

HEAT TRANSFER BIBLIOGRAPHY—RUSSIAN WORKS

A. V. LUIKOV

Heat and Mass Transfer Institute of the B.S.S.R. Academy of Sciences,
25 Podlesnaya, Minsk, B.S.S.R., U.S.S.R.

(Received 1 July 1964)

BOOKS

- M. I. ALIEV, *Heat Conduction in Semi-Conductors*. Izd. Akad. Nauk Azerbaid. SSR. Baku (1963).
- P. I. ANANIN and V. N. PETRI, *High-Temperature Drying of Wood*. Goslesbumizdat, Moscow (1963).
- M. M. ANDREEV, S. S. BERMAN et al., *Heat-Exchangers in Power Plants*. Mashgiz, Moscow (1963).
- A. I. ANDRYUSHCHENKO, *Thermodynamic Estimation of Optimum Parameters of Thermal Power Plants*. Izd. "Vyssh. Shkola", Moscow (1963).
- V. I. BABUSHKIN, G. M. MATVEEV and O. P. MCCHEDLOV-PETROSYAN, *Thermodynamics of Silicates*. Gosenergoizdat, Moscow (1963).
- A. P. BASKAKOV, M. I. GUREVICH, N. I. RESHETIN et al., *General Thermal Engineering*. Gosenergoizdat, Moscow (1963).
- A. D. BRODSKY, *New Methods for Low Temperature Measurements*. Standartgiz, Moscow-Leningrad (1962).
- G. N. DULNEV, *Heat Transfer in Radioelectronic Devices*. Gosenergoizdat, Moscow-Leningrad (1963).
- A. N. GORDOV (Ed.), *Temperature Measurements*. Standartgiz, Moscow-Leningrad (1963).
- A. A. GUHKMAN, *Introduction into the Similarity Theory*. Izd. "Vyssh. Shkola", Moscow (1963).
- V. A. KIRILLIN and A. E. SHEINDLIN, *Thermodynamic Properties of Materials*. Gosenergoizdat, Moscow-Leningrad (1963).
- V. A. KIRPIKOV, *Introduction into Thermodynamics of Chemical and Phase Conversions*. Rosvuzizdat, Moscow (1963).
- N. E. KOCHIN, I. A. KIBEL and N. V. ROZE, *Theoretical Fluid Mechanics*, Pt. 1. Fizmatgiz, Moscow (1963).
- N. E. KOCHIN, I. A. KIBEL and N. V. ROZE, *Theoretical Fluid Mechanics*, Pt. 2. Fizmatgiz, Moscow (1963).
- M. G. KRUGLOV, *Thermal and Gas Dynamics of Two-Cycle Internal Combustion Engines. Gas Exchange*. Mashgiz, Moscow (1963).
- A. M. LITVIN, *Engineering Thermodynamics*. Gosenergoizdat (1963).
- A. V. LUIKOV and B. M. SMOLSKY (Editors), *Heat and Mass Transfer*, Vol. 3. *General Heat Transfer Problems*. Gosenergoizdat, Moscow-Leningrad (1963).
- A. V. LUIKOV and B. M. SMOLSKY (Editors), *Heat and Mass Transfer*, Vol. 4. *Heat and Mass Transfer in Drying*. Gosenergoizdat, Moscow-Leningrad (1963).
- A. V. LUIKOV and B. M. SMOLSKY (Editors), *Heat and Mass Transfer*, Vol. 5. *Methods of Calculation and Simulation of Heat and Mass Transfer*. Izd. Akad. Nauk BSSR, Minsk (1963).
- M. M. MASLENNIKOV (Editor), *Heat Transfer in Pressure Casting. Collected Papers*. Oborongiz, Moscow (1963).
- B. M. MATVEEV, *Drying of Walls by Electrical Osmosis Method*. Gosstroizdat Ukr.SSR, Kiev (1963).
- V. V. MITOR, *Heat Transfer in Steam Boiler Furnaces*. Mashgiz, Leningrad (1963).
- M. M. NAZARCHUK, *Gas Flow in Ducts with Heat Transfer*. Izd. Akad. Nauk Ukr.SSR. Kiev (1963).
- A. S. NEVSKY, *Heat Transfer in Open-Hearth Furnaces*. Metallurgizdat, Moscow (1963).
- N. A. PERSHANOV, *Convective Drying of Wood by High-Frequency Current*. Goslesbumizdat, Moscow (1963).
- A. N. REZNIKOV, *Heat Transfer in Cutting and Tool Cooling*. Mashgiz, Moscow (1963).
- G. S. ROSLYAKOV and L. A. CHUDOV (Editors), *Numerical Methods in Gas Dynamics*. Izd. Mosk. Un-ta, Moscow (1963).
- M. I. SHAKHPARONOV, *Investigation Methods of Thermal Molecular Motion and Liquid Structure*. Izd. Mosk. Un-ta, Moscow (1963).
- YU. P. SHLYKOV and E. A. GANIN, *Contact Heat Transfer. Heat Transfer Between Metallic Surfaces in Contact*. Gosenergoizdat, Moscow-Leningrad (1963).
- N. V. TSEDERBERG, *Heat Conduction in Gases and Liquids*. Gosenergoizdat, Moscow-Leningrad (1963).
- S. V. VALLANDER (Ed.), *Aerodynamics of Rarefied Gases. Collected Papers*. Sb. I. Izd. Leningrad. Un-ta, Leningrad (1963).
- N. B. VARGAFTIK, *Handbook of Thermal Properties of Gases and Liquids*. Fizmatgiz, Moscow (1963).
- S. S. ZABRODSKY, *Hydrodynamics and Heat Transfer in a Fluidized Bed*. Gosenergoizdat, Moscow-Leningrad (1963).
- YA. B. ZELODVICEH and YU. P. RAIZER, *Physics of Shock Waves and High Temperature Hydrodynamic Phenomena*. Fizmatgiz, Moscow (1963).
- P. A. ZHUCHKOV, *Special Course on Heat and Mass Transfer Calculation in Drying and Combustion*. Leningrad (1963).

GENERAL

- All-Union Conference on Heat Transfer and Hydraulic Resistance in Two-Phase Flow, *Energomashinostroenie* No. 8, 29 (1963).
- E. G. BATYEV, Temperature dependence of a superconductor slot, *Zh. Eksp. Teor. Fiz.* **44**, 710 (1963).

- Z. V. BORONENKO, Conference on Drying Wood. Moscow, March, 1963, *Derevoobrabat. Prom.* No. 6, 25 (1963).
- L. A. CHUDOV, Review of works on boundary layers carried out at the Moscow State University Computation Centre, *Sbornik. Rabot Vychislit. Tsentrali MGU*, vyp. 2, 87 (1963).
- I. T. EPERIN, Scientific Conference of Higher-Educational Institutions Representatives on Industrial Thermal Power Engineering, *Inzh.-Fiz. Zh.* 6, No. 8, 138 (1963).
- M. A. GERMAN, Turbulent transfer in clouds, *Met. Gidrolog.* No. 10, 15 (1963).
- N. I. GOISA, The effect of temperature and moisture content on actual radiation in the friction layer, *Trud. Uralsk. Nauch.-Issled. Gidromet. In-ta vyp.* 35, 31 (1963).
- N. I. GOISA and L. I. SAKALI, Interrelation of radiation and meteorological conditions in atmospheric boundary layer, *Trud. Nauch.-Issled. Gidromet. In-ta vyp.* 35, 73 (1963).
- A. N. GORDOV, Contactless measurement of actual temperatures of heated bodies. Review, *Teplofiz. Vysok. Temperatur* 1, No. 1, 149 (1963).
- G. L. GRODZOVSKY, Propagation of laminar and turbulent axisymmetrical fan spray sheets in submerged space, *Promyshl. Aerodin. vyp.* 23, 66 (1962).
- N. E. KHAZANOVA and L. A. ROTT, Mass transfer processes and critical phenomena. Review, *Inzh.-Fiz. Zh.* 6, No. 11, 123 (1963).
- A. R. KONSTANTINOV and N. I. GOISA, Methods for calculation of radiation balance and effective radiation by air temperature and humidity measured at weather stations, *Trud. Ukrainsk. Nauch.-Issled. Gidromet. In-ta vyp.* 35, 62 (1963).
- A. R. KONSTANTINOV and L. I. SAKALI, Calculation of turbulent heat transfer between the soil surface and atmosphere from air temperature and humidity measured at weather stations, *Trud. Ukrainsk. Nauch.-Issled. Gidromet. In-ta vyp.* 35, 140 (1963).
- V. I. KRYLOVICH and I. P. ZHUK, Special Conference on the Regular Thermal Regime Theory, *Inzh.-Fiz. Zh.* 6, No. 3, 118 (1963).
- N. I. LYASHKEVICH, Effect of thermal conductivity of thermocouple leads on the accuracy of the cryoscopic analysis of small samples, *Zh.-Fiz. Khim.* 37, vyp. 3, 702 (1963).
- A. M. MKHITARYAN, Determination of the turbulent heat-transfer coefficient in a reservoir from its water and heat balance, *Izv. Akad. Nauk Arm. SSR. Ser. Tekhn. Nauk* 16, No. 4, 23 (1963).
- M. I. Ruzin, Determination of turbulence factor in the atmospheric boundary layer, *Trud. Leningr. Gidromet. In-ta vyp.* 15, 52 (1963).
- L. I. RYKOVA, Evaporation heat, sound velocity and surface energy, *Uchen. Zap. Kishinevsk. Un-ta* 63, 45 (1963).
- V. I. RYKOV and G. S. YAKOVLEVA, Vaporization heat and surface energy of melted salts, *Uchen. Zap. Kishinevsk. Un-ta* 63, 41 (1963).
- A. SATANOVSKY, Scientific Session of the Council of the Academy of Sciences of the Ukr. SSR on High-Temperature Thermal Physics, *Teplofiz. Vysok. Temperatur* 1, No. 2, 321 (1963).
- V. A. SHNEIDMAN, Determination of steady turbulence properties in some layers of free atmosphere, *Trud. Ukrainsk. Nauch.-Issled. Gidromet. In-ta vyp.* 31, 54 (1962).
- A. V. TKACHENKO, Determination of a turbulence factor in the friction layer, *Trud. Ukrainsk. Nauch.-Issled. Gidromet. In-ta vyp.* 31, 36 (1962).
- A. V. TKACHENKO, Determination of turbulent viscosity in the atmospheric boundary layer, *Trud. Ukrainsk. Nauch.-Issled. In-ta vyp.* 31, 40 (1962).
- P. G. TRUNOV, Heat transfer to boiling melt of urea, *Khimich. Prom.* No. 3, 217 (1963).
- N. G. VASYUKOVA, Turbulent thermal diffusivity of the Sea of Japan, *Izv. Akad. Nauk SSSR. Ser. Geofiz.* No. 8, 1269 (1963).

EXPERIMENTAL METHODS

- P. N. ABRAMOVICH, Development of turbulent jets with asymmetric velocity distribution, *Prom. Aerodinamika vyp.* 24, 142 (1962).
- M. E. AEROV, K. P. BEREZHNAIA et al., Investigation of hydraulics and mass transfer in the space between tubes of a column heat exchanger, *Khim. Prom.* No. 9, 63 (1963).
- M. E. AEROV, T. A. BYSTROVA, N. I. ZELENTOVA et al., Experimental study of contact heat transfer, *Kholodiln. Tekhn.* No. 1, 37 (1963).
- S. G. AGABABOV and A. KOMAREK, Experimental determination of emissivity of platinum and platinum-rhodium wires, *Inzh.-Fiz. Zh.* 6, No. 3, 99 (1963).
- I. T. ALADIEV and V. A. EFIMOV, Intensification of heat transfer in electrical fields, *Inzh.-Fiz. Zh.* 6, No. 8, 125 (1963).
- I. T. ALADIEV, L. I. MALKINA and P. I. POVARIN, Study of methyl alcohol cooling effect at the pressure range (98–382), 10^5 n/m^2 , *Inzh.-Fiz. Zh.* 6, No. 10, 83 (1963).
- A. F. ANDREEV and L. A. FALKOVSKY, Investigation of low-temperature physics (All-Union Conference). *Vest. Akad. Nauk SSSR* No. 10, 99 (1963).
- N. V. ANTONISHIN, Thermal inertia of a thermistor in circuits for measuring pulsating values, *Inzh.-Fiz. Zh.* 6, No. 1, 46 (1963).
- V. M. ANTUFIEV, Experimental study of the effect of temperature on heat transfer of a tube bundle in a transverse flow, *Izv. Vyssh. Ucheb. Zavedenii. Mashinostroenie* No. 10, 117 (1962).
- R. A. BAKHTIOZIN and Z. R. GORBIS, Convective heat transfer from a graphite suspension flow in channels with longitudinal fins (Materials of discussion), *Trud. Odessk. Tekhn. In-ta* 14, 55 (1962).
- Kh. A. BARLYBAEV, Heat transfer and hydrodynamics of a turbulent flow in annular ducts, *Vest. Akad. Nauk Kaz. SSR* No. 3, 29 (1963).
- Yu. P. BARSKY, Method and instrument for simultaneous measurement of thermal coefficients and thermal effects of phase conversions in a wide temperature range, *Trud. Nauch.-Issled. In-ta Stroit. Keramiki vyp.* 20, 118 (1962).
- A. F. BELYAEV and G. V. LUKASHENYA, The temperature coefficient of the rate of burning of explosives and powders as dependent on the pressure, *Dokl. Akad. Nauk SSSR* 148, No. 6, 1327 (1963).

- P. M. BRDLIK and A. KAKABAEV, Experimental study of water vapour condensation inside coils, *Inzh.-Fiz. Zh.* **6**, No. 10, 104 (1963).
- S. S. CHERVYAKOV, An experimental study of the effect of vibration on heat and mass transfer of a cylinder and cone in a turbulent air flow, *Inzh.-Fiz. Zh.* **6**, No. 8, 10 (1963).
- S. S. CHERVYAKOV, Experimental study of the effect of sphere vibration on heat and mass transfer in a turbulent air flow, *Inzh.-Fiz. Zh.* **6**, No. 6, 31 (1963).
- L. A. CHUKANOVA and A. S. NEVSKY, Experimental study of gas radiation at non-equilibrium temperatures, *Sbornik Nauch. Trudov VNII Metallurg. Teplotekhn.* No. 9, 158 (1963).
- S. G. DIYAKONOV and A. G. USMANOV, Transfer processes in turbulent flows, *Trud. Kazansk. Khim.-Tekhnol. In-ta vyp.* **31**, 16 (1963).
- V. E. DOROSHCHUK and F. P. LANTSMA, The effect of the duct diameter on burn-out heat fluxes, *Teploenergetika* No. 8, 73 (1963).
- E. M. DUBROVICH, Transient heat transfer in a laminar liquid flow in a tube, *Trud. In-ta Dvigatelei Akad. Nauk SSSR vyp.* **6**, 51 (1962).
- K. V. ELSHIN, On the effect of a convective flow past the vertical wall of the tank on the temperature of a free surface, *Trud. Nauch.-Issled. In-ta po Transportu i Khraneniyu Nefti i Nefteproduktov vyp.* **2**, 14 (1963).
- V. A. EMELIYANOV, Interferometric investigation of gas non-uniformities behind shock wave, *Inzh.-Fiz. Zh.* **6**, No. 1, 79 (1963).
- S. S. FILIMONOV, M. G. KRYUKOVA et al., Experimental unit for heat transfer study in liquid aluminium flow in tubes, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 318 (1963).
- E. V. FIRSOVA, Study of heat transfer and hydraulic resistance in a longitudinal water flow past a bundle of tubes, *Inzh.-Fiz. Zh.* **6**, No. 5, 17 (1963).
- L. N. GELPERIN, Procedure and the apparatus of a thermistor in circuits for measuring pulsating values, *Inzh.-Fiz. Zh.* **6**, No. 1, 39 (1963).
- A. S. GINEVSKY and E. E. SOLODKIN, The effect of transverse surface curvature on the properties of non-isothermal axi-symmetrical turbulent boundary layer of a compressible gas, *Izv. Akad. Nauk SSSR. OTN. Mekhanika Mashinostr.* No. 1, 99 (1963).
- V. S. GOLOVIN, B. A. KOLCHUGIN and D. A. LABUNTSEV, An experimental study of heat transfer and critical heat fluxes with pool boiling of water, *Inzh.-Fiz. Zh.* **6**, No. 2, 3 (1963).
- Z. R. GORBIS and Yu. L. TONKONOGY, Study of motion uniformity of dispersed medium layer in parallel ducts, *Inzh.-Fiz. Zh.* **6**, No. 6, 113 (1963).
- V. A. GRIGORIEV, Heat transfer in cooling a liquid flow in a horizontal tube, *Trud. Mosk. Energetich. In-ta vyp.* **48** (1963).
- V. A. GRODKO, A method for comparison of heat-transfer surfaces, *Trud. In-ta Dvigatelei Akad. Nauk SSSR vyp.* **6**, 42 (1962).
- V. M. GYURDZHIYAN and Yu. N. PIOTUKH, The effect of some factors on aerodynamics and heat transfer in a three-component flow, *Izv. Sibirsk. Otdel. Akad. Nauk SSSR. No. 2. Ser. Tekhn. Nauk vyp.* **1** (1963).
- A. A. IVASHKEVICH, Heat-transfer coefficient in the transient region from convection to boiling of liquid with forced motion in ducts, *Teploenergetika* No. 10, 76 (1963).
- M. A. IZYUMOV, D. M. KHZMALYAN and O. V. YAKOVLEVSKY, Propagation of plane jet system, *Inzh.-Fiz. Zh.* **2**, vyp. 4, 269 (1962).
- A. M. KAGAN and I. I. GELPERIN, The effect of thermal properties of gases on their heat transfer with granular materials, *Khim. Prom.* No. 8, 60 (1963).
- M. G. KAGANER and L. I. GLEBOVA, The effect of volume weight of porous materials on heat transfer, *Inzh.-Fiz. Zh.* **6**, No. 4, 27 (1963).
- A. S. KADINOVA, G. N. KHEIFETS and N. Yu. TAITS, On the mode of heat transfer with spray cooling, *Inzh.-Fiz. Zh.* **6**, No. 4, 46 (1963).
- A. P. KESTNER, Electromagnetic device for measurement of a turbulent water flow velocities EMK-1, *Trud. In-ta Okeanologii Akad. Nauk. SSSR* **66**, 125 (1963).
- M. KH. KISHINEVSKY and A. S. ARMASH, Mass-transfer mechanism between gas and liquid stirred in a vessel, *Zh. Prikl. Khimii* **36**, vyp. 2, 308 (1963).
- V. V. KIRILLOV and Yu. S. MALYUGIN, Local heat transfer of a gas flow in tubes with high temperature differences, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 254 (1963).
- V. I. KOFANOV, Heat transfer and hydraulic resistance of liquid suspension flows in tubes, *Teploenergetika* No. 3, 58 (1963).
- T. A. KOLACH and Yu. G. VVEDENSKY, Boiling heat transfer in vertical tubes, *Trud. Moskovs. Energetich. In-ta vyp.* **48**, 53 (1963).
- S. I. KOSTERIN and N. T. BELOVA, On the effect of supersonic-flow rarefaction upon base pressure of a body of revolution, *Inzh.-Fiz. Zh.* **6**, No. 11, 14 (1963).
- S. I. KOSTERIN and Yu. P. FINATIEV, On the structure of a turbulent flow in an annular channel with a rotating internal cylinder, *Inzh.-Fiz. Zh.* **6**, No. 10, 96 (1963).
- A. N. KOZLOVA, Distortion in optical tubes caused by heat convection, *Inzh.-Fiz. Zh.* **6**, No. 3, 110 (1963).
- B. P. KOZYREV, Basic problems of radiation pyrometry of slightly heated or cooled objects, *Inzh.-Fiz. Zh.* **6**, No. 10, 9 (1963).
- S. F. KRAVTSOV and K. A. POLNTISKY, Heat transfer of a horizontal cylinder in a free air motion, *Izvest. Vyssh. Ucheb. Zavedenii. Energetika* No. 7, 69 (1963).
- L. I. KUDRYASHEV and B. N. ASTRELIN, The effect of unsteady state on the heat-transfer coefficient from spherical bodies in the range of small Reynolds numbers, *Trud. Golovnogo Nauch.-Issled. In-ta Tsemennitogo Mashinostroeniya vyp.* **2**, 35 (1963).
- L. I. KUDRYASHEV and V. K. LYAKHOV, Experimental study of heat transfer in a heated turbulent liquid flow in a circular tube, *Izvest. Vyssh. Ucheb. Zavedenii. Neft i Gaz.* No. 3, 79 (1963).
- L. I. KUDRYASHEV and E. V. SHCHIBRAEV, Heat transfer from a cylinder in a parallel plane air spray, *Trud. Kuibyshevsk. Aviats. In-ta vyp.* **15**, ch. 1, 57 (1962).
- S. S. KUTATELADZE and A. I. LEONTIEV, Heat screen in a gas turbulent boundary layer, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 281 (1963).

