

HEAT TRANSFER BIBLIOGRAPHY—RUSSIAN WORKS

A. V. LUIKOV

Heat and Mass Transfer Institute of the B.S.S.R. Academy of Science,
Minsk, U.S.S.R.

(Received 1 July 1965)

BOOKS

- A. M. ARKHAROV *et al.*, *Low Temperature Technics*. Energiya, Moscow-Leningrad (1964).
- V. G. ERMILOV, *Heat Transfer Apparatuses and Condensation Installations*. Transport, Moscow (1964).
- N. YA. FABRIKANT, *Aerodynamics*. Nauka, Moscow (1964).
- D. A. FRANK-KAMENETSKY, *Lectures on Plasma Physics*. Atomizdat, Moscow (1964).
- I. E. IDEL'CHIK, *Aerodynamics of Industrial Installations*. Energiya, Moscow-Leningrad.
- YU. L. KLIMONOVICH, *A Statistical Theory of Non-Equilibrium Processes in Plasma*. Izd. Mosk. Un-ta, Moscow (1964).
- N. F. KRASNOV, *Aerodynamics of Solids of Revolution*. Mashinost., Moscow (1964).
- V. A. KUZOVLEV, *Technical Thermodynamics*. Transport, Moscow (1964).
- M. A. LEONTOVICH, editor, *Plasma Theory Problems*. Atomizdat, Moscow (1964).
- Magnetic Hydrodynamics Problems. Collected Papers*. Izd. Akad. Nauk Latv. SSR vyp. 4, Riga (1964).
- I. L. POVKH, *Technical Hydrodynamics*. Mashinost. Moscow-Leningrad (1964).
- R. S. PRASOLOV, *Mass and Heat Transfer in Heating Installations*. Energiya, Moscow-Leningrad (1964).
- Problems of Magneto-hydrodynamics and Cosmic Gas-dynamics*. Nauka, Moscow (1964).
- Thermophysics and Thermotechnics. Collected Papers*. Naukova Dumka, Kiev (1964).

GENERAL

- G. G. EREMEEV and T. K. KRASOVSKAYA, Application of annual temperature gradient to design of building constructions including climatic influence. *Inzh.-Fiz. Zh.* **8**, No. 2, 190 (1965).
- L. P. FILIPPOV, Application of the regular regime of the third kind to measurements of thermal properties of solid and liquid metals at high temperatures. *Teplofiz. Vysok. Temper.* **2**, 817 (1964).
- The Second International Symposium on problems of magnetohydrodynamic methods of direct power conversion. *Teplofiz. Vysok. Temper.* **2**, No. 6, 950 (1964).

THERMODYNAMICS

- A. L. ASHKENAZI, On the validity of the Second Law of Thermodynamics. *Inzh.-Fiz. Zh.* **7**, No. 12, 125 (1964).
- S. S. DUKHIN and B. V. DERIAGIN, Application of the thermodynamics of irreversible processes to the theory of electro-

osmosis, electrophoresis, capillary osmosis and diffusio-phoresis in electrolytes. *Dokl. Akad. Nauk SSSR* **159**, No. 3, 636 (1964).

- I. F. EFREMOV, T. A. PROKOF'EVA and YU. P. SYRNIKOV, Thermodynamics of crystallization processes for real solutions. *Zh. Fiz. Khim.* **38**, vyp. II, 2558 (1964).
- P. M. KESSELMAN, P. A. KOTLYAREVSKY and A. P. VOLOSHIN, The state equation and thermodynamic properties of molecular nitrogen. *Inzh.-Fiz. Zh.* **8**, No. 1, 35 (1965).
- A. M. KOGAN, On the method of entropy maximization in rarefied gas theory. *Dokl. Akad. Nauk SSSR* **158**, No. 5, 1054 (1964).
- P. M. KESSELMAN and S. F. GORYKIN, On thermodynamic similarity of nitrogen, oxygen and air. *Inzh.-Fiz. Zh.* **8**, No. 3, 396 (1965).
- F. M. KUNI, Functional methods in statistical thermodynamics of non-homogeneous fluids. *Vestn. Leningr. Univ., No. 22, ser. Fiz. i Khim.*, vyp. 4, 7 (1964).
- V. N. MASYUKOV, Limitation of the Second Law of Thermodynamics in the region of absolute zero. *Zh. Fiz. Khim.* **38**, vyp. 9, 2128 (1964).
- V. A. MOSKALENKO, The thermodynamics of superconductivity. *Izv. Akad. Nauk Mold.SSR*, No. 7, 53 (1963).
- B. N. OSHCHERIN, On the dependence of the relation C_p/C_v on substance structure. *Teplofiz. Vysok. Temper.* (1964).
- YU. M. POPOVSKY and B. V. DERIAGIN, The specific heat of a liquid in dispersed systems. *Dokl. Akad. Nauk SSSR* **159**, No. 4, 897 (1964).
- V. V. SYCHEV, Some problems of thermodynamics of the critical point. II. On jumps of thermodynamic quantities at the critical point. *Teplofiz. Vysok. Temper.* **2**, No. 6, 884 (1964).
- V. V. SYCHEV, Some problems of thermodynamics of the critical point. *Teplofiz. Vysok. Temper.* **2**, No. 4, 573 (1964).
- S. M. VOLOSIV, Comments on the paper by Ya. Z. Kazavchinsky "Use of classical concepts in a new system of justification of the Second Law of Thermodynamics", *JEP* No. 3 (1964), *Inzh.-Fiz. Zh.* **7**, No. 12, 123 (1964).
- M. P. VUKALOVICH and YA. F. MASALOV, The experimental investigation of the enthalpy of carbon dioxide at temperatures up to 500°C and pressures up to 100 bar. *Teploenergetika*, No. II, 75 (1964).

HEAT CONDUCTION

- YA. AGAEV and A. P. MIKHAILOV, Heat conduction and thermoelectromotive force of pyrite. *Izv. Akad. Nauk*

