processes, Prom. Teplotekh. 23 (3) (2001) 65–73.
- M. Yu. Nuzhdin, Influence of the periphery on the uniformity of the temperature field of a substrate during synthesis in a

quasi-closed volume, Vestn. Mol. Uchen., Ser. Tekh. Nauk No. 2, 1999, pp. 50–53.

- A.V. Ovsyannik, N.A. Valchenko, E.M. Ivanova, V.V. Gurko, Investigation of heat transfer processes in boiling of liquid on finned surfaces in horizontal annular channels, Proceedings of the Twelfth School-Seminar of Young Scientists and Specialists Headed by Academician of Russian Academy of Sciences A.I. Leontiev "Problems of Gas Dynamics and Heat and Mass Exchange in Power Plants," Moscow, 25–28 May 1999, Izd. MEI, Moscow, 1999, pp. 244–246.
- V.I. Panferov, Yu.O. Mikhankova, Simulation of the process of cooling and freezing of detached heat conducting pipe, in Heat Engineering and Thermal Power Engineering in Metallurgy, Magnitogorsk State Tech. Univ., Magnitogorsk, 1999, pp. 86–94.
- F.V. Pelevin, A porous heat transfer channel with interchannel transpiration of a coolant, Proceedings of the International Symposium "Advanced Technologies and Materials," Katsively, 22–26 September 1997, Pt. 2, Izd. MGTU, Moscow, 1999, pp. 62–65.
- P.T. Petrik, A.R. Bogomolov, I.V. Dvorovenko, Heat transfer in condensation of coolants R 227 and R 213 on inclined pipes, Vestn. Kuzbassk. Gos. Tekh. Univ. No. 6, 2000, pp. 12–13.
- P.T. Petrik, A.R. Dorokhov, G.S. Permyakova, About the coefficient of heat transfer in film condensation under nonstationary conditions, Vestn. Kuzbassk. Gos. Tekh. Univ. No. 3, 2001, pp. 58–60.
- P.T. Petrik, I.V. Dvorovenko, A.R. Bogomolov, P.V. Dadonov, E. Yu. Starikova, Heat transfer in condensation of coolant R 227 on inclined pipes placed into granular bed, Vestn. Kuzbassk. Gos. Tekh. Univ. No. 1, 2001, pp. 11–13.
- P.T. Petrik, E. Yu. Starikova, P.V. Dadonov, Investigation of heat transfer in coolant R 227 boiling on inclined pipes, Vestn. Kuzbassk. Gos. Tekh. Univ. No. 6, 2000, pp. 14–15.
- I.G. Portnov, Thermal destruction of a heterogeneous medium with variable porosity and phase transition in a fixed interval of temperatures, Vestn. MIITa No. 2, 1999, pp. 136–139.
- V.M. Repukhov, Heat screens with phase transformations in a boundary layer, Proceedings of the Twelfth School-Seminar of Young Scientists and Specialists Headed by Academician of Russian Academy of Sciences A.I. Leontiev "Problems of Gas Dynamics and Heat and Mass Exchange in Power Plants," Moscow, 25–28 May 1999, Izd. MEI, Moscow, 1999, pp. 21–26.
- B.V. Savinykh, D.G. Amirkhanov, I.R. Sagbiev, M.A. Sinitsyn, Influence of electric fields on boiling heat transfer, Izv. Vyssh. Uchebn. Zaved., Probl. Energ. Nos. 3–4, 2001, pp. 125–129.
- S.V. Shakhov, D.V. Makovkin, Development of a method of sublimation drying with the use of quantum oscillators, Proceedings of the Thirty Seventh Summary-Scientific Conference for the Year 1998, Voronezh, 1999, Pt. 1, Izd. VGTA, Voronezh, 1999, p. 141.
- A.N. Sherstyuk, A.B. Davydov, K.V. Sokolov, Determination of the time of cooling and freezing of foodstuffs with the aid of air cooling machines, Khim. Neftegaz. Mashinostr. No. 2, 2000, pp. 27–28.
- O.P. Solonenko, E.P. Shurina, A.A. Golovin, Simulation of the dynamics and phase transformations on collision of a melt

drop with a solid substrate, Preprint No. 5 of the Institute of Theoretical and Applied Mechanics, Siberian Branch of the Russian Academy of Sciences, 2000.