- A. I. LEONOV, A steady-state viscous liquid flow in a plane and circular tube of a finite length, *Izvest. Akad. Nauk SSSR. OTN. Mekhan. i Mashinostroenie* No. 6, 56 (1962).
- V. L. LELCHUK and G. I. ELFIMOV, Heat transfer from a wall to a turbulent carbon dioxide flow in a circular tube with high heat fluxes, *Inzh.-Fiz. Zh.* 6, No. 12, 11 (1963).
- A. I. LUKOMSKAYA, Viscoelastic liquid flow in circular, round and slotted channels, *Inzh.-Fiz. Zh.* 6, No. 6, 120 (1963).
- G. I. LUZHNOV and E. YA. TITROVA, Heat transfer and aerodynamic resistance of convective heating surfaces, *Teploenergetika* No. 7, 42 (1963).
- V. I. MAKARYAVICHYUS and A. A. ZHUKAUSKAS, Local heat transfer from tube bundles in an essentially laminar flow, *Trud. Akad. Nauk Litovs. SSR. Ser. B*, No. 4, 145 (1962).
- A. D. MARGOLIN, Thermal explosion with constant distribution of the heat source, *Zh. Fiz. Khim.* 37, 4, 887 (1963).
- A. MASLOV, The effect of the duct shape in a plate heat exchanger on critical Reynolds number, *Molochn. Prom.* No. 6, 17 (1963).
- V. K. MELNIKOV, Instruments for measurement of radiant heat fluxes in furnaces, *Teploenergetika* No. 7, 47 (1963).
- V. I. MOROZKIN, A. N. AMENITSKY and I. T. ALADIEV, Experimental study of acceleration effect on boiling crisis in liquids at the saturation temperature, *Teplofiz. Vysok. Temperatur* 1, No. 1, 107 (1963).
- G. KH. MUKHAMEDZYANOV, A. G. USMANOV and A. A. TARZIMANOV, Experimental determination of thermal conductivity of liquid saturated hydrocarbons, *Izvest. Vyssh. Uchebn. Zavedenii, Neft' i Gaz* No. 9, 75 (1963).
- I. N. MURZINOV, Heat transfer in the stagnation point of blunt body with small Reynolds numbers, *Zh. Prikl. Mekhan. i Tekhnich. Fiz.* No. 5, 139 (1963).
- L. M. NIKITINA and M. A. KUCHMEL, Mass-transfer coefficients of certain materials, *Dokl. Akad. Nauk BSSR* 7, No. 6, 382 (1963).
- N. I. NIKITENKO, Hydrodynamic resistance and heat transfer from a screened disc, *Izvest. Vyssh. Ucheb. Zavedenii. Energetika* No. 3, 75 (1963).
- N. N. NORIKIN and I. P. CHASHCHIN, Heat transfer and hydraulic resistance of rather short ribbed tubes in a longitudinal flow, *Teploenergetika* No. 6, 67 (1963).
- A. P. ORNATSKY, Burnout heat fluxes and heat transfer in a forced water flow in tubes in the range of supercritical pressures (175–220 atm.), *Teploenergetika* No. 3, 66 (1963).
- I. I. PALEEV, B. D. KATSNELSON and A. A. TARAKANOVSKY, Heat and mass transfer processes in a pulsing flow, *Teploenergetika* No. 4, 71 (1963).
- A. L. PARNA, Comment on "On heat transfer of a thin wire in a transverse air flow when heated by alternating current", by M. A. GOLDSHTIK, *Inzh.-Fiz. Zh.* 6, No. 8, 133 (1963).
- A. A. PAVLENKOV, The effect of free convection on boundary layer separation points and heat-transfer coefficient of a cylinder in a transverse viscous incompressible flow, *Trud. Kuibyshevsk. Aviats. In-ta vyp.* 15, Ch. 1, 175 (1962).
- I. P. PELEPEICHENKO and D. F. SIMBIRSKY, Heat transfer from a cylinder in a transverse flow with harmonic velocity change, *Teploenergetika* No. 3, 62 (1963).
- V. S. PELEVIN, Pressure effect on the maximum temperature in the combustion region and the ignition temperature of a homogeneous mixture in a turbulent flow, *Inzh.-Fiz. Zh.* 6, No. 3, 34 (1963).
- B. S. PETUKHOV and L. G. GENIN, Heat transfer in tubes with internal heat sources in a liquid flow, *Inzh.-Fiz. Zh.* 6, No. 4, 3 (1963).
- B. S. PETUKHOV and V. N. POPOV, Prediction of heat transfer and friction drag in laminar compressible flow of liquid with variable properties in tubes, *Teplofiz. Vysok. Temperatur* 1, No. 2, 228 (1963).
- A. N. PLANOVSKY and E. D. VERTUZAEV, Division of a general mass-transfer coefficient into particular mass-transfer coefficients, *Khim. Prom.* No. 9, 60 (1963).
- N. D. POLOTSKY, Formation of a boundary layer on a convex wall of hooked diffusors, *Trud. VIGM (VNII Gidromashinostroeniya) vyp.* 30, 3 (1962).
- P. I. PUCHKOV and O. S. VINOGRADOV, Heat transfer in annular slots, *Energomashinostroenie* No. 11, 22 (1963).
- A. K. REBROV, Experimental study of heat transfer from cylinders in a free air flow in rarefied space, *Trud. Kazansk. Aviats. In-ta vyp.* 66, 73 (1961).
- P. N. ROMANENKO and V. N. KHARCHENKO, The effect of a mass cross flow on the resistance and heat transfer in a turbulent flow of a compressible gas, *Inzh.-Fiz. Zh.* 6, No. 2, 52 (1963).
- P. N. ROMANENKO and V. N. KHARCHENKO, The effect of gas blowing into a turbulent boundary layer with longitudinal pressure gradient on friction drag, *Zh. Prikl. Mekh. i Tekhn. Fiz.* No. 1, 77 (1963).
- P. N. ROMANENKO and V. N. KHARCHENKO, Resistance to heat transfer on a permeable surface with a gradient gas flow, *Inzh.-Fiz. Zh.* 6, No. 11, 9 (1963).
- N. A. RUBTSOV, Transient radiant heat transfer of two opaque grey bodies, *Zh. Prikl. Mekh. i Tekhn. Fiz.* No. 1, 140 (1963).
- O. A. RUDENKO-GRITSYUK and A. A. MIKHEEV, Study of heat and mass transfer in capillary bodies under heating, *Inzh.-Fiz. Zh.* 6, No. 3, 95 (1963).
- I. N. SADIKOV, Boundary layer separation of an unsteady viscous incompressible flow, *Trud. Mosk. Fiz.-Tekhn. In-ta vyp.* 9, 27 (1962).
- G. T. SERGEEV and L. A. SERGEEVA, Experimental study of heat and mass transfer process with transpiration cooling of differently shaped bodies, *Inzh.-Fiz. Zh.* 6, No. 12, 3 (1963).
- V. K. SHCHUKIN, Methods for local heat-transfer coefficient estimation of a cylinder surface in a flow, *Inzh.-Fiz. Zh.* 6, No. 7, 7 (1963).
- E. K. SIRDE, E. G. UUS and V. E. VALLIKIVI, Gas dynamics of a granular bed. Report 2, *Trud. Tallinsk. Politekhn. In-ta Ser. A*, No. 198, 173 (1962).
- E. I. SLAVNOVA, On free convection in aqueous salt solutions filling vertical circular tubes, *Inzh.-Fiz. Zh.* 6, No. 3, 106 (1963).

- YU. A. SOZIN, Experimental study of convective heat transfer in pulsing incompressible flow, *Izv. Vyssh. Ucheb. Zavedenii. Aviatsion. Tekhnika* No. 3, 87 (1963).
- G. P. STELMAKH, Study of heat transfer of a gas jet in a cylindrical chamber, *Inzh.-Fiz. Zh.* 6, No. 10, 93 (1963).
- V. V. STRUMINSKY and V. M. FILIPPOV, Experimental study of light scattering in laminar and turbulent liquid flows, *Izvest. Akad. Nauk SSSR. OTN. Mekhan. i Mashinostroenie* No. 6, 10 (1962).
- R. U. STUART, Reconciliation of the available experimental data on the spectrum asymmetry of locally isotropic turbulence, *Dokl. Akad. Nauk SSSR* 152, 2, 324 (1963).
- V. I. SUBBOTIN, V. E. MINASHIN and E. I. DENISKIN, Heat transfer of tube bundles in a transverse flow, *Teplofiz. Vysok. Temperatur* 1, No. 2, 238 (1963).
- V. I. SUBBOTIN, M. KH. IBRAGIMOV and E. V. NOMOFOILOV, Measurement of temperature field in turbulent mercury flow in a tube, *Teploenergetika* No. 6, 70 (1963).
- V. I. SUBBOTIN, P. A. USHAKOV *et al.*, Heat transfer in liquid mercury flow in circular tubes, *Inzh.-Fiz. Zh.* 6, No. 4, 16 (1963).
- V. I. SUBBOTIN, B. A. ZENKEVICH and G. V. ALEKSEEV, Burnout heat fluxes in annular ducts, *Teploenergetika* No. 10, 72 (1963).
- Yu. A. SURINOV and Yu. B. KURBAKOV, Experimental determination of some basic characteristics of radiant heat transfer, *Izvest. Vyssh. Ucheb. Zavedenii. Chyern. Metallurg.* No. 7, 176 (1963).
- E. TIMMA, Turbulent round and plane jets developing in a counter flow, *Izv. Akad. Nauk Estonsk. SSR* 11, Ser. Fiz. Mat. Tekhn. Nauk No. 4, 253 (1962).
- A. V. ULIANOV and D. B. KOZHAKHMETOV, Aerodynamics of swirled gas stream in a transverse flow, *Izv. Akad. Nauk Kaz. SSR. Ser. Tekhn. Khim. Nauk vyp.* 1, 116 (1963).
- V. V. USANOV and G. V. TSIKLAURI, Optimum conditions for gas flow in channels with heat transfer and friction, *Trud. VNII Kislorodn. Mashinostroeniya vyp.* 6, 54 (1963).
- F. V. USHAKOV and KHUAN FU-CHI, New method for determination of thermal-gradient moisture-transfer coefficient of building materials, *Stroit. Materialy* No. 7, 35 (1963).
- L. K. VASANOVA and N. I. SYROMYATNIKOV, Determination of heat transfer coefficient from solid particles to a gas in a steady regime, *Trud. Uralsk. Politekhnich. In-ta Sb.* 125, 81 (1962).
- F. S. VORONIN and V. L. LELCHUK, Heat transfer from a gas flow inside the tube to the wall, *Teploenergetika* No. 4, 61 (1963).
- V. S. ZARUBIN, The optimum geometry of fins on the heat-transfer surface, *Izv. Vyssh. Ucheb. Zavedenii. Mashinostroenie* No. 3, 87 (1963).
- L. I. ZHEMKOV, Some peculiarities of transient heat transfer stabilization, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* 15, ch. 1, 117 (1962).
- B. A. ZENKEVICH and O. V. REMIZOV, Critical thermal stresses with an external under-heated low-velocity past a tube in a square duct, *Inzh.-Fiz. Zh.* 6, No. 8, 112 (1963).
- V. P. ZHURAVLYEVA, An investigation into non-stationary thermal diffusion in molecular solutions, *Inzh.-Fiz. Zh.* 6, No. 9, 73 (1963).
- I. I. ZHYUGZHDA and A. A. ZHUKAUSKAS, Experimental study of local heat transfer from a non-isothermal plate with a laminar boundary layer, *Trud. Akad. Nauk Lit. SSR. Ser. B*, No. 4, 117 (1962).
- I. I. ZHYUGZHDA and A. A. ZHUKAUSKAS, Experimental study of local heat transfer in the starting portion between parallel plates, *Trud. Akad. Nauk Litovsk. SSR. Ser. B*, No. 1, 117 (1963).
- I. I. ZHUGZHDA and A. A. ZHUKAUSKAS, The effect of the unheated starting length on heat transfer of a plate with a laminar boundary layer liquid flow, *Trud. Akad. Nauk Litovsk. SSR. Ser. B*, No. 4, 129 (1962).
- N. V. ZOZULYA, V. A. SHVARTS and B. L. KALININ, Heat transfer and hydraulic resistance of tube bundles with longitudinal plate fins, *Izv. Vyssh. Ucheb. Zavedenii* No. 8, 114 (1963).
- P. M. YABLONIK and V. V. LAGEREV, Study of the humid vapour flow in guide ducts of steam turbines, *Teploenergetika* No. 11, 55 (1963).
- N. A. YARYSHEV, Dynamic properties of some bodies with mixed convective and conductive heat transfer, *Izv. Vyssh. Ucheb. Zavedenii. Priborostroenie* 6, No. 4, 137 (1963).

ANALYTICAL CALCULATION METHODS

- M. E. AEROV, N. I. NIKITINA and I. M. RAZUMOV, Determination of thermal fields in reaction apparatuses by the electrical analogy method, *Khim. Prom-st'* No. 7, 51 (1963).
- G. I. AKSYENOV, N. P. MOROZOV and M. N. SHAFEEV, Numerical integration of heat-conduction equation for a cylinder with thermal properties dependent on temperature, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 5, 85 (1963).
- A. V. ALFEROV, Unsteady temperature field of an infinite plate and its practical application, *Energomashinostroenie* No. 11, 15 (1963).
- YA. I. ALIKHASHKIN, A. P. FAVORSKY and P. I. CHUSHKIN, Calculation of the flow in a plane Laval nozzle, *Zh. Vychisl. Matematiki Matematich. Fiz.* 3, No. 6, 1130 (1963).
- A. F. ANDREEV, Stability of laminar flow of thin liquid layers, *Zh. Eksp. Teor. Fiz.* 45, vyp. 3 (9), 755 (1963).
- S. I. ANISIMOV and L. I. PERELMAN, A non-linear heat-conduction problem, *Zh. Prikl. Mekh. Tekhn. Fiz.* No. 5, 136 (1963).
- B. A. ARKADIEV, G. G. KHLIVNYAK and G. N. SHATROVSKAYA, The solution of non-stationary heat-conduction problem on the automatical digital computer, *Energomashinostroenie* No. 3, 12 (1963).
- V. A. ARUTYUNOV, Calculation of mixing in co-axial turbulent jets, *Izv. Vyssh. Ucheb. Zavedenii. Chyern. Metallurgiya* No. 9, 194 (1963).
- S. K. ASLANOV, Estimation of dissipation effect in a viscous liquid flow in a circular tube with heat transfer to the surrounding medium, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* 15, p. 1, 23 (1962).