- Turkm. SSR, ser. Fiz., Tekhn., Khim. i Geol. Nauk*, No. 3, 8 (1964).
- K. A. ALLAKHVERDIEV, Solution of some heat conduction problems by the method of finite differences. *Uchen. Zap. (Azerb. In-t Nefi i Khim.)*, *Mekhanika, Mashinost., Energ., Elektrotekhn., Avtomatiz., Vychisl. Tekhn.*, No. 1, 5 (1964).
- KH. I. AMIRKHANOV and A. P. ADAMOV, Heat conductivity of carbon dioxide along a boundary curve including the region of the critical state. *Prim. Ul'traakust. k Issled. Veshchestva*, vyp. 18, 65 (1963).
- A. F. ANDREEV, Heat conduction of the intermediate state of superconductors. *Zh. Eksper. i Teor. Fiz.* **47**, vyp. 6 (12), 2222 (1964).
- YU. N. ANDREEV and A. G. BUTKOVSKY, The problem of optimal control of heating large bodies. *Inzh.-Fiz. Zh.* **8**, No. 1, 87 (1964).
- V. N. APTERMAN, Analytic solution of a heating problem of a thermally "thin" body in counterflow heat transfer. *Stal*, No. 6, 563 (1964).
- N. U. BAKIROV and A. G. USMANOV, Viscosity and heat conductivity of gases and gaseous mixtures. *Trudy Kazansk. Khim. Tekhn. In-ta*, vyp. 32, 3 (1964).
- P. V. CHERPAKOV and N. G. SHIMKO, Regular thermal regime in a multi-layer medium. *Inzh.-Fiz. Zh.* **8**, No. 1, 72 (1965).
- L. A. FIL'SHTINSKY, Heat conduction and thermoelasticity problems for a plane weakened by a biperiodic system of equal circular holes. (Dokl. na 4^m Nauchn. Soveshchan. po Teplov. Napr. v Element. Konstr. 1964) *Teplov. Napryazh. v Element. Konstr.*, vyp. 4, 103 (1964).
- A. S. FRENKEL, I. I. VISHNEVSKY and V. N. SKRIPAK, Temperature distribution in the dome of a Marten furnace. *Inzh.-Fiz. Zh.* **7**, No. 12, 32 (1964).
- L. M. GALONEN, A steady-state problem of heat-conduction in a parallel plane wall with various thermal conditions of its surface. *Inzh.-Fiz. Zh.* **7**, No. 12, 119 (1964).
- V. M. GEMBARA, Some problems of heat conduction in plates and shells of variable thickness. *Nauchn. Zap. In-ta Mashinoved. i Avtom. Akad. Nauk USSR* **10**, vyp. 9, 66 (1964).
- A. G. GINDOYAN, On the equivalent effective thermal coefficient for floor design. *Inzh.-Fiz. Zh.* **8**, No. 2, 275 (1965).
- V. V. IVANOV and A. V. FURMAN, The temperature field of an infinite anisotropic prism with internal heat generation. *Inzh.-Fiz. Zh.* **8**, No. 3, 358 (1965).
- L. I. KAMYNNIN, A particular boundary problem of heat conduction theory with nonclassical boundary conditions. *Zh. Vychisl. Matem. i Mat. Fiz.* **4**, No. 6, 1006 (1964).
- YU. M. KOLYANO, A temperature field and thermal stresses in a thin semi-infinite plate, whose edge is heated by a movable external medium. *Vopr. Mekhan. Realn. Tverd. Tela*, vyp. 3, 52 (1964).
- L. A. KOZDOBA and V. I. MAKHNENKO, Temperature field of a body bounded by conical surfaces with an instantaneous annular heat source. *Inzh.-Fiz. Zh.* **8**, No. 1, 82 (1965).
- YU. M. KOLYANO, Transient axisymmetric temperature problem in elasticity theory of a thin infinite plate with a circular hole. *Vopr. Mekhan. Realn. Tverd. Tela*, vyp. 3, 60 (1964).
- L. I. KUDRYASHEV and V. P. VESELOV, Simulation of an unsteady heat conduction process in metals with variable thermophysical characteristics in convective and radiant heat transfer. *Matem. Modelir. i Elektr. Tsepi*, vyp. 2, 309 (1964).
- N. N. LEBEDEV and I. P. SKALSKAYA, Some problems of heat conduction in wedges. *Zh. Tekhn. Fiz.* **34**, vyp. 9, 1556 (1964).
- G. S. MAKAR, The stress state in an infinite cylinder, caused by a moving axisymmetric temperature field. *Vopr. Mekhan. Realn. Tverd. Tela*, vyp. 3, 42 (1964).
- V. S. MARTYNOVSKY and I. M. SHNAID, Attenuation of irreversible losses in high temperature insulation. *Teplofiz. Vysok. Temper.* **2**, No. 5, 831 (1964).
- G. KH. MUKHAMEDZ'YANOV, A. G. USMANOV and A. A. TARZIMANOV, The experimental determination of heat conductivity of organic fluids and their mixtures. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 67 (1964).
- O. I. NAPETVARIDZE, Approximate solution of the third boundary value problem of the heat conduction theory. *Soobshchen. Akad. Nauk Gruz. SSR* **35**, No. 2, 271 (1964).
- B. E. NEIMARK and T. I. BYKOVA, Thermal conductivity of nickel pipes with thin walls. *Inzh.-Fiz. Zh.* **8**, No. 3, 361 (1965).
- A. P. NUKHOV, N. A. NOVOSELOVA and R. M. SUKHOVA, Application of hydromodelling in a study of heat transfer in a cover during vulcanization. *Kauchuk i Rezina*, No. 8, 24 (1964).
- G. M. PANCHENKOV, The equation of state and the thermodynamic functions of a substance. *Zh. Fiz. Khim.* **38**, No. 10, 2337 (1964).
- YA. S. PODSTRIGACH and V. M. GEMBARA, Heat conduction equations for anisotropic plates and envelopes. *Nauchn. Zap. In-ta Mashinoved. i Avtomat. Akad. Nauk USSR* **10**, Vopr. Mashinoved. i Prochn. v Mashinost., vyp. 9, 56 (1964).
- S. P. PUSTOVOIT, A particular steady-state problem of heat conduction under conditions of mechanical heat transfer. *Sb. Nauchn. Trudov (Perm. Politekh. In-t)*, No. 15, 129 (1964).
- V. L. SHEINFELD and V. I. RYKOV, Heat conductivity of standard fluids and its relation to some other physical parameters. *Uch. Zap. (Kishen. Univ-t)* **69**, 30 (1964).
- P. R. SHEVCHUK, Thermal stresses in an infinite space enclosing a spherical foreign body with a homogeneous heat flux at infinity. *Vopr. Mekhan. Realn. Tverd. Tela*, vyp. 3, 38 (1964).
- A. A. SHEVELEV, Temperature stresses in a plate and the choice of an optimum heating regime. *Inzh.-Fiz. Zh.* **8**, No. 1, 79 (1964).
- S. S. SILIN, Calculations of temperature fields in thermal drilling of glacial strata. *Inzh.-Fiz. Zh.* **8**, No. 1, 105 (1965).
- V. D. SOBOLEV, Heat conduction influence on supersonic absorption in a liquid phase of ethyl-acetate. *Primen. Ul'traakust. k Issled. Veshchestva*, vyp. 18, 57 (1963).
- M. S. STAKHANOVA, K. KH. KARAPETYANTS *et al.*, Comparative study of the heat capacities and densities of aqueous electrolyte solutions. *Zh. Fiz. Khim.* **38**, No. 10, 2420 (1964).
- G. A. SURKOV, The application of finite integral transforma-

- tions to problems of unsteady heat conduction in hollow cylinders with a movable internal boundary. *Inzh.-Fiz. Zh.* **8**, No. 3, 375 (1965).
- A. S. TELEGIN, Heating and cooling calculations of a plate, cylinder and sphere under boundary conditions of the first and second kind. *Trudy Uralsk. Politekhn. In-ta*, sb. 137, 33 (1964).
- A. S. TELEGIN, Graphs for calculation of heating and cooling of a square prism, plate and cylinder under boundary conditions of the third kind and small values of the Fourier number. *Trudy Ural'sk. Politekhn. In-ta*, sb. 137, 21 (1964).
- V. P. TITOV, Thermal conditions of air-penetrable joints. *Inzh.-Fiz. Zh.* **8**, No. 2, 156 (1965).
- S. YA. YAREMA, Fundamental solution of approximate equations of a steady state heat conduction problem of slanting envelopes. *Vopr. Mekhan. Realn. Tverd. Tela*, vyp. 3, 88 (1964).
- N. B. VARGAFIK and N. KH. ZIMINA, Heat conductivity of argon at high temperatures. *Teplofiz. Vysok. Temper.* **2**, No. 5, 716 (1964).
- YU. A. VASANOV and YU. G. ZHULEV, An optimum shape of triangular cooling ribs with interradiation between the ribs and to a cooled surface. *Izv. Akad. Nauk SSSR. Energetika i Transport*, No. 3, 391 (1964).
- A. L. USOV, Investigation of contact heat transfer on floor surface. *Inzh.-Fiz. Zh.* **8**, No. 2, 273 (1965).
- V. M. YUDIN, The solution of the heat-conduction problem for semi-infinite body with variable heat-transfer coefficient. *Inzh.-Fiz. Zh.* **7**, No. 12, 90 (1964).
- P. P. ZOLOTAREV, Heat-transfer equations in porous media. *Nauchn. Tekhn. Sborn. po Dobyeh. Nefti*, vyp. 25, 34 (1964).
- CONVECTIVE HEAT TRANSFER**
- V. M. ANTUFIEV and E. K. GUSEV, Effect of flow turbulence on heat transfer and hydrodynamic resistance of tube bundles with longitudinal and helical ribs in transverse flow. *Trudy Leningr. Tekhnol. In-ta Tsellyulozno-Bum. Prom.*, vyp. 14, 129 (1964).
- V. M. ANTUFIEV and E. K. GUSEV, Heat transfer and resistance of tube bundles with longitudinal ribs in cross flow. *Trudy Leningr. Tekhn. In-ta*, vyp. 14, 134 (1964).
- P. M. BRDLIK and B. S. MEZHEVNIKOV, Transient heat regime for water-filled roofings. *Inzh.-Fiz. Zh.* **8**, No. 2, 263 (1965).
- P. M. BRDLIK and V. A. MOCHALOV, Porous blowing and suction with free convection on a vertical surface (a laminar boundary layer). *Inzh.-Fiz. Zh.* **8**, 229 (1965).
- P. M. BRDLIK and V. K. SAVIN, Heat exchange between an axisymmetrical stream and a plate normal to the flow. *Inzh.-Fiz. Zh.* **8**, No. 2, 146 (1965).
- P. M. BRDLIK and I. A. TURCHIN, The effect of discretely distributed air blowing and suction in natural-convection heat transfer on a vertical surface. *Inzh.-Fiz. Zh.* **8**, No. 2, 268 (1965).
- G. A. BUGAENKO, On a particular case of liquid free convection with dissolving and absorbing walls. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 56 (1964).
- L. T. BYKOV, Estimation of velocity of natural convective currents of air in a limited space. *Inzh.-Fiz. Zh.* **8**, No. 2, 208 (1965).
- L. T. BYKOV and V. V. MALOZYEMOV, Some relations of temperature distribution in limited volumes with internal heat convection. *Inzh.-Fiz. Zh.* **8**, No. 2, 204 (1965).
- N. I. BULEEV, K. N. POLOSYPKHINA and V. K. PYSHIN, The hydraulic resistance and heat transfer in a turbulent flow of liquids in a rod lattice. *Teplofiz. Vysok. Temper.* **2**, No. 5, 749 (1964).
- I. P. CHASHCHIN, The influence of the height and pitch of ribs on heat transfer and hydraulic resistances. *Teploenergetika*, No. 10, 59 (1964).
- V. S. DAVYDOV, Distribution of heat transfer on the circumference of a cylinder in longitudinal compressible flow. *Trudy LPI (Leningr. Politekhn. In-t)* No. 232, 47 (1964).
- YU. M. DEDUSENKO, Heat transfer and hydrodynamic resistance of profile tubes (gas-turbine plant). *Trudy Laborat. Gidravil. Mashin (Akad. Nauk USSR)* vyp. 11, 182 (1964).
- S. S. FILIMONOV, M. G. KRYUKOVA and S. V. TEPLOV, Heat transfer investigation into the motion of liquid aluminium in tubes. *Teplofiz. Vysok. Temper.* **2**, No. 6, 901 (1964).
- E. V. FIRSOVA, Investigation of heat transfer and hydraulic resistance in longitudinal flow of water around a tube bundle. *Trudy TsKTI (Tsent. Nauchn.-Issled. i Proektno-Konstr. Kotloturb. In-t)* vyp. 43, 174 (1964).
- V. K. FYEDOROV, An engineering method for calculation of convective heat transfer in unseparated gas flow round bodies. *Inzh.-Fiz. Zh.* **8**, No. 2, 198 (1965).
- L. I. GORDON and L. P. MACHULINA, Heat transfer investigation in convective gas pipes of boilers and water heaters with agitators. *Sb. Trudov In-ta (Vsesoyuzn. Nauchn.-Issled. i Eksper. Konstr. In-t Torg. Mashinostr.)* **9**, 42 (1963).
- A. YU. GASINAZAROV, A. YA. INAYATOV and I. A. KISELEV, Local thermal simulation in a turbulent longitudinal water flow around convective surfaces. *Sb. Nauchn.-Issled. Rabot (Tashk. Tekst. In-t)* vyp. 16, 333 (1964).
- G. I. GIMBUTIS, Heat transfer in an annulus by convection and radiation. *Trudy Akad. Nauk Litovsk. SSR, ser. B*, **2**, 153 (1964).
- V. M. KAPINOS, Heat transfer with gas flowing from the centre to the periphery between two rotating disks. *Inzh.-Fiz. Zh.* **7**, No. 12, 45 (1964).
- V. M. KAPINOS, On heat transfer of an enclosed rotating disk with radial flow of air. *Inzh.-Fiz. Zh.* **8**, No. 1, 48 (1965).
- V. E. KARELIN, Application of a method of an equivalent problem of heat conduction theory for the calculation of a non-isothermic axisymmetric turbulent jet in a co-current flow. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 6 (1964).
- G. N. KHLEBUTIN and G. F. SHADUROV, Heat convection in a vertical annular tube. *Inzh.-Fiz. Zh.* **8**, No. 1, 3 (1965).
- N. D. KRISHTAL, Nomograms for the determination of a heat-transfer coefficient with laminar water motion in a channel. *Sudostr.*, No. 5, 32 (1964).
- L. A. KULONEN, A new method of solving equations of laminar boundary layer. *Zap. Leningr. Gorn. In-ta* **44**, vyp. 3, 87 (1964).

