



## Heat and mass transfer bibliography—CIS works

O.G. Martynenko

*Heat and Mass Transfer Institute, Byelorussian Academy of Sciences, 25 Poddlesnaya, 220072 Minsk, Belarus*

Received 22 November 1997

### General

- A.G. Alekseev, Analytical description of the temperature field of a plate heated by a uniformly rectangular heat source, in: *Energy Resources Saving and Environment Protection*, Ivanovo Institute of Civil Engineers, Ivanovo, 1995, pp. 8–12.
- G.D. Alekseev, A.K. Likhachyov, The temperature field of the vessel wall heated on the outside around the ring by a heat source of finite width, in: *Energy Resources Saving and Environment Protection*, Ivanovo Institute of Civil Engineers, Ivanovo, 1995, pp. 17–20.
- A.S. An'shakov, E.K. Ubrakh, and B.D. Tsydygov, Optimization of a thermal state and resource of a rod thermocathode, *Teplotfiz. Aeromekh.* 2 (2) (1995) 167–171.
- A.S. Apartsin, Identification of the Volterra kernels in the integral models of nonlinear dynamic systems (Collected Papers). *Izd. Sib. Energ. Inst. Irkutsk*, 1995, pp. 101–116.
- A.A. Avramenko, L.G. Kobzar', A.A. Khalatov, Nonlinear effects of Taylor–Goertler vortices in a turbulent boundary layer, *Prom. Teplotekh.* 17 (4) (1995) 89–92.
- V.S. Batalov, Theoretical foundations of the vibrothermal method, in: *Problems of Reconstruction and Improvement of the Industrial Environment at the Ferrous Metallurgy Enterprises*. Magnitogorsk Mining–Metallurgical Institute. Magnitogorsk, 1992, pp. 123–133.
- M.Yu. Belyakov, S.B. Kiselyov, A.R. Muratov, Crossover behaviour of absorption, surface tension and of the order parameter profile in a critical region, *Teplotfiz. Vysok. Temp.* 33 (5) (1995) 707–715.
- V.K. Bityukov, Yu.N. Zolotaryov, Mathematical simulation and optimal management of dynamic heating of a disk, in: *Theoretical Foundations of the Design of Technological Systems and Automated Production Equipment*, Voronezh State Technological Academy, Voronezh, 1995, pp. 81–87.
- M.A. Bogeov, K.A. Nadolin, I.A. Nikolaev, Simulation of the propagation of substance in a two-dimensional steady-state open river bed stream, *Mat. Modelir.* 8 (1) (1996) 11–24.
- V.A. Bubnov, Kinetic energy of thermal isolated eddies, *Probl. Aksiomat. v Gidrogazodin.* 2 (1996) 26–45.
- I.I. Chaikin, Algorithms for computing heat shielding characteristics of foam plastic insulation of tubes and enclosures, in: *Reconstruction of St Petersburg up to the Year 2005* (Proceedings of the 3rd International Symposium, 16–20 May 1994, St Petersburg), Pt. 4, St Petersburg, 1995, pp. 121–125.
- S.G. Chefranov, Intermittency and turbulent diffusion, *Zh. Eksp. Teor. Fiz.* 108 (6) (1995) 2010–2020.
- S.G. Cherkasov, Free-convective boundary layer in the regime of local self-similarity, *Izv. Akad. Nauk., Energ.* 2 (1996) 39–43.
- N.V. Dezhkunov, The rule of the classification of liquid by captivation activity, *Vesti Akad. Navuk Belarusi, Ser. Fiz. Tekh. Navuk* 1 (1996) 110–111.
- A.A. Dolinskiy, G.K. Ivanitskiy, Theoretical justification of the principle of discrete-impulse input of energy, *Prom. Teplotekh.* 17 (5) (1995) 3–29.
- V.P. Egunov, Introduction into the thermal analysis, *Izd. SamVen, Samara*, 1996.
- A.O. Gliko, A.G. Petrunin, Quasi-stationary models of heat and mass transfer in the systems of heavy smokers, *Dokl. Akad. Nauk, (Russia)* 346 (6) (1996) 812–814.
- N.T. Gorchakova, A.K. Rebrov, V.N. Yarygin, Processes of molecular energy exchange in interaction of supersonic low-density flows, *Teplotfiz. Aeromekh.* 2 (4) (1995) 369–377.
- V.D. Goryachev, Simulation of aerodynamic and thermal processes on the basis of information-computation systems SELIGER and ESTTAC, *Progr. Produkty Sistemy* 1 (1995) 17–24.
- A.I. Groshev, V.I. Kriventsev, An effective method of finite-difference approximation of convective-diffusion equations, *Izv. VUZov, Yadern. Energ.* 4 (1995) 72–80.
- E.V. Gurentsov, A.A. Sokol'skiy, V.K. Shikov, E.B. Eigenson, Experimental investigation of heat exchange in a highly cooled boundary layer of supersonic air flow. Procedure and results of measurements, *Teplotfiz. Vysok. Temp.* 33 (5) (1995) 749–758.
- K.M. Isakov, O.V. Trushin, Use of the method of elementary heat balances in calculations of temperature fields, *Izv. VUZov, Aviats. Tekh.* 3 (1995) 96–99.
- V.V. Ivanov, A.G. Boikov, V.M. Fokin, Application of the laws governing an ordered thermal regime to experiments with mineral wadding, *Izv. VUZov, Stroitel'stvo* 2 (1996) 122–124.
- A.I. Kalinichev, Intradiffusional frontal dynamics of sorption for convex and concave isotherms, *Zh. Fiz. Khim.* 69 (11) (1995) 2030–2034.
- V.A. Kaminskiy, A.V. Vyaz'min, Concerning the qualitative model of interphase turbulence, *Zh. Fiz. Khim.* 69 (8) (1995) 1449–1455.
- A.A. Khalatov, N. Sairets, I.V. Shevchuk, Experience in application of a programme package 'Fluent' for calculating complex thermogasdynamics flows, *Prom. Teplotekh.* 17 (6) (1995) 81–88.
- A.V. Klimenko, Yu.A. Zeigarnik, Power engineering, energy saving and investigations in the field of heat exchange in

- Russia (Extracts from the Proceedings of the 1st Russian Natural Conference on Heat and Mass Transfer), *Teploenergetika* 11 (1995) 12–15.
- A.I. Kobasko, A.A. Moskalenko, G.M. Vebster, Determination of the second critical density of a heat flux on the basis of testing standard samples, *Prom. Teplotekh.* 17 (5) (1995) 83–87.
- V.A. Kondrat'ev, S.I. Tarakanov, About the singularity of temperature gradients in the vicinity of a sharp cut in a composite body, *Izv. Akad. Nauk. Mekh. Tvyord. Tela* 6 (1995) 70–72.
- E.B. Kuposov, Use of dynamic packages of applied programmes for solving the problems of stationary heat exchange, *Izv. VUZov, Mashinostr.* 10–12 (1995) 56–63.
- V.G. Kovalyov, The hydrodynamics of an electric explosion in a gas–liquid mixture, *Zh. Tekh. Fiz.* 66 (4) (1996) 24–29.
- L.A. Kozdoba, Integrated properties of thermal systems 'Heat transfer', 'Heat insulation', Proceedings of the 1st Russian National Conference on Heat Transfer, Vol. 10, pt. 1, Moscow, 1994, pp. 157–166.
- T.K. Kozubskaya, G.U. Zhurav, Setting up boundary conditions for a one-dimensional equation of transfer in the methods of quasi-diffusion and frozen coefficients, *Mat. Modelir.* 7 (10) (1995) 127–132.
- O.A. Kuzenkov, Optimum control of the process of cooling a portion of a solid body, *Collected Papers of the Institute of System Analysis, Russian Academy of Sciences*, 3 (1993) 58–64.
- A.V. Kuznetsov, Towards 'loss of memory' about initial conditions in heating a porous body, *Izv. Akad. Nauk. Energ.* 2 (1996) 83–87.
- A.V. Kuznetsov, Concerning the problem of optimum control of the process of heat accumulation in a one-dimensional porous layer, *Zh. Tekh. Fiz.* 66 (6) (1996) 1–7.
- A.V. Kuznetsov, Concerning a certain optimization problem of heating a porous body, *Izv. Akad. Nauk, Energ.* 1 (1996) 116–122.
- A.I. Leont'ev, Yu.A. Zeigarnik, N.V. Medvetskaya, The 10th International Conference on Heat Transfer: Results and Thoughts, *Teploenergetika* 11 (1995) 6–11.
- V.L. Linshtein, Towards generalization of the penetration theory, *Khim. Tekhnol. Topliv. Masel* 1 (1996) 23–25.
- N.I. Lobov, D.V. Lyubimov, T.P. Lyubimova, Convective instability of a system of horizontal layers of immiscible liquids with a deformed interface, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 32–39.
- I.G. Matis, S.N. Negreeva, Extension of the possibilities of a thermophysical experiment with the help of an expert system, *Defektoskopiya* 2 (1995) 10–14.
- V.I. Merkulov, Buoyancy waves as a heat pump, *Dokl. Akad. Nauk, (Russia)* 343 (1) (1995) 57–59.
- D.S. Mikhatulina, Yu.V. Polezhaev, Simulation of turbulent heat- and mass exchange on decomposing surfaces, *Izv. Akad. Nauk. Mekh. Zhidk. Gaza* 1 (1996) 133–142.
- K.A. Nadolin, Concerning the penetrating convection in the approximation of an isothermally incompressible liquid, *Izv. Akad. Nauk. Mekh. Zhidk. Gaza* 2 (1996) 40–52.
- G.G. Oganyan, A quasi-adiabatic regime of wave propagation in a gas–liquid mixture, *Izv. Akad. Nauk, Armenii, Mekh.* 48 (1) (1995) 24–33.
- S.G. Ponomaryov, V.F. Tishkin, Simulation of gasdynamic flows in a cavity by means of quasi-monotonic difference schemes of an increased order of approximation, *Mat. Modelir.* 7 (11) (1995) 55–65.
- V.N. Popov, Free convection (Review), *Vestn. Mosk. Energ. Inst.* 2 (1996) 51–65.
- O.L. Rudykh, Method of reduced elements for calculating heat and mass transfer, in: *Transport and Communication, Pt. 1, Far East State Academy of Working Bodies, St Petersburg Technological Institute of Refrigeration Industry, Khabarovsk*, 1994, pp. 113–118.
- I.N. Sachkov, A.G. Gofman, F.A. Sidorenko, Finite-elements method: conductance and Joule heat generation in regular structures, *Izv. VUZov, Fiz.* 39 (5) (1996) 17–23.
- A.M. Sargsyan, Thermally stressed state induced by mobile heat sources in inhomogeneous plates butt-joined by means of a thin intermediate layer, *Izv. Akad. Nauk, Armenii, Mekh.* 47 (1–2) (1994) 53–59.
- P.Yu. Sharonov, G.P. Boikov, Theoretical foundations of experimental determination of temperatures in the case of two-sided axial anisotropy, *Izv. VUZov, Sev.-Kavk. Reg., Tekh. Nauki* 1 (1996) 91–95.
- D.A. Shurygin, Equalization of the temperature field of heated cylinders, *Izv. VUZov, Tekhnol. Tekstil. Prom.* 2 (1996) 116–119.
- A.B. Sulin, V.A. Denisov, Computational justification of the effective geometry of a free-convective radiator, in: *Heat Exchange Processes in the Systems of Refrigeration Technology and the Properties of Working Bodies, St Petersburg Technological Institute of Refrigeration Industry, St Petersburg*, 1993, 135–139.
- E.A. Tairov, Integral models of the nonlinear dynamics of heat exchange processes, in: *Investigation of Promising Power Technologies, Russian Academy of Sciences, Siberian Branch, Siberian Power Institute, Irkutsk*, 1995, pp. 86–100.
- G.N. Tregubenko, A.V. Rabinovich, Yu.P. Zaslavskiy, N.I. Taras'ev, Mass transfer of nitrogen in multicomponent metallic systems containing nitride-forming elements, *Metallofiz. Nov. Tekhnol.* 17 (9) (1995) 77–80.
- V.I. Troilin, E.V. Medyanikov, Methods of visualization of thermal images, *Probl. Zheleznodor. Transp.* 4 (1993) 129–131.
- I.R. Vengerov, Calculation of nonstationary heat exchange coefficients on the basis of lamellar models of heat transfer, *Prom. Teplotekh.* 17 (6) (1995) 32–39.
- V.M. Vigak, M.I. Svirida, Optimal monitoring of two-dimensional nonaxially symmetric temperature field in a hollow cylinder with limitations on thermoelastic stresses, *Prikl. Mekh. (Kiev)* 31 (6) (1995) 42–49.
- D.V. Vlasov, E.V. Zubkov, S.I. Shamaev, Inversion of the equation of a lidar with account for small-angle scattering, *Optika Atmosf. Okeana* 8 (9) (1995) 1324–1331.
- V.A. Zagoruiko, A.G. Slyn'ko, D.A. Shirokiy, Theoretical method of calculation of the internal mass transfer coefficient in actual moist materials, *Prom. Teplotekh.* 17 (4) (1995) 32–38.
- M.K. Zakharov, V.G. Ainshtein, About the specific features of mass transfer in laminar liquid films, *Azv. VUZov, Khim. Khim. Tekhnol.* 38 (6) (1995) 84–86.
- E.P. Zaporozhets, L.P. Kholpanov, Calculation of pulsational and eddy cooling of a multicomponent gas and their comparative characteristics, *Teor. Osnovy Khim. Tekhnol.* 30 (2) (1996) 123–133.
- M.Z. Zgurovskiy, A.N. Novikov, Simulation of one-sided physi-

