



Heat and mass transfer bibliography—CIS works

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BOOKS

- Abdulagabov, I. M., Gadzhiev, A. Z. and Rabinovich, A. A., *Transport Properties of Liquids and Gases Near the Critical Point*. Izd. Dag. Nauch. Tsentr, Makhachkala, 1994.
- Bubenchikov, A. M., Komarovskiy, L. V. and Kharlamov, S. N., *Mathematical Models of Flow and Heat Transfer in Internal Problems of the Dynamics of a Viscous Gas*. Izd. Univ., Tomsk, 1993.
- Etudes About Turbulence : Volume of Papers of the Russian Academy of Sciences. Izd. Nauka, Moscow, 1994.
- Kashinskiy, V. I., Minayev, A. N. and Lysenko, L. V., *Energochemical Processes in Mineralized Media*. Izd. Inzhener, Moscow, 1992.
- Khabenskiy, V. B. and Gerliga, V. A., *The Unstable Character of Heat Carrier Flow in the Elements of Power Plants*. Izd. Nauka, St Petersburg, 1994.
- Lokai, V. I., Bodunov, M. N., Karimova, A. G., Podgornov, V. A. and Zakirov, M. U., *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 177-182.
- Mathematical models of nonlinear excitations, transfer, dynamics and control in condensed systems and other media. *Proceedings of the Russian Scientific Conference with Foreign Participation*. Tver', 1994.
- Snegirev, I. A. (ed.) *Physical Mechanics* (Collected Papers). Izd. Tver' Gos. Univ., Tver', 1994.
- Vitkov, G. A., Kholpanov, L. P. and Sherstnev, S. N., *Hydraulic Resistance and Heat/Mass Exchange*. Nauka Press, Moscow, 1994.
- Volkov, E. P., Zaichik, L. I. and Pershukov, V. A., *Simulation of Combustion of a Solid Fuel*. Izd. Nauka, Moscow, 1994.
- Yevstigneyev, V. V. (ed.) The problems of industrial SVS-technologies. *Proceedings of the International Scientific-Engineering Conference*, Barnaul, Izd. Alt. Gos. Tech. Univ., Barnaul, 1994.

PAPERS—GENERAL

- Abramenko, T. N., Aleinikova, V. I. and Kuzmina, N. Ye., Nonlinear effects of energy transfer in gases. *Vestsi Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk* 1994, 3, 108-115.
- Alekseyev, A. K., Concerning the sweeping of a heat pulse over the spatial variable in a heat-sensitive material. In *Applied Problems of Aeromechanics and Geospace Physics*. Moscow Physicochemical Institute, Moscow, 1993, pp. 88-93.
- Alekseyev, A. K., Bondarev, A. Ye., Bondarev, Ye. N. and Molotilin, Yu. A., Numerical simulation of unsteady-state heat and mass transfer in closed volumes, Preprint no. 31 of the Institute of Applied Mathematics, Russian Academy of Sciences. Moscow, 1994, pp. 1-20.
- Amandus, N. Ye., The single-valuedness condition for solv-

ing the equation of fast diffusion. *Dinam. Splosh. Sredy*, 1994, **106**, 173-178.

- Artemov, V. I., Yankov, G. G., Makarov, M. V. and Ryabin, V. V., Experience of dismantling and use of the ANES system for solving multidimensional problems of heat and mass transfer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2. Moscow, 1994, pp. 17-25.
- Astakhov, I. Ye., Budak, V. P., Lisitsyn, D. V. and Selivanov, V. A., Solution of the vector equation of transfer in a small-angle modification of the method of spherical harmonics. *Optika Atmosf. Okeana*, 1994, **7**(6), 753-761.
- Bagmei, O. L., Sebko, V. V. and Sirenko, N. N., Differential electromagnetic transformer of temperature. *Izmerit. Tekh.* 1994, **7**, 48-50.

- Balakin, V. A. and Pereverzeva, O. V., Metrological foundations of measurements of nonstationary temperature fields in friction. *Trenie Iznos*, 1993, **14**(6), 1072-1084.
- Bezyukov, O. K., Grivnin, Yu. A., Zubrilov, S. P. and Larin, V. A., Effect of electric, magnetic and thermal fields of cavitation and cavitation erosion. In *Environmental Protection*. St Petersburg University of Water Communications, St Petersburg 1993, pp. 15-46.

- Borodin, V. S., Gridin, S. V. and Melikhov, V. M., Simulation of heat and mass transfer and computerization on the basis of an expert system of technological preparing of casting production. *Protsessy Litiya*, 1993, **4**, 74-81.

- Burdakov, A. P., Dorokhov, A. R. and Ogurechikov, A. A., Methods of calculation of absorption processes in heat mass exchange equipment. Preprint no. 270 of the Institute of Thermal Physics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, 1994, pp. 1-40.

- Buzhdan, Ya. M., Transport coefficients for a multicomponent fluidic medium. *Zh. Fiz. Khim.*, 1994, **68**(4), 726-732.

- Engelgardt, G. R. and Davydov, A. D., The difference of approaches to a numerical solution of the problems of unsteady-state mass transfer in electrochemical systems. *Elektrokhim.*, 1994, **30**(7), 953-954.

- Filippov, B. V., Nonequilibrium processes in the mechanics of inhomogeneous media. *Vestn. S. Peterburg. Univ. Ser. 1*, 1993, **3**, 45-56.

- Fokin, S. I., Sinkevich, O. A. and Kirillov, V. N., A procedure of determining thermophysical properties of electrically conducting anisotropic materials at temperatures 1400-3000 K. *Teplofiz. Vysok. Temp.*, 1994, **32**(3), 446-451.

- Fyodorov, A. G., Analysis of the possibilities for obtaining mathematically correct solutions in problems of conjugate heat transfer. *Zh. Vychisl. Mat. Mat. Fiz.*, 1994, **34**(6), 886-897.

- Galaktionov, V. A. and Posashkov, S. A., Exact solutions and invariant spaces for non-linear equations of gradient diffusion. *Zh. Vychisl. Mat. Mat. Fiz.*, 1994, **34**(3), 373-383.

- Galich, N. Ye. and Petrushchenkov, V. A., Thermal self-effect, optical turbulence and autooscillations of radiation in a medium moving along the beam. *Kvant. Elektron. (Moscow)*, 1994, **21**(8), 759–766.
- Galinker, E. V., Hydrodynamic regime and mass transfer in inversion electrochemical methods of analysis. *Zavod. Lab.*, 1994, **60**(8), 13–16.
- Gamayunov, N. I., Kalabin, A. L. and Svitunov, V. A., Modelling of diffusion of bicomponent fibers of core-shell type. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 285–287.
- Glasko, V. B. and Oskolkov, I. N., Concerning the regularization of the problem of thermodeflectoscopy. *Zh. Vychisl. Mat. Fiz.* 1994, **34**(6), 926–935.
- Golovenko, V. M., Bykh, A. I. and Rozhitskiy, N. N., Transport of a substance in electrochemoluminescent solutions. Convective mass transfer in electrochemoluminescent cells. *Elektrokhim.*, 1994, **30**(9), 1138–1144.
- Goncharova, O. N., Global solvability of the problem on the formation of spherical microballoons. *Dinam. Splosh. Sredy*, 1994, **106**, 36–48, 207–208.
- Gudzovskiy, A. V., Aksenov, A. A., Dyadkin, A. A. and Tishin, A. P., Numerical simulation of mass transfer in gas mixers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 7–12.
- Guriyanov, L. V., A thermometric method of the increase in the accuracy of temperature measurements. *Prom. Teplotekh.*, 1993, **15**(3), 100–102.
- Iliyushina, Ye. A. and Korotkina, M. P., On the possibility of a thermal explosion in a lamellar medium of periodic structure. *Vestn. MGU Ser. 1*, 1994, **4**, 53.
- Ivanov, I. A., Urushev, S. V. and Bezhnarov, S. A., A technique of calibrating natural thermocouples. In *Structural Technological Provision of the Safety of Rolling Stock*. St Petersburg State University of Railways. St Petersburg, 1994, pp. 99–103.
- Kenig, Ye. Ya., Investigations of the kinetics of mass and heat transfer in separation of multicomponent mixtures, Pt 1. *Teor. Osnovy Khim. Tekhnol.* 1994, **28**(3), 223–242.
- Khatalov, A. A. and Avramenko, A. A., The Taylor–Görtler instability in a laminar gradient boundary layer. *Prom. Teplotekh.*, 1993, **15**(3), 29–33.
- Knyazev, O. A., Investigation of the dynamic error of thermocouples at large heating rates. *Trudy TsAGI*, 1993, **2522**, 51–56.
- Kolyano, Yu. M., Volos, V. A., Ivanik, Ye. G. and Gavrysh, V. I., Temperature field in a thermally sensitive multilayered half-space. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 226–234.
- Konstantinov, Ye. N. and Korotkova, T. G., A quasi-chemical method of describing adsorptional equilibrium for separating liquid mixtures. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 243–250.
- Kovenya, V. M. and Lebedev, A. S., Modification of the method of splitting for constructing economical difference schemes. *Zh. Vychisl. Mat. Mat. Fiz.*, 1994, **34**(6), 886–897.
- Krylov, A. F., Remarks on hydrothermodynamic theory of diffusion. In *Thermodynamics of Irreversible Processes*. Institute of General and Inorganic Chemistry, Moscow, 1992, pp. 144–149.
- Kutas, R. I. and Tsvyashchenko, V. A., Geothermal regime and seismicity of the Crimean region. In *Geothermia of Seismic and Aseismic Zones*, Interrepublican Meeting, 1991, Dolinka (Lake Issyk-Kul), Moscow, 1993, pp. 15–27.
- Mirgorodskiy, V. I., Novichikhin, Ye. V. and Nosyrev, V. M., Application of the “mirage” effect for measuring the thermal diffusivity of solid bodies. *Zh. Tekh. Fiz.*, 1994, **64**(2), 174–179.
- Motyl, D. N., Method of calculation of stationary regimes of chemicotechnological schemes. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 292–294.
- Novikov, I. A., Determination of the dynamic thermophysical properties of media. *Izmerit. Tekh.* 1994, **8**, 8–9.
- Novikov, V. A., Savateyev, Ye. G. and Slyko, O. N., Concerning a certain inverse problem for the Cattaneo–Vernotte equation. *Dinam. Splosh. Sredy*, 1994, **106**, 75–99.
- Onufriev, A. T., Concerning the model equation for the probability density in the semi-empirical theory of turbulent transfer. In *Etudes on Turbulence*. Russian Academy of Sciences, Moscow, 1994, pp. 117–127.
- Oshchepkov, S. L. and Dubovik, O. V., An optimized iterative method for numerical solution of the Fredholm integral equation of first kind for positively determined quantities. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana (Russia)*, 1994, **30**(2), 165–172.
- Podol'tsev, A. D. and Kucheryavaya, I. N., Numerical simulation of electric thermal processes in the zone of a high-velocity sliding contact. *Tekh. Elektrodinam.*, 1993, **4**, 3–9.
- Polezhayev, V. I., Free convection: review of the models methods and applications. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 3–10.
- Postolnik, Yu. S. and Mashchenko, O. I., Response optimal regime of heating a plate with functionally depending characteristics with limitations on the function of control distribution. *Izv. VUZov, Chorn. Metallurg.*, 1994, **2**, 52–56.
- Proceedings of the 2nd Interrepublican Conference “Optical methods of investigation of flows”*, Novosibirsk, 1993. *Teplofiz. Aeromekh.* 1994, **1**(1), 9–10.
- Prokopov, G. P., Constructing test problems for plotting two-dimensional regular grids. *Voprosy Atom. Nauki Tekh., Ser. Mat. Modelir. Fiz. Protsessov (Moscow)*, 1993, **1**, 7–13.
- Romanova, N. A. and Butorin, A. G., Concerning the variable nature of turbulent heat exchange between the surface of the Turrennian Sea and the atmosphere in a winter period. *Okeanolog.*, 1994, **34**(3), 380–382.
- Shemarulin, V. Ye., Darby-type operators in a one-dimensional gas dynamics. *Voprosy Atom. Nauki Tekh., Ser. Mat. Modelir. Fiz. Protsessov (Moscow)*, 1993, **1**, 38–43.
- Shulepov, Yu. V. and Kozhanov, V. A., Solution of the general dynamic problem of sorption from a multicomponent solution or a mixture of gases for a linear rectangular and weakly linear isotherms. *Khim. Tekhnol. Vody*, 1994, **16**(3), 227–249.
- Sivikh, G. F., Calculation of the efficiency of heat transfer of rough surfaces. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 192–195.
- Sokolov, A. K., A numerical-analytical method of calculation of nonsymmetric heating of a plate with account for scaling. *Izv. VUZov, Ènergi.*, 1994, **5–6**, 75–80.
- Sovkov, V. N., Mathematical simulation of the mechanism of packing and filtrational moisture transfer during self-packing of masses. *Ogneupory*, 1994, **8**, 18–21.
- Vasilenko, V. I., Nichiporenko, V. I. and Shishkin, Ye. A., A device for stabilizing the temperature of the ends of thermoelectric transmitters. *Zavod. Lab.*, 1994, **60**(1), 26–27.
- Vilyaev, A. V. and Duchkov, A. D., Investigation of variations of a geothermal field in view of the predicted seismic danger. In *Geothermia of Seismic and Aseismic Zones*, Interrepublican Meeting, 17–22 September 1991, Dolinka (Lake Issyk-Kul), Moscow, 1993, pp. 185–189.
- Yelin, A. V., Distribution of temperature over the thickness of a plane element in the dynamic model of a thermal object. In *Automatization of the Technological Processes of Light Industry*. Moscow State Academy of Light Industry, Moscow, 1993, pp. 113–118.
- Yemelyanov, V. N., Laboratory computational practice on heat and mass transfer on the basis of a personal computer. *Proceedings of the 1st Russian National Con-*