- D. A. LABUNTSOV, Heat transfer of a non-isothermal plate with a laminar boundary layer. *Inzh.-Fiz. Zh.* **8**, No. 3, 403 (1965).
- V. B. LEMBERSKY, Study of heat transfer in a slotted nozzle. *Inzh.-Fiz. Zh.* **7**, No. 12, 117 (1964).
- G. A. MAYATSKY, Heat transfer with free convection in the range of large Grashof numbers. *Izv. Vyssh. Ucheb. Zav. Energetika*, No. 11, 72 (1964).
- G. KH. MUKHAMEDZYANOV and A. G. USMANOV, An application of the similarity method to the investigation of transfer processes in liquids. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 53 (1964).
- N. I. NIKITENKO, Heat-transfer investigation in the entrance region of a channel by built-in alpha-calorimeters. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 11, 79 (1964).
- N. I. NIKITENKO and L. I. NIKITENKO, Heat-transfer determination in a longitudinal flow around tubes and tube bundles. *Teplofiz. Vysok. Temper.* **2**, No. 5, 765 (1964).
- D. A. NUSUPBEKOVA and B. P. USTIMENKO, The calculation of laminar convective heat transfer in a plane curvilinear channel. *Vestn. Akad. Nauk SSR*, No. 7, 51 (1964).
- V. S. NOSOV and N. I. SYROMYATNIKOV, Heat-transfer investigation of a polydispersed dust-gas flow in a vertical channel. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 12, 68 (1964).
- P. I. PUCHKOV and O. S. VINOGRADOV, Investigation of heat transfer and hydraulic resistances of annuli with heat transferring internal surface. *Teploenergetika*, No. 10, 62 (1964).
- S. P. PUSTOVOIT, Some transient problems of convective heat transfer by solids. *Sb. Nauchn. Trudov (Perm. Politekh. In-t)* No. 15, 121 (1964).
- E. RUCKENSTEIN, Comments on the convective diffusion equation. *Inzh.-Fiz. Zh.* **7**, No. 12, 121 (1964).
- I. N. SADIKOV, Laminar heat transfer in a flat channel with non-uniform temperature distribution at the entrance. *Inzh.-Fiz. Zh.* **8**, No. 3, 283 (1965).
- Z. SAKIPOV and D. ZH. TEMIRBAEV, The momentum and heat transfer in a free turbulent jet. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 73 (1964).
- V. K. SHCHUKIN, Determination of heat-transfer coefficients in a tube from the temperature distribution along the profile of its longitudinal section. *Izv. Vyssh. Ucheb. Zaved. Aviats. Tekhn.*, No. 3, 96 (1964).
- A. G. TKACHEV and N. A. BUCHKO, Convective liquid heat transfer with hardening and melting on a surface of solids submerged in it. *Trudy Koordin. Soveshchan. po Gidrotekhn.*, vyp. 10, 210 (1964).
- A. G. TKACHEV and N. A. BUCHKO, Convective liquid heat transfer with hardening and melting on a surface of solids submerged in it. *Trudy Koordin. Soveshchan. po Gidrotekhn.*, vyp. 10, 210 (1964).
- A. V. TONKONOGY and V. V. VYSHENSKY, Convective heat transfer investigation of models of cyclone chambers. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 183 (1964).
- T. V. ZABLOTSKAYA, Heat transfer in a turbulent flow in tubes of media with small Pr numbers. *Trudy TsKTI (Tsent. Nauchn. Issled. i Proektno-Konstr. Kotloturb. In-t)* vyp. 43, 169 (1964).
- K. A. ZHURGEMBAEV and B. P. USTIMENKO, Calculation of laminar and turbulent heat transfer in tubes using a hydrointegrator. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 230 (1964).

RADIANT HEAT TRANSFER

- E. V. ARTYUSHKOV, Radiant heat-transfer processes inside an infinite cylinder and between two infinite cylinders. *Teplofiz. Vysok. Temper.* **2**, No. 5, 758 (1964).
- V. YA. ASTAFIEV, Radiant heat transfer of a light source with an infra-red part in its radiation spectrum. *Izv. Vyssh. Ucheb. Zaved. Fizika*, No. 5, 144 (1964).
- A. L. BURKA, Transient radiant and convective heat transfer on a rectangle. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 162 (1964).
- A. P. GORDON and G. F. MUCHNIK, Determination of the degree of integral blackness of niobium depending on the degree of roughness of a surface. *Teplofiz. Vysok. Temper.* **2**, No. 4, 562 (1964).
- V. V. KARAVAEV, On fluctuations of spectral energetic values in thermal radiation. *Zh. Eksper. i Teoret. Fiz.* **47**, vyp. 5 (11), 1877 (1964).
- YU. A. KOMAROV, G. F. MUCHNIK and E. V. SMIRNOV, The method of determination of the degree of integral blackness at temperatures 100–1000°. *Teplofiz. Vysok. Temper.* **2**, No. 6, 915 (1964).
- P. K. KONAKOV, On the differential method of heat-transfer study. *Inzh.-Fiz. Zh.* **8**, No. 3, 401 (1965).
- A. F. KURBATSKY and A. T. ANUFRIEV, On the radiation cooling of a gas flowing around a flat plate. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 69 (1964).
- O. YU. NOVOSELSKY and V. Z. UKOLOV, Determination of the optimum sizes of radiating fins. *Inzh.-Fiz. Zh.* **7**, No. 12, 54 (1964).
- K. B. PANFILOVICH and A. G. USMANOV, The generalization of experimental data on thermal radiation of equilibrium gases. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 23 (1964).
- YU. S. POSTOLNIK, Radiant heating of bodies of the simplest shape. *Inzh.-Fiz. Zh.* **8**, No. 1, 64 (1965).
- V. A. PROKOFIEV, A propagation theory of thermal radiative waves of low amplitude, based on the Euler equations of gasdynamics and including heat transfer by radiation. *Vestn. Moskovsk. In-ta, ser. 1. Matem., Mekhan.*, No. 5, 55 (1964).
- I. B. RUSSMAN, Reduction of a problem of radiant transfer in a semi-infinite space to a singular equation. *Zh. Vychisl. Matem. i Matem. Fiz.* **4**, No. 6, 1122 (1964).
- V. V. SALOMATOV and G. P. BOIKOV, Heating bodies by a radiant heat flux from a variable-temperature heat source. *Inzh.-Fiz. Zh.* **8**, No. 3, 369 (1965).
- YU. A. SURINOV, The theoretical bases of zonal calculation of radiant heat transfer in industrial furnaces. *Izv. Vyssh. Ucheb. Zav. Chern. Metallurg.*, No. 5, 164 (1964).
- YU. A. SURINOV, The theoretical bases of the zonal calculation method of radiant heat transfer in high-temperature industrial electric furnaces. *Izv. Vyssh. Ucheb. Zav. Energetika*, No. 8, 76 (1964).
- YU. A. VASANOV, The influence of thermal resistance of coatings on thermal radiation characteristics of star-shaped emitters. *Izv. Akad. Nauk SSSR. Energ. i Transport*, No. 6, 743 (1964).