- A.V. Sosnovsky, Mathematical simulation of the freezing of ground with the space-time variability of the parameters of snow cover, Mater. Glyatsiol. Issled. No. 89, 2000, pp. 30– 35.
- M.M. Stepanov, Influence of exo-and endothermal processes on the location of the transition point in high-temperature jets and wakes, Fiz. Goreniya Vzryva 36 (5) (2000) 7–11.
- V.G. Tonkonog, S.N. Arslanova, Cooling of low-boiling liquids and production of sludge-like media, Izv. Ross. Akad. Nauk, Energetika No. 3, 2001, pp. 89–91.
- L.I. Trofimov, Determination of the optimal constructive parameters of evaporators with a vapour-jet thermocompressor, Collected Papers of the Sverdlovsk Scientific-Research Inst. of Chemical Engineering No. 6, 1999, pp. 141–149.
- Yu. Vilemas, A. Kalyatka, E. Ushpuras, Transient processes on decrease in coolant flow rate in the circulation loop of RBMK-1500, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer—MIF-2000," Minsk, 22–26 May 2000, Vol. 10, Heat and Mass Transfer in Power Plants, Izd. ITMO, Minsk, 2000, pp. 209–217.
- V.S. Vorobiev, P.R. Levashov, I.V. Lomonosov, S.I. Tkachenko, K.V. Khishchenko, Metastable states of metal on electric explosion, Preprint No. 1-448 of the Joint Institute for High Temperatures of the Russian Academy of Sciences, 2000.
- Yu.A. Zeigarnik, P.A. Kirillov, P.A. Ushakov, M.N. Ivanovsky, Heat transfer of liquid metals in boiling and condensation, Teploenergetika No. 3, 2001, pp. 2–8.
- A.V. Zhuchkov, Vapour desublimation on the surface of a radial fin, Collected Papers of the Voronezh State Tech. Acad., Faculty of Food Processing Equipment No. 4, 2000, pp. 149–151.
- A.S. Zhuravlev, Heat transfer in pool boiling of propane under the conditions of different saturation pressures, Inzh.-Fiz. Zh. 73 (2) (2000) 244–249.

7. Radiation heat transfer

- Yu.N. Antipov, N.V. Imanasova, Radiation detectors for local investigations of extended sources, Prom. Teplotekh. 22 (3) (2000) 65–67.
- A.V. Antonov, A.A. Emeliyanov, N.A. Rubtsov, Investigation of the temperature state of the "semitransparent heat insulation–heat receiving surface" system in interaction with outer radiation, Teplofiz. Aeromekh. 8 (1) (2001) 109– 113.
- I.I. Baineva, Computer and experimental investigation of the processes of heat transfer in heat light sources, Uchebn. Eksp. Vyssh. Shk. No. 2, 2001, pp. 47–50.
- V.A. Baskakov, N.A. Konchakova, A ray method of calculation of pulse heating of thermoelastic semispace with a microstructure, in Thermal Power Engineering, Voronezh State Tech. Univ., Voronezh, 1999, pp. 135–143.
- L.A. Dombrovsky, Approximate calculation of thermal radiation of nonisothermal semitransparent particles, Teplofiz. Vys. Temp. 38 (4) (2000) 686–688.