- ference on Heat Transfer, Vol. 2, Moscow, 1994, pp. 90–92.
- Zadorin, A. I., Numerical solution of an elliptic equation with a parabolic boundary layer. *Modelir. Mekh.*, 1993, 7(1), 52–59.
- Zakharov, S. M., Larikov, L. N. and Mezhvinskiy, R. L., Concerning the temperature dependence of mass transfer enhanced by deformation. *Metallofiz. Nov. Tekhnol.*, 1994, 16(3), 15–22.
- Zakharov, S. M. and Mazanko, V. F., Mass transfer in single crystals of molybdenum under the effect of electric discharge. *Metallofiz.*, 1993, 15(8), 56–60.
- Zamurayev, V. P., Concerning numerical simulation of combined heat transfer in a plane layer on grids with an arbitrary optical thickness of the step. *Prikl. Mekh. Tekh. Fiz.*, 1994, 35(4), 107–118.
- Zarubin, V. S. and Kuvyrkin, G. N., Prediction of thermophysical and thermoelastic characteristics of composites. *Vestn. MGTU, Ser. Mashinostr.*, 1994, 2, 78–83.
- Zhukov, V. T. and Feodoritova, O. B., Conservative difference schemes of parabolic and elliptic equations on curvilinear grids. *Voprosy Atom. Nauki Tekh., Ser. Mat. Modelir. Fiz. Protsessov (Moscow)*, 1993, 4, 14–18.
- Zimina, N. Kh. and Fomicheva, I. G., Thermal accommodation in a carbon dioxide–metal system. *Zh. Fiz. Khim.*, 1994, 68(4), 581–588.

HEAT CONDUCTION

- Aleksandrov, V. A. and Mechanik, V. A., Effect of the thermal conductivity of diamonds and heat transfer coefficient on the contact temperature and wear of a cutting disk. *Trenie Iznos*, 1993, 14(6), 1115–1117.
- Cherepanov, V. Ya., Stupik, V. P. and Kolesnikov, V. N., A comparative method and facility for measuring the thermal conductivity of heat-insulating materials. *Izmerit. Tekh.*, 1994, 4, 35–37.
- Gairbekov, Kh. A., Estimation of the thermal conductivity of the large masses of rocks. In *Geothermia: Geothermal Power Engineering*. Institute for the Problems of Geothermia, Makhachkala, 1994, pp. 137–141.
- Galaktionov, V. A. and Posashkov, S. A., Examples of asymmetric complete cooling and peaking regimes for quasi-linear equations of heat conduction. Preprint no. 21 of the Institute of Applied Mathematics, Russian Academy of Sciences, Moscow, 1994, pp. 1–24.
- Glushko, V. P. and Tkachyova, S. N., Concerning the equation of heat conduction with a substantially variable coefficient. *Dokl. Akad. Nauk (Russia)*, 1994, 335(6), 684–687.
- Isayev, K. B., Thermal conductivity of carbon plastics radiatively heated on one side. *Teplofiz. Vysok. Temp.* 1994, 32(2), 310–312.
- Kirsanov, Yu. A., Heat conduction in solid bodies with coating in the case of cyclic heat exchange with external media. *Izv. VUZov, Energ.*, 1994, 11–12, 62–66.
- Naziyev, D. Ya., Experimental investigation of thermal conductivity of liquid triple n-heptane–n-octane–isooctane mixtures at high pressures. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 195–199.
- Naziyev, D. Ya., Thermal conductivities of ternary n-octane–isooctane–octen-1 mixtures at high pressures. *Zh. Fiz. Khim.*, 1994, 68(4), 595–598.
- Rotcop, L. L., Fundamental solution of a network heat conduction equation. *Inzh.-Fiz. Zh.*, 1994, 66(3), 369–373.
- Safarov, M. M., Zaripova, M. A. and Dobrokhотов, S. B., An automated system for measuring the thermal conductivity of fluids at high parameters of state. *Metrol.*, 1994, 8, 13–19.
- Shishov, Ye. V., Gavrilenko, I. P. and Chervyakov, V. V., Determination of the thermal conductivity of orthotropic material at high temperatures. *Vestn. MGTU, Ser. Mashinostr.*, 1994, 2, 110–115.
- Usenko, Yu. I., Gorshkov, Yu. F. and Ivanov, V. I., Toward determination of the thermal conductivity of a thin-strip steel in rolls. *Izv. VUZov, Chyorn. Metallurg.*, 1994, 4, 44–45.
- Yalamov, Yu. I., Gaidukov, M. N. and Levin, V. V., Calculation of the effective thermal conductivity coefficient of an aerodisperse system. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 313–315.
- Yudovich, V. I., Linear stability of the equilibria of nonconducting fluid. *Matem. Sb.*, 1994, 185(5), 139–159.
- Nazarevich, V. V. and Sazhina, T. V., Computer calculation of the resistance to the heat transfer of protecting structures. In *Investigations in the Field of Stationary and Transport Machines*. Kuzbass Polytechnic Institute, Kemerovo, 1993.

HEAT AND MASS TRANSFER BETWEEN A SOLID BODY AND A FLUID

- Abaltusov, V. Ye., Zharova, I. K. and Pinkin, V. F., Experimental investigations of heat and mass exchange between high-temperature heterogeneous jets and a surface. *Proceedings of the 1st Russian National Conference on Heat Transfer*. Vol. 8, Moscow, 1994, pp. 3–9.
- Aksyonov, A. A. and Gudzovskiy, A. V., Numerical simulation of a turbulent thermal plume in a stratified medium. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 11–16.
- Alemasov, V. Ye., Stinskiy, G. V. and Fafurin, A. V., Unsteady-state flow and heat transfer in axisymmetric channels. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 13–18.
- Amanbayev, T. R., Specific features of gas flow behind a shock wave in the presence of a longitudinal layer of particles. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 283–286.
- Andreyev, O. V. and Kolesnikov, Yu. B., Anisotropy of the processes of heat transfer in a rotating flow in a homogeneous magnetic field with nonuniform electric conductivity of boundaries. *Magnit. Gidrodin.*, 1993, 2, 87–94.
- Anisimova, Ye. P., Petrenko, I. V. and Speranskaya, A. A., Concerning the incipience of free convection in water. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana (Russia)*, 1994, 30(1), 68–73.
- Artemiev, V. K., Berdnikov, V. S. and Ginkin, V. P., Numerical investigation of convective heat transfer on the model of the Chokhralskii method. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 21–30.
- Avdiyenko, A. A., Experimental estimation of the effect of various parameters on the fragmentation of a column of a viscoelastic fluid expelled from a circular channel by a compressed gas. *Inzh.-Fiz. Zh.*, 1994, 66(1), 24–29.
- Avramenko, A. A. and Kobzar, S. G., The Taylor–Görtler centrifugal instability of a turbulent boundary layer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 3–6.
- Barmin, A. A. and Garagash, D. I., About the filtration of a solution in a porous medium with account for the adsorption of admixture on a skeleton. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 4, 97–110.
- Bashkin, V. A. and Reshetko, S. M., Concerning the temperature regime on blunt cones and wedges in the presence of the regions of transient and turbulent flows. *Uchyon. Zapiski TsAGI*, 1993, 24(1), 163–166.
- Bashkin, V. A., Yegorov, I. V. and Yegorova, M. V., Heat transfer in the regions of separation flow at supersonic flows. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 24–29.
- Bashkin, V. A., Kolina, N. P. and Kosykh, A. P., Calculation

- of flow and heat transfer in the symmetry plane of a triangular wing in a supersonic flow. *Uchyon. Zapiski TsAGI*, 1993, **24**(1), 73–86.
- Bazhan, P. I. and Chernov, A. F., Heat transfer and resistance of the heat exchange surfaces of highly efficient heat exchangers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 16–19.
- Bergelson, V. I. and Pomazkin, D. V., Dynamics of thermal precursors in a medium containing channels with an increased thermal diffusivity. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 151–154.
- Bernshtam, V. A. and Poklonskiy, Ye. V., Influence of thermocapillary effects on the stability of fine carrying jets. *Magnit. Gidrodin.*, 1993, **2**, 113–116.
- Betyayev, S. K. and Brysov, O. P., A triangular wing in a subsonic flow. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 161–164.
- Bilchenko, N. G., Garayev, K. G. and Derbenev, S. A., Toward the problem of an optimum control of a boundary layer of an electrically conducting liquid in a magnetic field. *Izv. VUZov, Aviats. Tekh.* 1994, **1**, 23–27.
- Bogdanova, M. V., Milovskaya, L. S. and Faleyev, V. V., Concerning the convective heat transfer in a vessel with liquid in the presence of the phase interface. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 43–48.
- Boikov, A. G., Analysis of numerical calculation of heating a plate by a convective flow in the case of the functional dependence of TPCh in a regular regime. *Rheological Processes and Apparatuses of Chemical Technology*. Volgograd State Technical University, Volgograd, 1993, pp. 9–13.
- Bologa, M. K., Kozhuhar, I. A., Kozhevnikov, I. V. and Malakhov, A. V., Convective heat transfer in circulation loops under the action of electric field. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 40–44.
- Bondar, T. A., Thermal explosion of an ascending fluid flow in an annular channel. *Prikl. Mekh. Tekh. Fiz.*, 1994, **4**, 12–22.
- Borovoi, V. Ya., Marinichenko, S. K. and Skuratov, A. S., Effect of gas injection on heat transfer in a cavity immersed in a hypersonic flow. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 45–48.
- Brailevskaya, V. A., Polezhayev, V. I. and Feoktistova, L. V., Numerical simulation of natural convection in anisotropic porous annular interlayer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, p. 49.
- Brykina, I. G., Concerning heat exchange on arrow-like wings with a blunt leading edge in a hypersonic flow at an angle of attack. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **4**, 170–179.
- Cherkasov, S. G., Specific features of flow and heat transfer in natural or combined convection in limited volumes. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 204–209.
- Chernyak, V. G., Chermyaninov, I. V., Vilisova, Ye. A. and Subbotin, Ye. A., Light-induced drift of a single-component gas in a plane channel. *Prikl. Mekh. Tekh. Fiz.*, 1994, **35**(5), 3–13.
- Chirimanov, L. P., Numerical simulation of unsteady-state processes of the outflow of excited gas jets into vacuum and rarefied gas. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 278–281.
- Derkach, M. I. and Stetsenko, A. G., Negative energy waves in a multilayer model of a stratified shear flow. *Trudy MGTU*, 1994, **564**, 121–130.
- Detkovskiy, D. A. and Frolov, S. M., Model of deformation of a liquid drop in a gas flow. *Prikl. Mekh. Tekh. Fiz.*, 1994, **35**(6), 105–114.
- Devyanin, V. A., Effect of cross motion of water on the size of departing bubbles. *Trudy Mosk. Energ. Inst.* 1994, **671**, 90–97.
- Dobrocheyev, O. V. and Ustinov, A. K., Investigation of the mechanism of turbulent motion and heat transfer in a flow of a dissociating gas. *Ross. Khim. Zh.*, 1994, **38**(3), 103.
- Dreitser, G. A., Krayev, V. M. and Neverov, A. S., Effect of hydrodynamic unsteady state on the turbulent flow structure. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 49–54.
- Dyban, Ye. P., Mazur, A. I. and Shelimanova, Ye. V., Jet cooling of finned surfaces of the semi-matrices of hofrators. *Prom. Teplotekhn.*, 1993, **15**(3), 3–10.
- Dzyubenko, B. V., Dreitser, G. A. and Yakimenko, R. I., Enhancement of heat transfer in channels with artificial turbulization of flow. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 64–69.
- Efremov, A. L. and Yashin, L. Z., Estimation of mean-integral temperature of a specimen in the case of a multicyclic developed process of collision. *Vestn. Mashinostr.*, 1994, **9**, 21–23.
- Elchinov, V. P., Zyuzin, A. P., Kirpikov, V. A. and Fedotov, V. I., Investigation of free convective heat transfer on tubes with longitudinal external finning. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow 1994, pp. 84–89.
- Filipchuk, V. Ye., Didkovskiy, V. V. and Knyukh, B. I., Heat transfer in turbulent flow of isoctane in a round tube in the presence of the reaction of thermal destruction. *Prom. Teplotekhn.*, 1993, **15**(3), 61–66.
- Fomichev, V. M., New idea about the stability of a laminar boundary layer and about laminar–turbulent transition on a heat transfer surface. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 262–267.
- Fomichev, V. M. and Bublikov, Yu. I., Effect of inclined waves on the stability of a laminar boundary layer on a cooled surface. 1994, *Teplofiz. Vysok. Temp.*, 1994, **32**(3), 406–410.
- Fomin, A. A., The numerical simulation of a vertical strongly overheated convective jet. *Modelir. Mekh.*, 1993, **7**(1), 133–141.
- Fyodorova, O. P., Numerical realization of the spatial problems of a boundary layer on a cone with spherical decay in a supersonic flow. *Modelir. Mekh.*, 1993, **7**(1), 121–122.
- Ganiyev, R. F. and Malykh, Yu. B., Effect of compressibility of fluid on the linear stability of Poiseuille flow in a round tube. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 5–10.
- Genin, A. G., Krasnoshchikova, T. Ye. and Petrina, L. V., Thermohydraulic calculation of turbulent flow in a circular tube in a longitudinal magnetic field. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 79–84.
- Geshev, P. I., Heat transfer of a film friction transducer to a pulsating flow and heat conducting wall. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, p. 85.
- Glazkov, V. V. and Sinkevich, O. N., Self-sustaining thermoconvective flows in the absence of external force fields. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 11–17.
- Glazkov, V. V. and Sinkevich, O. A., A closed-cycle MHD-generator with self-sustaining thermoconvective flows. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 287–291.
- Glushko, G. S. and Kryukov, I. A., Model of turbulent transfer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 91–101.
- Gnedovets, A. G., Gusarov, A. V. and Uglov, A. A., Heat transfer and resistance of a spherical metallic particle in a rarefied flow of plasma with cold ions. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 183–189.