- S. K. ASLANOV, Estimation of heat transfer and temperature dependence of viscosity in the problem on viscous flow between two rotating cylinder, *Inzh.-Fiz. Zh.* **6**, No. 2, 8 (1963).
- N. A. AVDONIN, A two-layer thermal convection problem, *Dokl. Akad. Nauk SSSR* **151**, No. 4, 815 (1963).
- Yu. E. BAGDASAROV, An approximate solution of two-layer problems of non-stationary heat conduction, *Inzh.-Fiz. Zh.* **6**, No. 9, 67 (1963).
- V. B. BALAKIN, A method of numerical calculations of discontinuous gas dynamic equations, *Inzh.-Fiz. Zh.* **6**, No. 1, 105 (1963).
- G. I. BARENBLATT and G. G. CHERNY, Moment relations on discontinuity surfaces in dissipative media, *Prikl. Matemat. Mekhanika* **27**, vyp. 5, 784 (1963).
- I. P. BASINA and O. I. YUGAI, Calculation of motion of burning particles in a swirling flow, *Izv. Akad. Nauk Kaz. SSR. Ser. Tekhn. Khim. Nauk* vyp. **1**, 97 (1963).
- L. E. BER, Solution of the problem on superposition of turbulent forced convection and free thermal convection in a vertical tube with internal heat sources in liquid, *Izv. Akad. Nauk SSSR. OTN. Mekhan. Mashinostroenie* No. 6, 25 (1962).
- L. E. BER, Solution of equations of mixed turbulent convection in a vertical tube, *Izv. Akad. Nauk SSSR. OTN. Mekhan. Mashinostroenie* No. 3, 163 (1963).
- A. A. BEREZOVSKY, Non-linear boundary-value problems of a heat-radiating cylinder, *Inzh.-Fiz. Zh.* **6**, No. 10, 121 (1963).
- S. YA. BERKOVICH, P. P. GOLOVISTIKOV and R. A. CHENTSOV, On calculation of unsteady heat transfer from a film-substrate, *Inzh.-Fiz. Zh.* **6**, No. 5, 99 (1963).
- A. G. BLOKH, Scattering of thermal radiation in poly-dispersed turbid medium, *Teplofiz. Vys. Temperatur* **1**, No. 1, 121 (1963).
- M. N. BODUNOV, Calculation of temperature distribution over the profile of turbine blades with internal air cooling, *Izv. Vyssh. Ucheb. Zavedenii. Aviats. Tekhnika* No. 2, 50 (1963).
- G. P. BOIKOV, Quick calculation of body heating by radiative heat, *Inzh.-Fiz. Zh.* **6**, No. 4, 105 (1963).
- Yu. A. BORISOV and V. I. KUDASHEV, Calculation of a real gas elasticity curve following data on two substances, *Inzh.-Fiz. Zh.* **6**, No. 8, 88 (1963).
- V. YA. BOROVOI, Similarity of temperature fields in an infinitely long cylinder with steady mass entrainment from its base, *Inzh. Zh.* **3**, vyp. 1, 143 (1963).
- B. I. BROUNSTEIN and O. M. TODES, Calculation of pulsation velocities and heat and mass transfer coefficients for solid particles suspended in a turbulent flow (Paper presented at the 2nd All-Union Conference of Representatives of Higher-Educational Institutions on Gas Dynamics, Evaporation and Combustion in Dispersed State), *Trud. Odessk. In-ta* **152**, Ser. Fiz. Nauk vyp. **8**, 85 (1962).
- P. V. CHERPAKOV, A method of eigenfunctions in the regular heat-regime theory, *Inzh.-Fiz. Zh.* **6**, No. 9, 61 (1963).
- L. A. CHUDOV, Some disadvantages of the classical boundary-layer theory, *Sborn. Rabot Vychislit. Tsentral MGU* vyp. **2**, 98 (1963).
- L. A. CHUDOV and T. V. KUSKOVA, Application of difference schemes to calculation of transient liquid flows, *Sborn. Rabot Vychislit. Tsentral MGU* vyp. **2**, 190 (1963).
- V. V. DILMAN, The method for determination of the longitudinal eddy diffusivity in a finite channel, *Inzh.-Fiz. Zh.* **6**, No. 10, 101 (1963).
- S. G. DIYAKONOV and A. G. USMANOV, Application of the idea on non-equilibrium canonical assembly to the turbulent transfer analysis, *Trud. Kazansk. Khim.-Tekhnol. In-ta* vyp. **31**, 23 (1963).
- SH. DOLESHAL, Linearization of unsteady motion equations of a real gas in tubes with polytropic process, *Izv. Vyssh. Ucheb. Zavedenii. Neft' Gaz* No. 1, 71 (1963).
- S. V. DONSKOV, Application of the similarity theory to heat-transfer problems for a circular cylinder in a transverse flow of loose material, *Izv. Vyssh. Ucheb. Zavedenii. Stroit. Arkhitektura* No. 1, 77 (1963).
- L. A. DORFMAN, Velocity and thermal boundary layers on an axi-symmetrical body rotating in infinite fixed medium, *Izv. Akad. Nauk SSSR. OTN. Mekhanika Mashinostroenie* No. 6, 17 (1962).
- A. SH. DORFMAN and M. I. SAICOVSKY, Determination of the optimum diffusor shape with an arbitrary central line, *Inzh.-Fiz. Zh.* **6**, No. 12, 88 (1963).
- K. E. DZHAUGASHTIN, Some problems of the boundary layer of a conducting liquid, *Zh. Tekhn. Fiz.* **33**, vyp. 7, 843 (1963).
- I. T. EPERIN, Characteristics of the transport process effectiveness, *Inzh.-Fiz. Zh.* **6**, No. 6 (1963).
- I. T. EPERIN, Heat and mass transfer in reacting systems, *Inzh.-Fiz. Zh.* **6**, No. 12, 27 (1963).
- I. T. EPERIN, The relationship between intensity and irreversibility of the heat-transfer process, *Inzh.-Fiz. Zh.* **6**, No. 3, 40 (1963).
- L. M. GALONEN, Non-stationary heat-conduction problem in non-uniform laminated slabs, *Inzh.-Fiz. Zh.* **6**, No. 12, 81 (1963).
- N. J. GAMAYUNOV, Heat and mass transfer in anisotropic bodies, *Inzh.-Fiz. Zh.* **6**, No. 2, 118 (1963).
- G. T. GASANOV and T. R. ELDAROV, Solution of the problem on unsteady motion of viscous incompressible liquid involving determination of hydrodynamic pressure on the walls when lowering drilling tools, *Izv. Vyssh. Ucheb. Zavedenii. Neft' Gaz* No. 7, 17 (1963).
- L. G. GENIN, Temperature calculation of the liquid flow and tube walls with account for axial heat conduction, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 247 (1963).
- G. Z. GERSHUNI and E. M. ZHUKHOVITSKY, Parametric calculation of convective instability, *Prikl. Matemat. Mekhan.* **27**, vyp. 5, 779 (1963).
- A. S. GINEVSKY, Approximate motion equation in problems of the turbulent jet theory, *Izv. Akad. Nauk. SSSR. Mekhan. Mashinostroenie* No. 5, 134 (1963).
- I. P. GINZBURG and G. V. KOCHERYZHENKOV, A turbulent boundary layer of a non-heat insulated wing or a body of axial symmetry in compressible liquid, *Vestnik Leningr. Un-ta* No. 7, Ser. Matemat. Mekhan. Astronomii vyp. **2**, 86 (1963).

- E. M. GOLDFARB, A new finite integral transformation for heat- and mass-transfer problems, *Izv. Vyssh. Ucheb. Zavedenii. Chyern. Metallurg.* No. 1, 167 (1963).
- G. S. GOLITSIN, Correlations for a local isotropic turbulent flow, *Prikl. Matemat. Mekhan.* 27, vyp. 1, 61 (1963).
- V. T. GRINCHENKO and A. F. ULITKO, A mixed boundary heat conduction problem for a semi-space, *Inzh.-Fiz. Zh.* 6, No. 10, 67 (1963).
- A. M. GRISHIN and O. M. TODES, Thermal explosion in convection and conduction heat transfer, *Dokl. Akad. Nauk SSSR* 151, No. 2, 365 (1963).
- V. G. GROMOV, Application of three-layer difference scheme to the solution of boundary-layer equation, *Izv. Akad. Nauk SSSR. Mekhan. Mashinostroenie* No. 5, 124 (1963).
- P. N. GURDZHI, The effect of high-order anharmonisms on transfer processes in solids, *Zh. Eksp. Teor. Fiz.* 45, vyp. 3 (9), 750 (1963).
- N. N. GVOZDKOV, Unsteady heating of a cone, *Inzh.-Fiz. Zh.* 6, No. 4, 96 (1963).
- N. N. GVOZDKOV and V. L. KHOLOPOV, Heat propagation in a hollow conical body, *Inzh.-Fiz. Zh.* 6, No. 5, 119 (1963).
- I. I. IBRAGIMOV and V. P. KASHKAROV, A laminar liquid boundary layer with a variable viscosity, *Trud. Sek. Matemat. Mechan. Akad. Nauk Kazakh. SSR* 2, 161 (1963).
- I. E. IDELCHIK, Calculation method of transient heat and mass transfer in a free jet, *Khimich. Prom-st'* No. 4, 57 (1963).
- A. G. ISTRATOV and V. B. LIBROVICH, Stability of solutions in the stationary theory of thermal explosion, *Prikl. Matemat. Mekhan.* 27, vyp. 2, 343 (1963).
- T. F. IVANOV, Flat laminar flow of a viscous incompressible liquid around some cross-sections, *Izv. Akad. Nauk SSSR. Mekhan. Mashinostroenie* No. 4, 97 (1963).
- V. N. IVANOV and R. L. STRATANOVICH, Lagrange characteristics of turbulence, *Izv. Akad. Nauk SSSR. Ser. Geofiz.* No. 10, 1581 (1963).
- V. M. KAPINOS, Heat transfer of a disk and a screen with non-uniform temperature distribution on heat-transfer surfaces, *Inzh.-Fiz. Zh.* 6, No. 6, 45 (1963).
- V. M. KAPINOS, Heat transfer of a non-uniformly heated rotating disk, *Inzh.-Fiz. Zh.* 6, No. 3, 12 (1963).
- B. S. KASIMOV and F. F. ZIGMUND, On free flow of thin layers of viscous fluid on a vertical surface, *Inzh.-Fiz. Zh.* 6, No. 11, 70 (1963).
- O. N. KATSKOVA and A. N. KRAIKO, Calculation of plane and axisymmetrical supersonic flows involving irreversible processes, *Zh. Prikl. Mekh. Tekhn. Fiz.* No. 3, 116 (1963).
- YA. S. KHODORKOVSKY, An approximate method for boundary-layer calculation with optimum distributed suction, *Trud. Leningr. Korabstroit. In-ta vyp.* 40, 21 (1962).
- V. S. KHOMESENKO, Temperature variations with elastic strains, *Inzh. Fiz. Zh.* 6, No. 2, 88 (1963).
- P. I. KRISTICHENKO, Transient heat conduction in a hollow cylinder with the known boundary conditions, *Inzh.-Fiz. Zh.* 6, No. 7, 76 (1963).
- A. F. KHRUSTALYEV, On a temperature field of a uniform semi-space, *Inzh.-Fiz. Zh.* 6, No. 7, 126 (1963).
- A. F. KHRUSTALYEV, On one non-stationary heat conduction problem for a cylinder, *Inzh.-Fiz. Zh.* 6, No. 4, 108 (1963).
- A. F. KHRUSTALYEV, On thermal conductivity of an infinite flat wall, *Inzh.-Fiz. Zh.* 6, No. 2, 82 (1963).
- V. YU. KIM, Transient heat conduction in a hollow cylinder with the known boundary conditions, *Inzh.-Fiz. Zh.* 6, No. 7, 66 (1963).
- P. L. KIRILLOV, Limiting values of a heat-transfer coefficient, *Teplofiz. Vysok. Temperatur* 1, No. 1, 102 (1963).
- A. A. KOSHIKIN, Thermal waves in an infinite space with cylindrical cavity, *Zh. Prikl. Mekhan. Tekhnich. Fiz.* No. 1, 138 (1963).
- K. S. KOLESNIKOV, Forced vibrations of ideal liquid flow in a uniform straight tube, *Mekhanika Mashinostroenie* No. 4, 102 (1963).
- P. K. KONAKOV, On energy transfer in a grey medium, *Inzh.-Fiz. Zh.* 6, No. 6, 128 (1963).
- Yu. A. KOROLENKO and G. P. BOIKOV, Exact and approximate solutions of the temperature field equation for a rectangular rod, *Izv. Tomsk. Politekhn. In-ta* 119, 65 (1963).
- Yu. A. KOROLENKO and G. P. BOIKOV, The temperature field in a short cylinder with internal heat release, *Izv. Tomsk. Politekhn. In-ta* 119, 24 (1963).
- L. A. KOZDOBA, Analogue computation of the simultaneous differential heat- and mass-transfer equations on the net-works of ohmical resistances, *Inzh.-Fiz. Zh.* 6, No. 2, 69 (1963).
- L. A. KOZDOBA, Temperature fields in the rotor of a centripetal gas turbine with starting characteristics, *Energomashinostroenie* No. 4, 40 (1963).
- F. K. KOZLOV, On optimum suction of a boundary layer on a porous plate in incompressible liquid, *Inzh.-Fiz. Zh.* 6, No. 10, 88 (1963).
- L. V. KOZLOV, The relation between aerodynamic heating and surface friction, *Izv. Akad. Nauk SSSR. Mekhanika Mashinostr.* No. 4, 108 (1963).
- Yu. P. KRASOVSKY, M. A. LAVRENTIEV et al., Mathematical problems of dynamics of fluid with free boundaries, *Zh. Prikl. Mekh. Tekhn. Fiz.* No. 4, 3 (1963).
- A. L. KRYLOV, Proof of instability of a flow in a viscous non-elastic liquid, *Dokl. Akad. Nauk SSSR* 153, No. 4, 787 (1963).
- I. I. KUDRYASHEV and I. Yu. BERZON, Application of the similarity theory to the process of complex heat transfer *Trud. Kuibyshevsk. Aviats. In-ta vyp.* 15, ch. 1, 205 (1962).
- I. I. KUDRYASHEV and I. Yu. BERZON, The thermal regularity theory in cooling and heating bodies with variable thermal properties, *Trud. Kuibyshevsk. Aviats. In-ta vyp.* 15, p. 1, 199 (1962).
- I. I. KUDRYASHEV and V. M. GOLOVIN, The effect of mechanical energy dissipation on heat transfer in a circular cylindrical tube with a laminar liquid flow, *Trud. Kuibyshevsk. Aviatsion.* In-ta vyp. 15, p. 1, 37 (1962).
- I. I. KUDRYASHEV and V. M. GOLOVIN, Dissipation heating of viscous incompressible liquid in laminar flow in cylindrical circular tube, *Trud. Kuibyshevsk. Aviatsion.* In-ta vyp. 15, p. 1, 27 (1962).

- L. I. KUDRYASHEV and I. A. GUSEV, The effect of non-stationary velocity of an infinite flow on heat-transfer coefficient round a sphere, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 213 (1962).
- L. I. KUDRYASHEV and V. K. LYAKHOV, The dependence of heat-transfer coefficient on the degree of longitudinal and transverse temperature non-uniformity in a turbulent liquid flow under the internal problem conditions, *Inzh.-Fiz. Zh.* **6**, No. 4, 56 (1963).
- L. I. KUDRYASHEV and A. A. SMIRNOV, Transient heat transfer of spherical bodies, *Trud. Aviatsion. In-ta vyp.* **15**, p. 1, 105 (1963).
- L. I. KUDRYASHEV and V. A. TSERERIN, Qualitative determination of the effect of non-stationary conditions on gas dynamic resistance of main gas-lines, *Izv. Vyssh. Ucheb. Zavedenii. Neft' Gaz* No. 6, 85 (1963).
- L. I. KUDRYASHEV and V. P. VESELOV, Simulation of transient heat-conduction in metals with variable thermal properties in convective and radiative heat transfer, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 191 (1962).
- L. I. KUDRYASHEV, V. P. VESELOV and A. V. TEMNIKOV, Analogue computation of heat transfer between solid particles and gaseous heat transfer medium when heat capacity depends on temperature, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 139 (1962).
- L. I. KUDRYASHEV, V. P. VESELOV and A. V. TEMNIKOV, Methods of heat transfer simulation in heat exchangers accounting for variable properties of heat-transfer agents, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 81 (1962).
- L. I. KUDRYASHEV, V. P. VESELOV and A. V. TEMNIKOV, Application of electronic models for investigation of heat exchangers, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 71 (1962).
- L. I. KUDRYASHEV, V. P. VESELOV and A. V. TEMNIKOV, Heat transfer of "thin" bodies in a gas medium by electrical thermal analogy methods, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 133 (1962).
- L. I. KUDRYASHEV and N. F. ROMEIKO, Resistance and heat-transfer coefficients at conditions of constant heat flux in a turbulent gas flow inside circular tubes, *Trud. Kuibyshevsk. Aviatsion. In-ta vyp.* **15**, p. 1, 161 (1962).
- P. P. KULIK, I. G. PANEVIN and V. I. KHVESYUK, Prediction of viscosity, thermal conductivity and Prandtl number for ionized argon, *Teplofiz. Vysok. Temperatur* **1**, No. 1 (1963).
- L. A. KULONEN, Possibility of numerical solution of the laminar boundary layer problem on a semi-infinite body with suction in dissociating gas, *Vestn. Leningr. Un-ta No 1, Ser. Matemat. Mekhan. Astronomiya vyp.* **1**, 148 (1963).
- S. P. KUZNETSOV, The theory of heat and mass transfer in an infinite cylinder, *Izv. Tomsk. Politekn. In-ta* **119**, 28 (1963).
- K. SH. LATYPOV, Some problems of transient two-component viscous fluid flows, *Izv. Akad. Nauk Uz.SSR. Ser. Tekhn. Nauk* No. 6, 24 (1962).
- K. SH. LATYPOV, Some problems of transient two-component flows, *Izv. Akad. Nauk Uz.SSR. Ser. Tekhn. Nauk* No. 4, 42 (1963).
- A. L. LUBNY-GERTSKY and N. A. BOBKOVA, Generalized calculation of efficiency of fins and pins, *Inzh.-Fiz. Zh.* **6**, No. 1, 118 (1963).
- YU. P. LUNKIN and YAN SI-TSIN, The effect of rotation and vibration relaxation on laminar boundary layer on a plate, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 1, 151 (1963).
- V. I. MAKARYAVICHYUS, I. I. ZHYUGZHDA and A. A. ZHUKAUSKAS, Calculation of heat transfer from curvilinear surfaces with a laminar boundary layer, *Trud. Akad. Nauk Lit. SSR. Ser. B* No. 3, 191 (1962).
- V. I. MAKHOVIKOV, A heat-conduction problem for a variable thickness slab, *Izv. Akad. Nauk SSSR. OTN. Energetika Transport* No. 3, 348 (1963).
- V. I. MAKHOVIKOV, Some approximate solutions of a heat-conduction equation and a wave equation for bodies of revolution and slabs, *Inzh.-Fiz. Zh.* **6**, No. 1, 87 (1963).
- I. G. MEEROVICH and G. F. MUCHNIK, A transient temperature field in multi-layer systems, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 291 (1963).
- V. K. MIGAI, The effect of heat transfer non-uniformity over the height of a fin on its efficiency, *Inzh.-Fiz. Zh.* **6**, No. 3, 51 (1963).
- I. R. MIKK, Application of generalized angular coefficients to radiant heat-transfer calculations, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 128 (1963).
- V. F. MIRONOV, Heat and mass transfer in capillary-porous bodies in a pulsing air flow, *Inzh.-Fiz. Zh.* **6**, No. 4, 78 (1963).
- V. P. MOTULEVICH, On evaluation of terms in complete system of boundary-layer equation, *Inzh.-Fiz. Zh.* **6**, No. 5, 68 (1963).
- V. P. MOTULEVICH, Supplementary material to the paper "Turbulent heat and mass transfer on a plate with porous suction and injection of different gases, *Inzh.-Fiz. Zh.* **6**, No. 7, 127 (1963).
- V. P. MOTULEVICH, The effect of porous suction or injection of various substances on heat transfer of blunt bodies in a flow of liquid, *Inzh.-Fiz. Zh.* **6**, No. 4, 9 (1963).
- V. P. MOTULEVICH, Turbulent heat and mass transfer on a plate with porous suction and injection of different gases, *Inzh.-Fiz. Zh.* **6**, No. 1, 3 (1963).
- S. S. MOZHAEV and L. F. SOKIRYANSKY, Calculation methods for diffusion coefficients in two-phase systems, *Inzh.-Fiz. Zh.* **6**, No. 9, 80 (1963).
- G. F. MUCHNIK and I. A. ZAIDENMAN, Non-stationary heat conduction in multilayered media. III. Three and four-layered systems, *Inzh.-Fiz. Zh.* **6**, No. 3, 86 (1963).
- I. V. NEMCHINOV and M. A. TSIKULIN, Estimation of radiant heat transfer for large meteorites moving in the atmosphere with high velocity, *Geomagnetism Aeronomiya* **3**, No. 4, 635 (1963).
- V. KH. NI, Two-dimensional problem of heat and mass transfer, *Inzh.-Fiz. Zh.* **6**, No. 12, 56 (1963).
- N. I. NIKITENKO, An approximate method for calculating a non-temperature field in a moving fluid, *Inzh.-Fiz. Zh.* **6**, No. 8, 52 (1963).
- N. I. NIKITENKO, Numerical solution of a temperature field problem in a moving medium (Contribution to the