S. YA. YAREMA, Solution of a temperature problem for a solid spherical shell in a case of concentrated heating. *Nauchn. Zap. In-ta Mashinoved. i Avtom. Akad. Nauk USSR* **10**, vyp. 9, 80 (1964).

V. S. ZARUBIN, The temperature state of a semitransparent spherical shell. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 175 (1964).

TRANSFER PROCESSES INVOLVING PHASE CONVERSIONS

F. F. BOGDANOV, Investigation of critical heat fluxes of monoizopropildifenil in tubes, subcooled to saturation temperature. *Atomn. Energ.* **17**, vyp. 5, 408 (1964).

V. M. BORISHANSKY, The pressure effect in the calculation of heat transfer of condensing saturated steam. *Energomashinostr.*, No. 10, 38 (1964).

V. M. BORISHANSKY and B. S. FOKIN, Correlation of heat transfer data for steady film boiling on vertical surfaces in free liquid convection in a large volume. *Inzh.-Fiz. Zh.* **8**, No. 3, 290 (1965).

V. A. BORODIN, YU. F. DITYAKIN and V. I. YAGODKIN, On the mechanisms of decomposition of a drop moving in gas flow. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 100 (1964).

P. M. BRDLIK, I. A. KOZHINOV and N. G. PETROV, Experimental study of heat and mass transfer in condensation of water vapour from humid air on a vertical surface under natural convection. *Inzh.-Fiz. Zh.* **8**, No. 2, 243 (1965).

YU. A. BUEVICH, Diffusional and thermal relaxation on a plane evaporating surface. *Inzh.-Fiz. Zh.* **8**, No. 3, 341 (1965).

V. V. CHEKANOV, The experimental study of a boiling process. *Uch. Zap. (Kabard.-Balk. Un-t)*, vyp. 19, 81 (1963).

M. F. FEDOROVA and A. N. ALIEV, Neon and argon adsorption isotherms on BAU carbon and KSM silica gel at low temperatures and pressures. *Zh. Fiz. Khim.* **38**, vyp. 12, 2792 (1964).

I. I. GELPERIN and A. M. KAGAN, Heat transfer from boiling water at small thermal loads. *Khim. Prom.*, No. 8, 616 (1964).

L. N. GRIGORIEV, I. KH. KHAIRULLIN and A. G. USMANOV, The experimental investigation of critical heat flows in boiling of binary mixtures. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 82 (1964).

L. N. GRIGORIEV, L. A. SARKISYAN and A. G. USMANOV, Investigation of heat transfer in boiling of three-component mixtures. *Trudy Kazansk. Khim.-Tekhnol. In-ta*, vyp. 32, 72 (1964).

M. E. DEICH, V. F. STEPANCHUK *et al.*, The experimental study of condensation jumps. *Teplofiz. Vysok. Temper.* **2**, No. 5, 789 (1964).

YU. N. KALASHNIKOV, The influence of relative velocity of a gas bubble in liquid on the change of its dimensions. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 105 (1964).

I. KATTO, A study of the process of the heat transfer in fully-developed nucleate pool boiling on free surfaces. *Inzh.-Fiz. Zh.* **7**, No. 12, 13 (1964).

YA. I. KIL'MAN, Boiling temperature of solutions of nitric acid and ammoniacal saltpetre at different pressures. *Khim. Prom.*, No. 11, 844 (1964).

YU. F. KOMLIK, Characteristic temperatures of thin film condensation. *Fiz. Tverd. Tela* **6**, vyp. 10, 2897 (1964).

V. N. KOSTIN and A. G. RYCHKOV, Heat transfer on fluted heating surfaces in water boiling. *Khim. i Neft. Mashinostr.*, No. 2, 30 (1964).

S. A. KOVALEV, On stability of boiling conditions. *Teplofiz. Vysok. Temper.* **2**, No. 5, 780 (1964).

S. S. KUTATELADZE, A. I. LEONTIEV and A. G. KIRDYASHKIN, A contribution to the nucleate boiling heat transfer theory. *Inzh.-Fiz. Zh.* **8**, No. 1, 7 (1965).

E. V. LYKOV, Dependence of the character of sound and of the heat transfer of binary mixtures in nuclear boiling. *Uch. Zap. (Kabard.-Balkar. Un-t)* vyp. 19, 367 (1963).

N. I. NIKITENKO, The investigation of heat transfer involving a change of the aggregation state of a system of bodies. *Inzh.-Fiz. Zh.* **8**, No. 1, 16 (1965).

A. P. ORNATSKY, L. F. GLUSHCHENKO and V. A. CHERNOBAI, The pressure effect on hydraulic resistance in surface boiling. *Teplofiz. Vysok. Temper.* **2**, No. 6, 910 (1964).

T. A. PAK and V. B. KOGAN, Checking and calculation of equilibrium between steam and saturated solution in ternary systems. *Zh. Fiz. Khim.* **38**, vyp. 9, 2121 (1964).

YA. M. RAIKIN, Prediction of the velocity of the vapour-water mixture at which heat transfer decreases. *Inzh.-Fiz. Zh.* **8**, No. 3, 393 (1965).

R. A. RYBIN, Methods of investigation and experimental results of the study of critical heat fluxes for water boiling in tubes of different diameters. *Trudy TsKTI (Tsentr. Nauchn.-Issled. i Proekt.-Konstr. Kotloturb. In-t)* vyp. 43, 203 (1964).

A. I. RYCHKOV, Simplified calculations of a formula for the determination of heat-transfer coefficients in film condensation of pure, slowly moving steam. *Trudy Mosk. In-ta Khim. Mashinostr.* **26**, 137 (1964).

N. P. SHAMANOV, Generation and growth of bubbles in water boiling in channels. *Inzh.-Fiz. Zh.* **8**, No. 3, 294 (1965).

L. S. SHTOKOLOV, Heat-transfer crisis in boiling of ethyl alcohol at high flow velocities. *Inzh.-Fiz. Zh.* **7**, No. 12, 3 (1964).

L. S. SHVINDLERMAN, On the heating of "thin" bodies in liquid media. *Inzh.-Fiz. Zh.* **8**, No. 1, 53 (1965).

M. A. STYRIKOVICH, E. P. SEROV *et al.*, Some heat- and mass-transfer characteristics in steam-generating tubes. *Izv. Akad. Nauk SSSR. Energ. i Transport*, No. 5, 620 (1964).

V. I. SUBBOTIN, M. N. IVANOVSKY *et al.*, Heat transfer in potassium vapour condensation. *Teplofiz. Vysok. Temper.* **2**, No. 4, 616 (1964).

YU. V. VIKHROV and V. A. LOKSHIN, The experimental investigation of the temperature regime of horizontal steam generating tubes in supercritical pressures. *Teploenergetika*, No. 12, 79 (1964).

B. A. ZENKEVICH, On fundamental laws of boiling crisis in forced flow of water in tubes. *Izv. Akad. Nauk SSSR. Energetika i Transport*, No. 6, 762 (1964).