- Golosov, A. S., Zhuk, V. I., Lopashev, A. A. and Chubarov, D. N., Identification of heat transfer constants in arbitrary thermal regimes with the use of local heat sources. *Inzh.-Fiz. Zh.*, 1993, **65**(6), 668–676.
- Gorbunov, M. V., Concerning the effect of temperature and gas flow rate on the process of drawing of fiber light-guides made from fluoride glasses. *Prikl. Mekh. Tekh. Fiz.*, 1994, **35**(5), 84–87.
- Gorley, V. V., Local potential method in investigation of the stability of convective motion of a conducting fluid. In *Thermodynamics of Irreversible Processes*. Institute of General and Inorganic Chemistry, Moscow, 1992, pp. 83–91.
- Gorodtsov, V. A., The waves-forerunners in motion of variable-intensity sources in a stratified fluid. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 97–103.
- Gorshkov, G. F., Influence of initial conditions on the processes of turbulent transfer in jet flow past obstacles: the role of coherent structures (review). *Prom. Teplotekhn.*, 1993, **15**(3), 10–29.
- Gulidov, A. I. and Smirnov, V. A., The structure of a shock wave in a heat conducting gas with account for heat flux relaxation. Preprint no. 5–94 of the Institute of Theoretical and Applied Mechanics, Siberian Branch of the Russian Academy of Sciences, pp. 1–19.
- Gusev, S. Ye. and Kaznacheyeva, I. V., Free convective heat transfer of in-line tubular bundles. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 78–83.
- Kadiyeva, G. D. and Starchenko, A. V., Numerical simulation of turbulent recirculating flows in a tube. *Modelir. Mekh.*, 1993, **7**(1), 81–88.
- Karpova, O. B., Tarasevich, S. E. and Shchukin, V. K., Heat transfer in blind plane channel with one-sided injection. *Izv. VUZov, Aviats. Tekh.*, 1994, **1**, 76–79.
- Kazennov, A. K., Kozlov, I. I., Prokofiyev, V. V. and Shugai, A. A., Unsteady-state cavitation flow of a hot liquid through a contraction in a pipe-line. In *Problems of High Velocity Hydrodynamics*, Cheboksary, 1993, pp. 118–129.
- Khalatov, A. A. and Avramenko, A. A., The Taylor–Görtler instability in a boundary layer on a concave surface. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 274–277.
- Kharitonov, V. V., Kiselyova, Yu. N., Atamanov, V. V., Zeigarnik, Yu. A. and Ivanov, F. P., Generalization of the results of heat transfer enhancement in channels with porous inserts. *Teplofiz. Vysok. Temp.*, 1994, **32**(3), 433–440.
- Kirillov, A. I., Ris, V. V. and Smirnov, Ye. M., Local heat transfer in the case of low frequency self-oscillations of a turbulent flow in channels rotating about a transverse axis. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 120–125.
- Kiryukhina, N. V., Heat convective heat transfer in inclined tubes. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 108–110.
- Kochubei, A. A., Use of the method of finite elements for numerical simulation of transfer processes in channels with the geometry varying over the length. *Voprosy Atom. Nauki Tekh., Ser. Mat. Modelir. Fiz. Protsessov (Moscow)*, 1993, **4**, 48–52.
- Kolesnichenko, V. I. and Khripchenko, S. Yu., Vortical motion of fluid in a plane layer with a free surface. *Magnit. Gidrodin.*, 1993, **2**, 76–80.
- Konovalov, A. A., Laws governing operation and principles of calculation of convective thermosiphons. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 116–121.
- Konyukhov, A. V., Meshcheryakov, M. V. and Utyuzhnikov, S. V., Motion of a large-scale turbulent thermic in a stratified atmosphere. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 236–241.
- Korablyov, V. A. and Sharkov, A. V., Investigation of the intensity of convective heat transfer in jet air and liquid cooling of the elements of electronic technology. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 142–145.
- Kosenkov, V. I., Medvedev, A. V. and Sergiyevskiy, E. D., Enhancement of heat transfer in the channels of power plants. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 123–128.
- Kosenkov, V. I., Sergiyevskiy, E. D., Kharlamov, S. N. and Gladyshev, A. A., Thermal and hydrodynamic characteristics of flow past a straight step in a channel. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 146–151.
- Kosov, N. D., Belov, S. M., Zhavrin, Yu. I. and Kosov, V. N., Investigation of concentrational convection of an isothermal ternary gas mixture for a cylindrical diffusion channel. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 122–127.
- Kosov, N. D., Belov, S. M., Kosov, V. N. and Zhavrin, Yu. I., Diffusional instability of three-component gas systems under nonisothermal conditions. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 128–133.
- Kovalyov, V. L. and Krupnov, A. A., Numerical investigation of a turbulent flow of a partially ionized air in a viscous shock layer. *Prikl. Mekh. Tekh. Fiz.*, 1994, **35**(5), 27–32.
- Kovalnogov, N. N., Mixing path length in a turbulent unsteady-state boundary layer with longitudinal and transverse pressure gradients. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 126–131.
- Kozlov, I. M., Minko, S. L., Romanov, G. S. and Skoromnik, D. E., The mechanism underlying the cooling of air heated by a strong shock wave. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 155–158.
- Kozlov, I. M., Romanov, G. S. and Suvorov, A. Ye., Numerical simulation of gasdynamic processes in the case of catastrophic volcanic explosions. *Inzh.-Fiz. Zh.*, 1994, **66**(3), 263–266.
- Kozlov, A. P., Shchukin, A. V., Agachev, R. S. and Bodunov, K. M., Heat transfer and hydrodynamics near surfaces with spherical depressions at the presence of perturbing factors. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 86–90.
- Krasnokutskiy, P. G., Shpernyi, A. V. and Trikashnaya, Ye. N., Convective heat transfer of a system of jets incoming on a plane surface along the normal. *Izv. VUZov, Chyorn. Metallurg.*, 1994, **2**, 69–73.
- Krasnokutskiy, P. G., Shpernyi, A. V. and Trikashnaya, Ye. N., Convective heat exchange of a system of jets with a plane surface whose dimensions are commensurable with the initial diameter of a jet. *Izv. VUZov, Chyorn. Metallurg.*, 1994, **3**, 65–68.
- Krekhova, M. G., Minsker, S. K. and Prochukhan, Yu. A., Effect of turbulence on the effectiveness of mixing of flows of different densities. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 271–273.
- Kryukov, V. N. and Solntsev, V. P., Experimental investigation of an isobaric portion of supersonic jets. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 157–161.
- Kustova, Ye. V. and Nagnibeda, Ye. A., Coefficients of transfer in a gas with vibrational and rotational non-equilibrium state. *Vestn. S. Peterburg. Univ. Ser. 1*, 1993, **3**, 97–103.
- Kutsakova, V. Ye., Markov, N. B. and Chervyakov, A. V., Experimental construction of the hydrodynamic model of an apparatus with opposite swirled flows. *Zh. Prikl. Khim.*, 1994, **66**(11), 2600–2603.
- Kuzevanov, V. S., Calculation of the critical flow rate of a