- cal processes of diffusion and heat/mass transfer, *Probl. Uprav. Informat.* 1–2 (1996) 60–68.
- A.I. Zhakin, V.G. Lushchik, Effect of magnetic field and rotation on convective stability of an electrically conducting binary mixture, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 92–97.
- V.A. Zhavoronkov, D.A. Kazenin, P.A. Gladyshev, Specificity of the processes of mass transfer in certain photobioreactors, *Aviakosm. Ekol. Med.* 29 (6) (1995) 61–64.
- Yu.I. Zhavrin, V.N. Kosov, Some specific features of the dynamics of unstable diffusional mass transfer in isothermal three-component gas mixtures, *Teplofiz. Aeromekh.* 2 (2) (1995) 145–151.
- Yu.B. Zudin, Averaged heat transfer in the case of two-sided space-time periodicity of convective heat exchange, *Teplofiz. Aeromekh.* 2 (3) (1995) 281–287.
- Thermodynamic properties**
- D.G. Gilyazov, M.A. Valiulin, Z.Kh. Zamaleev, Hydraulic and thermal characteristics of a two-row concrete heating device, in: *Hydromechanical Heating-Ventilating Equipment*, Kazan, 1995, pp. 45–51.
- Yu.N. Isaev, E.V. Zakharova, Recovery of the intensity of a beam from the temperature field of a thin target, *Optika Atmosf. Okeana* 8 (6) (1995) 841–846.
- E.M. Kartashov, P.G. Rubin, Problem of a thermal shock for the region with moving boundaries in models of dynamic thermal elasticity, *Mat. Modelir* 7 (10) (1995) 3–11.
- B.V. Pol'shchikov, E.V. Grishko, A.B. Zhokhov, A procedure for thermal calculation of air-cooled boards, *Izv. VUZov, Priborostroenie* 38 (7–8) (1995) 58–61.
- B.A. Rogov, V.A. Rykov, V.F. Lysenkov, Mathematical simulation of the thermophysical characteristics of fatty food stuffs in the processes of heat treatment, *Maslozhir. Prom.* 1 (1993) 20–22.
- D.P. Volkov, Yu.P. Zarichnyak, Thermophysical properties of carbon-carbon composite materials, *Teplofiz. Vysok. Temp.* 33 (6) (1995) 942–947.
- P.K. Volkov, Dynamics of a gas bubbles-laden liquid, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1996) 75–88.
- V.M. Zhdanov, V.I. Roldugin, Concerning the nonequilibrium thermodynamics of a weakly rarefied gas mixture, *Zh. Eksp. Teor. Fiz.* 109 (4) (1996) 1267–1287.
- Simulation of Dynamic Processes and Systems, Moscow Physicotechnical Institute, Moscow, 1995, pp. 83–89.
- Yu.A. Kirsanov, Heat conduction in coated solid bodies under 4-period cyclic boundary conditions of the 3rd kind, *Izv. VUZov, Aviats. Tekh.* 4 (1995) 88–92.
- A.V. Kolubaev, V.V. Fadich, Concerning the abnormal behaviour of the thermal conductivity of composite materials containing titanium carbide, *Pis'ma v Zh. Tekh. Fiz.* 21 (16) (1995) 33–36.
- Yu.Ya. Kuvshinov, Towards calculation of heat conduction under periodic and single boundary conditions, *Izv. VUZov, Stroit.* 12 (1995) 90–93.
- A.Yu. Latukhin, A.A. Ryabov, Numerical investigation of nonlinear heat conduction processes in the elements of devices subjected to heat pulses, *Prikl. Probl. Prochn. Plastichn.* 52 (1995) 167–171.
- S.V. Mavrin, Modification of the iteration algorithm for solving the inverse heat conduction problem, *Inzh.-Fiz. Zh.* 68 (3) (1995) 494–499.
- Yu.A. Mitropol'skiy, M.Kh. Shkhanukov, A.A. Berezovskiy, Concerning a certain nonlocal problem for the equation of heat conduction in a two-dimensional region and its difference approximation, *Dop. Nats. Akad. Nauk, Ukrainy* 2 (1996) 27–30.
- V.V. Novikov, O.B. Papkovakaya, method of integral sections in heat conduction problems, *Inzh.-Fiz. Zh.* 68 (2) (1995) 322–329.
- Yu.Z. Plyashitseva, B.L. Gushchin, A.I. Kargov, Space-time control of the processes of nonstationary heat conduction, *Vestn. Samar. Gos. Tekh. Univ.* 1 (1994) 208–219.
- K.M. Podil'chuk, Yu.N. Podil'chuk, Yu.K. Rubtsov, Application of the method of neighbouring characteristics to the investigation of nonstationary temperature field in the problems of generalized heat conduction, *Dop. Nats. Akad. Nauk, Ukrainy* 2 (1996) 57–62.
- A.I. Prilepko, A.B. Kostin, About boundary control of heat conduction process. *Collected Papers of the Institute of System Analysis, Russian Academy of Sciences* 3 (1993) 93–97.
- S.N. Pustovoit, A self-similar solution of Cauchy problem for a heat conduction equation with a heat carrier moving following a special time law, *Vestn. Perm. Gos. Tekh. Univ., Mat. Prikl. Mat.* 1 (1994) 28–31.
- A.Yu. Shcheglov, The monotonicity conditions of the solution of a quasi-linear heat conduction equation with a discontinuous coefficient, *Vestn. MGU, Ser. 15, 4* (1995) 3–7.
- V.F. Shirikov, Towards investigation of heat conduction in structures of variable cross section, in: *System Analysis, Information Science and Applied Problems, Russian Correspondence-Course Institute of Textile and Light Industry, Moscow, 1994*, pp. 79–83.
- A.P. Slesarenko, N.A. Safonov, A structural method in nonstationary nonlinear heat conduction problems for multiply connected regions, *Dop. Nats. Akad. Nauk, Ukrainy* 1 (1996) 27–30.
- I.V. Stankevich, Convergence of the method of simple iterations in the solution of nonlinear stationary heat conduction equations, *Vestn. MGTU, Ser. Mashinostr.* 4 (1995) 4–11.
- A.K. Tsokur, A.Ya. Tsokur, V.G. Gavrilov, Mathematical simulation of the processes of heat conduction in an abrasive tool in the presence of physicochemical changes in it, *Inzh.-Fiz. Zh.* 68 (2) (1995) 306–311.
- Heat conduction**
- M.I. Belishev, The canonical model of a dynamic system with boundary control in the inverse heat conduction problem, *Algebra Anal.* 7 (6) (1995) 3–32.
- V.M. Belov, N.S. Dozortseva, V.A. Sukhanov, A two-step version of one scheme of solving a two-dimensional heat conduction equation with strongly varying coefficients, *Zh. Vychisl. Mat. Mat. Fiz.* 36 (3) (1996) 93–100.
- S.L. Degtyaryov, Stability of locally implicit difference schemes for two-dimensional equation of heat conduction, *Zh. Vychisl. Mat. Mat. Fiz.* 36 (4) (1996) 50–61.
- A.A. Gorbunov, The problems of hyperbolic heat conduction with account for energy sources and sinks, in: *Mathematical*

- R.A. Yudin, An algorithm for calculating equivalent thermal conductivity of the bundles of bars and bales, *Chyorn. Metallurg.* 1 (1996) 54–59.
- Yu.O. Zelenkova, B.G. Sapozhnikov, N.P. Shiryaeva, Effective thermal conductivity in a vibrofluidized bed. (Syromyatnikov Lectures, Ural State Technical Univ., Ekaterinburg, 18–19 October 1995), Ekaterinburg, 1995, pp. 42–47.