- L.A. Dombrovsky, Calculation of radiative characteristics of highly porous fibrous materials, Proceedings of the International Symposium "Advanced Technologies and Materials," Katsively, 22–26 September 1997, Pt. 2, Izd. MGTU, Moscow, 1999, pp. 31–39.
- V.S. Dozhdikov, V.A. Petrov, S.V. Stepanov, Spectral radiative ability and coefficient of absorption of fibrous heat insulation at high temperatures, Proceedings of the International Symposium "Advanced Technologies and Materials," Katsively, 22–26 September 1997, Pt. 2, Izd. MGTU, Moscow, 1999, pp. 26–30.
- A. Yu. Krainov, Influence of radiant heat transfer on the minimal energy of spark ignition of gas suspensions, Fiz. Goreniya Vzryva 37 (3) 16–24.
- E.V. Krylov, R.P. Gordeeva, Gas infrared heating of greenhouses, in Increase of the Efficiency of the Systems of Heat and Gas Supply and Ventilation, Saratov State Tech. Univ., Saratov, 1999, pp. 36–39.
- R.V. Levashov, Radiative heat transfer in the furnaces of steam generators on formation of disperse combustion products, Author's Abstract of Dissertation, Kazan State Technol. Univ., Kazan, 2000.
- V.E. Loginov, Quantitative estimation of the effect of thermal radiation on heat transfer in radiative slot recuperators, Bezop. Zhiznedeyat. Okhrana Truda Okruzh. Sredy No. 3, 1999, pp. 91–92.
- V.I. Melnik, I.V. Melnik, Numerical simulation of the technological process of deposition of thin films in gas-discharge electron-beam evaporators, Prikl. Fiz. No. 2, 2000, pp. 168– 172.
- G. Milyauskas, Characteristic features of the processes of transfer in polydisperse radiating flows, Prom. Teplotekh. 23 (1–2) (2001) 115–122.
- S.V. Reznik, P.V. Prosuntsov, A.M. Mikhalev, Mathematicalalgorithmic and software provision of investigation of processes of radiative-conductive heat transfer, Proceedings of the International Symposium "Advanced Technologies and Materials," Katsively, 22–26 September 1997, Pt. 2, Izd. MGTU, Moscow, 1999, pp. 40–49.
- N.A. Rubtsov, V.A. Sinitsyn, Numerical simulation of nonstationary radiative-convective heat transfer in boundary layer of the selectively radiating and scattering medium on a flat plate, Prikl. Mekh. Tekh. Fiz. 42 (1) (2001) 124–130.
- S.P. Rusin, Concerning the determination of temperature using the heat radiation spectrum in a system of nontransparent surfaces, Teplofiz. Aeromekh. 8 (1) (2001) 115–122.
- Yu.S. Zinoviev, O.A. Savrasov, A.V. Stepovoi, A technique for evaluating the radiation intensity of the specular component for an orbital spherical object in a visible range, Optich. Zh. 67 (7) (2000) 50–51.

8. High-temperature thermophysics

- V.A. Bychinsky, N.V. Golovnykh, Simulation of the physicochemical processes of combustion of coals from the Azeisk deposit by the Gibbs method of energy minimization, Ekol. Prom. Proizv. No. 3, 1999, pp. 46–53.
- A.V. Cherednichenko, L.K. Pavlenko, B.I. Yudin, M.V. Cherednichenko, Energy balance of heating the hollow

cathode of a vacuum plasmatron in a glow-discharge startup regimes, Collected Papers of the Novosibirsk State Tech. Univ. No. 4, 2000, pp. 116–121.