TRANSFER PROCESSES INVOLVING CHEMICAL CONVERSIONS

N. A. ANFIMOV, Graphite burning in air flow at high tem-

- peratures. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 3 (1964).
- V. S. BABKIN, L. S. KOZACHENKO and I. L. KUZNETSOV, The pressure effect on normal flame speed in methane-air mixture. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 145 (1964).
- V. V. BARZYKIN, V. T. GONTKOVSAYA *et al.*, On transient theory of thermal explosion. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 118 (1964).
- V. V. BARZYKIN and A. G. MERZHANOV, Thermal detonation of condensed systems under conditions of weak heat exchange with the surroundings. *Zh. Fiz. Khim.* **38**, vyp. 11, 2640 (1964).
- V. S. BESKOV, V. A. KUSIN and M. G. SLIN'KO, Simulation of chemical processes in a stationary layer of catalyser. Longitudinal transfer of substance and heat. *Khim. Prom.*, No. 1, 4 (1965).
- V. K. BOBOLEV, A. P. GLAZKOVA *et al.*, The temperature distribution study in burning of ammonium perchlorate. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 153 (1964).
- S. V. BUKHMAN, Coal dust burning. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 246 (1964).
- O. K. DAVTYAN, The mechanism and kinetics of current generating processes of electrochemical gas combustion. *Zh. Fiz. Khim.* **38**, vyp. 12, 2812 (1964).
- SH. A. ERSHIN, The experimental investigation of the acrodynamics of the turbulent flame in burning of a homogeneous gas mixture. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 92 (1964).
- SH. A. ERSHIN and L. P. YARIN, Investigation of diffusive flames. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 101 (1964).
- SH. A. ERSHIN and L. P. YARIN, The thermal conditions of burning of a turbulent gas flame. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 140 (1964).
- YU. A. FINAEV, Rate of combustion of peat and peat coke particles in a flow. *Inzh.-Fiz. Zh.* **8**, No. 1, 11 (1965).
- YU. A. GOSTINTSEV and A. D. MARGOLIN, Transient burning of thin plates of gunpowder. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 167 (1964).
- A. G. ISTRATOV, V. B. LIBROVICH and B. V. NOVOZHILOV, An approximate method in the theory of transient combustion velocity of powder. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 139 (1964).
- K. KHARTMANN and B. V. PASSET, Application of reactors of continuous action to the study of kinetics of chemical processes. *Zh. Prikl. Khim.* **37**, vyp. 12, 2662 (1964).
- A. B. KISELEV, V. I. LYGIN and T. I. TITOVA, A study of specific adsorption of ammonia on silica and zeolite by the method of infra-red spectroscopy. *Zh. Fiz. Khim.* **38**, vyp. 11, 2730 (1964).
- A. V. KISELEV, YU. S. NIKITIN *et al.*, The use of coarsely porous silica gel for gas chromatographic analysis at high temperatures. *Zh. Fiz. Khim.* **38**, vyp. 9, 2328 (1964).
- V. G. KNORRE and G. I. KOZLOV, Kinetics and mechanism of the thermal decomposition of ethane. *Zh. Fiz. Khim.* **38**, vyp. 11, 2633 (1964).
- V. E. KOCHURIKHIN and YA. D. ZEL'VENSKY, Adsorption isotherms and separation coefficients of hydrogen isotopes in low temperature adsorption on synthetic zeolites. *Zh. Fiz. Khim.* **38**, vyp. 11, 2594 (1964).
- L. S. KOROTKOV, On the determination of the heating time of a fuel particle at high-speed heat transfer. *Teploenergetika*, No. 12, 89 (1964).
- M. KURMANGALIEV and A. KAZANGAPOV, The motion and burning of a single drop of liquid fuel in a cyclone chamber. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 273 (1964).
- YU. P. LUN'KIN and F. D. POPOV, Influence of non-equilibrium dissociation on supersonic flow round blunted bodies. *Zh. Vychisl. Matem. i Matem. Fiz.* **7**, No. 5, 896 (1964).
- A. D. MARGOLIN, O. I. NEFEDOVA and P. F. POKHIL, Dependence of combustion velocity of different fuel systems on the initial temperature. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 149 (1964).
- A. YA. MUTRISKOV, O. V. MAMINOV and K. G. ISMAGILOV, The temperature effect on chemisorption process in a bubble foam regime. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 152 (1964).
- E. NUREKENOV, Heat and mass transfer of rotating coal dust particles. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 269 (1964).
- V. P. RYABOV, Continuous determination of the hydrogen content of complex gas mixtures by the diffusion method. *Zh. Fiz. Khim.* **38**, vyp. 12, 3031 (1964).
- V. G. RYABOVA and L. V. GURVICH, Determination of dissociation energy of metal halogen on the basis of investigations of reaction equilibrium in flames. *Teplofiz. Vysok. Temper.* **2**, No. 5, 834 (1964).
- I. V. Sergeev, Application of variational methods to non-uniform fuel burn-up. *Inzh.-Fiz. Zh.* **7**, No. 12, 106 (1964).
- A. V. TONKONOGY, M. P. KURMANGALIEV and A. A. KONIRBAEV, An investigation of the character of the combustion process in a cyclone chamber with a flat diaphragm. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 266 (1964).
- L. L. VOLOSOVA, An experiment at the Boiler-Turbine Institute of using the chromatographic method for the analysis of combustion products of gas fuels. (Dokl. na Konf. Molod. Spets. In-ta. May 1962). *Trudy TsKTI (Tsent. Nauchn.-Issled. i Proektno-Konstr. Kotl. In-t)* vyp. 43, 128 (1964).
- V. A. VYRODOV and E. V. AFANASIEVA, The influence of the chemical reaction on mass transfer in heterogeneous media with a free surface of phase separation. *Zh. Prikl. Khim.* **37**, vyp. 9, 1977 (1964).
- E. M. ZAKHAROV, EMF of a galvanic cell in the non-equilibrium state. *Zh. Fiz. Khim.* **38**, vyp. 12, 2950 (1964).
- YA. B. ZEL'DOVICH, Powder combustion velocity at variable pressure. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 126 (1964).
- YA. B. ZEL'DOVICH, S. B. KORSHER *et al.*, Investigation of the smoothness of the detonation front in a liquid explosive substance. *Dokl. Akad. Nauk SSSR* **158**, No. 5, 1051 (1964).
- A. A. ZHAROV and N. S. ENIKOLOPYAN, A method of investigation of reaction kinetics at high pressures using a glass dilatometer. *Zh. Fiz. Khim.* **38**, vyp. 11, 2727 (1964).

MASS TRANSFER

- G. A. AKSEL'RUD and L. A. POKHODENKO, Kinetics of the extraction of a solid from a single capillary. *Zh. Fiz. Khim.* **38**, vyp. 12, 2971 (1964).

- A. ALUMYAE, A method for investigation of moisture migration in outside walls of buildings. *Inzh.-Fiz. Zh.* **8**, No. 2, 255 (1965).
- V. I. ASTAKHOV, D. D. ZYKOV and V. S. KORTIKOV, A number of transfer units in rectification of binary mixtures. *Khim. Prom.*, No. 10, 763 (1964).
- E. A. BELENOV and V. I. ASTAKHOV, Some peculiarities of mass-transfer equations. *Khim. Prom.*, No. 10, 762 (1964).
- E. A. BELENOV, P. G. BOYARCHUK and D. D. ZYKOV, A calculation method of mass-transfer coefficients. *Khim. Prom.*, No. 10, 754 (1964).
- E. A. BELENOV and D. D. ZYKOV, The calculation methods of a mass-transfer process in rectification of binary mixtures. *Izv. Vyssh. Ucheb. Zav. Khim. i Khim. Tekhnol.* **7**, No. 4, 661 (1964).
- B. G. BERGO, Investigation with the help of a computer of the separation process of propane-propylene mixture by a condensation-evaporation method. *Khim. Prom.*, No. 10, 725 (1964).
- V. N. BOGOSLOVSKY, On the moisture potential. *Inzh.-Fiz. Zh.* **8**, No. 2, 216 (1965).
- L. N. CHEKALOV, On mass-transfer kinetics in rectification of multicomponent mixtures. *Khim. Prom.*, No. 10, 746 (1964).
- B. A. CHERTKOV, Mass-transfer coefficients in absorption of SO₂ from gases by ammonium sulphite-bisulphite solutions. *Zh. Prikl. Khim.* **37**, vyp. 11, 2437 (1964).
- V. V. DIL'MAN, An unsteady diffusion flow to a moving droplet at small *Re* numbers. *Inzh.-Fiz. Zh.* **8**, No. 3, 319 (1965).
- V. V. DIL'MAN, Calculation of the extraction factor of mass-transfer installations, including the effect of mixing. *Zh. Prikl. Khim.* **37**, vyp. 11, 2456 (1964).
- V. N. DORONIN and A. M. NIKOLAEV, Mass-transfer investigation in a pulsating extraction column with rotating flow. *Izv. Vyssh. Ucheb. Zaved. Khim. i Khim. Tekhnol.* **7**, No. 4, 665 (1964).
- YU. I. DYTNERSKY and R. K. KOKH, Determination of a moving force of a mass-transfer process on contact plates. *Zh. Prikl. Khim.* **37**, vyp. 10, 2228 (1964).
- V. B. FIKS and E. V. STEPIN, Measurement of equivalent diffusion coefficients in the separation of isotopes by the ionic mobility method. *Zh. Fiz. Khim.* **38**, vyp. 3, 2260 (1964).
- G. G. FILIPPOV, K. I. SAKODYNSKY and YA. D. ZEL'VENSKY, Calculation of two-temperature isotope separation by the method of effective concentrations. *Khim. Prom.*, No. 1, 10 (1965).
- L. S. FREIMAN, Mass transfer in a wetted maize seed. *Inzh.-Fiz. Zh.* **7**, No. 12, 75 (1964).
- V. M. ILINSKY, Transfer coefficients of water vapour for the calculation of the humidity of external parts of buildings. *Inzh.-Fiz. Zh.* **8**, No. 2, 223 (1965).
- V. V. KAFAROV and V. V. SHESTOPALOV, The influence of longitudinal liquid mixing on mass-transfer process in a packed column. *Zh. Prikl. Khim.* **37**, vyp. 11, 2461 (1964).
- V. M. KAZANSKY, Temperature dependence of moisture-transfer potential in capillary-porous bodies. *Inzh.-Fiz. Zh.* **8**, No. 2, 211 (1965).
- E. N. KONSTANTINOV and A. M. NIKOLAEV, Mass-transfer investigation in rectification of multicomponent mixtures. *Trudy Kazan. Khim.-Tekhnol. In-ta*, vyp. 32, 96 (1964).
- L. S. KOTOUSOV, On the effect of pressure on interdiffusion of gases. *Zh. Tekhn. Fiz.* **34**, vyp. 12, 2178 (1964).
- V. V. KRASNIKOV, Thermodynamic characteristics of mass-transfer for some grain crops. *Izv. Vyssh. Ucheb. Zaved. Pishchev. Tekhnolog.*, No. 3, 127 (1964).
- O. S. KSENZHEK, E. A. KALINOVSKY and V. P. TSYACHNYI, Diffusion and flow of gas through porous nickel electrodes. *Zh. Prikl. Khim.* **37**, vyp. 12, 2619 (1964).
- O. S. KSENZHEK, E. A. KALINOVSKY and L. P. TSYGANOK, Capillary equilibrium in porous media with intersecting pores. *Zh. Fiz. Khim.* **38**, vyp. II, 2587 (1964).
- E. M. NAFIKOV and A. G. USMANOV, Similarity of processes of molecular diffusion of gases and vapours. *Trudy Kazansk. Khim. Tekhnol. In-ta*, vyp. 32, 17 (1964).
- B. V. NEVSKY, I. P. SMIRNOV and S. A. PIRKOVSKY, The influence of mass-transfer intensity on some indices of the process of autoclave leaching of uranic raw material. *Atomn. Energ.* **17**, vyp. 3, 201 (1964).
- F. B. PETLYUK and V. M. PLATONOV, Thermodynamic reversible multicomponent rectification. *Khim. Prom.*, No. 10, 723 (1964).
- A. N. PLANOVSKY, N. U. RIZAEV and K. V. MERENKOV, The characteristics of field concentrations of adsorptive apparatuses. *Trudy Tashk. Politekh. In-ta*, vyp. 22, 43 (1964).
- I. G. PLIT, A theory of chemisorption in counter flows of gas and drops of "large" diameter. *Izv. Vyssh. Ucheb. Zaved. Khim. i Khim. Tekhnol.* **7**, No. 5, 842 (1964).
- N. U. RIZAEV and N. M. KOROL'KOV, Investigation of dynamics of exchange adsorption (tartaric, citric and lactic acids) on anionite AN-2F. *Trudy Tashk. Politekh. In-ta*, vyp. 22, 52 (1965).
- N. U. RIZAEV and N. M. KOROL'KOV, A derivation of a critical dependence of adsorption process (tartaric, citric and lactic acids) on anionite. *Trudy Tashken. Politekh. In-ta*, vyp. 22, 58 (1963).
- N. U. RIZAEV, N. M. KOROL'KOV and G. S. KOROBCHENKO, Mass transfer investigation in liquid adsorption. *Uzbek. Khim. Zh.*, No. 3, 74 (1964).
- N. U. RIZAEV and K. V. MERENKOV, A mass-transfer process in a fluidized bed of ionite. (Citric acid recovery.) *Trudy Tashk. Politekh. In-ta*, vyp. 22, 61 (1963).
- A. I. RODIONOV and V. M. RADIKOVSKY, The influence of liquid viscosity on mass-transfer coefficients on a perforated tray. *Zh. Prikl. Khim.* **37**, vyp. 8, 1757 (1964).
- G. P. SOLOMAKHA, Mass-transfer equations in the gas phase on a lattice and on perforated trays. *Khim. Prom.*, No. 10, 749 (1964).
- A. V. TONKONOGY and V. V. VYSHENSKY, Mass transfer investigation on models of cyclone chambers. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 206 (1964).
- B. P. VOLGIN, L. YA. ZHIVAIKIN and L. A. NORKINA, Adsorption of gases in a multistage installation of Venturi scrubbers. *Izv. Vyssh. Ucheb. Zav. Khim. i Khim. Tekhnol.* **7**, No. 5, 852 (1964).
- V. I. YATSEEV, Convective diffusion in a conic diffuser. *Uch. Zap. (Perm. Un-t)* No. 103, 121 (1963).
- L. A. ZHMAI and V. M. OLEVSKY, Mass-transfer investigation in film tubular rectification columns. *Khim. Prom.*, No. 10, 757 (1964).