### High-temperature thermophysics

- V.E. Abaltusov, G.V. Kuznetsov, D.S. Mikhatulin, Yu.V. Pol-ezhaev, Numerical analysis of the specific features of mass entrainment in cutting structural materials by a high-temperature gas jet, *Teplotfiz. Vysok. Temp.* 34 (2) (1996) 280–284.
- E.L. Aleksandrov, A.P. Tishin, L.B. Upenek, Composition of the combustion products of rocket fuels and their local effect on ozone, *Meteorol. Gidrol.* 3 (1996) 5–19.
- A.A. Aretinskiy, V.F. Moiseev, V.I. Muntyan, Results of testing the model of an electron-beam device cooler, *Tepl. Rezhimy Okhlazhd. Radioelektron. Appar.* 1–2 (1995) 19–23.
- A.A. Evtushenko, I.V. Panasyuk, O.M. Ukhanskaya, Thermally stressed state of a rigid semi-plane heated by a uniformly moving source, *Prikl. Mat. Mekh.* 60 (1) (1996) 165–171.
- Yu.V. Gott, E.I. Yurchenko, Electrostatic non-quasi-neutral turbulence and ion heat transfer in TOKAMAK, *Fiz. Plazmy* 22 (1) (1996) 16–24.
- V.I. Kristya, Kinetics of charged particles in the cathode layer of a glowing discharge in a helium–neon mixture, *Teplotfiz. Vysok. Temp.* 34 (2) (1996) 197–202.
- V.S. Loginov, Temperature field in a composite wall made up of an arbitrary number of fuel and nonactive elements, *Izv. VUZov, Elektromekh.* 1–2 (1996) 95–98.
- N.E. Veisman, N.E. Andreev, V.V. Kostin, V.E. Fortov, Interaction of ultrashort laser pulses with solid-body targets, *Fiz. Plazmy* 21 (8) (1995) 715–722.
- E.R. Shchukin, Photo- and thermophoretic motion of a highly heated solid particle, *Zh. Fiz. Khim.* 69 (8) (1995) 1496–1502.
- G.A. Shepel', Problems of heat exchange in a plasma-vortex reactor, *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 222–226.
- V.I. Zinchenko, V.V. Nesselov, A.S. Yakimov, Investigation of thermochemical decomposition of carbophenolic material in a high-temperature gas flow, *Fiz. Gor. Vzryva* 31 (1) (1995) 80–88.
- N.V. Zmitrenko, N.G. Proncheva, Spreading of plasma with account for heat sources, thermal conductivity and magnetic field effect, in: *Mathematical Simulation of Dynamic Processes and Systems*, Moscow Physicotechnical Institute, 1995, Moscow, pp. 73–82.

### Low-temperature physics

- A.I. Danilushkin, L.S. Zimin, Identification of the process of low-temperature inductive heating in processing polymer materials, *Vestn. Samar. Gos. Tekh. Univ.* 1 (1994) 173–177.
- V.S. Petrov, Nature of cryogenic processes, *Vestn. Chit. Politekh. Inst.* 2 (1995) 85–100.
- P.T. Zubkov, K.M. Fyodorov, Convection in a cylindrical cell

with a freezing liquid, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 5 (1995) 125–129.

### Heat and mass transfer between a solid body and a fluid

- A.I. Akhremenko, V.L. Belousov, V.P. Marchenkov, Theoretical investigations of the process of transfer of solid particles in pulsing liquid flows, *Inzh.-Fiz. Zh.* 68 (2) (1995) 205–211.
- Yu.S. Alekseev, Ch.S. Laidabon, Cavitation in solid bodies and liquids, in: *Investigations in the Field of Molecular Physics*, Russian Academy of Sciences, Siberian Branch, Buryatiya Science Centre, Ulan-Ude, 1994, pp. 89–92.
- V.L. Aleksin, Investigation of a spatial turbulent boundary layer on complex-shape bodies immersed in flow under large angles of attack, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1995) 55–66.
- S.N. Aristov, V.I. Grabovskiy, Self-similar solution of the Navier–Stokes equations for gas flows in rotating logarithmically spiral plane channels, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 6 (1995) 44–52.
- I.G. Brykina, V.I. Sakharov, Comparison of approximate analytical and numerical solutions for heat fluxes in supersonic viscous gas flow about bodies, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 125–132.
- V.S. Burak, S.V. Volkov, O.G. Martynenko, P.P. Khrantsov, I.A. Shikh, Heat exchange and hydrodynamics on a vertical plate with heat flux discontinuity in natural convection, *Inzh.-Fiz. Zh.* 68 (2) (1995) 179–183.
- A.D. Burley, Heat exchange over the starting length of a circular tube in a bundle at different distributions of air flow rates, *Prom. Teplotekh.* 17 (6) (1995) 14–19.
- G.N. Byl', V.I. Krylovich, Temperature field in contacting semi-infinite bodies with a strip heat source in the plane of their contact, *Vesti Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk* 3 (1995) 102–105.
- V.A. Cherkashin, Numerical simulation of separation flows, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1995) 182.
- P.A. Deividson, D. Kinner, S.K. Fiad, Recirculation flow under the action of rotational mass force. 2. Flows excited by Archimedean force, *Magnit. Gidrodinam* 30 (4) (1994) 620–639.
- D.V. Drozhkin, V.Yu. Lazarev, Toward calculation of non-stationary conjugated heat exchange in two-dimensional channels in laminar natural and forced convection, *Prikl. Probl. Prochn. Plastichn.* 52 (1995) 112–117.
- I.L. Dunin, V.V. Ivanov, V.A. Kolesnik, Heating and melting of composite bodies under the simultaneous action of convection and radiation, *Izv. VUZov, Sev. Kavk. Reg., Tekh. Nauki* 3–4 (1994) 46–52.
- V.P. El'ginov, A.P. Zyuzin, V.A. Kirpikov, Heat transfer from finned tubes in free motion of air, *Teor. Osnovy Khim. Tekhnol.* 30 (2) (1996) 217–220.
- V.I. Eliseev, Yu.P. Sovit, Effect of the Peclet numbers of a medium on heat transfer in fibre bundles, *Prikl. Mekh. Tekh. Fiz.* 37 (4) (1996) 119–125.
- I.P. Fadeev, V.A. Palkin, Evaluation of the two-phase layer flow on a horizontal smooth surface in laminar and transient regions, *Inzh.-Fiz. Zh.* 68 (2) (1995) 184–191.
- V.A. Gaponov, Numerical solution of the problem of convective flow in a closed cavity by the method of compact differences of higher degree of accuracy. Preprint No. 273 of the Institute

- of Thermal Physics, Siberian Branch of the Russian Academy of Sciences, 1994, pp. 1–27.
- A.V. Gorin, D.F. Sikovskiy, A model of turbulent heat and mass transfer in the wall zone of separating flows, *Prikl. Mekh. Tekh. Fiz.* 37 (3) (1996) 83–96.
- I.L. Grober, Yu.V. Lipin, Gaskinetic flows in vacuum chambers with periodic pumping, *Vakuum. Tekh. Tekhnol.* 4 (4) (1994) 27–34.
- E.V. Gurentsov, V.K. Shikov, E.B. Eigenson, Experimental investigation of heat exchange in the strongly cooled turbulent boundary layer of a supersonic air flow, *Teplofiz. Vysok. Temp.* 33 (5) (1995) 809–813.
- A.V. Kashevarov, Exact solution of the problem of convective heat exchange for an elliptic cylinder and plate in a liquid with a low Prandtl number, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1996) 26–31.
- A.V. Kazakov, M.N. Kogan, V.A. Kuparev, Delay in laminar–turbulent transition by means of intense local heating of the surface near the front edge of a plate, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 46–51.
- A.V. Kazakov, M.N. Kogan, V.A. Kuparev, Laminarization of a boundary layer with negative pressure gradient and surface heating, *Teplofiz. Vysok. Temp.* 34 (2) (1996), 244–249.
- V.S. Khlebnikov, Effect of nonstationary perturbations on the flow in the front separation zone upstream of a cone, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 132–143.
- B.A. Kiryutin, G.A. Tirskiy, Boundary conditions of slippage on a catalytic surface in a multicomponent gas flow, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 159–168.
- N.I. Klyuev, Liquid flow in an open rectangular groove of the heat pipe evaporator with account for the effect of the counter flow of vapour, *Izv. VUZov, Aviats. Tekh.* 3 (1995) 100–102.
- V.L. Kovalyov, A.A. Krupnov, Numerical investigation of a turbulent flow of a partially ionized air in a viscous shock layer, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1995) 185.
- V.L. Kovalyov, O.N. Suslov, Asymptotic formulas for investigating heat and mass exchange in a chemically non-equilibrium boundary layer on a catalytic surface, *Dokl. Akad. Nauk, (Russia)* 345 (4) (1995) 483–486.
- V.B. Kuntyshev, Enhancement of heat exchange by the method of jet blowing of a staggered bundle of finned tubes, *Izv. VUZov, Les. Zh.* 4–5 (1995) 173–182.
- V.B. Kuntyshev, A.E. Piir, Achievements and the problems of intensification of convective heat exchange of tube bundles with spiral high ribs in an air flow, *Proceedings of the 1st Russian National Conference on Heat Transfer, Vol. 8, Moscow, 1994, p. 141.*
- A.A. Kuznetsov, N.N. Popov, O.N. Chernyshev, Investigation of the regimes of free microconvection above the water surface under laboratory conditions, *Vod. Resursy* 23 (1) (1996) 120–122.
- A.V. Latyshev, Exact solutions of kinetic model equations of transfer in a rarefied gas–solid body system, *Zh. Fiz. Khim.* 69 (8) (1995) 1479–1483.
- V.G. Lushchik, A.E. Yakubenko, Differential model of turbulence: numerical investigation of mixed convection in vertical tubes, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 73–86.
- G.B. Lyal’kina, V.N. Pervadchuk, Concerning a hydrodynamic thermal explosion in two-layer flows, *Vestn. Perm. Gos. Tekh. Univ., Mat. Prikl. Mat.* 1 (1994) 44–50.
- V.Yu. Lyapidevskiy, Regular and anomalous regimes of gas–liquid medium flows through a contraction in a channel, *Prikl. Mekh. Tekh. Fiz.* 37 (1) (1996) 73–81.
- D.V. Lyubimov, T.P. Lyubimova, A.A. Cherepanov, Flow induced by a vibrating heated sphere, *Izv. Akad. Nauk., Mekh. Zhidk. Gaza* 1 (1996) 31–39.
- A.I. Mazur, G.A. Mazur, Controlled cooling of the internal wall of a cylinder by two-phase jets, *Prom. Teplotekh.* 17 (4) (1995) 93–99.
- A.V. Melkikh, V.D. Seleznyov, A one-dimensional statistical model of active transfer in membranes, *Inzh.-Fiz. Zh.* 68 (2) (1995) 233–241.
- Yu.I. Mindolin, Distribution of stresses in an anisotropic plate with heat insulated bases under the influence of heat sources and sinks, *Izv. Akad. Nauk, Mekh. Tvyord. Tela* 1 (1996) 146–149.
- D.A. Mirzaev, S.E. Karzunov, Investigation of laws governing heat transfer in jet cooling of plane samples, in: *Problems of the Science of Metals and of Thermal Treatment of Metals and Alloys, Chelyabinsk State Technical University, Chelyabinsk, 1994, pp. 46–53.*
- L.A. Moiseeva, S.G. Cherkasov, Mathematical simulation of natural convection in a vertical cylindrical tank in the case of sign-variable distribution of heat flux on a wall, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 66–72.
- Kh.G. Nagomedbekov, M.M. Ramazanov, Linear analysis of convective instability of liquid in a horizontal annular cavity filled with a porous medium, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1996) 19–25.
- V.I. Nosik, Thermal dissociation of biatomic molecules in a nonisothermal two-temperature boundary layer, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 191–201.
- V.V. Olimpiev, Analysis of the results of calculation using the model of internal boundary layers of heat transfer and resistance of tubes with transverse annular projections, *Izv. VUZov, Aviats. Tekh.* 3 (1995) 103–106.
- V.M. Paskonov, S.V. Fortova, Flow near the rear of a longitudinally streamlined body with transverse blowing from its lateral surface, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 157–163.
- N.N. Pilyugin, R.F. Talipov, Investigation of supersonic non-uniform flow around bodies, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1995) 188.
- Yu.N. Podil’chuk, Stressed state of a transversely isotropic body with an elliptic crack with uniform heat flux on its surface, *Prikl. Mekh. (Kiev)*, 31 (3) (1995) 24–32.
- V.N. Polyakov, S.V. Faleev, Concerning heat and mass transfer of a viscoelastic liquid in a channel with permeable walls, *Izv. VUZov, Mashinostr.* 10–12 (1995) 63–67.
- V.G. Puzach, S.V. Puzach, Calculation of friction and heat exchange in the case of gas flow in channels and with external flow around bodies, *Izv. Akad. Nauk, Energ.* 2 (1996) 44–54.
- M.M. Razin, The method of a simultaneously moving field and its application to calculation of heat and mass exchange processes in a filtering bed, *Inzh.-Fiz. Zh.* 68 (2) (1995) 330–335.
- N.V. Rumak, V.L. Lanin, V.N. Bondarik, Dynamics of collapse of cavitation cavities in liquids and melts, *Vesti Akad. Navuk Belarusi, Ser. Fiz.-Tekh. Navuk* 1 (1996) 115–118.
- V.L. Sergeev, Heat shielding characteristics of composite materials at constant and variable parameters of a flow, *Inzh.-Fiz. Zh.* 68 (2) (1995) 217–224.