- A.R. Dorokhov, V.S. Loginov, A.L. Krasnov, The program of calculation of gasification of a solid-fuel polydisperse phase in a high-temperature gas flow, Collected Papers of the Scientific-Research Inst. of Computer Technologies No. 10, 2000, pp. 76–79.
- A.R. Dorokhov, V.S. Loginov, A.L. Krasnov, The program of calculation of heat exchange of a polydisperse phase with a high-temperature gas flow, Collected Papers of the Scientific-Research Inst. of Computer Technologies No. 10, 2000, pp. 72–75.
- G.F. Gromyko, G.M. Zayats, A.F. Iliyushchenko, S.P. Kundas, Simulation of spreading and solidification of a particle in plasma deposition, Poroshk. Metall. No. 22, 1999, pp. 101–107.
- V.P. Kozlov, P.A. Mandrik, Nonstationary temperature fields in an isotropic semispace under mixed boundary conditions typical of laser therapy technologies in medicine, Inzh.-Fiz. Zh. 73 (3) (2000) 637–644.
- I.B. Krasnyuk, Occurrence of "optical turbulence" in the problems of laser radiation, Inzh.-Fiz. Zh. 73 (2) (2000) 340–345.
- V.P. Kravchenko, N.I. Shut, Investigation of heat regime in closed limited volumes exposed to intense external heat fields of high temperature, Probl. Upr. Informat. No. 2, 2000, pp. 80–83.
- B.V. Kuzmenko, I.A. Malchevsky, Stochastic simulation of the processes of self-ignition and combustion of solid fuel particles, Ekotekhnol. Resursosberezh. No. 6, 2000, pp. 3–8.
- G.V. Kuznetsov, E.S. Nesterov, The temperature field of a particle depositing from a high-temperature gas flow on a surface, Fiz. Khim. Obrab. Mater. No. 2, 2000, pp. 30–34.
- G.V. Kuznetsov, V.P. Rudzinsky, High-temperature heat and mass transfer in the coke layer of heat-protective materials, Teplofiz. Vys. Temp. 38 (4) (2000) 654–660.
- V.V. Lunev, S.E. Selezneva, Investigation of flow in a jet of a high-frequency plasmatron, Kosmonavt. Raketostr. No. 19, 2000, pp. 85–98.
- D.A. Melnikov, Yu.D. Poskacheev, M. Ya. Yudelovich, Keldysh M.V. and development of investigations at Scientific-Research Institute-1 on gas dynamics and heat protection, Raketn.-Kosm. Dvig. Energ. Ust. No. 1, 2001, pp. 94–110.
- I.A. Sergienko, A.V. Florko, V.G. Shevchuk, Characteristic features of emitting and absorbing characteristics of soot particles at combustion temperatures, Fiz. Goreniya Vzryva 36 (2) (2000) 33–39.
- A.B. Shigapov, S.L. Tyukalov, Problems of heat transfer in high-temperature sets of thermal electric power plants, Izv. Vyssh. Uchebn. Zaved., Probl. Energ. Nos. 11–12, 2000, pp. 3–8.
- A.I. Zhbanov, O.A. Koromyslova, V.S. Koshelev, Numerical simulation of heat transfer for a sprayed particle in a plasma jet, Vopr. Prikl. Fiz. No. 6, 2000, pp. 89–92.
- A.V. Zobnin, A.P. Nefedov, A.P. Mokhov, B.V. Rogov, Relaxation of combustion product composition in cylindrical channels, Teplofiz. Vys. Temp. 38 (4) (2000) 614–622.

9. Low-temperature physics

O. Yu. Eshevsky, V.A. Iliin, G.D. Koposov, A low-temperature calorimeter based on anisotropic elements, Uchebn. Eksp. Vyssh. Shk. No. 2, 2000, pp. 23–27.

10. Heat and mass transfer in rheologically complex fluid

- A. Yu. Galimov, I.L. Khabibullin, Characteristic features of filtration of a high-viscosity liquid heated by electromagnetic radiation, Mekh. Zhidk. Gaza No. 5, 2000, pp. 114– 123.
- N.V. Malai, E.R. Shchukin, Yu.I. Yalamov, Influence of medium motion on thermocapillary drift of a heated drop in a viscous liquid, Vopr. Atomn. Nauki Tekh. Ser. Teor. Prikl. Fiz. No. 3, 1999, pp. 70–76.
- P.V. Skripov, A.A. Starostin, S.E. Puchinskis, Heat transfer and thermal destruction of polymers in impulse processes, Dokl. Ross. Akad. Nauk 375 (5) (2000) 615–618.