SIMULTANEOUS HEAT AND MASS TRANSFER

- I. G. BAZHAN, Connection between heat and mass transfer of crystallizing dispersed systems. *Sakharn. Prom.*, No. 6, 12 (1964).
- S. V. BUKHMAN and E. NUREKNOV, Heat and mass transfer from a sphere with a study of dependence of the transfer coefficients on temperature and pressure. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 265 (1964).
- A. V. LUIKOV, Mass and heat transfer in building materials. *Inzh.-Fiz. Zh.* **8**, No. 2, 161 (1965).
- N. A. NIKOLAEV, Hydrodynamics and mass transfer investigation in an apparatus with uniflow contact arrangements. *Trudy Kazansk. Khim.-Tekhnol. In-ta*, vyp. 32, 229 (1964).
- V. V. PUCHKOVSKY, Moisture transfer due to an internal heat source in a closed system. *Inzh.-Fiz. Zh.* **8**, No. 3, 336 (1965).
- B. I. REZNIKOV and G. A. TIRSKY, Generalized analogy between mass-exchange coefficients in a laminar multi-component boundary layer with an arbitrary pressure gradient. *Dokl. Akad. Nauk SSSR* **158**, No. 4, 798 (1964).
- P. V. TSOI, Matrix functions and their application to heat- and mass-transfer problems. *Inzh.-Fiz. Zh.* **8**, No. 3, 380 (1965).
- I. P. ZHUK and L. I. PISARCHIK, Heat transfer in building enclosing constructions. *Inzh.-Fiz. Zh.* **8**, No. 2, 170 (1965).
- L. ZH. ZHUMABEKOV, A particular heat- and mass-transfer problem. *Inzh.-Fiz. Zh.* **8**, No. 3, 386 (1965).

AEROHYDRODYNAMICS

- R. G. BARANTSEV and YU. SHLAZHA, On the asymptotic structure of boundary layer for large Mach numbers. *Vest. Leningr. Univ.*, No. 19, ser. *Matem., Mekhan. i Astron.*, vyp. 4, 83 (1964).
- S. M. BELOTSERKOVSKY, B. K. SKRIPACH and V. G. TABACHNIKOV, Determination of transient aerodynamic characteristics of cones. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 140 (1964).
- S. M. BELOTSERKOVSKY, V. S. SUKHORUKIKH and V. S. TATARENCHIK, Determination of density field of three-dimensional gasdynamic flows by optical methods. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 95 (1964).
- M. K. BEREZINA, A. N. SEMENOV and M. P. SYSHCHIKOVA, Some investigation methods of transient phenomena in shock tubes. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 154 (1964).
- G. I. BODYAKOV, Unsteady flow of viscous incompressible liquid between two cylinders. *Inzh.-Fiz. Zh.* **8**, No. 1, 41 (1965).
- N. V. BOIKO and E. E. SHPIL'RAIN, Some problems of experimental investigation methods of heat conductivity of materials at high temperatures. *Teplofiz. Vysok. Temper.* **2**, No. 4, 549 (1964).
- V. A. BORODIN, L. N. BRITNEVA *et al.*, On breaking a liquid jet in gas flow. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 59 (1964).
- YU. T. BORSHCHEVSKY and L. YA. CHURAKOV, On the motion of a two-phase turbulent flow between parallel plates. *Trudy Novosib. In-ta Inzhen. Vodn. Transp.*, vyp. 16, 3 (1964).
- V. I. BUDNIKOV and A. V. SERGIEVSKY, On the stability of the system of parallel boiling channels. *Inzh.-Fiz. Zh.* **8**, No. 3, 300 (1965).
- B. M. BULAKH, On the theory of hypersonic flow of viscous gas around a blunt-nose body. *Prikl. Matem. i Mekhan.* **28**, vyp. 6, 1008 (1964).
- I. G. BULINA, V. P. MYASNIKOV and V. G. SAVIN, Experimental investigation of a plane flow of a viscous plastic medium around blunted bodies. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 127 (1964).
- F. I. BUSOV, V. B. YUFEROV and E. I. SKIBENKO, The improvement of vacuum in the pre-charging chamber near supersonic gas jets. *Zh. Tekhn. Fiz.* **34**, vyp. 12, 2156 (1964).
- Z. S. GALANOVA, Laminar boundary layer with radiation and no pressure gradient. *Vestn. Leningr. Univ.*, No. 19, ser. *Matem., Mekhan. i Astron.*, vyp. 4, 86 (1964).
- F. A. GARIFULLIN, K. D. VACHAGIN and O. V. MAMINOV, Non-Newtonian liquid flow between two rotating disks. *Trudy Kazansk. Khim.-Tekhnol. In-ta*, vyp. 32, 169 (1964).
- S. M. GLINSKY, G. F. TELENIN and G. P. TINYAKOV, A calculation method of supersonic flow around blunted bodies with a detached shock wave. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 4, 9 (1964).
- G. A. GOSHEV, Electric simulation of plane hydrodynamic flows near a free surface. *Izv. Akad. Nauk SSSR. Energ. i Transport*, No. 5, 644 (1964).
- G. A. GRINBERG, Steady motion of viscous conducting fluid in rectilinear pipes under transverse magnetic fields. *Zh. Tekhn. Fiz.* **34**, vyp. 10, 1721 (1964).
- M. E. DEICH, V. F. STEPANCHUK and G. V. TSIKLAURI, Statical pressure distribution in wet steam flow. *Izv. Vyssh. Ucheb. Zav. Energetika*, No. 8, 111 (1964).
- N. S. DMITRIEV, On velocity formulae in turbulent flow through tubes. *Trudy (Ural'sk. Politekhn. In-t.)*, sb. 139, 101 (1964).
- M. E. DEICH and G. V. TSIKLAURI, Divergence characteristics of contracting axisymmetric nozzles for superheated and wet steam. *Izv. Akad. Nauk SSSR. Energetika i Transport*, No. 3, 383 (1964).
- V. G. DULOV, On equations of stationary axisymmetric gas flows in terms of variables "pressure—a function of current". *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 164 (1964).
- YU. N. ERMAK and V. YA. NEILAND, On a theory of three-dimensional laminar boundary layer. *Zh. Vychisl. Matem. i Matem. Fiz.*, **4**, No. 5, 950 (1964).
- A. YA. INAYATOV, A new experimental formula for the calculation of aerodynamic resistance of longitudinal tube bunches. *Sb. Nauchn. Rabot (Tashk. Tekstil. In-t.)*, vyp. 16, 34 (1964).
- M. N. IOSIFOV, Some results of aerodynamic study of turbulence promoters with counter swirling of the flow. *Izv. Vyssh. Ucheb. Zav. Energetika*, No. 9, 54 (1964).
- S. A. KAGANOV, Liquid flow between rotating coaxial cylinders with frictional heat and temperature dependent viscosity. *Inzh.-Fiz. Zh.* **8**, No. 3, 307 (1965).
- V. P. KASHKAROV and A. T. LUK'YANOV, Calculation of a flow of liquid with variable viscosity round a plate. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 132 (1964).
- V. K. KEDRINSKY and G. M. PIGOLKIN, Stability of a col-