- O.V. Sharonova, P.N. Kharitonov, G.P. Boikov, Laws governing overall heating of plane bodies in a regular thermal regime, *Izv. VUZov, Sev. Kavk. Reg., Tekh. Nauki* 3–4 (1994) 52–56.
- O.V. Sharonova, G.P. Boikov, Concerning the analogy of laws governing heating solid bodies by convective and radiant heat fluxes, *Izv. VUZov, Sev. Kavk. Reg., Tekh. Nauki* 3–4 (1994) 56–59.
- M.I. Shilyaev, S.N. Postnikov, Hydrodynamics and heat exchange in a cylindrical contact element with an endless screw, *Izv. VUZov, Stroit.* 4 (1995) 74–79.
- B.L. Smorodin, V.S. Shavkunov, Dynamic excitation of thermodynamic convection, *Pis'ma v Zh. Tekh. Fiz.* 22 (3) (1996) 1–3.
- V.V. Sosinovich, V.A. Tsyganov, B.A. Kolovandin, B.I. Puris, V.A. Gertsovich, A model of the fractionation of gas bubbles in a turbulent liquid flow, *Inzh.-Fiz. Zh.* 68 (2) (1995) 192–204.
- M.B. Stakich, D.Zh. Miloevich, Effect of particles on gas velocity in a free turbulent flow, *Inzh.-Fiz. Zh.* 68 (3) (1995) 361–365.
- G.A. Tarnavskiy, Rapid approximate calculation of viscous heat-conducting gas flow past frontal parts of bodies, *Teplotfiz. Aeromekh.* 2 (2) (1995) 103–109.
- V.M. Trofimov, S.I. Shtrekalkin, Concerning turbulent heat exchange in supersonic flows with large local pressure gradients, *Teplotfiz. Vysok. Temp.* 34 (20) (1996) 238–243.
- P.N. Vabishchevich, V.V. Chudanov, A.G. Churbanov, Numerical simulation of free convective flows in complex regions, *Mat. Modelir.* 8 (1) (1996) 103–118.
- A.Yu. Varaksin, D.S. Mikhatulina, Yu.V. Polezhaev, Measurements of the fields of gas and solid particles velocities in the boundary layer of a turbulized heterogeneous flow, *Teplotfiz. Vysok. Temp.* 33 (6) (1995) 915–921.
- A.A. Vasil'ev, V.F. Vishnyak, O.I. Didenko, Hydrodynamics and heat transfer of a channel in the presence of cavities and injection on its walls, *Prom. Teplotekh.* 17 (5) (1995) 29–35.
- V.N. Vetlitskiy, A.A. Maslov, S.G. Mironov, A.N. Shiplyuk, Hypersonic flow on a flat plate. Experimental results and numerical simulation, *Prikl. Mekh. Tekh. Fiz.* 36 (6) (1995) 60–67.
- Ya.A. Voloshina, V.A. Oshevskiy, I.V. Voloshin, Investigation of onflow of a plane jet on a solid surface as applied to a gas screen with account for interaction of separating flows, *Prom. Teplotekh.* 17 (4) (1995) 28–31.
- N.I. Yavorskiy, Thermal multipoles for a submerged jet, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 40–46.
- V.N. Zaikovskiy, V.M. Trofimov, Experimental and computational investigations of heat fluxes in a supersonic diffusor, *Prikl. Mekh. Tekh. Fiz.* 37 (1) (1996) 158–164.
- L.M. Zigangareeva, O.M. Kiselyov, Cavitation subsonic gas-liquid mixture flow past a disk, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 202–206.
- Yu.B. Zudin, Averaged heat transfer in periodic pulsations of heat exchange intensity on the surface of a plate, cylinder and sphere, *Inzh.-Fiz. Zh.* 68 (2) (1995) 225–228.
- Heat and mass transfer in phase and chemical conversions**
- A.R. Abdrakhmanov, O.B. Karpova, S.E. Tarasevich, Concerning the determination of heat transfer through a vapour gap in boiling of cryogenic liquid in the Leidenfrost regime, *Izv. VUZov, Aviats. Tekh.* 3 (1995) 32–38.
- V.M. Agafonov, I.V. Ivanov, Critical phenomena in sorption of steam by ion-exchanging materials, in: *Physical Foundations of Liquid and Solid-Body Measuring Systems and Information Processing Devices*, Moscow Physicotechnical University, Moscow, 1994, pp. 58–64.
- A.V. Akimov, A.B. Vatatin, A.A. Sorokin, Flow of a vapour-air mixture in the presence of condensation on ions and electrokinetic processes, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 67–77.
- V.L. Aksyonov, Yu.A. Osip'yan, V.S. Shakhmatov, Phase change in the crystals of fullerenes  $AC_{60}$  ( $A = K, Rb$ ), *Pis'ma v Zh. Tekh. Fiz.* 62 (5–6) (1995) 417–421.
- A.E. Aksyonova, P.N. Vabishchevich, V.V. Chudanov, Numerical simulation of the processes of solidification in the problems of diffusion (convection). Review, Preprint No. 95 of the Institute for the Problems of Safe Development of Atomic Energy, Moscow, 1995, pp. 1–30.
- A.E. Aksyonova, P.N. Vabishchevich, V.V. Chudanov, Numerical investigation of a heat-liberating liquid with account for solidification under different cooling conditions on boundaries. Pt. II. Preprint No. 95 of the Institute for the Problems of Safe Development of Atomic Energy, Moscow, 1995, pp. 1–16.
- A.E. Aksyonova, P.N. Vabishchevich, V.V. Chudanov, Numerical investigation of a heat exchange of a heat generating fluid with account for melting and solidification depending on the Ostrogradskiy and Rayleigh numbers. Preprint No. 95 of the Institute for the Problems of Safe Development of Atomic Energy, Moscow, 1995, pp. 1–25.
- B.M. Andreev, A.S. Polevoy, Interphase mass exchange in separation of isotopes in countercurrent columns (of the liquid-solid body system). *Teor. Osnovy Khim. Tekhnol.* 29 (4) (1995) 373–381.
- B.P. Avksentyuk, The mechanism of the initial stage in the growth of a vapour bubble at liquid superheatings close to the limiting ones, *Prikl. Mekh. Tekh. Fiz.* 36 (3) (1995) 130–133.
- V.S. Azhaev, S.G. Cherkasov, Development of hydrodynamic instability in film condensation on a cylindrical tube in weightlessness, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 6 (1995) 106–110.
- S.P. Bakanov, Toward the problem of the effect of volatility on thermophoresis of aerosols, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 5 (1995) 181–186.
- V.A. Barvinok, O.V. Lomovskoy, V.I. Bogdanovich, Investigation of the process of heating a galvanic pile from an alloy with the shape memory effect, *Probl. Mashinostr. Avtomatiz.* 1–2 (1995) 52–54.
- B.I. Basyuk, Adiabatic escape of boiling-up water from a cylindrical channel, *Prom. Teplotekh.* 17 (4) (1995) 3–5.
- L.Ya. Belen'kiy, N.A. Gotovskiy, B.S. Fokin, Elimination of the vibrations of pipelines transporting effervescing and two-phase flows, *Teplotekhnika* 3 (1996) 41–46.
- A.A. Belyaev, G.A. Filippov, Interphase heat and mass transfer in the process of coal drying, *Prom. Energ.* 12 (1995) 29–32.
- A.D. Blinov, Thermohydraulic effect in liquids boiling in narrow wedge-like channels, *Izv. Akad. Nauk, Energ.* 1 (1996) 137–143.
- B.F. Boyarshinov, E.P. Volchkov, V.I. Terekhov, Experimental investigation of the structure of flow and heat/mass exchange