- theory of convective heat transfer), *Izv. Vyssh. Ucheb. Zavedenii. Aviatsion. Tekhnika* No. 1, 26 (1963).
- A. A. NIKOLSKY, Motion of monoatomic rarefied gas in a uniformly expanding space, *Dokl. Akad. Nauk SSSR* **153**, No. 3, 543 (1963).
- O. A. OLEINIK, Simultaneous Prandtl equations in the boundary layer theory, *Dokl. Akad. Nauk SSSR* **150**, No. 1, 28 (1963).
- O. A. OLEINIK, Simultaneous equations of the boundary layer theory, *Zh. Vychislit. Matemat. Matematich. Fiz.* **3**, No. 3, 489 (1963).
- A. T. ONUFREY, A model of non-equilibrium processes in some problems of mechanics of continuous media, *Zh. Prikl. Mekh. Tekhnich. Fiz.* No. 1, 47 (1963).
- I. I. PALEEV and A. S. ISSERLIN, Simulation of gas combustion, *Gazov. Prom-st'* No. 10, 15 (1963).
- V. M. PASKONOV and I. P. SOPRUNENKO, A boundary layer on a slightly wavy wall, *Sborn. Rabot Vychislit. Tsentra MGU vyp.* **2**, 117 (1963).
- L. G. PETROSYAN, A solution of the boundary layer equation, *Izv. Akad. Nauk Arm. SSR. Ser. Fiz.-Mat. Nauk* **16**, No. 5, 91 (1963).
- B. S. PETUKHOV and V. N. POPOV, Prediction of heat transfer and friction drag in a turbulent flow of an incompressible liquid with variable physical properties *Teplofiz. Vysok. Temperatur* **1**, 85 (1963).
- B. S. PETUKHOV and L. I. ROIZEN, Heat transfer in circular tubes, *Inzh.-Fiz. Zh.* **6**, No. 3, 3 (1963).
- A. D. PINCHEVSKY, A temperature field in conditions of pulsed change of the temperature, *Inzh.-Fiz. Zh.* **6**, No. 12, 66 (1963).
- YA. S. PODSTRIGACH, A temperature field in the system of solids conjugated by a thin interstitial layer, *Inzh.-Fiz. Zh.* **6**, No. 10, 129 (1963).
- V. M. RAMM and A. YU. ZAKGEM, A theory of mass transfer, *Zh. Prikl. Khimil* **36**, vyp. 9, 2088 (1963).
- A. K. REBROV and N. I. KISLYAKOV, Heat transfer from an infinite flat plate in a free stream of rarefied gas, *Trud. Kazansk. Aviation. In-ta vyp.* **66**, 91 (1961).
- Yu. L. ROZENSHTOK, Dispersion and accidental error in temperature measurement of a local-isotropic turbulent flow, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 5, 132 (1963).
- Yu. L. ROZENSHTOK, The solution of heat-conduction problem with time dependent heat-transfer coefficient, *Zh. Prikl. Mekh. Tekhn. Fiz.* No. 1, 136 (1963).
- Yu. L. ROZENSHTOK, Temperature field of an infinite plate when temperature of surrounding medium and heat-transfer coefficient depend on time, *Inzh.-Fiz. Zh.* **6**, No. 3, 45 (1963).
- L. A. ROZIN, About the boundary layer computation by the dismemberment method, *Vestnik Leningr. Un-ta No. 7 Ser. Matemat., Mekhan. Astronomii vyp.* **2**, 128 (1963).
- N. A. RUBTSOV, On non-stationary radioactive interaction of grey bodies, *Inzh.-Fiz. Zh.* **6**, No. 9, 3 (1963).
- V. V. RUSANOV, Characteristics of general gas dynamics equations, *Zh. Vychislit. Matemat. Matematich. Fiz.* **3**, No. 3, 508 (1963).
- V. B. RYVKIN and N. G. KONDRAшOV, Solution of a problem on temperature field in a cylinder cooled by a liquid flow by the method of separation of variables, *Inzh.-Fiz. Zh.* **6**, No. 5, 92 (1963).
- I. N. SADIKOV, Exact solutions of energy equations for an incompressible viscous liquid flow in tubes, *Inzh.-Fiz. Zh.* **6**, No. 4, 40 (1963).
- I. E. SALNIKOV, Approximate determination of temperature distribution in propagation of temperature waves in liquids for the case of equal temperatures of the upper boundary and lower boundary, *Trud. Gork. In-ta Inzhenerov Vodnogo Transporta vyp.* **46**, 3 (1962).
- Z. B. SAKIPOV and D. ZH. TEMIRBAEV, The relation of turbulent transfer coefficients of momentum and heat in a free turbulent liquid metal stream, *Vest. Akad. Nauk Kaz. SSR* No. 2, 79 (1963).
- A. A. SAMARSKY and I. M. SOBOL, Examples of numerical calculation of temperature waves, *Zh. Vychislit. Matemat. Matematich. Fiz.* **3**, No. 4, 702 (1963).
- Yu. A. SAMOLOVICH, Temperature stresses in a plate and cylinder heated by radiation and convection, *Inzh.-Fiz. Zh.* **6**, No. 8, 59 (1963).
- G. S. SESYUK, Calculation of heating of a semi-infinite wall with constant surface temperature and initial temperature distribution as a first power exponential function, *Izv. Vyssh. Ucheb. Zavedenii. Chyern. Metal-lurgiya* No. 4, 141 (1963).
- R. A. SHIROV, Boundary conditions of unsteady processes in gas systems, *Inzh. Zh.* **2**, vyp. 4, 232 (1962).
- M. E. SHITSMAN, Calculation methods for burnout heat fluxes in forced water motion, *Teploenergetika* No. 8, 76 (1963).
- M. E. SHITSMAN, Worsened regimes of heat transfer with supercritical pressures, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 267 (1963).
- A. A. SHOLOKHOV, Temperature disturbances in a solid body with non-conducting rectangular regions, *Inzh.-Fiz. Zh.* **6**, No. 11, 76 (1963).
- Z. P. SHULMAN and B. M. BERKOVSKY, Similarity problem of a laminar boundary layer on a permeable curvilinear surface, *Inzh.-Fiz. Zh.* **6**, No. 12, 125 (1963).
- A. F. SIDOROV, A compressible liquid flow in a plane channels with movable walls, *Prikl. Matemat. Mekhan.* **27**, vyp. 4, 719 (1963).
- S. S. SILIN, Calculation of temperature fields of moving heat sources, *Inzh.-Fiz. Zh.* **6**, No. 12, 73 (1963).
- V. A. SMIRNOV, Generalized integral relations of free-convection boundary layer, *Trud. Mosk. Tekhnol. In-ta Liegkoi Prom-sti vyp.* **27**, 293 (1963).
- I. D. SOFRONOV, Difference solution of a heat-conduction equation in curvilinear co-ordinates, *Zh. Vychislit. Matemat. Matematich. Fiz.* **3**, No. 4, 786 (1963).
- Yu. A. SOZIN, Heat transfer in pulsing incompressible liquid flow, *Izv. Vyssh. Ucheb. Zavedenii. Aviatsion. Tekhn.* No. 2, 102 (1963).
- A. M. SUPONITSKY, Calculation of thermal diffusion in a laminar viscous fluid flow with moderate values of thermal and diffusion Prandtl numbers, *Zh. Prikl. Mekhan. Tekhnich. Fiz.* No. 5, 48 (1963).
- V. F. SYAGAEV, Numerical calculation method for the problem on conical bodies in a supersonic gas flow, *Zh. Vychislit. Matemat. Matematich. Fiz.* **3**, No. 4, 742 (1963).

- V. V. SYCHEV and N. S. AVANESOVA, Motion of a flat plate with uniform acceleration in a viscous compressible gas flow, *Zh. Vychisl. Matemat. Matematich. Fiz.* **3**, No. 6, 1067 (1963).
- N. G. TAMUROV, Calculation of temperature fields in a three-layer plate with boundary conditions of the second kind, *Sborn. Trud. Dnepropetrovsk. Inzh.-Stroit. In-ta vyp.* **26**, 63 (1962).
- N. G. TAMUROV, Calculation of temperature fields in a two-layer plate with boundary conditions of the second kind, *Sborn. Nauch. Trud. Dnepropetrovsk. Inzh.-Stroit. In-ta vyp.* **26**, 37 (1962).
- N. G. TAMUROV, Equations of non-stationary temperature fields in three-layer plates of axi-symmetric structure, *Inzh.-Fiz. Zh.* **6**, No. 10, 72 (1963).
- A. G. TEMKIN, The phenomenological equation of the transfer process, *Dokl. Akad. Nauk BSSR* **7**, No. 2, 92 (1962).
- E. P. TROFIMOV, The temperature field of an infinite hollow rotating cylinder, *Inzh.-Fiz. Zh.* **6**, No. 7, 83 (1963).
- P. V. TSOI, The solution of the system of equations of molecular transport involving two independent flows of generalized charges, *Dokl. Akad. Nauk Tadzhiksk. SSR* **6**, No. 2, 10 (1963).
- V. V. USANOV, On possible solutions of the equations for thermodynamics of gas flows with heat transfer in a viscous flow, *Inzh.-Fiz. Zh.* **6**, No. 4, 22 (1963).
- A. G. USMANOV and E. M. NAFIKOV, Application of the similarity method to diffusion in gases, *Izv. Vyssh. Ucheb. Zavedenii. Khim. Khim. Tekhn.* **6**, No. 1 (1963).
- A. L. USOV, To an investigation of contact heat transfer on a floor surface, *Inzh.-Fiz. Zh.* **6**, No. 11, 119 (1963).
- V. P. VAKHOMCHIK, Non-uniformity of a plane velocity field, *Inzh. Zh.* **2**, vyp. 4, 279 (1962).
- N. A. YARYSHEV, Determination of average bulk temperature at transient heat-transfer regimes, *Inzh.-Fiz. Zh.* **6**, No. 10, 61 (1963).
- V. I. YUDOVICH, Unsteady flows of an ideal incompressible liquid, *Zh. Vychisl. Matemat. Matematich. Fiz.* **3**, No. 6, 1031 (1963).
- V. I. VANKO, Non-stationary temperature fields in cooled discs, *Zh. Prikl. Mekh. Tekhn. Fiz.* No. 2, 163 (1963).
- T. S. VARZHANSKAYA, E. I. OBROSKOVA and E. N. STAROVA, Boundary layer near the stagnation point, *Sborn. Rabot Vychisl. Tsentr MGU* **2**, 135 (1963).
- K. V. VASILEVSKY, Integral solution of a non-linear heat-conduction problem for a semi-infinite body, *Inzh. Zh.* **3**, vyp. 1, 1651 (1963).
- N. N. VODOPIANOVA and G. P. BOIKOV, Determination of the thermal centre in solids. Communication I, *Izv. Tomsk. Politekhn. In-ta* **119**, 6 (1963).
- I. A. ZAIDENMAN and G. F. MUCHNIK, Transient heat conduction in multilayer media. II. Two-layer systems and determination of the minimum time for heating the system with prescribed conductivity, *Inzh.-Fiz. Zh.* **2**, 75 (1963).
- V. T. ZHAROV and A. G. MORACHEVSKY, Thermodynamic verification of experimental data on liquid-vapour equilibrium. *Zh. Prikl. Khimii* **36**, vyp. 10, 2232 (1963).
- L. I. ZHEMKOV, Application of the generalized theory of thermal regularity to the relation between external and internal heat transfer, *Trud. Kuibyshevsk. Aviatson. In-ta vyp.* **15**, ch. 1, 127 (1962).
- L. M. ZYUSINA-MOLOZHYN, Heat-transfer calculations for two plane surfaces intersecting at a straight angle, *Inzh.-Fiz. Zh.* **6**, No. 5, 34 (1963).

THERMODYNAMICS

- V. F. BAIBUZ, Intermolecular interaction and thermodynamic properties of high temperature gases, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 161 (1963).
- B. P. BERING and V. V. SERPINSKY, Thermodynamical test for the applicability of the potential theory of adsorption, *Dokl. Akad. Nauk SSSR* **148**, No. 6, 1331 (1963).
- V. M. BRODYANSKY, Thermodynamic analysis of the gas liquefaction process, *Inzh.-Fiz. Zh.* **6**, No. 7, 36 (1963).
- V. M. BRODYANSKY and I. P. ISHKIN, A thermodynamic analysis of the processes of gas liquefaction, *Inzh.-Fiz. Zh.* **6**, No. 10, 19 (1963).
- N. N. DROZDIN, Temperature changes of solid inorganic compound entropy, *Zh. Fiz. Khim.* **37**, vyp. 6, 1292 (1963).
- V. A. IGOLINSKY, Application of the thermodynamics of irreversible processes to electrochemical and chemical reactions with several consecutive stages, *Zh. Fiz. Khim.* **37**, No. 10, 2235 (1963).
- N. I. MELNICHENKO, New general formula for saturated vapour pressure of liquids with different chemical compositions, *Inzh.-Fiz. Zh.* **6**, No. 7, 50 (1963).
- E. I. MIKULIN and I. V. MARFENINA, Thermodynamic diagrams of neon and some properties of it, *Inzh.-Fiz. Zh.* **6**, No. 12, 111 (1963).
- A. S. PREDVODITELEV, On critical phenomena of liquids and gases, *Inzh.-Fiz. Zh.* **6**, No. 4, 123 (1963).
- A. S. PREDVODITELEV, On kinematics of motions in rarefied media, *Inzh.-Fiz. Zh.* **6**, No. 9, 87 (1963).
- A. S. PREDVODITELEV, On state equations of carbon monoxide and dioxide, *Inzh.-Fiz. Zh.* **6**, No. 12, 101 (1963).
- A. S. RUBANOV, Thermodynamic description of optimum coding, *Dokl. Akad. Nauk SSSR* **7**, No. 3, 166 (1963).
- A. I. RUSANOV, On the thermodynamics of surface phenomena in monocrystal. II. Fundamental equations and the mean surface tension of the monocrystal, *Vestnik Leningr. Un-ta No. 10 Ser. Fiz. Khim. vyp.* **2**, 73 (1963).
- V. V. RYBAKOV, Thermodynamic properties of steam at high temperatures, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 64 (1963).
- E. V. SAMUILOV, Estimation of thermal properties of high temperature gas mixtures, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 212 (1963).
- V. V. SOKOLOV, L. P. ZHILINA and K. P. MISHCHENKO, Thermodynamics of acetone evaporation at various temperatures, *Zh. Prikl. Khim.* **36**, vyp. 4, 750 (1963).
- SUI TSYA-LUN, V. I. KASHIN et al., Thermodynamic properties of oxygen solutions in melts of Ni-Cr and Ni-Cr-C, *Izv. Akad. Nauk SSSR. Metallurgiya Gornoj Delo* No. 5, 58 (1963).