- two-phase nonequilibrium medium on break of the casing of a power plant. *Izv. VUZov, Yad. Energ.*, 1994, 2–3, 112–122.
- Kuzma-Kichta, Yu. A., Komendantov, A. S. and Vasiliyeva, L. T., Investigation of the enhancement of heat removal at burn-out heat transfer in a horizontal channel under the conditions of reduced pressures and mass flow rates. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 129–134.
- Lagun, I. M., Convective heat transfer in transient regimes. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 162–165.
- Lagun, I. M., Non-stationary convective heat transfer. *Izv. Akad. Nauk, Energ.*, (Russia), 1994, 2, 141–146.
- Laptev, A. G., Diyakonov, S. G. and Yelizarov, V. I., Determination of velocity on the interphase surface in turbulent gas–liquid flows. *Teor. Osnovy Khim. Tekhnol.*, 1994, 28(3), 200–206.
- Lebedev, A. V., Fomin, V. M., and Khaidarov, S. V., Experimental investigation of natural convection near inclined stepwise surfaces. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 134–139.
- Lebedev, V. V., Piralishvili, Sh. A., Specific features of the processes of the formation of a screen effect on the end face wall of a turbine grid in the region of intense secondary flows. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 166–170.
- Lebedev, M. G. and Sadkov, Yu. N., Supersonic radial gas flow past pointed cones. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 112–120.
- Lesin, A. B. and Luney, V. V., About peak thermal flows on a triangular plate with a blunted nose in a hypersonic flow. *Izd. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 11.
- Leukhin, Yu. L., Orekhov, A. N. and Saburov, E. N., Heat transfer of a circular insert in a cyclone chamber of a large relative length. *Izv. VUZov, Energ.*, 1994, 5–6, 60–64.
- Likhanskii, V. V., Loboiko, A. I. and Khoruzhiy, O. V., Numerical investigation of the regimes of convection of heat-evolving liquid reactor materials with account for stratification. *Atomn. Energ.*, 1994, 76(5), 406–411.
- Lipanov, A. M., Kisarov, Yu. F. and Klyuchnikov, I. G., Simulation of the evolution of vortex formation in an abruptly expanding channel. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 171–176.
- Lushchik, V. G. and Yakubenko, A. Ye., Numerical investigation of mixed convection in vertical tubes. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 183–188.
- Makarov, A. M. and Luneva, L. A., Unsteady-state exchange between the flows of heat carriers in a system of parallel channels. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, 3, 146–149.
- Makhviladze, G. M., Melikhov, O. I. and Soboleva, Ye. B., Natural convection of a gas suspension in a closed region of square cross-section. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 46–52.
- Milman, O. O., Natural circulation heat transfer within heated tubes. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 147–150.
- Mizonov, V. Ye., Blashek, V., Kollin, R. and Grekov, A. V., A one-dimensional stochastic model of moving particles with variable properties in a gas flow. *Teor. Osnovy Khim. Tekhnol.*, 1994, 28(3), 277–280.
- Murzenko, V. V., Analytic solutions of problems of a steady-state flow of liquid in beds with cracks of hydronruption. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 74–82.
- Nakorchevskiy, A. I. and Gaskevich, I. V., Mathematical simulation of pulsating mixers. *Teor. Osnovy Khim. Tekhnol.*, 1994, 28(3), 258–267.
- Nazmeyev, Yu. G., Konakhin, A. M. and Kumirov, B. A., Experimental investigation of heat transfer in laminar flow in tubes using wire helical inserts. *Teploenergetika*, 1994, 11, 53–56.
- Nemishev, A. S. and Myzmikov, M. O., Electric connection in a closed rectangular cavity. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 151–157.
- Nikitenko, N. I., Numerical simulation of heat transfer and hydrodynamics in regions with curvilinear interfaces. *Dinam. Splosh. Sredy*, 1994, 106, 108–120.
- Nikitin, N. V., Spectrally finite difference method for calculating turbulent incompressible liquid flows in tubes and channels. *Zh. Vychisl. Mat. Mat. Fiz.*, 1994, 34(6), 909–925.
- Pechenegov, Yu. Ya., Heat transfer in a turbulent boundary layer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 207–210.
- Pertsev, L. P. and Uliyev, L. M., Specific features of flow and heat transfer in the channels of plane plate heat exchangers with corrugated plates. *Inzh.-Fiz. Zh.*, 1994, 66(1), 3–15.
- Petrov, A. N., Concerning the correctness of initial boundary-value problems for the equations of one-dimensional flow of a viscous reacting gas with account for thermo-diffusional effects. *Dinam. Splosh. Sredy*, 1994, 106, 136–147.
- Petrova, L. I., Mechanism underlying the development of gas dynamic instability and occurrence of gas dynamic structures. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 201–206.
- Pilyugin, N. N. and Talinov, R. F., Calculation of a supersonic turbulent flow near blunt bodies using full equations of a viscous shock layer. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 242–248.
- Pilyugin, N. N., Talipov, R. F. and Utyuzhnikov, S. V., Concerning the applicability of certain approximate similarity laws in hypersonic aerodynamics. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 121–130.
- Pimshtein, P. G., Origination of disturbances in a subsonic turbulent jet under the action of high-intensity sound. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 104–111.
- Pismennyi, Ye. N., A physical model of the processes of flow and heat transfer in convective transversely finned surfaces. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 172–177.
- Pismennyi, Ye. N. and Terekh, A. M., Local heat transfer in packages of transversely finned tubes. *Prom. Teplotekhn.*, 1993, 15(3), 455.
- Polyayev, V. M., Makarov, D. V. and Makarov, K. A., Some problems of flow and heat transfer in laminar and turbulent plane stationary mixing layers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 211–217.
- Pometko, R. S. and Gorban, L. M., Critical powers on “choking” in channels of complex geometry. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 170–175.
- Popov, V. N. and Romanova, S. Yu., Heat transfer in transient and turbulent pulsing flow of fluid in a tube. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 218–223.
- Pshonkin, N. G., Simulation of thermal processes of a continuous electric heating of a flow of a concrete mixture in tubes. *Izv. VUZov, Stroit.*, 1994, 4, 53–56.
- Puzach, S. V., Investigation of the process of formation of a compressible nonisothermal dynamic boundary layer on an impenetrable plate. *Teplofiz. Vysok. Temp.*, 1994, 32(3), 394–397.
- Rassokhin, N. G., Yan, Ch. L. and Din, Ch. N., Numerical investigation of heat transfer in a laminar tube flow with a

- large temperature head on the basis of a two-dimensional model. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 224–227.
- Rekin, A. D., Lukash, V. P. and Popov, V. L., Experimental and computational investigation of cooling of a double perforated wall immersed in a turbulent gas flow. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 228–233.
- Repukhov, V. M. and Gorislavets, T. N., Temperature profiles and local efficiency of a heat curtain behind a row of holes and the methods of their calculation. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 234–239.
- Ryskin, N. M. and Trubetskoy, D. I., The Lorentz model for describing convection in a magnetic fluid. *Izv. VUZov, Prikl. Nelinein. Dinam.*, 1993, 3–4, 65–71.
- Safarova, N. S. and Khabakhpasheva, Ye. M., Unsteady-state heat transfer on sharp decrease in heat release in the channel wall. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 240–244.
- Safarova, N. S. and Khabakhpasheva, Ye. M., Unsteady-state conjugate heat transfer in a turbulent flow of liquid in a channel. *Teplofiz. Vysok. Temp.*, 1994, 32(3), 382–387.
- Savichev, V. V., Korolkov, A. V. and Vetroshkin, A. M., Heat exchange of a liquid-gas system with the walls of the capacity in the variable acceleration vector field. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 182–186.
- Semyonov, A. A., Badeshko, A. V., Glagoleva, Yu. A., Glukhatkina, L. G. and Karlov, V. N., Specific features of the systems of cooling lasers with water-salt heat transfer agents. *Laser. Tekh. Optoelektron.* 1993, 3–4, 107–114.
- Shcherbak, V. G., Comparison of various approaches to calculation of chemically nonequilibrium flows with account for vibrational relaxation. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 138–146.
- Sheipak, A. A., Heat transfer in extrusion of liquid from a thin layer between plates. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 282–286.
- Schneider, M. N., About a vortical cooling of the spark channel in a gas. Account for the cascade mechanism of turbulence dissipation. *Teplofiz. Vysok. Temp.*, 1994, 32(1), 57–62.
- Sklyarova, Ye. M. and Chekmarev, I. B., Asymptotic model of the interaction of a completely ionized gas with a wall. *Zh. Tekh. Fiz.*, 1994, 64(7), 28–36.
- Slesarev, V. A. and Panteleyev, A. A., Concerning the applicability of a one-dimensional conjugated scheme for solving the problems of unsteady-state convection. *Inzh.-Fiz. Zh.*, 1994, 66(3), 281–285.
- Solodov, A. P., Sidenko, D. V., Algorithm of numerical solution of the problems of convective heat and mass transfer in the regions of complex geometry. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 193–198.
- Surzhikov, S. T., Method of calculation of unsteady-state free-convective flows of a viscous compressible gas. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 199–203.
- Terekhov, V. I., Kalinina, S. V. and Mshvidobadze, Yu. M., Heat transfer from a spherical cavern located on the wall of a rectangular channel. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 249–254.
- Terekhov, V. I., Tretyakov, S. P., and Yarygina, N. I., Convective heat transfer from the bottom of grooves of different geometries. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 256–261.
- Tikhomolov, Ye. M., Sustainment of vortex structures in a rotating liquid layer heated from below. *Pisma Zh. Eksp. Teor. Fiz.*, 1994, 59(3–4), 115–158.
- Urbanovich, L. I., Kramchenkov, Ye. M., Chunosov, Yu. N. and Polyakov, A. V., Simulation of the velocity of solid particles accelerated by gas in cylindrical nozzles. *Izv. VUZov, Chyorn. Metallurg.*, 1994, 3, 63–65.
- Vabishchevich, P. N., Churbanov, A. G., Strizhov, V. F. and Chudanov, V. V., Numerical investigation of natural convection of heat generating fluid in closed cavities. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, p. 54.
- Valuyeva, Ye. P. and Popov, V. N., Heat transfer and turbulent flow of fluid in a curvilinear channel. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 55–60.
- Valuyeva, Ye. P., Popov, V. N. and Romanova, S. Yu., Heat transfer in turbulent pulsating flow in a circular tube. *Teploenergetika*, 1994, 3, 24–35.
- Varapayev, V. N., Combined natural convection heat transfer in open air interlayers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 60–65.
- Vasiliev, Ye. I. and Danilchuk, Ye. V., Numerical solution of a problem of flow development in a shock tube in the case of transverse protrusion of a diaphragm. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 2, 147–154.
- Vitkin, E. I., Kirillov, A. A. and Perelman, L. T., Numerical simulation of the processes of vibrational relaxation in nonstationary gas jets. *Prikl. Mekh. Tekh. Fiz.*, 1994, 35(6), 55–60.
- Volchkov, E. P., Lukashov, V. V. and Semyonov, S. V., Heat transfer in an impact twisted jet. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 66–78.
- Volkov, P. K., Modelling of the vapour bubble motion in a pipe in an ascending fluid flow. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 4, 76–86.
- Volkov, V. F., Calculation of the spatial supersonic inviscid gas flow past bodies close to prismatic ones. *Modelir. Mekh.*, 1993, 7(3), 3–14.
- Volkov, V. V., Dreitser, G. A., Dronov, V. P. and Neverov, A. S., Hydrodynamics and heat transfer in a closed volume in the case of combined action of free and forced convection. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 66–71.
- Volkov, A. A. and Manokhin, S. P., Dynamic processes in an absorptive layer on the surfaces of solid bodies and aerodynamic coefficients. *Vestn. S. Peterburg. Univ. Ser. 1*, 1993, 3, 75–81.
- Volkova, S. N., Verbitskiy, Yu. G., Yefimov, V. K. and Kutjin, V. V., A one-dimensional model of a stratified flow in large volumes of liquid with an arbitrary location of a source and sink. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 72–77.
- Yorontsov, Ye. G., Dynamics of wave formation in falling films. *Teor. Osnovy Khim. Tekhnol.*, 1994, 28(3), 195–199.
- Yablokova, M. A. and Bondarenko, V. I., Mass transfer in a gas-liquid apparatus with a stationary jet submersion-type disperser. *Zh. Prikl. Khim.*, 1993, 66(10), 2241–2247.
- Yanitskiy, V. Ye., Concerning the method of particles and direct numerical simulation of turbulence. In *Etudes on Turbulence*. Russian Academy of Sciences, Moscow, 1994, pp. 275–290.
- Yuriyev, I. M., About the motion of a gas suspension in a nozzle at the laws of resistance differing from the Stokes laws. *Teor. Osnovy Khim. Tekhnol.*, 1994, 28(3), 268–270.
- Zaitsev, A. A., Skachkov, I. M. and Styushin, N. G., Distribution of the temperature and velocity of liquid in the field of body forces. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 108–113.
- Zaitsev, O. L. and Sychev, V. V., Investigation of a steady-state separating flow past a thin profile at large Reynolds

- numbers. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 155–160.
- Zaitsev, S. G., Titov, S. N. and Chebotareva, Ye. I., Evolution of the transient layer separating gases of different densities on passage of a shock wave through them. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 18–26.
- Zatevakhin, M. A., Kuznetsov, A. Ye., Nikulin, D. A. and Strelets, M. Kh., Numerical simulation of the process of rise of a system of high-temperature turbulent thermics in an inhomogeneous compressible atmosphere. *Teplofiz. Vysok. Temp.*, 1994, **32**(1), 44–56.
- Zavelion, V. I., A conjugate heat exchange and thermal stressed state of a casing in a stabilized mixed-convective flow in model assembly. *Izv. VUZov, Energ.*, 1994, **9–10**, 82–85.
- Zhukov, V. P., Numerical simulation of slow convective flows of a rotating gas. *Modelir. Mekh.*, 1993, **7**(3), 99–109.
- Zudin, Yu. B., The model of surface renewal calculation of friction in turbulent channel flow. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 114–119.
- Zykov, A. P., Melikhov, V. I. and Melikhov, O. I., Numerical investigation of natural convection in a rotating cube. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 93–98.
- Yalamov, Yu. I. and Saifullin, R. A., Toward the theory of thermophoresis of a cylindrical aerosol particle in a moderately rarefied gas. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 271–275.
- Zavaliv, A. A., A system for measuring unsteady-state temperatures of gas flows. *Izmerit. Tekh.*, 1994, **4**, 33–35.