- in evaporation and combustion of ethanol, Proceedings of the 1st Russian National Conference on Heat Transfer, Vol. 3, Moscow, 1994, pp. 42–46.
- T.V. Buglaev, A.S. Strebkov, Effect of thermophysical properties of a cooling fluid on heat transfer in mist flows, *Izv. VUZov, Yadern. Energ.* 4 (1995) 57–62.
- V.I. Bukaty, T.K. Kronberg, Optical characteristics of the heat and mass exchange of a carbon particle evaporating in a laser field, *Optika Atmosf. Okeana* 8 (9) (1995) 1314–1318.
- O.Yu. Dinariev, Some solutions of a plane stationary problem of filtration for a gas–condensate mixture, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 2 (1996) 125–131.
- M.P. Dokhov, Concerning the boundary-value wetting angles of certain semiconductors by own melts, *Pis'ma v Zh. Tekh. Fiz.* 21 (16) (1995) 8–10.
- A.O. Erkimbaev, A.M. Semyonov, Theoretical interpretation of the experimental dependences of the rates of growth of pyrocarbon and diamond from a mixture of gaseous hydrocarbons on its composition, *Teplofiz. Vysok. Temp.* 33 (5) (1995) 721–725.
- V.V. Filatov, Calculation of the heating temperature of long rods in welding of their ends, *Svaroch. Proizvodstvo* 5 (1996) 32–34.
- Yu.Ya. Galitskiy, Mixing the pairwise colliding jets in channels, *Teplenergetika* 3 (1996) 47–49.
- A.I. Gantman, Analysis of the temperature dependence of output curves in ion-exchange sorption, *Zh. Fiz. Khim.* 69 (11) (1995) 2089–2091.
- Yu.M. Gel'fgat, L.P. Gorbunov, Specific features of the effect of variable magnetic fields on the hydrodynamics of melt in a cylindrical cavity with a free surface, *Magnit. Gidrodinam* 30 (3) (1994) 300–311.
- I.I. Gogonin, V.I. Sosunov, Enhancement of steam condensation heat exchange, Proceedings of the International Seminar 'New Technologies and Techniques in Thermal Engineering' Pt. 1, Novosibirsk, 1995, pp. 78–87.
- V.S. Granovskiy, A.A. Sulatskiy, V.B. Khabenskiy, S.M. Shmelev, Theoretical and experimental investigation of film boiling on a horizontal surface, *Teplofiz. Vysok. Temp.* 33 (5) (1995) 765–772.
- A.P. Grinin, P.S. Avtonomov, A regime of moderately strong effect of nucleation on the distribution of vapour and temperature in a thermodiffusional chamber, *Zh. Tekh. Fiz.* 66 (5) (1996) 55–69.
- G.N. Isakov, L.Ya. Kuzin, Simulation and identification of heat and mass transfer processes in heating heat-shielding materials, *Prikl. Mekh. Tekh. Fiz.* 37 (4) (1996) 126–134.
- Yu.G. Izmailov, N.M. Pisarev, G.P. Vyatkin, Evaporation of liquids from cylindrical vessels under the conditions of free concentrational convection in a gas phase, *Inzh.-Fiz. Zh.* 68 (3) (1995) 403–407.
- Yu.V. Karpenko, V.N. Nefedov, S.V. Korneev, Justification of the regime of drying oak bars in a SHF-chamber 'Les'. *Derevoobrab. Prom.* 1 (1996) 14–16.
- I.N. Kartashov, V.I. Mazhukin, V.V. Pereboinos, A.A. Samokhin, Excitation of an evaporative process in modulation of the temperature of transition, *Kratk. Soobshch. po Fiz.* 7–8 (1995) 50–53.
- V.A. Kir'yanov, V.V. Yakinets, Concerning the calculation of heat transfer from steam with air admixture in condensation in a closed volume on vertical surfaces, *Izv. VUZov, Yadern. Energ.* 2 (1996) 46–51.
- A.G. Kokorin, I.V. Orfanov, N.N. Pilyugin, M.B. Belikov, Determination of temperature from the intensity of the Cs and Li lines in the layer of evaporation in supersonic flow past a cone, *Teplofiz. Vysok. Temp.* 33 (6) (1995) 900–907.
- A.A. Kovalenko, V.A. Shapovalov, Yu.V. Latash, Temperature fields in large tungsten single crystals of plane shape in plasma-inductive method of growing, *Probl. Spets. Elektrometallurg.* 3–4 (1994) 48–52.
- S.A. Kovalyov, O.A. Ovodkov, Numerical simulation of boiling heat transfer on a surface with porous coating, *Teplofiz. Vysok. Temp.* 33 (6) (1995) 908–914.
- S.A. Kovalyov, S.L. Solov'yov, Investigation of heat transfer and hydrodynamics in the heat pipe evaporator operating on the principle of an inverted meniscus, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 63–68.
- P.R. Kudritskiy, Effect of the roughness of a heating surface on the mechanism of vapour bubble growth in boiling, *Prom. Teplotekh.* 17 (4) (1995) 15–20.
- N.V. Kurganetskiy, Distribution of the concentration of impurity and temperature in the process of crystallization when accounting for cross effects and convection, *Neorgan. Material.* 32 (3) (1996) 317–320.
- V.A. Kurganov, Yu.A. Zeigarnik, I.V. Maslakova, Thermochemical principle of cooling on the basis of the reaction of steam conversion of methane, *Teplenergetika* 3 (1996) 18–29.
- V.V. Kustov, M.K. Marakhtanov, Thermal effect of the plasma of a non-balanced magnetron on the substrate, *Fiz. Khim. Obrab. Mater.* 4 (1995) 141–143.
- I.N. Larina, V.A. Rykov, E.M. Shakhov, Evaporation from a surface and escape of vapour through a plane channel into vacuum, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 150–158.
- A.G. Lesskis, A.K. Titov, A.A. Yushkanov, Gasdynamic phenomena in evaporation of metal particles under the conditions of the effect of laser radiation, *Zh. Fiz. Khim.* 69 (8) (1995) 1506–1508.
- S.I. Lezhnin, B.S. Zhakupov, Decomposition and collapse of a vapour slug under the action of dynamic loading, *Teplofiz. Aeromekh.* 2 (3) (1995) 271–280.
- S.I. Lezhnin, B.S. Zhakupov, Evolution of pressure waves in vapour–liquid media of slug structure in phase transitions, *Teplofiz. Aeromekh.* 2 (2) (1995) 133–144.
- V.G. Lisienko, V.B. Kut'in, S.N. Gushchin, Evaluation of boundary conditions for a mathematical model of heat exchange in a glass-making furnace, *Steklo Keramika* 3 (1996) 9–11.
- V.I. Lysyov, Programme provision for comparing the versions of conditioning systems, in: *Heat Exchange Processes in the Systems of Refrigeration Technology and the Properties of Working Bodies*, St Petersburg Technological Institute of Refrigeration Industry, St Petersburg, 1993, pp. 20–26.
- B.T. Marinyuk, A method for calculating the thickness of a solid cryodeposit layer freed out of a liquid phase on the cooled surface of a lane wall, in: *Cryogenic Technology (Problems and Prospects)*, Joint-Stock Company 'Kriogenmash', Balashikha, 1994, pp. 64–68.
- O.I. Melikhov, Determination of the stability and length of decomposition of a melt jet in water, *Prikl. Mekh. Tekh. Fiz.* 36 (1) (1995) 99–106.
- V.I. Mika, V.V. Ryabin, Numerical simulation of the processes

- of heat and mass transfer accompanying the production of pyrocarbon-based composite materials, *Teplofiz. Vysok. Temp.* 33 (6) (1995) 922–926.
- V.E. Nakoryakov, N.I. Grigor'eva, S.I. Lezhnin, Processes of simultaneous heat and mass transfer in film absorption and bubble desorption, Proceedings of the 1st Russian National Conference on Heat Transfer, Vol. 5, Moscow, 1994, pp. 120–125.
- E.I. Nekrasova, Mathematical simulation of heat exchange in production of cylindrical hollow glass articles, *Steklo Keramika* 5 (1996) 6–7.
- I.I. Novikov, Transient regimes of heat exchange in boiling of liquid, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 162–164.
- P.T. Petrik, A.R. Bogomolov, Condensation heat exchange on a vertical tube in a granular bed, *Prikl. Mekh. Tekh. Fiz* 36 (6) (1995) 102–107.
- Yu.V. Polezhaev, D.S. Mikhatulin, D.L. Reviznikova, Basic laws governing the kinetics of crystallization and the possibilities for obtaining amorphous metals, *Teplofiz. Vysok. Temp.* 33 (6) (1995) 971–976.
- E.V. Polyakov, R.N. Pletnyov, Relationship between the critical temperature and the extent of metal content in phase changes of the second kind, *Sverkhprovodimost: Fiz. Khim. Tekh.* 8 (2) (1995) 208–214.
- V.V. Popov, M.L. Lobanov, Mathematical simulation of the processes of diffusional interaction of the intrusion phase with a solid solution in a three-component system, *Fiz. Khim. Obrab. Mater.* 4 (1995) 133–138.
- E.A. Ryabitskiy, Thermocapillary instability of the equilibrium state of a plane layer in the presence of a soluble surfactant, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 3–8.
- I.N. Sachkov, Regimes of radial recondensation in cylindrical volumes, *Teplofiz. Vysok. Temp.* 33 (5) (1995) 759–764.
- B.S. Sazhin, E.G. Avdyunin, A.V. Konovalov, Drying of permeable long-length materials, *Izv. VUZov, Tekhnol. Tekst. Prom.* 1 (1996) 95–98.
- A. Servida, A.E. Galashev, Computer investigation of the process of interaction of clusters in condensation of the water electrolyte vapour, *Vysokochist. Veshchestva* 1 (1996) 28–39.
- S.V. Shevkunov, Steam nucleation on the silver iodine crystal surface, *Zh. Eksper. Teor. Fiz.* 108 (4) (1995) 1373–1402.
- T.N. Shigabiev, F.M. Gamanov, Boiling heat transfer of hydrocarbon fuels under the conditions of natural convection, *Inzh.-Fiz. Zh.* 68 (3) (1995) 438–443.
- A.N. Shinkov, E.A. Bykasova, N.T. Bashirov, V.V. Klochay, L.G. Bystrov, Engineering solution of the problems of ingot solidification in slab machines of continuous casting, *Inzh.-Fiz. Zh.* 68 (2) (1995) 312–318.
- V.V. Siyazov, S.A. Kukushkin, Incipience of a solid phase in supercooled melts, *Fiz. Tvyord. Tela (St Petersburg)* 38 (2) (1996) 433–442.
- Yu.F. Snezhkin, A.A. Khavin, Kinetics of the drying of pressed material in production of food fibres, *Prom. Teplotekh.* 17 (6) (1995) 45–47.
- O.N. Suslov, E.I. Fateeva, Investigation of flows of multi-component gas mixtures under the conditions of partial chemical equilibrium, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 114–124.
- D.A. Tkalenko, S.A. Kudrya, G.P. Sunegin, Concentration changes in the electrode sheath in cathode polarization of oxygen electrode in hydroxide melts, *Elektrokhim* 31 (11) (1995) 1305–1309.
- L.M. Tsentsiper, A.B. Fedortsov, D.G. Letenko, A device for investigating the kinetics of spreading and evaporation of liquid films in the real time scale, *Pribory Tekh. Eksper.* 1 (1996) 154–157.
- L.A. Uvarova, V.K. Fedyanin, Yu.Z. Bondarev, Specific features of heat transfer in optically nonlinear condensed systems, *Zh. Fiz. Khim.* 69 (8) (1995) 1462–1465.
- P.N. Vabishchevich, Melting of a solid with account for change in density, *Inzh.-Fiz. Zh.* 68 (2) (1995) 319–321.
- A.A. Vasil'ev, Bubble boiling heat transfer under the conditions of free motion of liquid, *Prom. Teplotekh.* 18 (2) (1996) 18–25.
- V.E. Vinogradov, P.A. Pavlov, Boiling-up n-pentane in a rarefaction wave, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 35–39.
- G.V. Volkova, S.V. Fedosov, Heat and mass transfer in drying sheet materials by heated rolls, in: *The Problems of Building Materials Science and Mechanical Engineering*, Ivanovo Institute of Civil Engineers, Ivanovo, 1995, pp. 148–154.
- S.K. Voronov, T.A. Girshovich, Starting length of a plane non-isothermal jet developing under asymmetry conditions in the presence and absence of combustion, *Inzh.-Fiz. Zh.* 68 (3) (1995) 372–379.
- V.D. Yusufova, N.B. Gyl'mamedov, Crisis of heat transfer in boiling of aqueous solutions of NaCl, Na<sub>2</sub>SO<sub>4</sub>, KCl and trilon B in a vertical channel, *Teploenergetika* 2 (1996) 54–59.
- V.D. Yusufova, N.B. Gyl'mamedov, Experimental investigation of boiling heat transfer crises of aqueous solutions of H<sub>3</sub>BO<sub>3</sub> in tubes, *Teploenergetika* 1 (1996) 71–74.
- Yu.A. Zeigarnik, About a universal model of the crisis of boiling of a subcooled liquid in channels, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 52–56.
- A.V. Zhdanov, L.P. Nikolaeva, B.E. Red'kin, Microsegregation of admixture caused by periodic fluctuations in the temperature and rate of crystal pulling in the process of its growth by the Stepanov technique, *Inzh.-Fiz. Zh.* 68 (3) (1995) 486–493.
- Yu.B. Zudin, A model of crisis in bubble boiling on the basis of the analysis of the process of meniscus evaporation, *Prom. Teplotekh.* 17 (6) (1995) 20–25.
- Yu.V. Zuev, I.A. Lepeshinskiy, A two-phase multicomponent turbulent jet with phase changes, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 5 (1995) 130–138.