11. Heat and mass transfer in biological systems

- R.A. Amerkhanov, K.A. Garkavyi, E.A. Adadurov, Determination of heat release by bodies of animals with the aid of noncontact thermometric devices, Energosberezh. Vodopodgot. No. 3, 2001, pp. 68–70.
- O.B. Anipko, K.A. Gorbunov, A.A. Mikhanovsky, Investigation of thermal processes and improvement of technological ones in cryodestruction of biological tissue, Integr. Tekhnol. Energosberezh. No. 2, 2001, pp. 126–129.
- V.G. Bykov, O.A. Melyakova, Duration of heating and cooling of vegetables in a convective-radiative dryer, Vestn. Chelyabinsk. Agroinzh. Univ. 30 (2000) 64–68.
- A.I. Chmil, Energy efficiency of the process of microalgae cultivation, Ekotekhnol. Resursosberezh. No. 3, 2000, pp. 22–27.
- D.P. Lebedev, I.S. Samsonov, The development of devices for control of local heating of animals and birds, Tekh. Selsk. Khoz. No. 6, 2000, pp. 25–27.
- V.A. Mikhailik, E.O. Davydova, Investigation of the state of water in sugar-containing plant row material when being dehydrated, Prom. Teplotekh. 22 (5–6) (2000) 50–54.

12. Heat and mass transfer in buildings

- M.E. Kopilenko, Simulation of real fires in rooms: problems and solutions, Prom. Teplotekh. 23 (1–2) (2001) 23–28.
- S.V. Puzach, Mathematical simulation of propagation of hydrogen in a room, Izv. Ross. Akad. Nauk, Energetika No. 2, 2001, pp. 245–252.

13. Heat and mass transfer in technological processes

V.M. Aleksenko, Simulation of a heat field of the protecting structures of refrigerator and passenger trains, Nauch. Mysl Kavkaza No. 5, 2000, pp. 91–106.