- M. SUNDARESEN, YA. I. GERASIMOV *et al.*, The study of the thermodynamic properties of iron-platinum alloys, *Zh. Fiz. Khim.* **37**, vyp. 11, 2462 (1963).
- V. V. SYCHEV, Some thermodynamic peculiarities of a triple point, *Inzh. Fiz. Zh.* **6**, No. 7, 124 (1963).
- V. V. SYCHEV, On the anomalous character of the $p-T$ diagram for water at low temperatures, *Inzh.-Fiz. Zh.* **6**, No. 8, 116 (1963).
- G. I. TSOIMAN, State equation of difluorodichloromethane (Freon-12), *Inzh.-Fiz. Zh.* **6**, No. 7, 121 (1963).
- A. A. VASSERMAN, Thermodynamic properties of air up to 1000°C and 1000 bar, *Teploenergetika* No. 11, 81 (1963).
- M. P. VUKALOVICH and V. V. ALTUNIN, Thermal properties of carbon dioxide. I. The second virial coefficient, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 182 (1963).
- TRANSFER PROCESSES INVOLVING PHASE CONVERSIONS**
- I. T. ALADIEV, Heat transfer to liquids boiling in tubes and in pool boiling, *Teploenergetika* No. 4, 57 (1963).
- L. S. BOBE, Heat and mass transfer in condensing vapour mixtures (The example of units for separation of hydrocarbons and natural gases), *Trud. Vsesoyuz. Nauch.-Issled. In-ta Khimich. Mashinostroen.* vyp. **44**, 34 (1963).
- L. S. BOBE and S. N. SEMIKHATOV, Similarity numbers describing heat and mass transfer in condensing binary vapour mixtures, *Trud. Vsesoyuz. Nauch.-Issled. In-ta Khimich. Mashinostroen.* vyp. **44**, 26 (1963).
- S. N. BOGDANOV, Heat transfer of boiling Freon-12 in a horizontal tube, *Kislород. Tekhnika* No. 5, 31 (1963).
- E. L. FEDOTOV, The rate of sublimation of dry ice, *Kholodiln. Tekhnika* No. 3, 28 (1963).
- A. M. GASPARYAN and E. A. MELIKYAN, Some problems of hydrodynamics of two-phase flow with heat transfer, *Zh. Prikl. Khim.* **36**, vyp. 3, 594 (1963).
- L. N. GRIGORIEV, Formation of a new phase with boiling of binary mixtures, *Inzh.-Fiz. Zh.* **6**, No. 8, 66 (1963).
- V. L. IVANOV, Study of heat transfer in a closed duct under natural convection when the heat-transfer fluid state of aggregation is changed, *Izv. Vyssh. Ucheb. Zavedenii. Mashinostroenie* No. 1, 117 (1963).
- A. KAKABAEV, Correlation of some experimental data on heat transfer from condensing vapour inside horizontal tubes, *Izv. Akad. Nauk Turkmen. SSR. Ser. Fiz. Tekhn., Khim. Geolog. Nauk* No. 5, 107 (1963).
- V. M. KAZANSKY, Specific heat of evaporation and potential of moisture transfer in capillary-porous bodies, *Inzh.-Fiz. Zh.* **6**, No. 12, 44 (1963).
- M. KH. KISHINEVSKY and T. S. KORNENKO, Kinetics of mass transfer in systems liquid-liquid, *Zh. Prikl. Khim.* **36**, vyp. 5, 1008 (1963).
- A. R. KONSTANTINOV, Methods for calculation of evaporation by the data of gradient measurements, *Trud. Ukr. Nauch.-Issled. Gidromet. In-ta* vyp. **35**, 84 (1963).
- M. I. KULAKOVA, Transition from gas to liquid with supercritical parameters, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 2, 92 (1963).
- Z. L. MIROPOLSKY, Heat transfer in film boiling of steam-water mixture in steam-generating tubes, *Teploenergetika* No. 5, 49 (1963).
- Z. L. MIROPOLSKY and R. I. SHNEEROVA, Phase composition of steam-water mixture in a heated tube by braking radiation, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 112 (1963).
- I. I. MOROZOV and V. A. MALKOV, The effect of elastic capacities on stability of operation in vapour generating tubes, *Inzh.-Fiz. Zh.* **6**, No. 1, 54 (1963).
- D. A. LABUNTSEV, Approximation heat-transfer theory for developed nucleate boiling, *Izv. Akad. Nauk SSSR OTN. Energetika Transport* No. 1, 58 (1963).
- D. A. LABUNTSEV, Bubble growth mechanism on a heating surface, *Inzh.-Fiz. Zh.* **6**, No. 4, 33 (1963).
- D. A. LABUNTSEV, Calculation of heat transfer in film boiling on vertical heating surfaces, *Teploenergetika* No. 5, 60 (1963).
- V. YU. NEILAND, The effect of radiant heat transfer on material entrainment in the stagnation point of a blunt body, *Inzh. Zh.* **2**, vyp. 4, 227 (1962).
- A. P. ORNATSKY and L. F. GLUSHCHENKO, Hydraulic resistance in surface water boiling in annular ducts, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 260 (1963).
- B. N. OSCHERIN, On calculation of a boiling point, *Inzh.-Fiz. Zh.* **6**, No. 5, 23 (1963).
- M. I. PAVLISHCHEV, Contribution to the boiling theory, *Trud. Kishinevsk. Politekhnich. In-ta* **37**, 173 (1962).
- B. S. PETUKHOV and S. A. KOVALEV, Burnout heat fluxes in boiling liquid, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 4, 81 (1963).
- Yu. E. POKHVALOV, I. V. KRONIN and I. V. KURGANOV, Heat transfer from sub-cooled boiling water in tubes, *Teploenergetika* No. 11, 74 (1963).
- N. G. RASSOKHIN, MA TSAN-VEN and V. N. MELNIKOV, Heat transfer from surface boiling water in narrow annular slots, *Teploenergetika* No. 5, 56 (1963).
- G. V. RATIANI and D. I. AVALIANI, Heat transfer in boiling Freon-12 and Freon-22, *Kholodiln. Tekhnika* No. 1, 40 (1963).
- V. A. ROBIN, Some problems of heat transfer in nucleate boiling of burning liquids, *Trud. Leningr. In-ta Kinozhenerov* vyp. **9**, 109 (1963).
- R. A. RYBIN, The study of the effect of the tube diameter on a heat critical load with water boiling, *Inzh.-Fiz. Zh.* **6**, No. 2, 15 (1963).
- E. M. SHAKHOB, Onset of the constant fusion rate of semi-infinite solid, *Inzh.-Zh.* **2**, vyp. 4, 237 (1962).
- K. P. SHUMSKY and I. S. MAKSIMOVSKAYA, Heat and mass transfer in vacuum evaporation, *Trud. Vsesoyuz. Nauch.-Issled. Konstrukt. In-ta Khimich. Mashinostroeniya* vyp. **44**, 67 (1963).
- V. P. TROFIMOV and B. I. TIMCHUK, Heat transfer in molten metals with phase conversions under natural convection, *Inzh.-Fiz. Zh.* **6**, No. 5, 29 (1963).
- I. P. VISHNEV and N. K. ELUKHIN, The effect of vapour content on heat transfer from boiling oxygen in tubes, *Trud. VNII Kislородного Mashinostroen.* vyp. **6**, 44 (1963).
- V. K. ZAVORSKY, Density changes to boiling liquid heated throughout its volume in presence of power pulse, *Atomn. Energiya* **15**, vyp. 2, 164 (1963).

- V. T. ZHAROV and A. G. MORACHEVSKY, Liquid-vapour equilibrium in the system ethyl alcohol-benzol and thermodynamic verification of the data, *Zh. Prikl. Khim.* **36**, vyp. 1, 2397 (1963).
- V. I. ZUBKOV, The role of diffusivities and evaporation heat of an evaporating naphthalene sphere (Paper presented at 2nd All-Union Conference of Representatives of Higher-Educational Institutions on Gas Dynamics, Evaporation and Combustion of Dispersed Materials. Sept. 1960), *Trud. Odessk. Un-ta* **152**, Ser. Fiz. Nauk. vyp. 8, 73 (1962).

TRANSFER PROCESSES INVOLVING CHEMICAL CONVERSIONS

- A. A. ABRAMZON and M. V. OSTROVSKY, Mass-transfer rate with chemical reaction in heterogeneous systems liquid-liquid, *Zh. Prikl. Khim.* **36**, vyp. 3, 608 (1963).
- V. E. ANISIMOV, V. I. BLINOV and V. CH. REUTT, On the relation between a liquid combustion rate and its surface temperature, *Inzh.-Fiz. Zh.* **6**, No. 8, 45 (1963).
- KH. F. AZIZOV and M. N. NABIEV, Some factors effecting the transfer coefficient in ion exchange, *Uzbeksk. Khim. Zh.* No. 5, 5 (1963).
- V. K. BOBOLEV, A. P. GLAZKOVA *et al.*, Temperature distribution in ammonium perchlorate when drying, *Dokl. Akad. Nauk SSSR* **151**, No. 3, 604 (1963).
- B. A. CHERTKOV, Mass-transfer coefficients in absorption of sulphur dioxide from gases by solutions of magnesium sulphite-bisulphite, *Khim. Prom-st'* No. 7, 57 (1963).
- O. N. DUBROVSKAYA, K. P. VLASOV and N. N. INOZEMTSEV, Structure of a turbulent flame, *Izv. Akad. Nauk SSSR. OTN. Energetika Transport* No. 2, 214 (1963).
- V. A. FEDOSEEV and D. I. POLISHCHUK, Some peculiarities of a liquid fuel droplet combustion (Paper presented at the 2nd All-Union Conference of Representatives of Higher-Educational Institutions on Gas Dynamics, Evaporation and Combustion of Dispersed Materials. Sept. 1960), *Trud. Odessk. Un-ta* **152**, Ser. Fiz. Nauk. vyp. 8, 18 (1962).
- V. A. FROST, Asymptotic properties of a turbulent flame, *Trud. Mosk. Fiz.-Tekhn. In-ta* vyp. 9, 3 (1962).
- A. P. GLAZKOVA, The effect of pressure on the combustion rate of ammonium perchlorate, *Zh. Prikl. Mekh. Tekhn. Fiz.* No. 5, 121 (1963).
- S. A. GOLDENBERG and V. N. LEVLEV, The effect of turbulence in a combustible gas mixture flow on ignition, *Izv. Akad. Nauk SSSR. Mekhanika Mashinostroenie* No. 4, 112 (1963).
- I. G. GUREVICH and V. S. BAGOTSKY, Operation of liquid porous electrodes under forced reagent supply conditions, *Inzh.-Fiz. Zh.* **6**, No. 5, 75 (1963).
- I. G. GUREVICH and V. S. BAGOTSKY, Operation of porous electrodes with diffusion supply of reagents, *Inzh.-Fiz. Zh.* **6**, No. 2, 60 (1963).
- I. G. GUREVICH and V. S. BAGOTSKY, Utilization of efficiency of porous electrodes under the conditions of diffusion supply of reagent, *Inzh.-Fiz. Zh.* **6**, No. 3, 69 (1963).
- E. A. KAIMAKOV, Determination of temperature dependence of transfer numbers in aqueous solutions of lithium chloride, *Zh. Prikl. Khim.* **36**, vyp. 10, 2320 (1963).
- S. A. KAGANOV, The steady-state theory of thermal inflammation, *Zh. Prikl. Mekhan. Tekhnich. Fiz.* No. 1, 133 (1963).
- P. M. KESSELMAN and A. G. TABACHNIKOV, On determination of equilibrium constant of the ammonia dissociation reaction over a wide range of temperatures and pressures II, *Inzh.-Fiz. Zh.* **6**, No. 8, 78 (1963).
- L. N. KHITRIN, Diffusion processes and characteristics of gas mixture ignition by an incandescent body, *Inzh.-Fiz. Zh.* **6**, No. 1, 19 (1963).
- L. N. KHITRIN and L. L. KOTOVA, Constants of burning of brown coal, *Inzh.-Fiz. Zh.* **6**, No. 3, 58 (1963).
- M. KH. KISHINEVSKY and A. S. ARMASH, The mass-transfer mechanism between gas and liquid stirred in a vessel, *Zh. Prikl. Khim.* **36**, vyp. 2, 308 (1963).
- V. G. KNORRE and G. I. KOZLOV, Study of kinetics of ethane pyrolysis in a single-pulse shock tube, *Inzh.-Fiz. Zh.* **6**, No. 2, 109 (1963).
- L. I. KUDRYASHEV and R. N. KITOV, A reduced heat-transfer coefficient for an external problem involving chemical transformations (klinker materials), *Trud. Golovnogo Nauch.-Issled. In-ta Tsementnogo Mashinostr.* vyp. 2, 49 (1963).
- S. E. KUPRIYANOV, N. N. TUNITSKY and A. A. PEROV, Investigation of D_{+2} ions dissociation by the collision with molecules which energy is 35–100 keV, *Zh. Tekhn. Fiz.* **33**, vyp. 10, 1252 (1963).
- A. D. LIKHACHYEV, Combustion of a gas in a vortex combustion chamber, *Gazov. Prom-st'* No. 10, 10 (1963).
- P. G. MASLOV and YU. P. MASLOV, Determination of combustion and evaporation heats of benzol derivatives, *Khim. Prom-st'* No. 8, 34 (1963).
- A. G. MERZHANOV and A. K. FILONENKO, Thermal self-inflammation of a homogeneous gaseous mixture in a flow, *Dokl. AN SSSR* **152**, No. 1, 143 (1963).
- A. L. MOSSE and L. N. KHITRIN, A study of carbon particles in a flow in a high-temperature region, *Inzh.-Fiz. Zh.* **6**, No. 8, 15 (1963).
- P. F. POKHIL and V. M. MALTSEV, On the combustion mechanism of powders, *Inzh.-Fiz. Zh.* **6**, No. 6, 94 (1963).
- A. G. POPOV, Peculiarities of porous coal combustion, *Izv. Akad. Nauk SSSR, OTN. Energetika Transport* No. 1, 78 (1963).
- I. S. REVZIN and L. N. KHITRIN, An investigation into high temperature reduction of a carbon dioxide gas in a pulverized coke flow, *Inzh.-Fiz. Zh.* **6**, No. 10, 76 (1963).
- YU. A. SHCHERBINA and G. I. GORBUNOV, Aerodynamic resistance of burning spherical particles, *Trud. Mosk. Fiz.-Tekhn. In-ta* vyp. 9, 9 (1962).
- R. I. SOLOUKHIN, Shock wave refraction on the flame front, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 4, 40 (1963).
- I. I. SPOLNIK and M. A. LYULYUK, Analysis of natural gas combustion products by chromatography method, *Trud. Vsesoyuzn. In-ta po Proektirovaniyu Nauch.-Issled. Rabotam "Yuzhgiprotsement"* vyp. 5, 86 (1963).

- F. G. TAGI-ZADE, Calculation of calorimetric combustion temperature, *Sborn. Nauch.-Issled. In-ta San. Tekhniki Akad. Stroit-va i Arkhitektury SSSR* No. 13, 184 (1962).
- F. G. TAGI-ZADE, A simplified method of calculation of gaseous fuel combustion, *Sborn. Nauch.-Issled. In-ta San. Tekhn. Akad. Stroit-va Arkhitektury* No. 13, 171 (1962).
- A. V. TALANOV, A combustion mechanism in a turbulent uniform-mixture flow, *Izv. Vyssh. Ucheb. Zavedenii. Aviatsion. Tekhnika* No. 3, 92 (1963).
- G. A. VARSHAVSKY and L. G. PESCHANSKAYA, Combustion of single droplets of some hydrocarbon fuels (Paper presented at 2nd All-Union Conference of Representatives of Higher-Educational Institutions on Gas Dynamics, Evaporation and Combustion of Dispersed Materials. Sept. 1960), *Trud. Odessk. Un-ta 152, Ser. Fiz. Nauk vyp. 8, 5* (1962).
- S. G. ZAITSEV and R. I. SOLOUKHIN, Inflammation of adiabatically heated gas mixture (Paper presented at 2nd All-Union Conference of Representative of Higher-Educational Institutions on Gas Dynamics, Evaporation and Combustion of Dispersed Materials. Sept. 1960), *Trud. Odessk. Un-ta 152, Ser. Fiz. Nauk vyp. 8, 30* (1962).
- YA. B. ZELDOVICH, Stability of powder combustion in a semi-closed volume, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 1, 67 (1963).
- A. A. ZENIN, Heat transfer of microthermocouples in combustion of condensed materials, *Zh. Prikl. Mekhaniki Tekhn. Fiz.* No. 5, 125 (1963).
- TRANSFER PROCESSES INVOLVING VERY HIGH VELOCITIES**
- V. V. ADUSHKIN and I. V. NEMCHINOV, Approximate determination of gas parameters behind the shock wave front from the front motion law, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 4, 58 (1963).
- ZH. E. BAGDASARYAN, Stability of anisotropic cylindrical shell in supersonic gas flow, *Izv. Akad. Nauk. Arm. SSR. Ser. Fiz.-Mat. Nauk* **15**, No. 6, 3 (1962).
- V. M. BORISOV, The optimum shape of bodies in a supersonic gas flow, *Zh. Vychisl. Matemat. Matematich. Fiz.* **3**, No. 4, 788 (1963).
- E. S. BOROVIK, F. I. BUSOL *et al.*, Investigation of the supersonic carbon dioxide jet as a target for charge exchange of ions, *Zh. Tekhn. Fiz.* **33**, vyp. 8, 973 (1963).
- G. G. CHYERNY, Analogy with explosion of hypersonic flow round a thin blunt body, *Dokl. Akad. Nauk SSSR* **151**, No. 2, 302 (1963).
- D. V. FEDOSEEV and S. V. SHTEIMAN, On flow with friction and heat transfer in a conical nozzle, *Inzh.-Fiz. Zh.* **6**, No. 8, 41 (1963).
- A. S. GINEVSKY, Turbulent jet flows with back liquid currents, *Promyshl. Aerodinamika* vyp. **23**, 80 (1962).
- A. S. GINEVSKY, Turbulent non-isothermal jet flows of compressible gas, *Promyshl. Aerodinamika* vyp. **23**, 11 (1962).
- G. L. GRODZOVSKY, Outflow of free turbulent jet into a moving medium, *Promyshl. Aerodinamika* vyp. **23**, 119 (1962).
- G. L. GRODZOVSKY, Supersonic flow around a plane grid and perforated wall with subsonic axial velocity component, *Izv. Akad. Nauk SSSR. Mekhanika Mashinostroen.* No. 4, 115 (1963).
- A. A. GUKHMAN, A. F. GANDELMAN *et al.*, Peculiarities of supersonic flows immediately adjoining the transonic region, *Inzh.-Fiz. Zh.* **6**, No. 6, 37 (1963).
- G. L. GRODZOVSKY, YU. E. KUZNETSOV and M. V. TOKAREV, Approximate method of axi-symmetric supersonic flow calculation, *Promyshl. Aerodinamika* vyp. **24**, 152 (1962).
- L. V. KOZLOV, Experimental study of skin friction on a flat plate in a supersonic flow with heat transfer, *Izv. Akad. Nauk SSSR, OTN. Mekhanika Mashinostroen.* No. 2, 11 (1963).
- M. D. LADYZHENSKY, Thin bodies in a viscous hypersonic flow, *Prikl. Matemat. Mekhan.* **27**, vyp. 5, 765 (1963).
- D. A. MELNIKOV, A flat triangular plate in a supersonic flow, *Izv. Akad. Nauk SSSR, OTN. Mekhan. Mashinostroen.* No. 6, 33 (1962).
- I. N. NAUMOVA, Calculation of supersonic equilibrium air flows, *Zh. Vychisl. Matemat. i Matematich. Fiz.* **3**, vyp. 5, 964 (1963).
- G. I. NAZAROV, An approximate solution on a supersonic ideal gas flow, *Trud. Tomsk. Un-ta* **163**, 133 (1963).
- G. I. NAZAROV, Precise analytical solution of a plane supersonic gas flow equation, *Trud. Tomsk. Un-ta* **163**, 115 (1963).
- L. YA. NESGOVOROV and V. I. PROSVIRIN, Destruction of heated metals and alloys in an air supersonic flow, *Inzh.-Fiz. Zh.* **6**, No. 2, 44 (1963).
- A. A. NIKOLSKY, Three-dimensional homogeneous expansion and compression of a rarefied gas with three power functions of interaction, *Dokl. Akad. Nauk SSSR* **151**, No. 3, 522 (1963).
- M. P. OVSYANNIKOV, External drag of ducted bodies with an elliptical cone and with inlet supersonic speeds, *Inzh.-Fiz. Zh.* **6**, No. 8, 92 (1963).
- YU. A. POLYAKOV and E. A. MITKINA, A contribution to the study of heat transfer on the wall of a shock tube (Paper presented at 2nd All-Union Conference of Representatives of Higher-Educational Institutions on Gas Dynamics, Evaporation and Combustion of Dispersed Materials. Sept. 1960), *Trud. Odessk. Un-ta 152, Ser. Fiz. Nauk vyp. 8, 82* (1962).
- M. P. RYABOKON, Linearized supersonic flows in Laval nozzles, *Prikl. Matemat. Mekh.* **27**, vyp. 4, 714 (1963).
- V. YA. SHKADOV, Boundary layer with pressure gradient in a compressible liquid flow, *Izv. Akad. Nauk SSSR, OTN. Mekhan. Mashinostroenie* No. 2, 28 (1963).
- T. G. VOLKONSKAYA, Calculation of supersonic axisymmetrical jets, *Sborn. Rabot Vychislit. Tsentral MGU* vyp. **2**, 76 (1963).
- M. S. VOLYNSKY, Atomization of liquid in a supersonic flow, *Izv. Akad. Nauk SSSR, OTN. Mekhan. Mashinostroen.* No. 2, 20 (1963).
- DRYING PROCESSES**
- A. P. ALYESHIN, Combination of grinding and drying of milling peat in a pit mill, *Torf. Prom-st' No. 8, 26* (1963).