HEAT AND MASS TRANSFER IN DISPERSE AND TWO-PHASE SYSTEMS

- Afonin, G. I. and Butov, V. G., Optimum configurations of supersonic parts of nozzles for two-phase flows. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 36–45.
- Andrianov, A. B., Zuyev, A. V., Levitan, L. L., Malyshenko, S. P. and Orlova, I. A., Hydraulic resistance of a two-phase flow in a tube with a porous coating. *Teplofiz. Vysok. Temp.*, 1994, **32**(1), 94–100.
- Babkin, A. S., Balunov, B. F., Zhivitskaya, T. S. and Kiselev, V. I., Heat transfer in ascending motion of a steam-water mixture along a cooled surface. *Atomn. Energiya*, 1994, **76**(5), 389–395.
- Baskakov, A. P., Mudrechenko, A. V. and Filippovskiy, N. F., Concerning the mechanism of pressure fluctuation in a bubbling fluidized bed. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 34–37.
- Belyayev, A. A., Buyevich, Yu. A. and Kiselev, V. M., Concerning the optimization of heat and mass transfer in fine porous capillary structures of contour heat pipes. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 16–23.
- Bobrov, I. N. and Kuryachiy, A. P., Concerning the equation of the energy of heat/mass transfer processes and phase conversions in porous bodies. *Teplofiz. Vysok. Temp.*, 1994, **32**(3), 441–445.
- Brykin, M. V. and Garnisov, K. G., Concerning the problem of the accuracy of an approximate analytical calculation of homogeneous consideration and on the role of heating of particles. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 267–270.
- Buyanov, A. B., Procedure of a fast control of the quality of two-phase thermosiphons. *Izv. VUZov, Energ.*, 1994, **11–12**, 72–75.
- Buyevich, Yu. A. and Kalbasov, Sh. K., Properties of pseudogas of particles in a vertical disperse flow. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 53–65.
- Cherkasov, S. G., Condensation heat transfer of a saturated vapour on vertical tubes with a liquid flow. *Teplofiz. Vysok. Temp.*, 1994, **32**(1), 101–104.
- Gladkov, M. Yu. and Rudyak, V. Ya., Kinetic equations of fine-disperse diluted gas suspension. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 165–171.
- Gostev, B. V. and Ostrovskiy, V. Ye., Water sorption by perfluorated membrane materials treated with a solution of chloride iron. *Zh. Fiz. Khim.*, 1994, **68**(4), 668–670.
- Grek, F. Z., Determination and calculation of the height of the zone of hydrodynamic stabilization in a fluidized bed. *Zh. Prikl. Khim.*, 1994, **67**(4), 605–609.
- Gremyachkin, V. M., Inhomogeneities in the distribution of flow velocity in apparatuses with a fixed granular bed. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 212–216.
- Khasanov, M. M., Investigation of the filtration stability of gas nuclei carrying fluids. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 66–73.
- Khrustinich, V. B., Simulation of two-phase liquid flows and of the statistic ensemble of dispersed particles in a decomposing cavity. *Vestn. S. Peterburg. Univ. Ser. 1*, 1993, **3**, 62–69.
- Kryuchkov, Yu. N., Generalized theory of percolation for the analysis of the structure and properties of porous and composite materials. *Inzh.-Fiz. Zh.*, 1994, **66**(3), 348–352.
- Kuzin, N. A., Kuzmin, V. A., Kulikov, A. V. and Shigarov, A. B., Investigation of heat transfer of mist gas–liquid flow in a granular bed. *Prikl. Mekh. Tekh. Fiz.*, 1994, **4**, 118–123.
- Kuznetsov, A. V., Analytic investigation of heating of a porous body within the framework of a two-phase model. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **6**, 148–152.
- Lebedev, Yu. Ya., Regimes of motion of the chromatographic zone for the case of intradiffusional kinetics of interphase mass transfer. *Zh. Fiz. Khim.*, 1994, **68**(10), 1733–1739.
- Nakoryakov, V. Ye., Vasserman, Ye. S., Pokusayev, B. G. and Pribaturin, N. A., Amplification of the amplitude of pressure waves in a vapour–liquid medium of bubble structure. *Teplofiz. Vysok. Temp.*, 1994, **32**(3), 411–417.
- Nigmatulin, B. I., Kuzma-Kichta, Yu. A., Bulkina, N. A. and Ustinov, A. K., Investigation of the vibrations of the phase interface and mechanism of heat transfer in film boiling. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 255–260.
- Nikitina, L. M., Timoshenko, A. T. and Popov, G. G., Experimental investigation of the decay of thermal waves in homogeneous porous thermal insulation. In *Heat Exchange and Thermophysical Properties of Materials*, (papers presented at the All-Union Seminar 25–27 September 1991, Novosibirsk). Institute of Thermo-physics, Novosibirsk, 1992, pp. 100–105.
- Panin, G. N., Anisimova, Ye. P., Garbalevskiy, G., Dykhno, L. A. and Petelskiy, T., Concerning heat and moisture transfer in a water–air system in the presence of drop–bubble exchange. *Vod. Resursy*, 1994, **21**(2), 247–251.
- Pechenegov, Yu. Ya. and Shukin, V. V., Concerning the selection of the saturation temperature value of an intermediate liquid heat carrier in heat exchangers with two-phase thermosiphons. *Izv. VUZov, Energ.*, 1994, **11–12**, 109–110.
- Pelevin, F. V., Increase in the efficiency of heat transfer in porous heat transfer channels. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 168–171.
- Polyayev, V. M. and Genbach, A. A., Effect of pressure on critical heat fluxes in porous structures. *Vestn. MGTU, Ser. Mashinostr.*, 1994, **2**, 105–109.
- Prisnyakov, V. F., Navruzov, Yu. V. and Stoichev, A. V., Classification of the regimes of two-phase flows over a vibrating heat source. *Dokl. Akad. Nauk Ukrainsk.*, 1994, **9**, 95–97.
- Pryakhin, V. N., Use of mathematical models of two-phase flows for analyzing thermohydraulic processes at atomic power stations. *Teploenergetika*, 1994, **5**, 40–42.
- Rokhman, B. B. and Shraiber, A. A., Mathematical simulation of the aerodynamics and physicochemical processes in the space above the bed in a circulating fluidized-bed

- furnace. II. Interaction of particles (pseudoturbulence). *Inzh.-Fiz. Zh.*, 1994, **66**(2), 159–167.
- Sagautdinov, Sh. Sh. and Sheryazdanov, G. B., Heat exchange of a two-phase jet in a co-current flow in a transverse magnetic field. *Magnit. Gidrodin.*, 1993, **2**, 116–119.
- Sinkevich, A. Ye., Heat transfer on complete condensation of saturated vapour on vertical surfaces. *Vetsi Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk*, 1994, **3**, 96–103.
- Suvorov, V. I., Certain features of numerical computer solution of problems of the motion of a vapour–gas flow in a medium with a rheologically complex structure. In *Physical Mechanics*. Tver State University, Tver, 1994, pp. 54–57.
- Sverdlin, B. L. and Titkov, A. A., Experimental investigations of cooling of a circulating water in a foam layer. *Izv. Vseros. NII Gidrotekhn.*, 1994, **228**, 56–61.
- Syrtlanov, V. R. and Shagapov, V. Sh., Filtration of a boiling liquid in a porous medium. *Teplofiz. Vysok. Temp.*, 1994, **32**(1), 87–92.
- Teplitskiy, Yu. S., Similarity of the processes of transfer in inhomogeneous fluidized beds. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 38–45.
- Vodolazhchenko, A. V., Davydov, Yu. Ye. and Petukhov, I. I., Interaction of drops in formation of separated liquid layer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 7, Moscow, 1994, pp. 43–46.
- Voevodin, A. F., Kurbanova, Z. M. and Mamchetov, U. M., Toward the calculation of the suspension infiltration into a porous medium under channels. *Dinam. Splosh. Sredy*, 1994, **106**, 27–35.
- Yankov, G. G., Maslennikov, V. A. and Alperovich, I. G., Simulation of the processes of heat transfer in dispersed media. *Teploenergetika*, 1994, **3**, 40–45.
- Usupbekov, N. R., Nurmukhamedov, Kh. S., Nigmatzhanov, S. K. and Zufarov, R. N., Energy-effective means of hydrothermal treatment of granular-fibrous materials. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 233–235.
- Zhukhovitskiy, D. I., Theory of homogenous nucleation with correction for the size of clusters. *Teplofiz. Vysok. Temp.*, 1994, **32**(2), 261–266.
- Film condensation of a viscous fluid on a wavy surface. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 274–276.
- Bershadskiy, V. A. and Denisov, K. P., Heat and mass transfer in a limited volume with cryogenic medium at low-frequency vibration of the phase interface. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 37–42.
- Bobrovskiy, V. V. and Shevchenko, V. R., Discovery of the interphase instability by the luminescence of reaction products. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 30–33.
- Bochkarev, A. A. and Pukhovo, M. V., Evaporative mechanism of generation of the clusters of a solid surface contacting with vapour. *Prikl. Mekh. Tekh. Fiz.*, 1994, **35**(3), 102–111.
- Boltenko, E. A., Enhancement of heat removal in vapour generating channels with swirling and transit flow. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 27–30.
- Bugayeva, S. G., Crystallization of liquid on efflux of a solid phase. *Dinam. Splosh. Sredy*, 1994, **106**, 3–26.
- Dolgushev, S. V. and Fomin, V. M., Condensational effect in gas-dynamic separation of mixtures. *Prikl. Mekh. Tekh. Fiz.*, 1994, **35**(6), 63–69.
- Domashov, Ye. D. and Arkhipov, A. P., Some features of burn-out heat transfer in boiling in tubes, annular channels and rod assemblies. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 4, Moscow, 1994, pp. 96–101.
- Filimonov, S. S. and Mazilin, I. M., Calculation of heat transfer in electronic-vacuum and porous heat insulations with account for condensation of gases under unsteady-state conditions. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **6**, 126–137.
- Gogosov, V. V. and Simonovskiy, A. Ya., Experimental setup, procedure and results of measuring the frequency of nucleation in boiling of a magnetic liquid. *Magnit. Gidrodin.*, 1993, **2**, 62–68.
- Gorelik, G. Ye., Levdanskiy, V. V., Martynenko, O. G. and Pavlyukevich, N. V., Escape of vapours into a rarefied medium on evaporation of substance in a highly porous body. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 7, Moscow, 1994, pp. 53–58.
- Goryainov, L. A. and Ivanov, S. G., Radiative-conductive heat transfer in a cylindrical single crystal grown by the method of a vertical directed crystallization. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 76–82.
- Gusev, N. Z. and Sutormin, A. F., A generalized mathematical model of the thermolysis of a solid fuel. In *Investigations in the Field of Complex Power-Technological Use of Fuels*. Saratov State Technical University, Saratov, 1993, pp. 10–18.
- Drin, A. P., Yefanova, V. V. and Shut, N. I., Thermal conductivity and kinetics of polymerization of acrylate polymer coating. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 184–191.
- Fyodorov, A. V., Mathematical simulation of the motion of air-suspension with regard for nonequilibrium melting (crystallization). *Fiz. Gor. Vzryva*, 1994, **30**(4), 91–99.
- Ivanenko, V. P., Pelenko, V. V., Barsukov, A. V., Zhizhina, A. V. and Vavilov, B. K., Heat and mass exchange in drying of potato. In *Increase of the Quality of Technological Equipment in Commerce and Public Catering*. St Petersburg Commercial and Economic Institute, St Petersburg, 1994, pp. 38–40.
- Kalafati-Rogozin, D. D., Analysis of the thermodynamic properties of carbon dioxide in the region of sublimation. *Teploenergetika*, 1994, **11**, 62–67.
- Kapishnikov, A. P., Evaluation of the effect of determining factors on the magnitude of heat transferred in condensation of vapour from combustion products. *Prom. Energetika*, 1994, **10–11**, 36–38.
- Karabelli, G., Numerical simulation of thermal decomposition of substances. *Matem. Modelir.*, 1994, **6**(4), 115–122.