- lapsing gas cavity in rotating liquid. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 113 (1964).
- V. V. KELDYSH, Resistance of an arrow-shaped blunted edge of a wing in hypersonic velocities. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 145 (1964).
- V. I. KHOLYAVKO, Flow around step-shaped bodies under a small angle of attack by a hypersonic gas flow. *Izv. Vyssh. Ucheb. Zaved. Aviat. Tekhn.*, No. 3, 3 (1964).
- D. S. KOVNER and V. B. LEVIN, A turbulent flow of electroconductive liquid in a tube in a longitudinal magnetic field. *Teplofiz. Vysok. Temper.* 2, No. 5, 742 (1964).
- L. F. KOZLOV, An approximate calculation method of optimum liquid suction from a boundary layer of wing profiles with a porous surface. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 169 (1964).
- DZH. KUK, Three-dimensional turbulent boundary layers. *Mekhanika (Sb. Perevodov)* No. 5, 65 (1964).
- L. A. LADNOVA, The laminar boundary layer on a flat plate in the presence of thermodynamical and chemical instability. *Vestn. Leningr. Univ., No. 19, ser. Matem., Mekhan. i Astron.*, vyp. 4, 114 (1964).
- I. V. LEBEDEV, A. M. BAKLASTOV *et al.*, On estimation of the onset of turbulence in channels of heat exchangers. *Teploenergetika*, No. 12, 82 (1964).
- V. B. LEVIN, Calculation of principal characteristics of turbulent flows with a cross shift. *Teplofiz. Vysok. Temper.* 2, No. 4, 588 (1964).
- V. B. LEVIN, Stabilizing influence of flow rotation on turbulence. *Teplofiz. Vysok. Temper.* 2, No. 6, 892 (1964).
- YU. B. LIFSHTS, Some exact equation solutions of transonic gas flows. *Zh. Vychisl. Matem. i Matem. Fiz.* 4, No. 5, 954 (1964).
- YU. B. LIFSHTS and O. S. RYZHOV, Transit through the sound velocity in Laval's nozzles with a circular cross-section. *Dokl. Akad. Nauk SSSR* 158, No. 3, 562 (1964).
- V. V. LUNEV, A hypersonic flow round thin blunted bodies with physico-chemical gas transformations in a high-entropy layer. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 145 (1964).
- G. I. MAIKAPOR, On the building up of supersonic flow around solids with the help of plane density waves. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 142 (1964).
- A. M. MKHITARYAN and M. P. OVSYANNIKOV, Determination of linearized disturbance fluxes in a high supersonic air flow round asymmetric conical bodies. *Inzh.-Fiz. Zh.* 7, No. 12, 95 (1964).
- V. V. MALOZYEMOV and I. A. TURCHIN, Methods for the determination of temperature fields by interferometry. *Inzh.-Fiz. Zh.* 8, No. 2, 182 (1965).
- G. I. MELKONYAN, Motion of a preheated viscous fluid along a cylindrical pipeline including heat transfer. *Trudy Leningr. In-ta Vodn. Transp.*, vyp. 51, 22 (1964).
- M. M. NAZARCHUK, On the transonic region in a plane parallel flow of viscous gas. *Inzh.-Fiz. Zh.* 8, No. 3, 311 (1965).
- N. P. NERONOV, Condition of continuity in hydrodynamics. *Zap. Leningr. Gorn. In-ta* 44, vyp. 3, 28 (1964).
- N. P. NERONOV, Solutions of a particular plane problem of hydrodynamics. *Zap. Leningr. Gorn. In-ta* 44, vyp. 3, 34 (1964).
- N. I. NIKITENKO, Hydrodynamic resistance and heat transfer of a screened disk in radial flow through a gap. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 9, 49 (1964).
- I. B. PALATNIK and D. ZH. TIMIRBAEV, On propagation of free turbulent jets flowing out from a square-shaped packing. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 18 (1964).
- N. N. PATARAYA, Tangential stresses near a surface of a body, moving in liquid. *Trudy Tbil. Un-ta* 102, 115 (1964).
- V. V. PAVLOVSKY, Equations of body motion of variable mass in liquid. *Izv. Leningr. Elektrotekhn. In-ta*, vyp. 53, 146 (1964).
- V. V. PAVLOVSKY, Potential flow round a sphere, from which issues a turbulent jet. *Izv. Leningr. Elektrotekhn. In-ta*, vyp. 53, 152 (1964).
- G. I. PAVLOVSKY, E. G. BRATUTA and YU. V. NAKHMAN, Flow rate of wet steam through cascades at subsonic velocities. *Inzh.-Fiz. Zh.* 7, No. 12, 79 (1964).
- V. A. PEREPUKHOV, Flow around a circular plate under conditions of a molecular boundary layer. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 142 (1964).
- A. P. PUDOVEEV, A supersonic analogy method for calculation of one-dimensional unsteady gas flows. *Izv. Vyssh. Ucheb. Zaved. Aviat. Tekhn.*, No. 2, 81 (1964).
- V. F. ROZHNOV, On the interpretation of interferograms in the study of concentration fields of gaseous impurities. *Inzh.-Fiz. Zh.* 8, No. 2, 186 (1965).
- O. S. RYZHOV and G. M. SHEFTER, On influence of viscosity and heat conductivity on the structure of compressible flows. *Prikl. Matem. i Mekhan.* 28, vyp. 6, 996 (1964).
- Z. SAKIPOV, The experimental investigation of semi-restricted jets. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 29 (1964).
- M. S. SAMOILOV, A contribution to the theory of turbulent vortex jet of incompressible fluid. *Inzh.-Fiz. Zh.* 8, No. 3, 325 (1965).
- M. S. SAMOILOV, A twisted free jet of compressible fluid in stationary medium. *Izv. Vyssh. Ucheb. Zaved. Mashinostr.*, No. 6, 127 (1964).
- M. S. SAMOILOV, Hydrodynamics and heat transfer of the propagation of a twisted jet of incompressible liquid in a fluid-filled space. *Izv. Vyssh. Ucheb. Zaved. Mashinostr.*, No. 5, 100 (1964).
- A. N. SEMENOV, Determination of gas density behind the shock wave by shadowgraph method. *Inzh. Zh.* 4, No. 4, 743 (1964).
- E. V. SEMENOV, Development of waves on a film surface of variable viscosity in gas flow. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 165 (1964).
- P. A. SEMENOV and A. V. SOLOVIEV, A flow of thin liquid films. *Inzh.-Fiz. Zh.* 7, No. 12, 85 (1964).
- A. I. SERBINA and T. M. BORISENKO, Onset of turbulent pulsation in a gas-liquid mixture flow. *Uch.-Zap. (Chcheno-Ingysk. Ped. In-t) No. 22, ser. Fiz.-Mat.*, vyp. 7, 67 (1964).
- YE. M. SHAKHOV, Flow of viscous heat-conducting gas in a hypersonic shock wave. *Inzh. Zh.* 4, No. 4, 646 (1964).
- E. A. SHAKIROVA, An application of boundary-layer theory for the calculation of a secondary flow separation in a case of sharp expansion. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 12, 91 (1964).