#### Heat and mass transfer in rheologically complex fluids

- V.N. Aptukov, S.A. Bolgov, Thermomechanical behaviour of a polymer during its formation in the process of crystallization, *Inzh.-Fiz. Zh.* 68 (3) (1995) 479–485.
- P.N. Bogdanovich, Laws governing the occurrence of thermal processes in frictional submersion of polymers, *Trenie Iznos* 16 (3) (1995) 466–472.
- V.I. Eliseev, Yu.P. Sovit, Multicomponent mass-exchange in a bundle of moving polymeric fibres, *Teor. Osnovy Khim. Technol.* 30 (2) (1996) 168–174.
- S.V. Faleev, S.I. Batishchev, Numerical analysis of a rheological system in the Couette problem, in: *Electromechanical Arrangements and Systems*, Voronezh State Technical University, 1996, pp. 124–129.
- L.V. Markova, E.M. Markov, L.S. Pinchuk, Concerning the



- efficiency of the methods of heating polymer fibres when forming adhesion compounds, *Inzh.-Fiz. Zh.* 68 (3) (1995) 427–429.
- L.V. Men'shikova, A.V. Kandaurov, P.G. Khalatur, Molecular–dynamic simulation of heat conduction in a system of stretched polymer chains, in: *Mathematical Methods in Chemistry*, Tver State University, Tver, 1994, pp. 74–80.
- V.M. Shapovalov, Nonstationary regimes of flow of a non-rectilinear drawn polymer jet, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1995) 47–54.
- Z.P. Shul'man, A.A. Makhanyok, Rheodynamics of blood stream on local heating of skin, *Vestsi Akad. Navuk Belarusi, Ser. Fiz. Tekh. Navuk* 1 (1996) 106–110.
- Z.P. Shul'man, L.V. Markova, A.A. Makhanyok, Rheological factor and Fahraeus–Lindqvist effect, *Inzh.-Fiz. Zh.* 68 (3) (1995) 416–426.
- N.I. Shut, T.G. Sichkar', M.V. Lazorenko, E.P. Zhelibo, Thermophysical properties of filled epoxy compositions, *Prom. Teplotekh.* 17 (5) (1995) 69–73.
- I.L. Syrchikov, N.M. Trufanova, A mathematical model of the processes of motion and heat exchange of a polymer in a channel of the forming head of an extruder in the case of the use of plastic insulation, in: *Information Monitoring Systems*, Perm State Technical University, Perm, 1995, pp. 127–132.
- N.M. Trufanova, A.G. Shcherbinin, Mathematical description and analysis of the process of plastifying extrusion, in: *Information Monitoring Systems*, Perm State Technical University, Perm, 1995, pp. 122–126.
- Heat and mass transfer in disperse and two-phase systems**
- E.G. Baryshev, Effect of the conditions of gas entrance on heat exchange in an apparatus with spherical elements (Syromyatnikov Lectures, Ural State Technical University, 18–19 October, 1995), Ekaterinburg, 1995, pp. 75–78.
- V.P. Ivshin, M.V. Ivshina, Concerning the account for the liquid phase of dispersed gas–liquid flow when using flow meters of variable pressure drop, in: *Hydromechanics of Heating–Ventilating Equipment*, Kazan, 1995, pp. 74–79.
- Sh.K. Kapbasov, A.V. Makarov, Stationary distributions of particles in shear flows of colloids and fine-disperse suspensions, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 78–84.
- V.F. Komov, V.N. Mechkin, Investigation of the development of the site of thermal activity in filling of seeds, *Izd. VSKhIZO*, Moscow, 1995.
- I.L. Mostinskiy, V.S. Polonskiy, O.G. Stonik, Mathematical simulation of the motion of dispersed fraction particles in a steam-abrasive cutter, *Teplofiz. Vysok. Temp.* 33 (5) (1995) 814–816.
- P.P. Olodovskiy, The theory of the effect of change in the pH of water on its contact with the surface of thin-disperse solid bodies (silicon), *Inzh.-Fiz. Zh.* 68 (2) (1995) 276–282.
- A.V. Ostrovskaya, V.N. Korolyov, Local mass exchange in a fluidized bed (Syromyatnikov Lectures, Ural State Technical University, 18–19 October, 1995), Ekaterinburg, 1995, pp. 99–102.
- V.M. Polyayev, A.P. Mozhaev, Investigation of the structure of unordered porous systems of spherical particles, *Dokl. Akad. Nauk, (Russia)* 343 (1) (1995) 46–49.
- V.M. Rysakov, M. Ston', Scattering of light by a suspension of monodisperse transparent spheres, *Optika Spekr.* 79 (5) (1995) 852–857.
- A.V. Sokolov, Application of a fluidized bed in systems of cooling force semiconducting devices (Syromyatnikov Lectures, Ural State Technical University, 18–19 October, 1995), Ekaterinburg, 1995, pp. 110–112.
- A.V. Stepanov, L.M. Timofeev, Thermophysical properties of disperse materials, *Izd. Nauch. Tsentr. Yakutsk*, 1994.
- Yu.S. Teplitskiy, V.V. Baluev, Concerning heat exchange of a vertical cylinder with an infiltrated granular bed, *Vestsi Akad. Navuk Belarusi, Ser. Fiz. Tekh. Navuk* 3 (1995) 86–90.
- A.V. Vasil'ev, L.S. Ivlev, Numerical simulation of the optical characteristics of polydisperse spherical particles, *Optika Atmosf. Okeana* 8 (6) (1995) 921–928.
- Radiative heat transfer**
- S.V. Afonin, V.V. Belov, Simulation of ascending thermal radiation scattered by aerosol with account for temperature non-uniformities on the surface, *Optika Atmosf. Okeana* 8 (9) (1995) 1402–1410.
- O.I. Aldoshina, A.V. Fabrikov, Remote determination of the parameters of an optically thick scattering layer in passive and active location, in: *Problems of Radiometry in the Optical Region of Spectrum*, Scientific Research Institute of Physicotechnical and Radio Engineering Measurements, Moscow, 1996, pp. 168–179.
- G.F. Alekseev, I.G. Yakovleva, A radiant heat transfer module in a system of two surfaces of engineering constructions, in: *Energy/Resources Saving and Environment Protection*, Ivanovo Institute of Civil Engineers, Ivanovo, 1995, pp. 83–87.
- V.V. Antsiferov, V.R. Kireitov, V.K. Mezentsev, G.I. Smirnov, Nonlinear dynamics of multiple scattering of the intense radiation in accidentally-inhomogeneous media, *Optika Spekr.* 80 (4) (1996) 683–686.
- M.M. Belov, Analysis of the materials of heat absorbers for injection lasers with internal acoustic modulation of radiation, *Inzh.-Fiz. Zh.* 68 (2) (1995) 242–247.
- A.V. Brantov, V.Yu. Bychenkov, Anomalous heat transfer in plasma on reverse bremsstrahlung of laser radiation, *Fiz. Plazmy* 21 (12) (1995) 1049–1055.
- L.A. Dombrovskiy, Approximate methods for calculating radiation heat transfer in dispersed systems, *Teploenergetika* 3 (1996) 50–57.
- L.A. Dombrovskiy, Computational investigation of radiation heat transfer in two-phase flow in a supersonic nozzle, *Teplofiz. Vysok. Temp.* 34 (2) (1996) 261–268.
- L.A. Dombrovskiy, Calculation of infrared radiation characteristics of isotropic glass-fibre materials in the region of semi-transparency, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 159–162.
- A.V. Fabrikov, N.L. Stal', O.I. Aldoshina, Determination of the coordinates for a pulsed isotropic radiation source by a difference-range method from the data of observation through clouds, *Optika Atmosf. Okeana* 8 (6) (1995) 861–867.
- B.A. Fetisov, V.B. Kut'in, S.N. Gushchin, A mathematical model of external heat exchange in the flame space of the sheet glass bath furnace, *Steklo Keramika* 5 (1996) 3–5.
- D.M. Kabanov, S.M. Sakerin, Variability of the fluxes of the overall and spectral direct solar radiation in the region of the