HEAT AND MASS TRANSFER IN PHASE AND CHEMICAL CONVERSIONS

- Aldoshin, G. T., Zhuk, V. I., Sizov, V. P. and Chubarov, D. N., Determination of thickness of a condensate layer on interaction of a high-temperature two-phase flow with a wall. *Inzh.-Fiz. Zh.*, 1993, **65**(6), 677–683.
- Alyabyeva, A. V. and Mansurov, V. V., About the evolution of a system of nuclei in a binary supercooled melt. *Inzh.-Fiz. Zh.*, 1994, **66**(3), 314–320.
- Antonov, V. Ye., Kudelin, O. G. and Lebedev, O. N., A mathematical model of the process of water-fuel drop evaporation. In *Diesel Power Plants of River-Going Ships*. Novosibirsk, 1993, pp. 133–142.
- Artukh, L. Yu., Lukyanov, A. T. and Nysanbayeva, S. Ye., Mathematical simulation of the dynamics of non-equilibrium crystallization from a supersaturated solution. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 213–221.
- Avksentiyuk, B. P. and Ovchinnikov, V. V., Investigation of the process of vapour formation on a vertical surface in the case of high superheats. *Teplofiz. Vysok. Temp.*, 1994, **32**(1), 83–86.
- Belonogov, A. G. and Kiseyev, V. M., Optimization of heat transfer in evaporators of contour heat pipes. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 5, Moscow, 1994, pp. 9–13.
- Belov, A. A. and Zakharov, V. Yu., Construction of a mathematical model of calculating thermal fields in a melt and a single crystal grown by the Chokhralskii method. *Trudy MGTU*, 1994, **564**, 24–39.
- Berdaliyeva, G. A., Brener, A. M. and Rabinovich, L. M.,

- Kharchenko, V. N. and Shults, A. N., Enhancement of heat transfer in heat pipes for the mirrors of technological layers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 207–212.
- Kirdyashkin, A. G., Dobretsov, N. L. and Gladkov, I. N., Investigations of melting in the volume of a crystalline body over a local heat source (hot points and plumes of the Earth). *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 102–107.
- Kolykhan, L. I., Golubnichiy, Yu. A. and Klimenkov, Yu. V., Investigation of steam condensation from a vapour–gas mixture. *Vestsi Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk*, 1993, 3, 99–104.
- Kopp, I. Z., Enhancement of heat transfer of a boiling liquid due to the optimization of the surface microstructure. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 117–122.
- Kornienko, S. V. and Gusak, A. M., Solid-phase reactions in powder mixtures—a model of a separated pair. *Inzh.-Fiz. Zh.*, 1994, 66(3), 310–313.
- Koryukhin, I. P. Calculation of the process of drying a thin material. *Izv. VUZov, Tekhnol. Tekstil. Prom.*, 1994, 4, 87–92.
- Kudritskiy, G. R., Krivolapov, I. A. and Chistyakov, Yu. G., Investigation of the characteristics of the cylindrical indicator of vibrations in application to boiling under the conditions of vibrational effect on a heat carrier. *Prom. Teplotekh.*, 1993, 15(4), 49–51.
- Likhentshtein, E. L. and Manasypov, R. R., Solution of the Stefan-type problem with two phase change boundaries. *Izv. VUZov, Stroit.*, 1994, 1, 69–72.
- Lukashov, Yu. M., Tokar, B. Z. and Kotenko, E. V., Investigation of the characteristics of a heat accumulator at phase transition. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 5, Moscow, 1994, pp. 109–113.
- Lyashenko, L. P., Bulayev, N. M. and Pigalskiy, K. S., Specific features of mass transfer and phase formation in a TiO_2 – Cr_2O_3 – La_2O_3 system. *Neorg. Materialy*, 1994, 30(4), 530–534.
- Milman, O. O. and Manyunin, S. I., Experimental modelling of “choking” in a circular tube in opposite flow of vapour and condensate. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 6, Moscow, 1994, pp. 150–152.
- Milman, O. O. and Manyunin, S. I., Mathematical simulation of “choking” in a circular tube in opposite flow of vapour and condensate. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 6, Moscow, 1994, pp. 153–155.
- Mironova, V. A., Thermodynamic optimization of the process of crystallization. *Khim. Prom.*, 1994, 1, 259–262.
- Muranov, Yu. V., Yefanov, A. D., Kashcheyev, V. M., Lukyanov, A. A., Shashin, N. N. and Yuryev, Yu. S., Concerning the statement of the problem of heat- and mass-transfer processes during the action of the active zone melt on the reactor casing. Preprint no. 2370 of the Physics and Power Engineering Institute. Obninsk, 1994, pp. 1–22.
- Naumov, V. A., Reactive force acting on an evaporating droplet. *Prom. Teplotekh.*, 1993, 15(4), 62–64.
- Nesenchuk, A. P., Malevich, Yu. A. and Chernyshevich, V. I., Analysis of heat transfer in the case of thermal regeneration of a synthetic ziolite. *Izv. VUZov. Energ.*, 1994, 7–8, 90–93.
- Nigmatulin, B. I., Gudkov, V. I. and Kolchugina, B. A., Experimental investigation of condensation of vapour bubbles in a flow of liquid using microphotorecording. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 6, Moscow, 1994, pp. 166–170.
- Nigmatulin, B. I., Volkov, Ye. V., Osokin, G. V. and Tsoi, V. R., Experimental investigation of vapours explosion on interaction of a high-temperature melt with water. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 4, Moscow, 1994, pp. 183–188.
- Nurmukhamedov, Kh. S., Sagitov, A. M. and Tuichev, I. S., Intensification of heat transfer of grain-granular materials dried in jet-fluidized bed. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 165–167.
- Okhotskiy, V. B., Boiling and bubbling crisis. Natural convection. *Izv. VUZov, Chyorn. Metallurg.*, 1993, 11–12, 61–67.
- Okhotskiy, V. B., Boiling and bubbling crisis. Forced convection. *Izv. VUZov, Chyorn. Metallurg.*, 1994, 6, 58–62.
- Osipov, A. V., Kinetics of mass crystallization of melt at the initial stage. *Fiz. Tverd. Tela (St Petersburg)*, 1994, 36(5), 1213–1228.
- Sedlov, A. S., Abramov, A. I., Vasin, V. A. and Sterman, L. S., Investigation of heat transfer and hydrodynamics in evaporators and steam generators. *Teploenergetika*, 1994, 1, 61–66.
- Selyaninov, Yu. A., Tsaplin, A. I., Galyagin, K. S. and Oshivalov, M. A., Heat and mass transfer in solidifications under the conditions of motion of a liquid phase. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 187–192.
- Serov, M. M. and Yegorov, O. N., Oxydic fibers obtained by hardening of melt. *Fiz. Khim. Obrab. Mater.*, 1994, 2, 129–131.
- Shlenskiy, O. F., Experimental determination of the temperatures of attainable superheats of condensed substances under the conditions of thermal decomposition. *Fiz. Gor. Vzryva*, 1994, 30(4), 74–76.
- Sirota, I. S., Melikhov, I. V. and Rudin, V. M., The process of recrystallization in phase transformation of a porous body. *Neorg. Materialy*, 1994, 30(7), 980–985.
- Soloviyov, A. A. and Sevastiyanov, A. P., Calculation of flow parameters in the throughput portion of a jet pump-condenser. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 6, Moscow, 1994, pp. 228–231.
- Stefanovich, M. and Voronets, D., Method of determining the parameters of moist bodies in the process of drying. *Inzh.-Fiz. Zh.*, 1994, 66(1), 87–99.
- Suslov, V. A. and Rizhinishvili, G. V., Heat transfer and hydrodynamics of film flow in vaporizing apparatus of cellulose production. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Moscow, 1994, pp. 86–90.
- Syromyatnikov, S. N., Fractal properties of the interface surface between two media exchanging heat and mass. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Moscow, 1994, pp. 230–236.
- Tekhver, Ya. Kh., Sui, Kh. N. and Tyomkina, V. S., Concerning the effect of the parameters of porous coatings on boiling heat transfer. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 4, Moscow, 1994, pp. 237–242.
- Vasiliyev, B. V., Boiling heat transfer of ternary mixtures of organic fluids. *Izv. VUZov, Khim. Khim. Tekhnol.*, 1994, 37(2), 123–125.
- Yalamov, Yu. I., Gaidukov, M. N. and Levin, V. V. Thermophoresis of two particles at small Knudsen numbers. *Teplofiz. Vysok. Temp.*, 1994, 32(1), 105–108.
- Yarkin, A. N., Concerning the character of developed regimes in systems of parallel channels with a condensing flow. Preprint no. 2375 of Physics and Power Engineering Institute, Obninsk, 1994, pp. 1–10.
- Yeliseyev, V. I. and Soviy, Yu. P., Numerical simulation of heat and mass transfer in bundles of threads with evaporation of liquid on their surfaces. *Prikl. Mekh. Tekh. Fiz.*, 1994, 35(4), 123–130.
- Zolovkin, N. A., Negmatov, N. D. and Khabeyev, N. S., Heat and mass exchange of a single vapor bubble in a

- translational flow of nongradient volume of liquid. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, 3, 109–115.
- Zubkov, P. T., Nigai, Yu. V. and Fyodorov, K. M., Problem of melting of a paraffin plug in a well. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, 3, 123–128.
- ### RADIATION HEAT TRANSFER
- Afonin, S. V., Belov, V. V. and Makushkina, I. Yu., Modelling of an ascending flux of heat radiation scattered by aerosol, Pt 1. Flux intensity. *Optika Atmosf., Okeana*, 1994, 7(6), 797–809.
- Afonin, S. V., Belov, V. V. and Makushkina, I. Yu., Modelling of an ascending flux of thermal radiation scattered by aerosol, Pt 2. Radius of side lightening. *Optika Atmosf., Okeana*, 1994, 7(6), 810–817.
- Afonin, S. V., Belov, V. V. and Makushkina, I. Yu., Modelling of an ascending flux of thermal radiation scattered by aerosol. Radius of side lightening. *Optika Atmosf. Okeana*, 1994, 7(6), 818–826.
- Astafiyeva, L. G. and Prishivalko, A. P., Heating of homogeneous and hollow aluminium oxide particles by intense laser radiation. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 230–235.
- Bondarenko, G. G. and Kostin, K. A., Radiative-enhancing sublimation of a high-manganese steel. *Fiz. Khim. Obrab. Mater.*, 1994, 2, 11–13.
- Ilijin, A. K. and Kovalyov, O. P., Experimental data on heat transfer in tubes of solar thermal accumulators (laminar regime). *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 99–101.
- Kalinchak, V. V., Effect of radiation of critical regimes of heat and mass transfer in the case of parallel reactions on the surface of a particle. *Fiz. Gor. Vzryva*, 1994, 30(4), 63–74.
- Mishin, N. V., A scalar model of radiation transfer in the atmosphere over a surface with inhomogeneous non-Lambertian reflection. *Optika Atmosf. Okeana*, 1994, 7(6), 748–752.
- Petrov, G. D. and Tyrtchyni, S. I., A numerical analysis of the correctness of determining the dispersion parameters of suspension particles by their thermal radiation. *Izmerit. Tekh.*, 1994, 4, 3–5.
- Poirushev, G. Ya., Time characteristics of the fluctuations of the intensity and flux of radiation on reflection of a spherical wave from mirror objects in a turbulent atmosphere. *Optika Atmosf. Okeana*, 1994, 7(5), 610–617.
- Pustovalov, V. K. and Khorunzhii, I. A., Mathematical simulation of thermal and optical processes on explosion of water aerosol radiation. *Matem. Modelir.*, 1994, 6(4), 17–18.
- Rusakov, S. V., Rusakova, O. L. and Tarunin, Ye. L., Thermocapillary convection caused by radiation heat transfer from a free boundary. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 86–90.
- Stepanov, S. V., Parameters of radiative-conductive heat transfer in the regime of strong heat conduction. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 276–282.
- Surzhikov, S. T., Origination of reverse flows in an optical plasmatrone in radiative regime of discharge burning. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 292–298.
- Tyutynnik, V. Ye. and Sergeyev, O. A., An inverse problem of radiative-conductive transfer of energy in a plane layer of an asymmetrically heated selective medium. *Inzh.-Fiz. Zh.*, 1993, 65(6), 703–710.
- Yegorov, A. A., Characteristics of radiation scattered on roughness of the substrate surface of a planar optical waveguide. *Poverkhnost: Fiz., Khim., Mekh.*, 1994, 5, 72–76.
- Yefimov, O. V., Levash, L. V., Liptuga, A. I., Samoilov, V. B. and Teslenko, G. I., A light-guide pyroelectric meter of radiation temperature. *Izmerit. Tekh.*, 1994, 6, 35–37.
- Zaltsman, I. G. and Shikov, V. K., Radiative fluxes of the walls of long channels in the case of radiative-conductive heat transfer. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 315–318.
- Zotov, N. M., Mironov, V. G. and Ryabchuk, G. V., Calculation of the distribution of the power of internal heat sources in the elements of the optical head of a solid-body laser. In *Rheological Processes and Apparatuses of Chemical Technology*. Volgograd State Technical University, Volgograd, 1993, pp. 131–134.
- ### HIGH-TEMPERATURE THERMOPHYSICS
- Anakhov, S. V., Alekseyenko, N. N., Pykin, Yu. A. and Fominykh, S. I., Method of calculation of temperature fields in the process of plasma hardening with scanning. *Teplofiz. Vysok. Temp.*, 1994, 32(1), 40–43.
- Byrshhev, Ye. Ye., Tyagunova, L. G. and Yelsukov, A. Ye., Effect of the temperature of maximum heating of a melt on the crystallization process and structure of a cast refractory alloy. *Izv. VUZov, Chyorn. Metallurg.*, 1994, 4, 43–44.
- Bychkov, V. L., Vasiliyev, M. N. and Zuyev, A. P., Experimental-theoretical investigation of the properties of the surface electronic bunch nitrogen plasma. *Teplofiz. Vysok. Temp.*, 1994, 32(3), 323–333.
- Dombrovskiy, L. A., Calculation of spectral radiative characteristics of quartz fibrous heat insulation in an infrared region. *Teplofiz. Vysok. Temp.*, 1994, 32(2), 209–215.
- Eidelman, Ye. D., Account for the influence of the thermoelectric effect on the motion in the film of a liquid semiconductor. *Teplofiz. Vysok. Temp.*, 1994, 32(3), 418–426.
- Isayev, K. B., Heat transfer in composite materials intensely heated from one side. *Inzh.-Fiz. Zh.*, 1993, 65(6), 645–651.
- Konrdatiyev, A. B., Nefedov, A. P., Petrov, O. F. and Samaryan, A. A., Optical diagnostics of the conversion of carbon particles in a plasma flow of combustion products. *Teplofiz. Vysok. Temp.*, 1994, 32(3), 452–458.
- Loginov, V. S. The temperature field of a fuel element. *Izv. VUZov, Elektromekh.*, 1994, 3, 101–105.
- Magunov, A. N. and Lukin, O. V., Investigation of the mechanisms of heat exchange of a non-equilibrium plasma with a silicon single crystal. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 189–194.
- Magunov, A. N. and Lukin, O. V., Spatially inhomogeneous heat transfer in interaction of plasma with a limited solid body. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 195–200.
- Sechenov, D. A., Svetlichnyi, A. M., Soloviyov, S. I., Ageyev, O. A. and Klovo, A. G., Simulation of temperature fields in semiconductor structures in the case of a fast thermal annealing. *Fiz. Khim. Obrab. Mater.*, 1994, 2, 33–38.
- Sviridov, V. G., Laboratory modelling of heat exchange of a liquid metal in a thermonuclear reactor TAKAMAK. *Teploenergetika*, 1994, 3, 17–23.
- Sviridov, V. G., Shapskiy, Yu. S. and Razuvanov, N. G., Experimental investigation of heat exchange of a liquid metal under the conditions approximating real ones in a TAKAMAK reactor. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 245–249.
- Tutnov, An. A., Tutnov, A. A. and Uliyanov, A. I., Mathematical simulation of thermophysical and thermomechanical processes in fuel elements. *Atomn. Energ.*, 1994, 76(5), 411–417.
- Yevstigneyev, A. I. and Dmitrievskiy, I. P., Temperature processes in an easily melting model in the presence of a