- S. A. AMIROVA, V. V. PECHKOVSKY and M. P. DERENDYAEVA, Drying and oxidizing roasting of granulated vanadium slag in a laboratory furnace with a fluidized bed, *Izv. Vyssh. Ucheb. Zavedenii. Khim. Khim. Tekhn.* **6**, No. 4, 625 (1963).
- A. M. BABAK, V. M. SOBOLEV *et al.*, Choice of a drying method for synthetic rubbers, *Trud. Vsesoyuznogo Nauch.-Issled. Kostrukt. In-ta Khim. Mashinostroeniya* vyp. **44**, 97 (1963).
- A. M. BABAK, V. M. SOBOLEV *et al.*, Experience of drying synthetic materials in a fluidized bed, *Trud. Vsesoyuzn. Nauch.-Issled. Kostrukt. In-ta Khim. Mashinostroeniya* vyp. **44**, 88 (1963).
- M. I. BEILIN, A. V. KHADZHIQLO *et al.*, Drying of coal sludges in a fluidized bed, *Koks Khim.* No. 11, 18 (1963).
- I. G. BESPALOV, S. B. GORANINA and N. M. PLOTNIKOVA, Experience of application of fluidized-bed type dryers to chemical industry, *Trud. Vsesoyuz. Nauch.-Issled. i Kostrukt. In-ta Khim. Mashinostroeniya* vyp. **44**, 101 (1963).
- Yu. A. BERMAN, Drying kinetics of material pieces in a moving bed, *Inzh.-Fiz. Zh.* **6**, No. 6, 106 (1963).
- S. A. BLOKH, High-rate drying of pottery, *Steklo Keramika* No. 7, 26 (1963).
- Ya. S. BOLOTIN, Drying of coal at concentrating mills, *Ugol Ukrainsk* No. 9, 42 (1963).
- O. A. BUNIN, Mass transfer in convective drying of cloth with nozzle blast, *Inzh.-Fiz. Zh.* **6**, No. 1, 34 (1963).
- N. V. CHURAEV, The mechanism of water transfer in capillary-porous bodies, *Dokl. Akad. Nauk SSSR*, **148**, No. 6, 1361 (1963).
- N. V. CHURAEV, The study of a moisture transfer mechanism with drying of colloidal capillary-porous bodies, *Inzh.-Fiz. Zh.* **6**, No. 2, 31 (1963).
- I. I. GELPERIN and A. M. KOGAN, The effect of granular material thermal conductivity on heat transfer of bypassing gases, *Khim. Prom-st'* No. 2, 52 (1963).
- N. I. GELPERIN, M. K. DUBININ and O. I. PODGAETSKAYA, Researches of continuous drying of loose polymers in a fluidized bed and in suspension, *Khim. Prom-st'* No. 10, 50 (1963).
- A. S. GINZBURG and V. P. DUBROVSKY, Determination of the moisture diffusion coefficient in grain materials, *Inzh.-Fiz. Zh.* **6**, No. 10, 27 (1963).
- V. D. GVOZDEV, V. M. SVYATOV and T. A. KRASOTKINA, Drying of thin fibre sheets in a fluidized bed of granular inert material, *Izv. Vyssh. Ucheb. Zavedenii. Khim. Khimich. Tekhnologiya* **5**, No. 5, 832 (1963).
- V. I. KASPER, Study of heat and mass transfer process in a tube of a pneumatic gas drier, *Inzh.-Fiz. Zh.* **6**, No. 12, 15 (1963).
- V. M. KAZANSKY, Diagrams of drying energy for analysis of moisture binding with cement stone, *Inzh.-Fiz. Zh.* **6**, No. 1, 97 (1963).
- P. I. KHRANILOV, Estimation of economic performance of driers, *Izv. Vyssh. Ucheb. Zavedenii. Tekhnol. Tekst. Prom-sti* No. 4, 116 (1963).
- B. N. KIREVSKY, Aerodynamics of a fluidized bed in drying of food-stuffs, *Izv. Vyssh. Ucheb. Zavedenii. Pishchevaya Prom-st'* No. 6, 109 (1962).
- L. S. KLYACHKO, Heat and mass transfer in industrial ventilation and drying engineering, *Sborn. Trud. VNIIGidrotekhn. San.-Tekhn. Rabot* No. 18, 129 (1963).
- Yu. P. KUROCHKIN, Efficiency increase of tube vapour driers, *Teploenergetika* No. 5, 52 (1963).
- V. E. KUTSAKOVA, P. G. ROMANKOV and N. B. RASHKOVSKAYA, Some kinetic regularities of fluidized bed drying, *Zh. Prikl. Khim.* **36**, vyp. 10, 2217 (1963).
- Ya. M. LEMLEKH, A portable gas drier for large moulds, *Liteinoe Proizvodstvo* No. 4, 44 (1963).
- L. R. LEPAWSKY, Peculiarities of automatic drying of some capillary-porous colloid materials, *Mekhanizats. Avtomatizats. Proizvodstva* No. 12, 11 (1962).
- A. I. LYUBOSHITS, Deep drying of potatoes, *Trud. Belorussk. Nauch.-Issled. In-ta Prom-sti Prodov. Tovarov* vyp. **5**, 238 (1962).
- Yu. A. MIKHAILOV and R. M. BORNKOVA, Heat and mass transfer with constant velocity of drying, *Inzh.-Fiz. Zh.* **6**, No. 45 (1963).
- A. A. MORILOV, G. K. RUBTSOV and N. I. SYROMYATNIKOV, A method for salt drying in gas flows with recycling the material, *Izv. Vyssh. Ucheb. Zavedenii. Khim. Khimich. Tekhnologiya* **6**, No. 1, 160 (1963).
- L. M. NIKITINA, Chemical potential of mass transfer in capillary-bound moisture, *Inzh.-Fiz. Zh.* **6**, No. 12, 40 (1963).
- L. M. NIKITINA, On determination of mass-transfer potential, *Inzh.-Fiz. Zh.* **6**, No. 4, 67 (1963).
- L. M. NIKITINA, On determination of the transfer potential of osmotic moisture, *Inzh.-Fiz. Zh.* **6**, No. 11, 52 (1963).
- L. N. NIKITINA, The question of determination of adsorptionally bound moisture in a monomolecular layer, *Dokl. Akad. Nauk BSSR* **7**, No. 5, 324 (1963).
- A. E. PASS, The method for determination of hydro-thermal equilibrium of some hygroscopic substances, *Inzh.-Fiz. Zh.* **6**, No. 10, 53 (1963).
- G. D. RABINOVICH, On the mechanism of radiative drying of varnishes, *Inzh.-Fiz. Zh.* **6**, No. 10, 40 (1963).
- Z. M. RIZOV, O. M. TODES and A. P. MAKAROVA, Drying of a moist charge by hot and cold air, *Inzh.-Fiz. Zh.* **6**, No. 9, 10 (1963).
- B. S. SAZHIN and Yu. A. MIKLIN, Calculation of duration of drying of past-like materials under ribbon-dryer conditions, *Inzh.-Fiz. Zh.* **6**, No. 10, 57 (1963).
- B. S. SAZHIN and Yu. A. MIKLIN, Drying of chemical products in air-spouting driers, *Zh. Vsesoyuzn. Khim. O-va im. Mendeleeva* **7**, No. 6, 704 (1962).
- B. S. SAZHIN and O. A. TROSHKIN, Internal mass transfer in drying of pasty materials, *Zh. Prikl. Khim.* **36**, vyp. 7 (1963).
- V. A. SHEIMAN, Experimental study of a drying process of fluidized materials, *Inzh.-Fiz. Zh.* **6**, No. 5, 63 (1963).
- V. A. SHEIMAN, On the design of pressure operated dryers, *Inzh.-Fiz. Zh.* **6**, No. 4, 61 (1963).
- V. A. SHEIMAN and V. I. KASPER, On motion of material in a vertical gas flow, *Inzh.-Fiz. Zh.* **6**, No. 3, 63 (1963).
- B. M. SMOLSKY, Power-current heat treatment of materials, *Inzh.-Fiz. Zh.* **6**, No. 8, 120 (1963).
- M. D. VARTANYAN, E. P. PANKOV and N. S. SIVOLGIN, An effective method for grape drying, *Vinodelie Vinogradarstvo SSSR* No. 7, 47 (1963).

- THERMAL PROPERTIES OF VARIOUS MATERIALS, HEAT TRANSFER AGENTS AND THEIR DETERMINATION METHODS**
- G. B. ABDULLAEV, G. M. ALIEV and KH. G. BARKINKHOEV, Thermal conductivity of selenium, *Fiz. Tverd. Tela* 5, vyp. 12, 3614 (1963).
- N. I. AGAPOVA, B. L. PASKAR and L. P. FOKIN, Calculation of thermodynamic properties of cesium vapours to temperature 1500°K and pressure 22 bar, *Atomn. Energiya* 15, vyp. 4, 292 (1963).
- M. P. ALEKSEENKO, Thermal conductivity, thermal diffusivity and specific heat capacity of optical materials, *Optiko-Mekhan. Prom-st'* No. 10, 11 (1962).
- M. I. ALIEV and A. YU. DZHANGIROV, Thermal conductivity of InSb-In₂Tes alloys, *Fiz. Tverd. Tela* 5, vyp. 11, 3338 (1963).
- V. V. ALTUNIN, Method for calculation of thermal properties of real gaseous mixtures from limited number of initial experimental data, *Teploenergetika* No. 4, 78 (1963).
- S. S. ALTYNBAEVA, Check of some equations relating thermal conductivity with other properties of a liquid, *Inzh.-Fiz. Zh.* 6, No. 11, 65 (1963).
- KH. I. AMIRKHANOV and A. P. ADAMOV, Thermal conductivity of steam in sub-critical and supercritical states, *Teploenergetika* No. 10, 69 (1963).
- KH. I. AMIRKHANOV and A. P. ADAMOV, Thermal conductivity of carbon dioxide along the boundary curve and in the critical region, *Teploenergetika* No. 7, 77 (1963).
- KH. I. AMIRKHANOV and A. M. KERIMOV, Experimental study of heat-capacity of water and steam with supercritical state parameters, *Teploenergetika* No. 9, 61 (1963).
- KH. I. AMIRKHANOV and A. M. KERIMOV, Study of heat capacity at constant volume of water and steam by a direct method along the saturation line including the critical point, *Teploenergetika* No. 8, 64 (1963).
- KH. I. AMIRKHANOV and A. M. KERIMOV, Heat capacity of a constant volume of water and steam in single and two-phase regions adjacent to a boundary curve including critical point, *Dokl. Akad. Nauk SSSR* 151, No. 5, 1064 (1963).
- KH. I. AMIRKHANOV and A. M. KERIMOV, The specific heat of water and steam at supercritical state constants, *Dokl. Akad. Nauk SSSR* 153, No. 3, 581 (1963).
- P. G. AVARBE and S. S. NIKOLSKY, Conservation of constant composition of binary alloys evaporating into vacuum from the open surface, *Teplofiz. Vysok. Temperatur* 1, No. 1, 39 (1963).
- V. F. BAIBUZ, Critical constants of substances with high boiling temperatures, *Sborn. Trud. In-ta Prikl. Khim.* vyp. 49, 113 (1962).
- YU. P. BARSKY, Determination of heat capacity and thermal effects by thermal analysis, *Trud. Nauch.-Issled. In-ta Stroit. Keramiki* vyp. 20, 99 (1962).
- G. M. BARTENEV, YU. A. GORBATKINA and I. A. LUKINOV, Thermal properties and measurement methods of thermal expansion, heat capacity and thermal conductivity of polymers, *Plast. Massy* No. 1, 56 (1963).
- YA. M. BEKKER, Bridge method for determination of thermal conductivity, *Trud. Leningr. Khim.-Farmats. In-ta* vyp. 14, 242 (1962).
- N. N. BEREZHNOI, Determination of thermal diffusivity of pellets, *Inzh.-Fiz. Zh.* 6, No. 12, 35 (1963).
- D. V. BURDIN, V. D. SUCHKOV and Yu. G. YAROSHENKO, Quick determination of thermal diffusivity and thermal conductivity of refractory materials, *Ogneupory* No. 5, 199 (1963).
- A. V. BULYGA and A. G. SHASHKOV, Semi-conductor vacuum-gauge, *Inzh.-Fiz. Zh.* 6, No. 12, 95 (1963).
- Yu. V. CHEKHOVSKY, V. M. KAZANSKY and B. E. LEIRIKH, Pore structure and kinds of moisture bonding in cement stone, *Inzh.-Fiz. Zh.* 6, No. 5, 50 (1963).
- E. D. DEVYATKOVA and I. A. SMIRNOV, Thermal conductivity of strained NaCl monocrystals, *Fiz. Tverd. Tela* 5, vyp. 7, 2032 (1963).
- I. G. DUDEKOV and D. N. POLUBOYARINOV, The effect of porosity and structure of corundum refractories on their thermal conductivities, *Ogneupory* No. 11, 518 (1963).
- G. V. EVSEEEVA and A. M. EVSEEV, Thermodynamic properties of manganese-copper alloys, *Zh. Fiz. Khim.* 37, vyp. 6, 1411 (1963).
- L. A. FOMENKO, V. A. SHCHELKOTUNOV and V. L. SOCHIVKO, Ni-Zn ferrite thermal conductivity at 20–400°C, *Fiz. Tverd. Tela* 5, vyp. 3, 874 (1963).
- I. F. GOLUBEV, Bicalorimeter for determination of liquid and gas thermal conductivities at high pressures and various temperatures, *Teploenergetika* No. 12, 78 (1963).
- YU. M. GOLUTVIN, T. M. KOZLOVSKAYA and E. G. MASLENNIKOVA, Heat of formation and heat capacities in the system manganese-silicon, *Zh. Fiz. Khim.* 37, vyp. 6, 1362 (1963).
- G. A. GRIGORIEV and B. S. BOKSHTEIN, Determination of metal diffusivity by electrical transfer method, *Zav. Laborator.* No. 4, 446 (1963).
- A. V. IOFFE, The dependence of crystal lattice thermal conductivity on degree of ionicity of a compound, *Fiz. Tverd. Tela* 5, vyp. 11, 3336 (1963).
- A. V. IOFFE, V. G. KUZNETSOV and K. K. PALKINA, Thermal conductivity and the value of Z-effectiveness in solid solution of systems Bi₂Se₃–Sb₂Te₃ and Bi₂Te₃–Sb₂Se₃, *Zh. Neorg. Khim.* 8, vyp. 9, 2132 (1963).
- M. A. KAGAHOV and I. S. LISKEV, On the effect of contact temperature meters upon the accuracy of determination of thermal properties, *Inzh.-Fiz. Zh.* 6, No. 9, 27 (1963).
- V. M. KAZANSKY, Specific heat of moisture evaporation from capillaries of a disperse body, *Inzh.-Fiz. Zh.* 6, No. 11, 56 (1963).
- YA. Z. KAZAVCHINSKY, Determination of properties of badly investigated materials using thermodynamic analogy, *Inzh.-Fiz. Zh.* 6, No. 1, 27 (1963).
- P. M. KESSELMAN, State equation and thermodynamic properties of oxygen, *Inzh.-Fiz. Zh.* 6, No. 6, 61 (1963).
- P. M. KESSELMAN and V. A. RABINOVICH, Thermodynamic properties of dissociated hydrogen and oxygen, *Inzh.-Fiz. Zh.* 6, No. 7, 43 (1963).
- A. G. KHARLAMOV, Heat conductivity of BeO for temperature range of 1000–2000°C, *Atomn. Energiya* 15, vyp. 6, 517 (1963).