- city of Tomsk during the Spring of 1993, *Optika Atmosf. Okeana* 8 (7) (1995) 1073–1080.
- R.Z. Kavtaradze, Local radiative–convective heat transfer in the combustion chamber of a high-speed diesel, *Vestn. MG TU, Ser. Mashinost.* 1 (1996) 21–36.
- V.A. Kuznetsov, Optimization of radiative heat exchange in power-plant boilers of sulphuric acid systems, in: *Comprehensive Use of Heat and Fuel in Industry*, Saratov State Technical University, Saratov, 1995, pp. 73–77.
- B.I. Nigmatulin, Ch.N. Din', Development of the theory of heat exchange for the analysis of heavy accidents at NPS with WCWMR, *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 6, Moscow, 1994, pp. 3–12.
- A.V. Ostriki, S.S. Slobodchikov, Calculation of the strength of composite high-pressure envelopes exposed to radiant energy fluxes, *Tekhnol. Ser. Konstruk. iz Kompoz. Mater.* 1 (1995) 21–30.
- M.I. Podduev, S.V. Rybakov, Interaction of high-intensity pulses of ultra-soft X-ray radiation with heterogeneous barriers, *Teplofiz. Vysok. Temp.* 34 (2) (1996) 273–279.
- G.A. Puchka, V.V. Kholopova, Localization of gas bubbles in a cylindrical cavity with a radiator located on its axis, *Prikl. Mekh. (Kiev)* 31 (6) (1995) 92–96.
- N.A. Rubtsov, V.A. Bazanov, S.N. Soldatov, Spectral optical properties of the SiO<sub>2</sub> aerogel in the infrared spectrum region, *Teplofiz. Aeromekh.* 2 (2) (1995) 153–157.
- V.V. Samsonov, Radiative heat transfer in foam insulators, *Proceedings of the All-Russian Scientific Conference of Students in Physics*, Ekaterinburg, 1995, p. 153.
- V.V. Serov, A.L. Stasenko, Model problems of radiant heat exchange of complex shape bodies with rough vibrating surfaces, *Trudy TsAGI* 2530 (1994) 28–45.
- A.M. Shakhut, V.M. Lutkovskiy, N.N. Nikitin, Heat radiation transducer, *Priboiry Tekh. Eksper.* 6 (1995) 179.
- N.A. Spirin, V.S. Novikov, Yu.V. Fedulov, V.S. Shvydkiy, V.V. Lavrov, Prediction of the temperature fields of a gas and materials in the blast furnace pit, *Stal* 12 (1995) 12–16.
- G.A. Titov, E.I. Kas'yanov, Solar radiation fluxes in inhomogeneous lamellar clouds, *Optika Atmosf. Okeana* 8 (12) (1995) 1833–1842.
- E.I. Vitkin, S.L. Shuralyov, Computer tomography of non-uniform streams of combustion products on the basis of IR-radiometry measurements, *Vestn. Mosk. Aviats. Inst.* 2 (1) (1995) 63–67.
- Heat and mass transfer in technological processes**
- V.N. Afanas'ev, A mixing heat exchanger, *Izv. VUZov, Mashinost.* 7–9 (1995) 43–48.
- T.D. Alieva, N.M. Akhundova, D.Sh. Abdinov, Method of determining the temperature of the heat absorbing surface of a thermoelectric cooler, *Zavod. Lab.* 62 (2) (1996) 37–38.
- A.I. Aliferov, Heat exchange in cylindrical hollow curvilinear articles on electric-contact heating, in: *Electrotechnological Processes and Equipment*, Novosibirsk State Technical University, Novosibirsk, 1995, pp. 20–30.
- A.I. Begunov, A.A. Yakovleva, N.P. Gerasimova, Investigation of heat transfer in the electrolyte of an aluminium electrolyzer of a model calorimeter with a liquid-phase coolant, *Izv. VUZov, Tsvet. Metallurg.* 4–6 (1994) 119–123.
- V.V. Belousov, S.V. Gridin, F.V. Nedopekin, Calculation of thermal stresses in continuous casting of steel, *Prom. Teplotekh* 17 (4) (1995) 99–104.
- A.A. Berezovskiy, Yu.V. Zhernovy, M.T. Saichuk, Mathematical simulation of the developed thermal regime in an autocrucible in electron-beam autocrucible melting, *Teplofiz. Vysok. Temp.* 34 (1) (1996) 125–133.
- Yu.M. Brodov, K.E. Aronson, A.Yu. Ryabchikov, Enhancement of heat exchange in different-purpose engineering heat exchangers, *Proceedings of the 1st Russian National Conference on Heat Transfer*, Vol. 8, Moscow, 1994, pp. 31–40.
- V.T. Buglaev (Ed.), Improvement of the thermal and hydrodynamic characteristics of power plants, *Izd. Inst. Transp. Mashinost.* Bryansk, 1995.
- R.D. Darakchiev, N.N. Kolev, Hydrodynamic and mass transfer characteristics of packing bioreactor, *Teor. Osnovy Khim. Tekhnol.* 30 (2) (1996) 163–167.
- I.V. Derevich, Mathematical simulation of aerodynamics and heat/mass transfer in the absorption zone of a sulphur-purifying set-up, *Teor. Osnovy Khim. Tekhnol.* 30 (2) (1996) 200–208.
- G.N. Dgebuadze, R.G. Salukvadze, B.Sh. Dzhandzhgava, Cryosorption pump of increased operation ability and increased sorptional capacity NKS-0.8, *Atomn. Energ.* 79 (4) (1995) 252–256.
- G.A. Dreitser, The problems of the creation of compact tubular heat exchanging apparatus, *Teploenergetika* 3 (1995) 11–18.
- E.P. Dyban, E.I. Epik, Specific features of the internal structure of flow in the throughput portions of axial turbines and its account in calculations of heat exchange on turbine blade profiles, *Prom. Teplotekh.* 17 (5) (1995) 47–60.
- A.V. Elyutin, V.P. Popov, L.S. Ivanov, Heat and mass exchange in reactors for obtaining semi-conducting silicon, *Vysokochist. Veshchestva* 1 (1996) 92–101.
- A.A. Evtushenko, E.G. Ivanik, Investigation of thermal regimes in frictional retardation, *Izv. Akad. Nauk, Mekh. Tvyord. Tela* 6 (1995) 73–81.
- V.Yu. Gershtein, A mathematical model of complex heat and mass exchange in an industrial furnace, *Teplofiz. Aeromekh.* 2 (2) (1995) 157–166.
- Ya.N. Gordon, A.K. Solov'yov, V. Shvydkin, Investigation of thermal and gas dynamic operation of gas cupola furnace, *Izv. VUZov, Chyorn. Metallurg.* 12 (1995) 48–50.
- B.G. Gorobets, Local and integral thermal characteristics of a plate fin with a low-conducting coating, *Prom. Teplotekh.* 17 (4) (1995) 23–28.
- A.V. Grechko, Contact heat transfer and structure nodes in pyro-metallurgy equipment, *Prom. Energ.* 4 (1996) 30–32.
- A.M. Gromov, Physicomathematical simulation of heat and mass transfer in distillation electric furnaces, in: *Electrotechnological Processes and Installations*, Novosibirsk State Technical University, Novosibirsk, 1995, pp. 40–49.
- A.F. Dregalin, V.A. Altunin, O.Yu. Pavlov, Investigation of the possibility for the intensification of the processes of heat transfer and prevention of precipitation in power plants, *Izv. VUZov, Aviats. Tekh* 2 (1995) 69–76.
- T.A. Ismailov, A model of a thermoelectric semiconducting heat transfer intensifier of contact type, *Izv. VUZov, Priborostroen.* 38 (5–6) (1995) 66–69.
- S.V. Konev, Tszin Lyen Wang and I.I. D'yakov, Experimental investigation of a heat exchanger based on a collector heat pipe, *Inzh.-Fiz. Zh.* 68 (3) (1995) 397–408.

- L.A. Kozdoba, V.P. Nevmerzhitskiy, S.M. Filin, Numerical simulation of nonstationary thermal regimes of finned surfaces, *Prom. Teplotekh.* 17 (4) (1995) 6–14.
- L.A. Kozdoba, M.V. Kudinova, A.P. Nagolkin, Dynamic characteristics of a plate-fin apparatus with a cross-flow, *Prom. Teplotekh.* 17 (5) (1995) 35–41.
- N.I. Lemesh, L.A. Senchuk, A.F. Solodukhin, S.P. Fisenko, Laboratory simulation of the interaction of vapour–air jets of cooling towers with streams from ventilation tubes of NPS, *Inzh.-Fiz. Zh.* 68 (3) (1995) 380–384.
- A.A. Lukhvich, V.I. Sharando, Application of the two-parametric thermoelectric method for studying annealing, *Defektoskopiya* 10 (1995) 59–62.
- I.S. Luk'yanchenko, P.G. Shtern, E.A. Rudenchik, E.G., Bezrukova, E.K. Popov, A mathematical model of the processes occurring in radial reactors, *Khim. Prom.* 1 (1995) 72–74.
- D.D. Matievskiy, V.A. Vagner, Radiation heat transfer of a flame in diesels with different geometry of combustion chamber burning alternative fuels, *Izv. VUZov. Mashinost.* 7–9 (1995) 51–54.
- V.G. Porotskiy, G.Ya. Vlasov, Simulation and automation of vulcanization processes in the production of tyres. International Rubber Conference, IRC'94, Moscow, September 1994, *Kauchuk Rezina* 2 (1995) 17–20.
- A.I. Rasev, Certain tendencies in the development of the technique and technology of wood in Russia, *Derevoobrab. Prom.* 3 (1996) 14–15.
- N.P. Seleznyov, B.I. Medvedev, Analysis of heat exchange in thermal treatment of materials by the technique of direct contact recuperation, *Izv. VUZov, Tsvetn. Metallurg.* 2 (1995) 72–75.
- L.S. Shteinberg, L.A. Gol'dberg, V.I. Kuzina, A programme complex for calculating the parameters of heat and mass exchange processes of extrafurnace treatment of metal, *Stal* 11 (1995) 14–17.
- N.A. Spirin, Yu.N. Ovchinnikov, V.S. Shvydkiy, Heat exchange and increase in the efficiency of blast melting, *Izd. Ural. Gos. Tekh. Univ. Ekaterinburg*, 1995.
- F.Yu. Telegin, M.A. Gerasimov, Simulation of thermoradiative heating of fabrics by tubular and plane radiators, *Izv. VUZov, Tekhnol. Tekstil. Prom.* 6 (1995) 106–109.
- V.I. Terekhov, A.I. Gnyrya, R.I. Bystrushkina, Analysis of heat shielding properties of metal casing with horizontal air interlayers, *Izv. VUZov, Stroit.* 11 (1995) 97–102.
- V.B. Tkachenko, Effect of the disposition of a multiblock REA with natural ventilation and its reliability, *Tepl. Rezhimy Okhlazhd. Radioelektron. Apparat.* 1–2 (1995) 9–11.
- O.B. Tsvetkov (Ed.), *Heat Exchange Processes in the Systems of Cooling Equipment and the Properties of Working Bodies* (volume of papers), St Petersburg Technological Institute of Refrigerating Industry, St Petersburg, 1996.
- G.M. Var'yash, Intensification of the processes of heat and mass exchange in bi-conveyer plants, in: *Theoretical Foundations of the Design of Technological Systems and Automated Production Equipment*, Voronezh State Technological Academy, Voronezh, 1995, pp. 152–155.
- M.A. Vasil'ev, A.V. Kozlov, G.I. Prokopenko, Mass transfer in ultrasonic shock processing of the copper–aluminum pair, *Metallofiz. Nov. Tekhnol.* 17 (11) (1995) 75–78.
- V.F. Vinogradskiy, Comparison of aerodynamic drying chambers with vacuum ones at cost price of drying, *Derevoobrab. Prom.* 1 (1996) 12–13.
- Heat and mass transfer in the environment**
- V.V. Adeev, O.S. Adeeva, T.P. Eliseeva, Field transistor structures as devices measuring the moisture content potential of frozen grounds, *Nauch.-Tekh. Probl. Zap.-Sib. Neftegaz. Kompleksa* 1 (1995) 112–115.
- B.V. Arkhipov, V.V. Solbakov, D.A. Shapochkin, Two-dimensional vertical model of the temperature regime of a water-reservoir-cooler, *Vod. Resursy* 22 (6) (1995) 653–666.
- G.K. Avdeev, The Moscow city building norms and a method for calculating the reduced resistance to heat transfer of wall panels, *Prom. Grazhd. Stroit.* 9 (1995) 36–38.
- P.N. Belov, Regeneration of the air pollution field in geographic regions on the basis of a mathematical model of impurity transfer, *Optika Atmosf. Okeana* 8 (7) (1995) 977–984.
- P.N. Belov, V.S. Komarov, A theoretical model of the transfer of admixtures from the boundary layer into the upper layers of the atmosphere, *Optika Atmosf. Okeana* 9 (4) (1996) 435–439.
- O.I. Boroznyak, M.B. Panfilov, Change of pressure in the wells opening highly inhomogeneous porous collectors, *Inzh.-Fiz. Zh.* 68 (3) (1995) 444–450.
- A.A. Budnikov, Effect of wind on the thermal structure of the near-water layer of the atmosphere, in: *Meteorological Prognoses*, Russian State Meteorological Institute, St Petersburg, 1995, pp. 136–140.
- Yu.I. Chizhik, Laws governing the distribution of the temperature of the mountain massif of coal mines, in: *The Problems of the Underground Working of Minerals*, Kuzbass State Techn. Univ., Kemerovo, 1996, pp. 118–122.
- I.R. Diyahsev, V.M. Konyukhov, E.V. Skvortsov, Non-stationary well-induced filtration in a deformed bed interacting with rocks, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 1 (1996) 85–90.
- I.L. Dunin, N.V. Bukarov, Calculation of heat losses in the case of small immersion depths of heat pipes, *Izv. VUZov, Stroit.* 2 (1996) 83–84.
- A.D. Efanov, P.L. Kirillov, A.A. Luk'yanov, V.V. Smirnov, Simulation of heat exchange processes in the shielding envelope of NPS with WCWMR, *Teplenergetika* 3 (1995) 19–29.
- B.G. Fomin, Concerning the problem of heat scattering in a semi-infinite massif of electrically heated concrete, in: *Investigation of Hydrotechnical Constructions*, Moscow, 1994, pp. 140–150.
- R.I. Gavril'ev, Concerning a contact method for measuring the thermophysical properties of rocks of the samples from boreholes, *Inzh.-Fiz. Zh.* 68 (3) (1995) 474–478.
- P.N. Golovin, Convective mass transfer in the layer under winter melting ice in the Arctic basin, *Okeanolog* 35 (6) (1995) 854–863.
- D.M. Kabanov, S.M. Sakerin, Results of investigations of total moisture content of the atmosphere by the method of optical hygrometry, Pt. 1, Analysis of the procedure and results of calibration, *Optika Atmosf. Okeana* 8 (6) (1995) 852–860.
- Yu. Kaganer, V. Agranovskiy, A. Aksonov, Towards the selection of the storage temperatures of food stuffs, *Mezhdunar. Selsk.-Khoz. Zh.* 2 (1996) 48–51.
- B.V. Kaul', Remote determination of the state of the orientability of particles in crystalline clouds by means of a lidar, *Optika Atmosf. Okeana* 8 (6) (1995) 847–851.
- P.L. Kirillov, Certain problems of heat exchange in the case of