metal stock. *Izv. VUZov, Chyorn. Metallurg.*, 1994, **2**, 47–51.

LOW-TEMPERATURE PHYSICS

- Boikov, V. N., Sholokhovskaya, G. V., Krasovskiy, A. M., Pokatashkin, V. I. and Zhuravlyova, Yu. V., A possibility for measuring low temperatures with the use of uranyl compounds. *Izmerit. Tekh.*, 1994, **6**, 32–35.
 Markelova, N. V., Calculation of heat protection of a cryogenic vessel. *Khim. Neft. Mashinostr.*, 1994, **6**, 18–20.

HEAT AND MASS TRANSFER IN RHEOLOGICALLY COMPLEX FLUIDS

- Georgiyevskiy, D. V. Collapse of a cavitation bubble in non-linear-viscous and viscoelastic media. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 181–184.
 Khabakhpasheva, Ye. M., Kekalov, A. N. and Samylina, A. A., Heat transfer in pulsating flow of non-Newtonian fluids with different Prandtl numbers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 268–273.
 Shaikhutdinov, A. A. and Nazmeyev, Yu. G., Heat transfer in steady-state flow of a viscoelastic fluid in a conical channel (statement of the problem). *Rheological Processes and Apparatus of Chemical Technology*. Volgograd State Technical University, Volgograd, 1993, pp. 82–89.
 Shulman, Z. P. and Makhanyok, A. A., Rheological factor in the thermal problem of the SHF-hyperthermia. 3. Heterogeneous biotissue. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 50–55.
 Yegorov, V. A., Regirer, S. A. and Shadrina, N. Kh., Specific features of a pulsating flow of blood through resisting blood vessels. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **2**, 83–89.

HEAT AND MASS TRANSFER IN TECHNOLOGICAL PROCESSES

- Abiyev, R. Sh., Investigation of the suspension vibrations and of mass transfer process in a pulsational resonance apparatus. *Zh. Prikl. Khim.*, 1993, **66**(10), 22–36.
 Afanasiiev, V. N. and Chudnovskiy, Ya. P., Experimental investigation of the effect of the geometry of a nozzle in the processes of the formation of drops. *Vestn. MGTU, Ser. Mashinostr.*, 1994, **2**, 92–100.
 Alabovskiy, A. N., Korolevich, A. Ya., Kobel, V. A. and Sirota, V. P., Investigation of the process of heating water in an apparatus of immersed combustion. *Prom. Teplotekh.*, 1993, **15**(4), 64–70.
 Antonov, A. N., Chivanov, S. V. and Klochkov, A. Yu., An engineering method for calculating the dynamic characteristics of heat exchanging apparatus of heat regeneration systems. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 19–23.
 Apartsin, A. S., Tairov, E. A., Solodusha, S. V. and Khudyakov, D. V., Application of integroexponential Volterra series to simulation of the dynamics of heat exchangers. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **3**, 138–145.
 Avdienko, A. A., Concerning an experimental evaluation of the distribution function of droplets in an atomization spray of a viscoelastic liquid column. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 168–172.
 Avetisyan, A. O. and Gindes, Y. P., Investigation of the thermophysical properties of dome and electric steel smelting slags. *Stal'*, 1994, **5**, 78–81.
 Balashov, V. A., Nevezhin, V. I., Remnev, V. P. and Ryabchuk, G. V., Effect of the parameters of a cut finning on heat transfer of tubular surfaces. *Rheological Processes and Apparatus of Chemical Technology*. Volgograd State Technical University, Volgograd, 1993, pp. 119–122.
 Bityurin, V. A., Bocharov, A. N., Ivanov, V. A. and Pakhomov, Ye. P., Numerical simulation of the efficiency of air cooling of steel elements in the valve of hot blowing for domain production. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1. Moscow, 1994, pp. 30–34.
 Bobylev, V. N., Calculation of mean temperatures of heat carriers in multipass tubular heat exchangers. *Khim. Neft. Mashinostr.*, 1994, **4**, 14–15.
 Bratukhin, A. G., Bogolyubov, V. S. and Sukpasov, V. G., Determination of temperature fields in the elements of equipment in the mode of autoclave formation. *Izv. VUZov, Aviats. Tekh.*, 1994, **1**, 96–99.
 Bratuta, E. G., Yaroshenko, T. I. and Muravyov, V. I., Mathematical simulation and a computational experiment for investigation of the processes of heat and mass transfer and hydrodynamics in mixed type generators. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **3**, 79–84.
 Dzhashitov, V. E., Effect of thermal processes on the accuracy of precise fiber-optical inertial probes. *Inzh.-Fiz. Zh.*, 1994, **66**(1), 61–68.
 Fialko, N. M., Prokopov, V. G., Meranova, N. O., Borisov, Yu. S. and Korzhik, V. N., Processes of heat transfer in systems “coating as a whole”—a base for thermal gas scattering. *Fiz. Khim. Obrab. Mater.*, 1994, **2**, 68–75.
 Garmize, L. Kh., Dashkov, G. V., Solodukhin, A. D. and Fisenko, S. P., Laboratory simulation of the enhancement of heat and mass transfer processes in column evaporative towers. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 143–150.
 Gremyachkin, V. M., A model of combustion and gasification of coke in a mixture of reactive gases. *Fiz. Gor. Vzryva*, 1994, **30**(2), 25–33.
 Gulkov, V. N. and Kostyukov, V. M., A non-contact meter of the temperature of weakly heated bodies. *Izv. S.-Peterburg Elektrotekh. Univ.*, 1993, **464**, 65–69.
 Dronov, V. P., Ermakov, Yu. A., Ionkin, A. A. and Churbanov, A. G., Numerical simulation of heat transfer in a cooling chamber. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 97–101.
 Isakov, G. N. and Nesmelov, V. V., Certain trends in heat and mass transfer in swelling fire-protecting materials. *Fiz. Gor. Vzryva*, 1994, **30**(2), 57–63.
 Isakov, K. M., Solodovnikov, O. Ye. and Slesarev, V. A., Local heat transfer in the channels of perforated working blades. *Izv. VUZov, Aviats. Tekh.*, 1994, **2**, 62–68.
 Iskakov, K. M., Trushin, O. V. and Shatalov, Yu. S., Heat transfer in a radially rotating channel with circular heat transfer intensifiers. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 86–90.
 Kapishnikov, A. P., Distribution of a local heat flux in the elements of the finned surface of a condensing economizers. *Prom. Energetika*, 1994, **12**, 28–30.
 Kondakova, L. A., Balashov, V. A., Shishlyannikov, V. V. and Senichkin, A. V., Experimental investigation of heat transfer in the case of pin finning of plane surfaces. *Rheological Processes and Apparatus of Chemical Technology*. Volgograd State Technical University, Volgograd, 1993, pp. 134–137.
 Konyukhov, G. V. and Petrov, A. I., Justification of the efficiency of heat exchanging devices. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 112–116.
 Kovalevskiy, V. B. and Zhuitianj, Ho., Optimum heating of metal in chamber furnaces with minimum oxidation. *Inzh.-Fiz. Zh.*, 1994, **66**(3), 358–362.
 Kozlov, A. G. and Kirechek, A. V., Thermal regime of operation of a casting disk. *Stal'*, 1994, **5**, 73–75.
 Kryukov, V. N., Limonov, V. G. and Solntsev, V. P., Heat transfer in the bottom region of a multinozzle arrangement. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 152–156.
 Kutepov, A. M., Lagutkin, M. G. and Baranov, D. A.,