- B. A. KHRUSTALYEV, I. P. KOLCHENOGOVA and A. M. RAKOV, Spectral radiation factors of tantalum, molybdenum, niobium, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 17 (1963).
- V. A. KIREEV, Thermodynamic parameters of chemical reactions and phase transitions for equal equilibrium constants, *Zh. Fiz. Khim.* **37**, vyp. 6, 1381 (1963).
- V. A. KIRILLIN, Researches in the field of high-temperature heat physics, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 3 (1963).
- V. A. KIRILLIN, A. E. SHEINDLIN *et al.*, Thermodynamic properties of tungsten in the temperature range 0–3500°K, *Zh. Fiz. Khim.* **37**, vyp. 10, 2249 (1963).
- A. V. KOGAN, V. D. KULKOV *et al.*, Measurement of nuclear heat capacity of alloys consisting of iridium, rhenium and iron, *Zh. Eksp. Teoretich. Fiz.* **45**, vyp. 2 (8), 1 (1963).
- V. P. KOLESOV, The Second All-Union Conference on Calorimetry, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 323 (1963).
- A. KOMAREK and B. K. STRIGIN, Determination of stainless steel emissivity with various finishes of the surface and with various surface temperatures, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 30 (1963).
- S. M. KOTLYAR, On heat conduction of a two-layer system, *Inzh.-Fiz. Zh.* **6**, No. 8, 37 (1963).
- O. A. KRAEV and A. A. STELMAKH, Thermal diffusivity of tungsten over the temperature range from 1600 to 2960°C, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 8 (1963).
- YA. A. KRAFTMAKHER, Heat capacity of tantalum over the temperature range from 1200 to 2900°K, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 2, 158 (1963).
- E. M. KRAVCHUK, Measurement of thermal coefficients by the absolute method of the third kind regular thermal regime with compensation of irregular process, *Inzh.-Fiz. Zh.* **6**, No. 7, 3 (1963).
- L. A. KUZINA, Reflection factor and temperature conditions of some roofing materials, *Promyshl. Stoit-vo* No. 3, 48 (1963).
- V. I. LAKH, B. I. STADNYKH and YU. B. KUZMA, Thermo-electrical stability of thermocouples made of some tungsten-rhenium alloys at high temperatures, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 299 (1963).
- M. F. LANTRATOV, A. G. MORACHEVSKY and M. I. ANTONOVA, Thermodynamic properties of liquid alloys of the system Na-Zn, *Zh. Prikl. Khim.* **36**, vyp. 6, 1278 (1963).
- J. E. LEKSINA and S. I. NOVIKOVA, Study of Cu, Ag and Au thermal expansion in the broad temperature interval, *Fiz. Tverd. Tela* **5**, 4, 1094 (1963).
- B. M. LEPINSKIKH and N. A. VATOLIN, Surface tension and density of iron-sulphur and iron-phosphorus melts, *Inzh.-Fiz. Zh.* **6**, No. 7, 109 (1963).
- S. N. Lvov, V. F. NEMCHENKO and YU. B. PADERNO, Heat conductivity of hexaborides of alkali metals and rare-earth metals, *Dokl. Akad. Nauk SSSR* **149**, No. 6, 1371 (1963).
- R. A. MAKAVETSKAS, V. N. POPOV and N. V. TSEDERBERG, Experimental study of helium and nitrogen viscosity, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 191 (1963).
- A. M. MAMEDOV, Heat capacity c_b of water depending on temperature and pressure, *Teploenergetika* No. 5, 69 (1963).
- M. S. METSIK, Choice of sample shape and sizes for determination of thermal conductivity by the regular regime method for bodies with biaxial anisotropy, *Izv. Vyssh. Ucheb. Zavedenii. Fiz.* No. 3, 136 (1963).
- S. A. MIKHAILOVA, YA. S. KAZARNOVSKY, and D. B. KAZARNOVSKAYA, Thermodynamic properties of gaseous methanol at high temperatures and pressures, *Khim. Prom-sti* No. 4, 4 (1963).
- I. R. MIKK, Determination of emissivity of radiating gases in a tube bundle, *Teploenergetika* No. 9, 46 (1963).
- E. L. MITELMAN and YA. I. PANOV, On thermal conductivity of powdery inorganic insulators, *Inzh.-Fiz. Zh.* **6**, No. 4, 83 (1963).
- A. I. MITSEK, Thermal expansion effect on temperature dependence of constants of magnetic crystallographic anisotropy of ferromagnetics, *Fiz. Tverd. Tela* **5**, vyp. 7, 1800 (1963).
- YU. B. NADZHAFOV and K. A. SHARIFOV, Heat capacity of tellurous helium, *Trud. In-ta Fiz. Akad. Nauk Az.SSR* **11**, 31 (1963).
- A. A. NAZAROV, M. M. SHULTS and A. V. STORONKIN, Thermodynamic properties of the $\text{AgCl}-\text{NaCl}-\text{PbCl}_2$ system. I. The diagram of fusibility and compositions of coexisting phases, *Vestn. Leningr. Un-ta* No. 10, Ser. *Fiz. Khim.* vyp. 2, 82 (1963).
- YA. M. NAZIEV and I. F. GOLUBEV, Thermal conductivity of saturated hydrocarbons at various temperatures and high pressures, *Izv. Akad. Nauk Az.SSR. Ser. Fiz.-Matemat. Nauk* No. 6, 113 (1962).
- B. E. NEIMARK, V. E. LYUSTERNIK *et al.*, Thermal properties of nickel-chromium iron alloys, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 12 (1963).
- E. D. NENBERG and E. L. SHTRUM, On thermal conductivity of AgSbTe_2 , *Fiz. Tverd. Tela* **5**, No. 12, 3357 (1963).
- V. S. NESHPOR and I. G. BARANTSEVA, Study of heat conduction of molybdenum silicides, *Inzh.-Fiz. Zh.* **6**, No. 1, 109 (1963).
- L. N. NOVICHYENOK, A non-stationary method for determination of thermal properties of varnish-paint coatings, *Inzh.-Fiz. Zh.* **6**, No. 9, 35 (1963).
- P. T. ORESHKIN, M. N. KHRAMKOVA and L. P. ANDREEVA, Electrical conductivity of oxide refractories at high temperatures, *Izv. Vyssh. Ucheb. Zavedenii. Chyern. Metallurgiya* No. 2, 142 (1963).
- Yu. P. OSMIN, Heat capacity of liquid alkali metals, *Inzh.-Fiz. Zh.* **6**, No. 4, 75 (1963).
- A. D. PANASYUK and G. V. SAMSONOV, Thermocouples with thermal electrodes made of refractory carbides for measuring temperatures up to 3000°C, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 136 (1963).
- V. A. PETROV, V. YA. CHEKHOVSKY and A. E. SHEINDLIN, Experimental determination of integral emissivity of metals and alloys at high temperatures, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 24 (1963).
- M. M. PLOTNIKOV, Heat conduction in solids with cylindrical anisotropy, *Izv. Vyssh. Ucheb. Zavedenii. Mashinostroenie* No. 7, 108 (1963).

- N. Z. POZDNYAK and K. G. AKHMETZYANOV, Thermal and electrical conductivity of tantalum and niobium, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 316 (1963).
- A. S. PREDVODITELEV, On helium state equation, *Inzh.-Fiz. Zh.* **6**, No. 6, 54 (1963).
- V. A. RABINOVICH, The calculation of the thermodynamic properties of deuterium, *Inzh.-Fiz. Zh.* **6**, No. 4, 118 (1963).
- M. G. RAMANZADE, Temperature dependence of thermal conductivity of some oil hydrocarbons, *Izv. Vyssh. Ucheb. Zavedenii. Neft' Gaz* No. 5, 81 (1963).
- S. L. RIVKIN and B. N. EGOROV, Experimental research of heat capacity of heavy water at high pressures and temperatures, *Teploenergetika* No. 7, 75 (1963).
- S. L. RIVKIN and B. N. EGOROV, Heat capacity of heavy water at high pressures and temperatures, *Atomn. Energiya* **14**, vyp. 4, 416 (1963).
- V. V. RYBAKOV, Thermodynamic properties of argon at high temperature, *Izv. Vyssh. Ucheb. Zavedenii. Neft' Gaz* No. 5, 77 (1963).
- B. S. SADYKOV, Emissivity of metals and its dependence on heat conduction, *Inzh.-Fiz. Zh.* **6**, No. 9, 40 (1963).
- P. A. SAVINTSEV, The effect of radiation on some crystal thermal properties, *Mezhevuzovsk. Sborn. Trud. Zap.-Sib. Soveta po Koordinatsii Planirovaniya Nauch.-Issled. Rabot po Tekhn. i Estestv. Naukam* vyp. 2, 90 (1963).
- N. M. SELIVANOVA, Z. L. LESHCHINSKAYA et al., Thermodynamic properties of $\text{NiSeO}_3 \cdot 2\text{H}_2\text{O}$, *Zh. Fiz. Khim.* **37**, vyp. 7, 1563 (1963).
- A. M. SIROTA, Heat capacity of water and steam at constant pressure on the saturation curve, *Inzh.-Fiz. Zh.* **6**, No. 12, 52 (1963).
- A. M. SIROTA, B. K. MALTSEV and P. E. BELYAKOVA, Tables of the reference points of heat capacity c_p and water and steam enthalpy, *Teploenergetika* No. 5, 64 (1963).
- A. M. SIROTA, B. K. MALTSEV and A. YA. GRISHKOV, Experimental study of water heat capacity at high pressures, *Teploenergetika* No. 9, 57 (1963).
- A. G. SHASHKOV, Construction of thermoanemometer thermistor circuits, *Inzh.-Fiz. Zh.* **6**, No. 9, 18 (1963).
- A. E. SHEINDLIN, V. V. SYCHEV et al., Experimental study of water and steam enthalpy over the temperature range up to 390°C and pressures to 500 kg/cm^2 , *Teploenergetika* No. 9, 76 (1963).
- E. E. SHPIRRAIN and K. A. YAKIMOVICH, Experimental unit for study of liquid metal density, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 173 (1963).
- E. E. SHPIRRAIN and A. M. ZVEREVA, Experimental unit for determining vapour pressure of alkali metals at high temperatures, *Inzh.-Fiz. Zh.* **6**, No. 6, 74 (1963).
- M. M. SHULTS, L. L. MAKAROV et al., Thermodynamic study of the system $\text{NH}_4\text{Cl}-\text{NiCl}_2-\text{H}_2\text{O}$ at 25°C , *Zh. Fiz. Khim.* **37**, vyp. 6, 1219 (1963).
- A. A. SKLYANKIN and P. G. STRELKOV, Convergence of experimental heat capacities of benzoic acid between 14 and 90°K by various temperature scales, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 2, 161 (1963).
- V. S. SOLDATOV and G. L. STAROBINETS, Thermodynamic functions of ion-exchange processes, *Izv. Vyssh. Ucheb. Zavedenii. Khimiya Khim. Tekhnol.* **6**, No. 3, 420 (1963).
- A. N. SOLOVIEV, The dependence of liquid metal electrical resistance on specific volume, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 45 (1963).
- B. V. SPEKTOR, V. I. RYAZANTSEV and G. A. KAZACHENKO, Automation of material thermal diffusivity determination, *Zavodsk. Laboratoriya* No. 4, 477 (1963).
- I. T. SRYVALIN and O. A. ESIN, Temperature dependence of metal solution thermodynamic properties, *Izv. Vyssh. Ucheb. Zavedenii. Metallurg.* No. 6, 41 (1962).
- V. E. STETSYUK, Heat-transfer coefficients of raw cane-sugar, *Inzh.-Fiz. Zh.* **6**, No. 4, 86 (1963).
- L. A. SVERGUNENKO, The effect of heat conduction on sound absorption in crystals with defects. In collection of papers: *Heat and Mass Transfer* **5**, Minsk (1963).
- V. V. SYCHEV and V. V. ANDRIANOV, Gravitational effect on heat capacity c_v measurement near the critical point, *Teplofiz. Vysok. Temperatur* **1**, No. 1, 50 (1963).
- A. G. TABACHNIKOV, Estimation of thermodynamic properties of real gases at high temperatures. Ammonia state equation, *Inzh.-Fiz. Zh.* **6**, No. 7, 54 (1963).
- B. D. TIMOFEEV and V. I. SHARYPIN, An installation for the experimental determination of viscosity of organic heat agents at a high melting point, *Inzh.-Fiz. Zh.* **6**, No. 10, 109 (1963).
- D. L. TIMROT and V. E. PELETSKY, Application of electronic heating to the investigation of thermal conductivities of refractory alloys and compounds. *Teplofiz. Vysok. Temperatur* **1**, No. 2, 168 (1963).
- N. B. VARGAFTIK and L. S. ZAITSEVA, Heat conductivity of D_2O in a gas phase, *Inzh.-Fiz. Zh.* **6**, No. 5, 3 (1963).
- L. L. VASILIEV, Precision amplifiers for thermal control in a low-temperature region, *Inzh.-Fiz. Zh.* **6**, No. 9, 105 (1963).
- A. A. VASSERMAN and V. A. ZAGORUCHENKO, Determination of thermal properties of compressed natural gases with prevailing methane and ethane content, *Izv. Vyssh. Ucheb. Zavedenii. Neft' Gaz* No. 1, 81 (1963).
- V. K. VERTUSHKIN, Approximation of thermodynamic air functions, *Inzh.-Zh.* **2**, vyp. 4, 343 (1962).
- A. B. VERZHINSKAYA, The effect of side heat losses on the temperature field in semi-infinite rods with a plane source of constant strength, *Inzh.-Fiz. Zh.* **6**, No. 7, 70 (1963).
- I. I. VISHNEVSKY, A. S. FRENKEL and V. N. SKRIPAK, Thermal conductivity of chromium spinelide, *Zh. Tekhn. Fiz.* **5**, vyp. 9, 2691 (1963).
- N. V. VOLKENSTEIN and G. V. FEDOROV, Temperature dependence of electrical conductivity and Hall effect of dysprosium and erbium, *Zh. Eksp. Teor. Fiz.* **44**, vyp. 3, 825 (1963).
- V. YU. VOSKRESENSKY, An erroneous method of exclusion of true temperature in researches of material emissivity, *Teplofiz. Vysok. Temperatur* **1**, No. 2, 177 (1963).
- M. P. VUKALOVICH, V. V. ALTUNIN and N. I. TIMOSHENKO, Thermodynamic properties of CO_2 at temperature $0-1000^\circ\text{C}$ and pressures below 100 bar, *Atomn. Energiya* **15**, vyp. 3, 210 (1963).
- M. P. VUKALOVICH and R. I. ARTYM, Calculation of thermodynamic functions of multi-atomic molecules in the ideal-gas state. H_2O molecule, *Teploenergetika* No. 4, 75 (1963).

- M. P. VUKALOVICH, V. N. ZUBAREV and A. A. ALEKSANDROV, Experimental determination of steam specific volumes at temperatures 700–900°C and pressures to 1200 kg/cm², *Teploenergetika* No. 1, 49 (1962).
- M. P. VUKALOVICH, V. N. ZUBAREV and P. G. PRUSAKOV, Experimental study of steam enthalpy, *Teploenergetika* No. 3, 63 (1963).
- M. P. VUKALOVICH and L. I. CHERNEEVA, Experimental study of steam thermal conductivity up to 600°C and 1500 kg/cm², *Teploenergetika* No. 9, 7 (1963).
- V. V. ZHDANOVA, The effect of impurities on thermal expansion coefficient in *p*-Ge, *Fiz. Tverd. Tela* 5, vyp. 11, 3341 (1963).
- A. M. ZHURAVLEV, Thermodynamic properties of methyl alcohol, *Inzh.-Fiz. Zh.* 6, No. 8, 106 (1963).
- V. I. YAKOVLEV, Induction interaction of expanding plasma column with external electrical contour, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 2, 31 (1963).
- K. V. DONSKOI, E. M. DROBYSHEVSKY and E. V. NAZAROV, The influence of the ionic wind on the plasma rotation in crossing field, *Zh. Tekhn. Fiz.* 33, No. 11, 1328 (1963).
- A. A. GALEEV and V. I. KARPMAN, Turbulent theory of slightly non-equilibrium rarefied plasma and shock wave structure, *Zh. Eksp. Teor. Fiz.* 44, vyp. 2, 592 (1963).
- V. E. GOLANT, Diffusion of charged plasma particles in a magnetic field, *Usp. Fiz. Nauk* 79, vyp. 3, 377 (1963).
- E. P. GORBUNOV and K. A. RAZUMOVA, Influence of strong magnetic field on a magnetohydrodynamic stability of plasma and confinement of charged particles, *Atomn. Energiya* 15, 5, 363 (1963).
- G. A. GRINBERG, On the diffusional decay of plasma when non-linear effects are of importance, *Zh. Tekhn. Fiz.* 33, vyp. 12, 1430 (1963).
- B. B. KADOMTSEV, Turbulent diffusion of rarefied plasma in strong magnetic field, *Zh. Eksp. Teoretich. Fiz.* 45, vyp. 4, 1230 (1963).
- V. A. KIRILLIN, Problems of high temperature heat physics, *Vest. Akad. Nauk SSSR* No. 2, 38 (1963).
- YU. L. KLIMONTOVICH, A contribution to statistical turbulence theory in plasma, *Zh. Prikl. Mekhan. Tekhn. Fiz.* No. 1, 14 (1963).
- G. N. KOPYLOV, Laminar flow of a charged fluid in a plane pipe under the action of the outer electrostatic field, *Zh. Tekhn. Fiz.* 33, vyp. 11, 1290 (1963).
- L. M. KOVRIZHNYKH, E. E. LOVETSKY et al., Hydrodynamic oscillations of an inhomogeneous plasma of low pressure in a magnetic field, *Dokl. Akad. Nauk SSSR* 149, No. 5, 1053 (1963).
- V. I. PETVIASHVILI, Anomalous plasma diffusion effected by oscillations, *Zh. Eksp. Teor. Fiz.* 44, vyp. 6, 1993 (1963).
- S. A. REGIRER, Electrically conducting liquid flow in the starting section of a plane tube, *Izv. Akad. Nauk SSSR. OTN. Mekhan. Mashinostroen.* No. 6, 6 (1963).
- M. V. SAMOKHIN, Heat and particle fluxes in a multi-component plasma, *Zh. Tekhn. Fiz.* 33, vyp. 6, 675 (1963).
- O. P. SEMYENOVA and M. A. LEVCHENKO, On radiation from readily ionizable plasma impurities at thermal excitation, *Dokl. Akad. Nauk SSSR* 151, No. 1 90 (1963).
- YU. S. SIGOV and B. A. TVERSKOI, Boundary-layer structure between a magnetic field and plasma flow, *Geomagnet. Aeronomiya* 3, No. 1, 43 (1963).
- K. I. STRAKHOVICH and YU. A. SOKOVISHIN, Study of temperature distribution over a laminar jet of heat conducting gas outflowing into the space with magnetic field, *Inzh.-Fiz. Zh.* 6, No. 7, 88 (1963).
- A. V. TIMOFEEV, On the convection of a weakly ionized plasma in a non-homogeneous outer magnetic field, *Zh. Tekhn. Fiz.* 33, vyp. 7, 776 (1963).
- A. B. TROFIMOV, Thermal stresses in rectangular prisms with heat generation, *Inzh.-Fiz. Zh.* 6, No. 2, 127 (1963).
- A. A. VEDENOV, Plasma thermodynamics, *Vopr. Teor. Plazmy* vyp. 1, 273 (1963).
- E. P. ZIMIN, Operating conditions in a magnetohydrodynamic channel, *Inzh.-Fiz. Zh.* 6, No. 4, 92 (1963).

HIGH TEMPERATURE PHYSICS AND MAGNETOHYDRODYNAMICS

- A. D. ABRAMENKOV, V. F. RYBALKO and A. M. FOGL, Supersonic mercury vapour jet ionization by hydrogen ion beam, *Izv. Vyssh. Ucheb. Zavedenii. Fiz.* No. 5, 76 (1963).
- YU. M. ALIEV and A. R. SHISTER, Transfer phenomena in plasma in a strong magnetic field, *Zh. Eksp. Teor. Fiz.* 45, vyp. 5 (11), 1499 (1963).
- S. G. ALIKHANOV, V. E. ZAKHAROV and G. L. KHORASANOV, Plasma diffusion in a magnetic field due to Coulomb collision, *Atomn. Energiya* 14, vyp. 2, 137 (1963).
- M. D. APASHEV, N. N. ZAGRYAZKIN and S. E. OSTROVSKAYA, High-temperature measurements of gases, *Trud. In-ta Dvigatelei Akad. Nauk SSSR* vyp. 6, 153 (1963).
- I. S. BAIKOV and R. R. RAMAZASHVILI, On the relaxation of temperature of charged particles in plasma, *Zh. Tekhn. Fiz.* 33, vyp. 7, 890 (1963).
- V. B. BARANOV, A temperature boundary layer on a flat plate in anisotropic magnetic hydrodynamics, *Izv. Akad. Nauk SSSR. OTN. Mekhan. Mashinostroen.* No. 6, 3 (1962).
- V. B. BARANOV, G. A. LYUBIMOV and KHU YUI-IN, Boundary-layer calculation on a dielectrical plate in an incompressible anisotropic conducting fluid flow affected by a uniform magnetic field normal to the plate, *Prikl. Matemat. Mekhan.* 27, vyp. 3, 509 (1963).
- M. V. BELUBEKYAN, A boundary layer in an electrically conducting liquid in the presence of a longitudinal magnetic field, *Inzh.-Fiz. Zh.* 6, No. 8, 97 (1963).
- L. M. BIBERMAN, V. S. VOROB'YEV and G. E. NORMAN, Energy emitting by equilibrium plasma in spectral lines, *Opt. Spektrosk.* 14, vyp. 3, 330 (1963).
- S. I. BRAGINSKY, Transfer phenomena in plasma, *Vopr. Teor. Plazmy* vyp. 1, 183 (1963).
- F. V. BUNKIN, Radiation of non-equilibrium plasma, *Izv. Vyssh. Ucheb. Zavedenii. Radiofiz.* 5, No. 6, 1062 (1962).