- accidents with nuclear reactors, *Teploenergetika* 3 (1996) 2–8.
- Yu.V. Kistenev, Yu.N. Ponomaryov, Use of the effects of non-stationary interaction in probing gas admixtures of the atmosphere, *Optika Atmosf. Okeana* 9 (3) (1996) 378–383.
- V.S. Komarov, A.V. Kreminskiy, K.Ya. Sineva, Computer information base of regional climatic models of temperature and wind for the boundary layer of the atmosphere, *Optika Atmosf. Okeana* 9 (4) (1996) 484–488.
- V.S. Komarov, S.A. Soldatenko, S.S. Suvorov, Investigation of the sensitivity of the admixture transfer models in the atmosphere (model and procedure), *Optika Atmosf. Okeana* 8 (7) (1995) 985–992.
- A.V. Konyukhov, M.V. Meshcheryakov, S.V. Utyuzhnikov, Numerical investigation of flow initiated in the atmosphere by the surface turbulent thermic, *Teplofiz. Vysok. Temp.* 33 (5) (1995) 726–730.
- M.N. Koshlyakov, T.G. Sazhina, Meridian transport of water and heat by large-scale geostrophic flows in the Pacific Ocean sector of the Antarctic, *Okeanolog* 35 (6) (1995) 842–853.
- S.L. Lopatnikov, Thermal convection and formation of oil deposits, *Dokl. Akad. Nauk, (Russia)* 345 (4) (1995) 541–543.
- S.V. Makarychev, M.A. Mazirov, A method for determining conductive and vapour-diffusive components of heat transfer in moist soils, *Vestn. MGU, Ser. 17 I* (1996) 50–55.
- E.V. Makienko, Yu.A. Pkhalagov, R.F. Rakhimov, Analysis of the specific features in the microstructure of the aerosol of winter mist from the results of data reversal of optical measurements, *Optika Atmosf. Okeana* 8 (9) (1995) 1272–1279.
- S.P. Malevskiy-Malevich, Estimates of mean heat inflows to the atmosphere and their interyear variation over the North Atlantic, *Meteorol. Gidrol.* 3 (1996) 94–103.
- Yu.L. Matveev, The role of the involvement and mixing of air masses in the formation and evolution of condensation wakes, clouds and fogs, *Optika Atmosf. Okeana* 4 (1996) 532–540.
- M.S. Mel'tser, A.D. Zhernovnikov, V.P. Gerasimov, Dynamics of heat exchange of idle wells in frozen grounds, in: *Basic Trends in the Scientific-Research Works in the Oil Industry of Western Siberia*, Siberian Scientific-Research Institute of Oil Industry, Tyumen, 1994, pp. 132–136.
- E.D. Nadezhina, A.V. Sternzat, Heat and moisture exchange over an inhomogeneous surface of sea ice, *Meteorol. Gidrol.* 2 (1996) 54–63.
- V.N. Nikiforov, A.Z. Idrisov, G.A. Razmazin, A.F. Shapoval, V.G. Aksyonov, Thermophysical justification of the above-ground laying of a bundle of communication pipes, *Nauch.-Tekh. Probl. Zap.-Sib. Neftegaz. Kompleksa* 2 (1995) 67–69.
- V.I. Nikolaev, S.N. Yatsko, A mathematical model, an algorithm and a package of programmes for simulation and operative estimation of the atmospheric dispersion of radioactive pollutions, *Inzh.-Fiz. Zh.* 68 (3) (1995) 385–394.
- G.Ya. Patrushev, O.A. Rubtsova, Concerning the phenomenological investigation of the probability density of intensity fluctuations in a turbulent atmosphere, *Optika Atmosf. Okeana* 8 (9) (1995) 1284–1288.
- A.M. Popov, O.B. Popovicheva, T.V. Rakhimova, Interaction of HCl molecules with ice under the conditions simulating polar stratosphere, *Zh. Fiz. Khim.* 69 (11) (1995) 2003–2008.
- V.M. Radikevich, Parameterization of the temperature profile in the planetary boundary layer of the atmosphere, in: *Meteorological Prognoses*, Russian State Meteorological Institute, St Petersburg, 1995, pp. 41–46.
- R.F. Rakhimov, Simulation of processes in aerosols for predicting vertical variability of the light-scattering parameters, *Optika Atmosf. Okeana* 8 (7) (1995) 1009–1029.
- R.F. Rakhimov, Change of the opticomicrophysical properties of aerosols in diffusion–sedimentation spreading of abnormal aerosol layers in the mesosphere, *Optika Atmosf. Okeana* 8 (9) (1995) 1259–1265.
- R.F. Rakhimov, D.N. Romashov, Effect of orientation and characteristic dimension of particles on the light scattering matrix of crystalline clouds, *Optika Atmosf. Okeana* 8 (6) (1995) 917–920.
- G.F. Safronov, L.V. Nechvolodov, Statement of the problem of calculation of space-time variability in meridian transfer of heat in the ocean, in: *Investigation of Oceans and Seas*, No. 2, St Petersburg, 1995.
- M.I. Samoilover, Thermal regime of a hydraulic drive and its dependence on the conditions of operation and loading, *Nauch.-Tekh. Probl. Zap.-Sib. Neftegaz. Kompleksa* 2 (1995) 171–175.
- V.V. Sychyov, Asymptotic theory of tornado-type flows, *Izv. Akad. Nauk, Mekh. Zhidk. Gaza* 3 (1995) 186.
- L.B. Zimin, Low-potential heat exchange in systems of shaft ventilation with thermosiphons, *Prom. Teplotekh.* 17 (5) (1995) 41–46.
- V.V. Zuev, O.A. Romanovskiy, Gas analysis of the atmosphere by the method of differential absorption using CO<sub>2</sub>-lasers with different width of laser radiation line, *Optika Atmosf. Okeana* 8 (9) (1995) 1344–1348.
- G.A. Yanchenko, Toward calculation of the parameters of non-stationary heat exchange in burning and gasification of coal under underground conditions, *Izv. VUZov, Gorn. Zh.* 9 (1995) 13–18.

#### Heat and mass transfer in buildings

- V.N. Bogoslovskiy, Heat transfer of the outer enclosure of a building with an air interlayer, *Montazh Spets. Raboty v Stroit.* 12 (1995) 2–3.
- L.E. Osipova, N.A. Voinov, E.Sh. Telyakov, Simulation of heat- and mass-exchange processes in air ventilation and conditioning equipment, in: *Hydromechanical Heating–Ventilating Equipment*, Kazan, 1995, pp. 3–16.
- A.G. Perekhozhentsev, Certain specific features of solving the problems of thermal and humid conditions of nonuniform patches in enclosing structures of buildings, *Izv. VUZov, Sev.-Kavk. Region, Tekh. Nauki* 3–4 (1994) 67–74.
- S.B. Riffat, K.V. Chong, N. Adam, Experimental and numerical investigation of the propagation of aerosol particles in buildings, in: *Hydromechanical Heating–Ventilating Equipment*, Kazan, 1995, pp. 63–74.
- A.M. Zaitsev, A.V. Zaryayev, heating of iron–concrete structures in fire, *Izv. VUZov, Stroit.* 6 (1996) 9–12.