- S.V. Ananikov, V.G. Bochkarev, E.A. Kharitonov, Temperature field in the heating element of a cylindrical apparatus, in Hydrodynamics of heating-ventilation and gas-purifying devices, Kazan State Architect.-Constr. Acad., Kazan, 1999, pp. 49–56.
- V.I. Artemov, G.G. Yankov, V.E. Karpov, M.V. Makarov, Numerical simulation of heat and mass transfer processes in the elements of thermal-and power-engineering equipment, Teploenergetika No. 7, 2000, pp. 52–59.
- V.A. Burakov, I.V. Shcherbakova, A.A. Yankov, Numerical simulation of temperature fields of the panels of the instrumental section of space apparatuses by the method of finite elements, Issled. Ballist. Smezhn. Vopr. Mekh. No. 2, 1998, pp. 80–85.
- M.O. Dolmatova, G.K. Lisovaya, A.A. Ermakov, Hydrodynamics and mass transfer in pipes-driers with intensifying inserts, Collected Papers of the Sverdlovsk Scientific-Research Inst. of Chemical Engineering No. 6, 1999, pp. 127–131.
- V.V. Elizarov, V.A. Yankov, A thermal mathematical model of an instrument-radiator panel of space apparatuses, Issled. Ballist. Smezhn. Vopr. Mekh. No. 3, 1999, pp. 67–68.
- A. Yu. Fedukin, Control of the nonuniformity of the temperature field of a multizone furnace, Dokl. Akad. Voen. Nauk., Ser. Anal. Teor. Avtomat. Upr., Kompiyut. Nauki No. 5, 2000, pp. 98–101.
- Kh.M. Gadzhiev, Thermal-electric intensifier of heat transfer for sterilizing liquids, Izv. Vyssh. Uchebn. Zaved., Priborostroenie 43 (5) (2000) 29–31.
- V.A. Grekhov, L.M. Pakhomov, A fibre-optical system for measuring the concentration of inert particles, Prib. Tekh. Eksp. No. 6, 2000, pp. 116–118.
- T.A. Ismailov, K.A. Mamedov, T.I. Aminov, Intensifier of heat transfer for heat removal from high-power elements, Izv. Vyssh. Uchebn. Zaved., Priborostroenie 43 (5) (2000) 57–59.
- S.A. Kryuchkov, V.V. Lebedev, Increase of the screening effect on the end face wall of a turbine grid by twisting the screening jets, Prom. Teplotekh. 23 (1–2) (2001) 31–35.
- A.A. Kuchaev, Numerical investigation of an electromagnetic and heat fields in the ladle-furnace facility.2. Results of investigations, Prom. Teplotekh. 22 (5–6) (2000) 16–22.
- A.V. Lagerev, Mathematical simulation of mass transfer and removal of drop-filming moisture in inertia-gravitational separators of moist vapour, Inzh.-Fiz. Zh. 73 (3) (2000) 501–509.
- S.I. Lazarev, V.B. Korobov, Mathematical model of heat transfer in electrobaromembrane apparatuses with cameras connected in series, Izv. Vyssh. Uchebn. Zaved., Khim. Khim. Tekhnol. 43 (4) (2000) 74–76.
- O.S. Lomova, Improvement of intergradual cooling of compressible air in piston compressors with the use of contact heat exchangers, Author's Abstract of Dissertation, Omsk State Tech. Univ., Omsk, 2000.
- V.K. Matyushchenkov, Investigation of the features of numerical solutions of a system of differential equations for multiflow plate-fin heat-exchangers, in Cryogenic Technology: Problems and Perspectives, Kriogenmash, Balashikha, 1998, pp. 17–24.
- I.I. Mazhul, D.V. Shcherbik, Integral heat fluxes to the surfaces of hypersonic air intakes, Teplofiz. Aeromekh. 8 (2) (2001) 219–235.

- O.O. Osipov, I.V. Frygin, An analytical model of the process of continuous induction heating of the blanks of races, Vestn. Samarsk. Gos. Tekh. Univ. No. 9, 2000, pp. 200–203.
- A.M. Paramonov, Optimization of the construction of heat protection of industrial furnaces, Prom. Energ. No. 3, 2001, pp. 41–43.
- V.V. Provotorov, V.V. Svistov, The maximum principle for the problem of heat propagation in combined plates of water evaporative coolers, Collected Papers of the Voronezh State Tech. Acad., Faculty of Food Processing Equipment No. 4, 2000, pp. 239–240.
- V.M. Sedelkin, O. Yu. Kuleshov, Modern mathematical models and methods of calculation of heat transfer in tubular furnaces, Proceedings of the International Conference "Problems of Effective Use of Energy Carriers and Low-Grade Fuel in Industry," Saratov, 24–25 September 1998, Izd. SGTU, Saratov 1998, pp. 40–44.
- V.V. Skugarev, E.A. Khromykh, Description of thermal processes in boiling apparatuses based on electrical models, Proceedings of the Thirty Seventh Summary-Scientific Conference for the Year 1998, Voronezh, 1999, Pt. 1, Izd. VGTA, Voronezh, 1999, pp. 163–166.
- V.V. Sorokin, Heat transfer intensification in industrial power plants under the conditions of inhomogeneous media, Author's Abstract of Dissertation, Belarus State Polytech. Acad., Minsk, 1999.
- L. Volkova, N. Volkov, V. Mironov, Mathematical simulation of heat and mass transfer and thermal protection in engines, Dvigatel No. 1, 2000, pp. 33–35.
- V.I. Volodin, Influence of the processes of heat transfer on the efficiency of compression heat transformers, Proceedings of the Fourth Minsk International Forum "Heat and Mass Transfer—MIF-2000," Minsk, 22–26 May 2000, Vol. 10, Heat and Mass Transfer in Power Plants, Izd. ITMO, Minsk, 2000, pp. 202–208.
- A.V. Vygovsky, A.P. Verbovoi, Heating of an inductive rheostat, Tekh. Elektrodinam. No. 1, 2001, pp. 55–58.
- A.A. Yudakov, O.N. Tsybalskaya, Experimental investigation of heat transfer in a vortex counter-current furnace, Prom. Energ. No. 5, 2001, pp. 47–51.
- L.B. Zimin, On removal of the condensation heat from a high-power refrigerator located on a deep horizon into an issuing ventilation jet, Ugol Ukrainy Nos. 2–3, 2000, pp. 59–63.