TRANSFER PROCESSES IN TECHNOLOGICAL APPARATUSES

- A. A. ALEKSANDROVSKY and V. V. KAFAROV, Mass transfer in a rotary apparatus, *Trud. Kazansk. Khim.-Tekhnol. In-ta vyp.* 31, 3 (1963).
- I. L. ANDREEV and B. A. DANILOV, New heat-exchanger design of a coil type, *Khim. Mashinostroenie* No. 1, 5 (1963).
- N. V. ANTONISHIN, An electrical hot-wire probe with a semiconductive thermal element, *Inzh.-Fiz. Zh.* 6, No. 5, 124 (1963).
- N. V. ANTONISHIN and S. S. ZABROD SKY, Heat transfer of a surface submerged into a developed aggregative fluidized bed, *Inzh.-Fiz. Zh.* 6, No. 11, 97 (1963).
- B. I. ARLYUK and G. V. TELYATNIKOV, Material entrainment from a fluidized bed, *Tsvetnye Metally* No. 7, 48 (1963).
- A. P. BASKAKOV, Design of multichambered fluidized solids technique for cooling fine materials, *Inzh.-Fiz. Zh.* 6, No. 1, 101 (1963).
- A. P. BASKAKOV, Mechanism of heat transfer between a fluidized bed and a surface, *Inzh.-Fiz. Zh.* 6, No. 11, 20 (1963).
- A. P. BASKAKOV and V. S. VERSHININA, An investigation into heat transfer between packing and a fluidized bed in interparticle channels, *Inzh.-Fiz. Zh.* 6, No. 8, 3 (1963).
- V. A. BORODULYA, On thermal calculation of a thin fluidized bed with cross motion of heat agents, *Inzh.-Fiz. Zh.* 6, No. 8, 22 (1963).
- S. A. CHERNAVSKY, Heat transfer peculiarities in sliding friction bearings, *Dokl. Mosk. Selsk.-Khoz. Akadem. vyp.* 86, 176 (1963).
- L. I. CHERNYAEV, The effect of forms of moisture bonds on asbestos cement deformation, *Inzh.-Fiz. Zh.* 6, No. 9, 100 (1963).
- I. F. KOBYLYANSKY and V. D. PESHEKHONOV, Argon arc welding for perfect sealing of a heat exchanger, *Svarochnoe Proizvodstvo* No. 1, 40 (1963).
- B. N. DEVYATOV, Approximations of heat-exchanger transfer functions, *Trud. In-ta Avtomatiki Elektrometrii (Sib. Otdel Akad. Nauk SSSR) vyp.* 4, 29 (1961).
- B. N. DEVYATOV and YU. N. KORNEV, Control of counter-flow heat exchangers, *Avtomatich.-Konstrukt. Elektrich. Izmeren. vyp.* 2, 137 (1960).
- B. N. DEVYATOV, Stability of operating conditions of counter-flow heat-exchangers with thick walls, *Trud. In-ta Avtomatiki Elektrometrii (Sib. Otdel. Akad. Nauk SSSR) vyp.* 4, 42 (1961).
- M. A. EIDENSON, Heat transfer coefficients from a magnesium electrizer surface, *Tsvetnye Metally* No. 7, 52 (1963).
- V. A. EMELIYANOV, V. N. KUZMIN and A. D. KLYUCHNIKOV, Analysis of heat treatment of ground material in a cyclone melting furnace, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 2, 71 (1963).
- I. T. ELMERIN and V. A. MINKOV, On thermodynamic optimization of heat-exchangers with cascade fluidized beds, *Inzh.-Fiz. Zh.* 6, No. 11, 32 (1963).
- V. G. ERMILOV, Estimation of heat-transfer coefficients in coolants of vapour-jet air injectors, *Sudostroenie* No. 5, 26 (1963).
- V. K. ERMOLIN, Increase of heat exchanger thermal efficiency by tangential heat-carrier supply, *Sudostroenie* No. 10, 37 (1963).
- V. A. EVGRAFOV, The dependence of porosity of dispersed media upon the gap, *Inzh.-Fiz. Zh.* 6, No. 10, 112 (1963).
- M. I. FRIDLAND, Pressure effect on the output and particle entrainment in fluidized bed apparatuses, *Khim. Mashinostroenie* No. 3, 22 (1963).
- D. M. GALERSSTEIN and I. T. ELMERIN, Heat exchanger with intermediate dispersed heat-carrier, *Promyshl. Belorusii* No. 11, 45 (1963).
- N. I. GELPERIN and N. N. ZELENETSKY, Regularities of a mass-transfer process in vacuum rectification in packing columns, *Zh. Prikl. Khim.* 36, vyp. 11, 2445 (1963).
- N. I. GELPERIN, V. L. PEBAK and Z. P. BARANOVA, Mass-transfer study in rotor-disk extractors, *Khim., Tekhnol. Topliv Masel* No. 6, 46 (1963).
- V. F. GORLOV and A. I. SKOBLO, Properties of burning fluidized bed, *Khim. Tekhnol. Topliv Masel* No. 9, 11 (1963).
- I. R. GRANOVSKAYA and V. O. FOGEL, Apparatuses for heating high-temperature liquid heat-carriers, *Promyshl. Energetika* No. 11, 22 (1963).
- F. Z. GREK and V. N. KISELNIKOV, Determination of fluidized system void fraction by the acoustic method, *Izv. Vyssh. Ucheb. Zavedenii* 6, No. 4, 659 (1963).
- M. M. GRUDZINSKY, Estimation of heat transfer from pipe-lines in heating system designs, *Shorn. Nauch.-Issled. In-ta San. Tekhniki Akad. Stroit-va Arkhitektury SSSR* No. 13, 162 (1962).
- N. D. GRYAZNOV, Predicted properties of heat exchangers of gas turbine installations, *Energomashinostroenie* No. 5, 40 (1963).
- M. I. GUREVICH, Multi-channel heat exchangers, *Trud. Uralsk. Politekhn. In-ta Sborn.* 125, 62 (1962).
- M. B. GUTMAN, L. A. MIKHAILOV and O. I. ROZHDESTVENSKY, Heating in a fluidized bed, *Vest. Elektro-promyshl.* No. 8, 53 (1963).
- I. V. ILIINSKY and I. D. GARKUSHA, Experimental determination of local heat-transfer coefficients in turbines, *Inzh.-Fiz. Zh.* 6, No. 11, 3 (1963).
- A. G. IVANOV and A. V. POLETAEV, Aerodynamics and combustion of ash in a counter-parallel flow furnace, *Teploenergetika* No. 6, 29 (1963).
- E. A. KAZAKOVA, A. I. DENEGA and L. V. MUZYCHENKO, Heat transfer between granular particles and air in a fluidized bed, *Inzh.-Fiz. Zh.* 6, No. 4, 51 (1963).
- V. M. KAPINOS, On determination of heat-transfer boundary conditions in turbines, *Inzh.-Fiz. Zh.* 6, No. 8, 28 (1963).
- V. M. KAPINOS and N. I. NIKITENKO, Determination of convective heat transfer in combustion chambers of a gas-turbine installation, *Teploenergetika* No. 8, 19 (1963).
- A. S. KAPUSTIN, Heat transfer in apparatuses with mixers operating on viscous liquids, *Khim. Mashinostroenie* No. 3, 17 (1963).
- G. A. KASPARYAN, The effect of heating rate on kinetics of mineral roasting, *Inzh.-Fiz. Zh.* 6, No. 6, 85 (1963).
- E. A. KIN, Prediction of optimum feed-water tempera-

- ture in a turbine unit with variable operating conditions, *Sborn. Nauch. Soobshchenii Sarat. Politekhnich. In-ta vyp.* 17, 29 (1962).
- M. V. KIREEVA, I. A. LEONTIEVA and P. S. REMPEL, Thermodynamic study of some reactions in a furnace of dead roasting of chromite charges, *Zh. Prikl. Khim.* 36, vyp. 9, 2079 (1963).
- A. D. KLYUCHNIKOV and E. E. AGARKOV, Generalization of some studies on radiant heat transfer, *Inzh.-Fiz. Zh.* 6, No. 6, 78 (1963).
- T. A. KOLACH, Thermal calculation of a multistage parallel flow, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 2, 65 (1963).
- N. B. KONDUKOV, A. N. KORNILAYEV et al., Study of particles path in a fluidized bed by the radioisotopes method, *Inzh.-Fiz. Zh.* 6, No. 7, 13 (1963).
- A. P. KOVALYEV, A. S. IPPOLITOV and CHZHUAN-FYN-CHEN, After-burning conditions and the shape of a flame with intersecting jets, *Inzh.-Fiz. Zh.* 6, No. 5, 42 (1963).
- L. F. KRASNOSHCHEKOV, Determination of air heater output in limited predicted operating conditions, *Vodosnabzhenie San. Tekhn.* No. 3, 28 (1963).
- B. L. KUPTMAN, Aerodynamic improvement of the ball mill cylinder, *Teploenergetika* No. 11, 18 (1963).
- I. M. LENIN and A. V. KOSTROV, Heat transfer to internal engine walls, *Avtomob. Prom-st'* No. 6, 18 (1963).
- A. M. LEVIN, O. N. BRYUKHANOV and P. P. GAKINULIYAN, A unified radiation gas burner, *Gazovaya Prom-st'* No. 10, 31 (1963).
- V. I. LOKAI, The cooled turbine blade temperature in a non-uniform gas field, *Izv. Vyssh. Ucheb. Zavedenii. Aviatsion. Tekhnika* No. 2, 78 (1963).
- A. I. LYUBOSHITS, Application of a multistage heat exchanger with packings for heating air to high temperatures, *Inzh.-Fiz. Zh.* 6, No. 12, 21 (1963).
- V. F. MAKIVCHUK, Gas dynamic graphical method applied to the problem solution of the two-cycle diesel engine exhaust, *Energomashinostroenie* No. 9, 4 (1963).
- A. P. MAKUSHKIN, Determination of fluidization rate of channelled beds, *Khimika Khimich. Tekhn. Topliv Masel* No. 5, 51 (1963).
- V. F. MARKIN, I. A. GUTKIN et al., The effect of transient heat transfer on gas turbine installation control, *Teploenergetika* No. 3, 38 (1963).
- YU. L. MARSHAK, Temperature distribution in rods (pins) used for furnace lining fastening, *Teploenergetika* No. 10, 45 (1963).
- V. MELNIKOV, Net heat transfer in high-rate burning furnaces for peat, *Izv. Akad. Nauk Latv.SSR* No. 9, 37 (1962).
- P. E. MIKHAILOV, Method for calculation and checking of hygrometers by saturation deficit in a three-chamber hygrothermostat, *Inzh.-Fiz. Zh.* 6, No. 7, 98 (1963).
- G. M. MIKHAILOV and A. M. NIKOLAEV, Onset fluidization rate, *Trud. Kazansk. Khim.-Tekhnol. In-ta vyp.* 31, 64 (1963).
- I. V. MOLCHANOV and O. K. MEDVEDEV, Some errors in design of heat exchangers, *Izv. Vyssh. Ucheb. Zavedenii. Pishchevaya Tekhn.* No. 6, 125 (1962).
- V. P. NIKIFOROV and V. A. KUROEDOV, Heat transfer in a hearth of regenerative furnace of non-oxydizing heating, *Kuznechno-Shtampov. Proizv-vo* No. 7, 26 (1963).
- N. I. NIKITINA, S. S. TRAININA and M. E. AEROV, Velocity field between tubes of a tube heat exchanger, *Khim. Prom-st'* No. 10, 55 (1963).
- M. D. NOVIKOV, Determination of optimum pressure losses in heat exchangers of gas-turbine installations, *Energomashinostroenie* No. 11, 29 (1963).
- E. KH.ODELSKY, Internal and external heat transfer of concrete heating panels, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 8, 95 (1963).
- N. F. PARFENOVA and V. F. STEPANCHUK, Transient conditions of parallel flow heat exchangers, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 2, 87 (1963).
- G. I. PAVLOVSKY, Determination of temperature difference over the diameter of vapour turbine cylinder under cooling, *Teploenergetika* No. 4, 18 (1963).
- V. N. PETROV, Determination of the critical rate of fluidization of binary bed of particles of various density, *Inzh.-Fiz. Zh.* 6, No. 5, 55 (1963).
- YU. V. PETROVSKY, V. G. FASTOVSKY and L. I. ROIZEN, Possibilities of application of finned heat exchangers in air-separating units, *Khim. Mashinostroenie* No. 5, 8 (1963).
- E. R. PLOTKIN and E. I. MOLCHANOV, Temperature variations and thermal stresses in a turbine blade with gas temperature pulsations, *Inzh.-Fiz. Zh.* 6, No. 25 (1963).
- Z. M. RIZOV and O. M. TODES, I. Thermal wave propagation during air blowing through a bed of porous granular materials, *Inzh.-Fiz. Zh.* 6, No. 5, 70 (1963).
- G. K. RUBTSOV and N. I. SYROMYATNIKOV, Combustion of an air-gas mixture in a fluidized bed, *Gazov. Prom-st'* No. 9, 14 (1963).
- G. K. RUBTSOV and N. I. SYROMYATNIKOV, Emissivity and predicted radiation surface in a fluidized bed, *Izv. Vyssh. Ucheb. Zavedenii. Energetika* No. 5, 118 (1963).
- B. V. SHALIMOV, Non-isothermal flow of a real gas in a gas-line, *Inzh.-Fiz. Zh.* 6, No. 2, 95 (1963).
- A. A. SHATIL, The heat supply effect on hydraulic characteristics of gas turbine installation combustion chamber, *Teploenergetika* No. 9, 15 (1963).
- V. M. SHAVRA, Study and design of Freon regenerative heat exchanger, *Kholodiln. Tekhnika* No. 2, 18 (1963).
- YU. N. SHIMANSKY and N. I. SYROMYATNIKOV, Experimental stand for heat-transfer researches in a fluidized bed involving vaporization in a suspending fluid, *Trud. Uralsk. Politekhn. In-ta Sborn.* 125, 76 (1962).
- V. SHTROBEL, P. G. ROMANKOV et al., Hydrodynamics of a rotor-disk extractor with and without mass transfer, *Zh. Prikl. Khim.* 36, vyp. 12, 2672 (1963).
- M. A. SHUVALOV, L. B. ZAKHAROVA and L. N. YARMAK, Control of superheated vapour temperature by variation of flame radiance in operation of natural gas boilers, *Sborn. Nauch.-Trud. Saratov. Politekhn. In-ta vyp.* 17, 98 (1962).
- V. A. SHVAB, On generalization of turbulent-flow velocity fields in a cyclone chamber, *Inzh.-Fiz. Zh.* 6, No. 2, 102 (1963).

- V. A. SHVARTS, Characteristics of tubular finned heat-transfer surfaces, *Energomashinostroenie* No. 9, 22 (1963).
- E. A. SIDOROV, Estimation of particular effects on heat and mass transfer in a turbulent compressible gas flow in underground coal gasification, *Nauch. Trud. VNII Podzemnoi Gazifikatsii Uglei* vyp. 10, 17 (1963).
- E. A. SIDOROV, Estimation of thermal losses due to heat conduction in underground gas generator, *Nauch. Trud. VNII Podzemnoi Gazifikatsii Uglei* vyp. 10, 24 (1963).
- M. G. SLINKO, V. S. BESKOV and V. B. SKOMOROKHOV, Stability of contact apparatuses with internal heat transfer, *Khim. Prom-st'* No. 9, 1 (1963).
- A. I. TAMARIN, On the choice of the number of stages of a multi-stage heat exchanger with a fluidized bed, *Inzh.-Fiz. Zh.* 6, No. 4, 88 (1963).
- A. I. TAMARIN, On self-excited oscillations in a fluidized bed, *Inzh.-Fiz. Zh.* 6, 7, 19 (1963).
- A. I. TAMARIN and V. A. BORODULYA, Study of thermal diffusivity (mixing of particles) of a fluidized bed baffled by screens, *Inzh.-Fiz. Zh.* 6, No. 11, 26 (1963).
- I. A. TRUB, Heat-transfer rate increase in tubular coolers, *Koks Khimiya* No. 9, 52 (1963).
- A. A. VVEDENSKY, The temperature inside a cylinder and thermal state of an air-cooled diesel engine with a toroidal combustion chamber in a piston, *Dokl. TSKhA (Mosk. Selsk.-Khoz. Akadem.)* vyp. 81, 121 (1963).
- A. N. VYSHELESSKY, L. I. GORDON et al., Increase of heat-transfer rate of apparatuses heating surfaces operating with solid and gaseous fuel, *Sborn. Trud. Vsesoyuzn. Nauch.-Issled. Ekspерим.-Konstrukt. In-ta Torg. Mashinostroeniya* No. 8, 65 (1962).
- I. A. ZAKHARASHEVICH, YU. N. SHIMANSKY and L. K. VASANOVA, Static and dynamic characteristics of low potential heat exchangers, *Trud. Uralsk. Politekhn. In-ta Sborn.* 125, 69 (1962).
- YU. V. ZAKHREBETKOV, The effect of internal combustion engine temperature state on the volume of compression chamber, *Sborn. Nauch. Statei Khar'k. In-ta Inzh.-Zhel.-Dor. Transporta* vyp. 62, 33 (1962).
- L. YA. ZHIVAIKIN and B. P. VOLGIN, Hydraulic resistance in film apparatuses with two-phase flow, *Khim. Prom-st'* No. 6, 45 (1963).
- YA. D. ZELVENSKY, A. A. TITOV and V. A. SHALYGIN, Study of the pressure effect on mass transfer in a packed rectification column by radioactive tracers, *Khim. Prom-st'* No. 2, 36 (1963).
- A. B. ZMACHINSKY, The effect of feed-water preheating on the choice of the optimum exhaust gas temperature of boilers, *Sborn. Nauch. Soobshchenii Saratovsk. Politekhnich. In-ta* vyp. 17, 77 (1962).