- Method of calculation of the indices of the separation of suspensions in hydrocyclones. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 207–211.
- Kuznetsov, A. V., Mathematical simulation of thermophysical processes in metallohydride elements of power plants. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **3**, 57–69.
- Maiorov, V. N. and Tretiyak, S. P., Measurement of the mold surface temperature in forced casting. *Litein Proizvod.*, 1994, **6**, 17–18.
- Makarov, V. V. Use of numerical experimentation for investigating the characteristics of heat transfer and pressure losses in an intermediate space of a shell-and-tube heat exchangers. *Teploenergetika*, 1994, **6**, 52–58.
- Makarov, M. V., Yankov, G. G. and Artemov, V. I., Numerical simulation of unsteady-state heat and mass processes in cryogenic fuel tanks. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 140–146.
- Malinovskiy, R. R., Parameters of cooling continuous casting ingots. *Tsvetn. Metally*, 1994, **5**, 49–53.
- Malkin, A. Ya., Baranov, A. V. and Timofeyev, S. V., Melting formation of plastisoles with impregnation of a strengthening layer. *Teor. Osnovy Khim. Tekhnol.*, 1994, **28**(3), 217–222.
- Matveyev, L. G., Light-strong diffraction spectral device. In *Physics and Chemistry of Peat and Sapropel, Problems of Their Treatment and Usage. Proceedings of the 7th International Scientific–engineering Conference*, Tver, Pt 1, Tver, 1994, pp. 42–43.
- Martsulevich, N. A., Modelling of microfiltration in thin channel apparatuses. *Zh. Prikl. Khim.*, 1993, **66**(11), 2513–2519.
- Nikiforova, O. P., Gorshkov, A. S. and Mushtayev, V. I., Heat transfer in reactors with film flow of liquid. *Khim. Prom.*, 1994, **4**, 255–259.
- Opanasenko, A. N., Temperature stratification of a heat carrier in the elements of power plants. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, pp. 164–169.
- Paskar, A. S., Kogurov, V. I. and Averkieva, A. V., About the relationship of circular nonuniformities of temperature fields downstream of the combustion chamber and power turbine. *Trudy TsKTI*, 1993, **275**, 27–31.
- Prozorov, Ye. N. and Balin, V. A., Contact mass transfer in the process of preliminary thermal treatment of ceramic articles. *Khim. Neft. Mashinostr.*, 1994, **3**, 1–3.
- Ryzhikov, V. G., Ryzhikov, G. M., Revun, M. P. and Bashly, S. V., Concerning the relation of the recirculation multiplicity with constructive parameters of a furnace injector. *Izv. VUZov, Chyorn. Metallurg.*, 1994, **2**, 64–66.
- Shchelokov, A. I., Enhancement of heat transfer in furnaces. In *Proceedings of the International Conference ‘Ferrous Metal Industry of Russia and CIS Countries in the 21st Century’*, Vol. 2, Moscow, 1994, pp. 47–48.
- Shcherbinin, S. A., Yakovleva, G. A. and Fazylov, A. R., A mathematical model of thermal and electric fields of a magnesium electrolyzers. *Tsvetn. Metally*, 1994, **4**, 60–64.
- Shestakov, N. I., Lukanin, Yu. V. and Kostin, Yu. P., Laws governing heat exchange in a crystallizer. *Izv. VUZov, Chyorn. Metallurg.*, 1994, **1**, 22–23.
- Sidagin, A. A. and Chekhov, O. S., Effect of bypassing a gas on the efficiency of mass transfer of tray contact devices. *Khim. Prom.*, 1994, **4**, 247–251.
- Sorokin, N. A. and Bogushevskiy, V. S., Investigation of information about the temperature and thermal field of a mold for casting under pressure. *Litein. Proizvod.*, 1994, **6**, 18–20.
- Sosenushkin, Ye. N., Calculation of the temperature conditions of the operation of tools in cold and semihot stamping. *Kuzn.-Shtamp. Proizvod.*, 1994, **7**, 23–24.
- Starikov, V. S., Soloviyov, A. K. and Selskiy, B. I., Concerning an optimally enhanced thermal treatment of billets consisting of constructional carboniferous steels. *Izv. VUZov, Chyorn. Metallurg.*, 1994, **4**, 29–32.
- Tenkotsev, V. V. and Borisov, B. A., Heat release and heat extraction from buffer storage batteries in systems of common supply of autonomous objects. In *Chemical Sources of Current*. St Petersburg, 1993, pp. 131–140.
- Toryanik, E. I., Virozub, A. I., Vasiliyev, Ya. S., Rubchevskiy, V. N. and Chernyshov, B. Yu., Investigation of the conditions of heat transfer in coke furnaces of different heights. *Koks Khim.*, 1994, **3**, 15–16.
- Tsenev, V. A., A combined method of determining the parameters of heat exchange in an internal combustion engine. *Automob. Prom.*, 1994, **1**, 33–34.
- Verdiev, M. G. and Verdiev, M. M., A system of convective cooling of hydrogen-oxygen electrolysis. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 1, Moscow, 1994, pp. 61–65.
- Volchenko, Yu. A. and Levlev, I. I., Dynamics of a liquid film on a curved solid wall with allowance for phase conversion on a free surface. *Izv. Akad. Nauk, Mekh. Zhidk. Gaza*, 1994, **4**, 42–50.
- Volchenkov, N. K. and Prokazov, V. A., Investigation of temperature gradients in the working chamber of a vacuum electric desiccator. In *Electrothermal Processes and Installations*, Tula State Technical University. Tula, 1994, pp. 10–12.
- Zvorykina, L. I. and Fatkulin, B. E., Investigation of the field of temperatures in a separating chamber of an electro-phoretic setup. In *Applied Problems of Aeromechanics and Geospace Physics*. Moscow Physicochemical Institute, Moscow, 1993, pp. 31–38.

HEAT AND MASS TRANSFER IN BIOLOGICAL SYSTEMS

- Ivanenko, V. P., Pelenko, V. V., Barsukov, A. V., Zhizhina, A. V. and Vavilov, B. K., Heat and mass exchange during drying of potato. In *Increase of the Quality and Reliability of Technological Equipment in Commerce and Public Catering*. St Petersburg Commercial and Economic Institute, St Petersburg, 1994, pp. 38–40.
- Shulman, Z. P. and Makhanyok, A. A., A certain generalization of the Darcy equation for a viscoelastic medium as a foundation of biomedical calculations. *Vestsi. Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk*, 1994, **3**, 89–96.
- Strumillo, Ch., Grinchik, N. N., Kuts, P. S., Akulich, P. V. and Zubitsinsky, I., Numerical simulation of non-isothermal moisture transfer in biological colloidal porous materials. *Inzh.-Fiz. Zh.*, 1994, **66**(2), 202–212.
- Yefremov, V. V., Sheludko, A. G. and Sukhanov, V. A., Investigation of the dynamics of transient processes in clothes in the case of two positional control of temperature. In *Automatization of Technological Processes of Light Industry*. Moscow State Academy of Light Industry, Moscow, 1993, pp. 131–135.

HEAT AND MASS TRANSFER IN BUILDINGS

- Omuraliyev, M. and Karakeyev, K., Specific features of the thermal field of subsoil layers and seismicity. *Geothermia of Seismic and Aseismic Zones: Interrepublican Meeting*, Dolinka (Lake Issyk-Kul), Moscow, 1993, pp. 205–212.
- Parafeyeva, Ye. Z., A means of protecting tall buildings from solar radiation deformation. In *Analysis and Prediction of Hydrometeorological Elements. Problems of the Protection of Atmosphere*, Perm' State University, Perm', 1994, pp. 154–161.

HEAT AND MASS TRANSFER IN THE ENVIRONMENT

- Andronov, V. A. and Razin, A. N., Concerning certain difference algorithms for numerical simulation of the

- transfer of impurity in the atmosphere. *Voprosy Atom. Nauki Tekh., Ser. Mat. Modelir. Fiz. Protsessov (Moscow)*, 1993, **3**, 64–69.
- Balabanov, V. A., Meshkov, M. A., Onufriev, A. T. and Safarov, N. A., Concerning the dynamic picture of development of convective ejection to large heights in a stratified atmosphere from an energy release source extended over the horizontal. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 2, Moscow, 1994, pp. 31–36.
- Belov, P. N. and Komarov, V. S., A theoretical model of the transfer of admixtures in the boundary layer of the atmosphere. *Optika Atmosf. Okeana*, 1994, **7**(2), 195–203.
- Fiegelson, Ye. M., Interaction of cloudiness and radiation. Introduction. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana (Russia)*, 1994, **30**(2), 189–190.
- Gavrilov, S. V., Penetration of a thermal diapire into a continental lithospheric platform from a non-Newtonian upper mantle. *Fiz. Zemli*, 1994, **7**–**8**, 18–26.
- Golovatyuk, A. S. and Lonin, S. A., Modelling of the vertical thermal structure of the ocean layer near its bottom. *Modelir. Mekh.*, 1993, **7**(1), 42–51.
- Golubkov, S. K., Shatalina, I. N. and Tregub, G. A., Formation of the temperature regime of the surface layers of water in reservoirs in spring period. *Izv. Vseros. NII Gidrotekh.*, 1994, **228**, 39–44.
- Gorchakova, I. A., Calculations of thermal radiation fluxes in the case of solid cloud cover. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana*, 1994, **30**(2), 233–236.
- Gorelik, Ya. B. and Dzik, M. I., Stationary temperature fields around wells. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **2**, 147–154.
- Gunko, Yu. F., Ionospheric aerodynamics. Effect of intrinsic magnetic fields. *Vestn. S. Peterburg. Univ. Ser. 1.*, 1993, **3**, 69–75.
- Isayev, A. A., Kallistratova, M. A., Lokoshchenko, M. A. and Pekur, M. S., The thermal structure of the atmospheric boundary layer over Moscow. *Optika Atmosf. Okeana*, 1994, **7**(5), 650–663.
- Karnovich, V. N., Tregub, G. A. and Ovdiyenko, N. A., The possibility of the application of glacial and thermal regimes in tailwaters of hydrojoints to natural conditions. *Izv. Vseros. NII Gidrotekh.*, 1994, **228**, 68–78.
- Kaul, B. V., Kuznetsov, A. L. and Samokhvalov, I. V., Manifestation of the light scattering anisotropy in aerosol layers of the stratosphere. *Optika Atmosf. Okeana*, 1994, **7**(1), 11–17.
- Kiknadze, G. I., Gachechiladze, I. A. and Oleinikov, V. G., Mechanisms of the tornado heat and mass transfer intensification. *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 97–106.
- Malkovskiy, V. I., Pek, A. A., Omelyanenko, B. I. and Drozhko, Ye. G., Numerical simulation of thermoconvective transfer by underground waters of radionuclides from a well reservoir of highly radioactive wastes. *Izv. Akad. Nauk, Energ. (Russia)*, 1994, **3**, 113–122.
- Mamleyeva, N. A., Pisareva, T. R. and Lunin, V. V., Structure of adsorptive layers of methylene blue on the lignin surface. *Zh. Fiz. Khim.*, 1994, **68**(4), 671–674.
- Nikonov, S. N. and Piskunov, V. N., Models of forming volumetric sources of ejection into the atmosphere. *Voprosy Atom. Nauki Tekh., Ser. Teor. Prikl. Fiz. (Moscow)*, 1993, **3**, 23–26.
- Parkhomenko, T. Yu., Toward a mathematical model of the process of thermal decomposition of lime. *Izv. VUZov, Chyorn. Metallurg.*, 1993, **11**–**12**, 1–4.
- Pavlyukov, Yu. B., Numerical simulation of the processes of multicomponent diffusion in the thermal sphere of the Earth in a four-component approximation. Preprint no. 26 of the Institute of Applied Mathematics, Russian Academy of Sciences, Moscow, 1991, pp. 1–30.
- Petrulin, G. I. and Popov, V. G., Specific features of the temperature behaviour of the lattice thermal conductivity of the Earth's mineral substance. *Fiz. Zemli*, 1994, **7**–**8**, 35–41.
- Plakhina, I. N. and Repina, I. A., Measurements and analysis of thermal radiation fluxes in the case of a cloudy sky. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana (Russia)*, 1994, **30**(2), 237–240.
- Rostovtseva, V. V. and Sukhorukov, A. P., Estimation of the thermal characteristics of the surface layer of the ocean according to the data of a multichannel IR-radiometer. *Optika Atmosf. Okeana*, 1994, **7**(5), 642–649.
- Rudenko, G. V., Linear oscillations in a viscous heat conducting isothermal atmosphere, Pt 1. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana (Russia)*, 1994, **30**(2), 145–154.
- Rudenko, G. V., Linear vibrations in a viscous heat conducting isothermal atmosphere, Pt 2. *Izv. Akad. Nauk, Fiz. Atmosf. Okeana (Russia)*, 1994, **30**(2), 155–164.
- Shatalina, I. N. and Tregub, G. A., Toward the problem of freezing of reservoirs. *Izv. Vseros. NII Gidrotekh.*, 1994, **228**, 47–50.
- Sizyi, Yu. A., Dynamics of heating and cooling of a frictional disc with account for heat exchange with the surrounding medium. *Izv. VUZov. Mashinostr.*, 1993, **7**–**9**, 139–147.
- Tregub, G. A., Calculational method of determining the initial thickness of ice in reservoirs. *Izv. Vseros. NII Gidrotekh.*, 1994, **228**, 44–47.
- Trubitsyn, V. P., Belavina, Yu. F. and Rykov, V. V., Thermal convection in the mantle and variable viscosity and with the continental platform of finite dimensions. *Fiz. Zemli*, 1994, **7**–**8**, 5–17.
- Voinovich, A. P. and Kaleganov, V. V., Icing on spillway of the Kolyma hydroelectric power plant and ice loading on separating walls. *Izv. Vseros. NII Gidrotekh.*, 1994, **228**, 78–91.
- Yeliseyev, A. N., Korenkov, V. A., Lyapin, V. Ye. and Tregub, G. A. Regulation of the temperature regime of a selective intake river. *Izv. Vseros. NII Gidrotekh.*, 1994, **228**, 61–68.
- Zakharov, Ye. I. and Panferova, I. V., Analytical investigation of heat exchange of a coal seam with enclosing rocks. In *Differential Equations and Applied Problems*. Tula State Technical University, Tula, 1993, pp. 79–85.
- Zetser, Yu. I. and Ratnikov, Ye. V., Physical mechanisms of the SHF heating and softening of rocks. In *Dynamic Processes in Geospheres: Geophysics of Strong Perturbations*. Institute of the Dynamics of Geospheres, Moscow, 1994, pp. 311–318.