14. Heat and mass transfer in the environment

- M.M. Alimov, M.G. Khramchenkov, A.N. Chekalin, N.D. Yakimov, Some tests for the programs of the calculation of contamination transfer by underground water, Vopr. Atomn. Nauki Tekh., Ser. Mat. Model. Fiz. Prots. No. 3, 2000, pp. 54–61.
- V.V. Belikov, V.M. Goloviznin, V.N. Semenov, O.S. Sorokovikova, A model of convective rise of impurities on ejection to the atmosphere in explosive energy release, Izv. Ross. Akad. Nauk, Energetika No. 5, 2000, pp. 128–136.
- V.K. Bulgakov, S.V. Soloviev, A. Sh. Kamaletdinov, Influence of the number of homochronicity on convection in the Earth core, Collected Papers of the Scientific-Research Inst. of Computer Technologies, No. 10, 2000, pp. 7–10.

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- V.S. Emdin, Simplified mathematical models of the field of scattering of optical radiation on the inhomogeneities of the sea medium, Opt. Zh. 67 (8) 49–54.
- V.P. Korovkin, T.I. Solomkina, Some problems of provision of heat regimes of grounds in the building technologies of the Far North, Proceedings of the International Scientific-Technical Seminar "Nontraditional Technologies in Building," Tomsk, 25–28 May 1999, Pt. 1, Izd. TGASU, Tomsk, 1999, pp. 271–274.
- O.O. Kosovets, O.E. Pakhalyuk, About the distribution of meteorological parameters in the Ukraine Carpathians, Energ. Elektrif. No. 12, 2000, pp. 24–26.
- I. Kostylev, M. Ovsyannikov, Heat-engineering aspect of liquefied gas transportation, Mor. Flot Nos. 5–6, 2000, pp. 29–30.
- V.M. Popov, S.G. Atamanov, I. Yu. Kondratenko, Contact heat transfer in machines and apparatuses of a forest complex, Proceedings of the All-Russian Scientific-Practical Conference "Improvement of Technical Level of Forest

Complex Machinery," Voronezh, 3-5 June 1999, Izd. VGLTA, Voronezh, 1999, pp. 143-144.

- V.M. Popov, S.G. Atamanov, A.N. Shvyrev, Contact heat transfer in the elements of the constructions of forest complex machinery, Proceedings of the All-Russian Scientific-Practical Conference "Improvement of Technical Level of Forest Complex Machinery," Voronezh, 3–5 June 1999, Izd. VGLTA, Voronezh, 1999, pp. 144–146.
- G.A. Ramazin, Prediction of the temperature regime of permafrost grounds around heat lines, Energ. Tyumensk. Reg. No. 3, 2000, p. 30.
- A.M. Razakov, A.G. Tarapon, Models of the processes of heat transfer in formation of the Crimea geothermal anomaly, Geofiz. Zh. 23 (1) (2001) 121–128.
- S.V. Soloviev, V.K. Bulgakov, A. Sh. Kamaletdinov, Convective heat transfer in the Earth core, Collected Papers of the Scientific-Research Inst. of Computer Technologies No. 10, 2000, pp. 3–6.