- G. S. SHANDOROV, On elimination of gassing of a liquid by the non-submerged portion of a turbulent jet. *Inzh.-Fiz. Zh.* 7, No. 12, 83 (1964).
- DZH. V. SHARIKADZE, Steady flow of viscous conductive fluid along porous tubes of constant cross-section. *Trudy Tbil. Un-ta* 102, 121 (1964).
- R. I. SHKADOV, Some cases of laminar one-dimensional motion of a mixture of viscous liquid with solid particles. *Zap. Leningr. Gorn. In-ta* 44, vyp. 3, 56 (1964).
- A. V. SHUT'KO, On statistic turbulent theory. *Dokl. Akad. Nauk SSSR* 158, No. 5, 1058 (1964).
- YU. S. SIGOV, Kinetic theory of a boundary layer between rarefied plasma and a magnetic field. *Zh. Vychisl. Matem. i Matem. Fiz.* 4, No. 6, 1065 (1964).
- YU. S. SIGOV and B. A. TVERSKY, The structure of a boundary layer between a magnetic field and plasma flow. *Geomagnetizm i Aeronomiya* 3, No. 1, 43 (1963).
- N. A. SLEZKIN, On the boundary layer near a plate in a flow with jet separation. *Vestn. Moskov. Univ. ser. 1*, No. 5, 67 (1964).
- V. D. SMIRNOV, Filling and emptying of vessels of a limited capacity with compressible gas for cases of constant and variable volume of the vessel. *Inzh.-Fiz. Zh.* 8, No. 3, 349 (1965).
- I. P. SOPRUNENKO, Calculation of flow stability of a boundary layer with a positive pressure gradient. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 136 (1964).
- YU. I. STEKLYANIN and V. A. TOMEL'GAS, On a particular filtration problem of intersoluble compressible fluids. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 168 (1964).
- A. B. TSINOBER, A. G. STERN and V. E. SHCHERBINN, The effect of Re number on the location of the boundary-layer separation point. *Inzh.-Fiz. Zh.* 8, No. 1, 121 (1965).
- N. V. TYABIN and E. M. TSENTOVSKY, Non-Newtonian fluid flow in the entrance length of a cylindrical tube. *Trudy Kazansk. Khim.-Tekhnol. In-ta*, vyp. 32, 189 (1964).
- N. V. TYABIN and E. M. TSENTOVSKY, Non-Newtonian fluid flow in the entrance length of a flat slit. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 179 (1964).
- S. A. ULYBIN, On temperature dependence of rarefied gas mixtures. *Teplofiz. Vysok. Temper.* 2, No. 4, 583 (1964).
- K. D. VACHAGIN, N. KH. ZINNATULLIN and N. V. TYABIN, Differential equations of non-Newtonian liquid motion. *Trudy Kazansk. Khim.-Tekhn. In-ta*, vyp. 32, 157 (1964).
- YA. M. VIZEL and I. L. MOSTINSKY, Curving of a stream in a deflecting flow. *Inzh.-Fiz. Zh.* 8, No. 2, 238 (1965).
- F. S. VORONIN, Adiabatic turbulent gas flow in a cylindrical tube. *Inzh.-Fiz. Zh.* 8, No. 1, 31 (1965).
- SH. A. YERSHIN and L. P. YARIN, Investigation of the aerodynamics of the turbulent diffusion flame developing in cocurrent uniform flow. *Inzh. Zh.* 4, No. 4, 733 (1964).
- Z. D. ZAPRYANOV and V. B. MINOSTSEV, A calculation method of three-dimensional supersonic gas flow around bodies. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 20 (1964).
- N. KH. ZINNATULLIN, K. D. VACHAGIN and N. V. TYABIN, Non-Newtonian liquid motion along a conic rotating disk. *Trudy Kazansk. Khim.-Tekhnol. In-ta*, vyp. 32, 169 (1964).
- V. N. ZMEIKOV and B. P. USTIMENKO, Investigation of the aerodynamics and heat transfer in an annulus with the internal rotating cylinder. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 148 (1964).
- V. N. ZMEIKOV, I. A. KEL'MANSON and B. P. USTIMENKO, Investigation of the turbulent structure of a flow in an annulus with an internal rotating cylinder. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 173 (1964).

DRYING PROCESSES

- I. P. BAUMSHTEIN, On optimum control by a drying process in installations with cross-feed of the drying agent. *Khim. Prom.*, No. 9, 694 (1964).
- V. P. BORISOV, Ore drying in infra-red beams on a moving conveyor belt. *Trudy Proekt. i NII "Gipronikel"*, vyp. 19, 79 (1964).
- L. N. BRAGINSKY, V. I. BOGACHEV and I. S. PAVLUSHENKO, Heat transfer in installations with scraper mixers. *Zh. Prikl. Khim.* 37, vyp. 9, 1984 (1964).
- L. G. GOLUBEV and A. M. NIKOLAEV, Drying of granular materials in installations of the spouting-bed type. *Trudy Kazan. Khim.-Tekhnol. In-ta*, vyp. 32, 137 (1964).
- V. A. IVANOV, D. I. LISOVSKY and M. P. SHAPIROVSKY, Control of a drying process in rotating furnaces with the use of forecasting models. *Izv. Vyssh. Ucheb. Zaved. Tsvetn. Met.*, No. 4, 150 (1964).
- V. M. KAZANSKY and L. N. BELY, Automatic record of the porous body drying rate. *Inzh.-Fiz. Zh.* 7, No. 12, 66 (1964).
- V. E. KUTSAKOVA, P. G. ROMANKOV and N. B. RASHKOVSKAYA, Some kinetic laws of the drying process in a fluidized and spouting bed. *Zh. Prikl. Khim.* 37, vyp. 10, 2223 (1964).
- V. E. KUTSAKOVA, P. G. ROMANKOV and N. B. RASHKOVSKAYA, Some kinetic formulae for a drying process in a fluidizing and spouting bed. *Zh. Prikl. Khim.* 37, vyp. 9, 1972 (1964).
- M. V. LYKOV, B. I. LEONCHIK and O. L. DANILOV, Application of superheated steam of low pressure as a drying agent. *Izv. Vyssh. Ucheb. Zav. Energetika*, No. 8, 70 (1964).
- S. V. NERPIN and N. V. CHURAEV, Kinetics of moisture evaporation out of capillary-porous bodies. *Inzh.-Fiz. Zh.* 8, No. 1, 20 (1964).
- L. L. PAVLOVSKY, T. V. PROTSENKO *et al.*, A nomograph for the determination of operating conditions of thermoradiative drying of varnish-paint coatings. *Lakokr. Mater. i ikh Primen.*, No. 6, 33 (1964).
- A. K. PUKHOV, Moisture transfer between wood and medium in convective drying. *Derevoobr. Prom.*, No. 8, 12 (1964).
- YU. M. RUBIN, A. M. PLYUSHKIN *et al.*, Investigation of a drying process of floating concentrate in dryers with a fluidized bed. *Nauchn. Trudy (Ukr. Proektno-Konstr. i NII po Obogashchen. i Briketirov. Ugli)* 3, 317 (1964).
- N. A. SHAKHOVA, Drying in a fluidized bed. *Trudy Mosk. In-ta Khim. Mashinostr.* 26, 39 (1964).
- G. V. SHCHERBINA, A laminar flow of viscous fluid in a channel with porous walls. *Priblizhen. Metody Reshen. Differ. Uravn.*, vyp. 2, 162 (1964).
- M. VARTANYAN and N. STVOLGIN, A drying plant using solar energy. *Sov. Potreb. Kooperats.*, No. 9, 24 (1964).

P. A. ZHUCHKOV, A drying process of fine-grained and pulverized materials in suspension. *Trudy Leningr. Tekhnol. In-ta Tsellyulozn.-Bum. Prom.*, v. 13, 121 (1964).

THERMAL PROPERTIES AND THEIR DETERMINATION METHODS; THERMAL MEASURING DEVICES

- D. SH. ABDINOV, G. B. ABDULLAEV and G. M. ALIEV, Influence of antimony admixture on the heat conductivity, density and microhardness of selenium. *Dokl. Akad. Nauk Az. SSR* 20, No. 2, 27 (1964).
- YA. AGAEV and A. P. MIKHAILOV, Heat conductivity of single crystals AlSd. *Izv. Akad. Nauk Gruz. SSR. ser. Fiz.-Tekhn., Khim. i Geolog. Nauk*, No. 4, 103 (1964).
- M. I. ALIEV, V. I. FISTUL and D. G. ARASLY, Study of thermal conductivity of heavily doped germanium. *Fiz. Tverd. Tela* 6, v. 12, 3700 (1964).
- YA. N. BASIN, R. A. MAKAROV and N. V. SELEZNEV, Choice of optimal parameters for radioisotope devices used in thermophysical investigations. *Inzh.-Fiz. Zh.* 8, No. 2, 257 (1965).
- G. I. BEREZIN, A. V. KSELEV and A. A. KOZLOV, Calorimeter for measuring heat capacities of dispersed bodies and adsorption between 120 and 300°K. *Zh. Fiz. Khim.* 38, v. 8, 2106 (1964).
- D. V. BUDRIN and V. D. SUCHKOV, Thermal diffusivity determination by methods of unsteady thermal operating conditions under boundary conditions of the third kind. *Trudy Ural'sk. Politekh. In-ta*, sb. 137, 66 (1964).
- I. YA. GORODETSKY, V. M. OLEVSKY *et al.*, Apparatus for determining vapour-liquid equilibrium. *Zh. Fiz. Khim.* 38, v. 11, 2744 (1964).
- V. A. GRISHIN, Determination of a local heat-conductivity coefficient of high-volt isolation by a method of current thermal compensation. *Izv. Vyssh. Ucheb. Zaved. Elektrotehnika*, No. 4, 410 (1964).
- V. M. DOROFEEV, On the influence of temperature, pressure and air-excess coefficient in a calorimeter, on kerosene heat conductivity. *Izv. Vyssh. Ucheb. Zaved. Aviats. Tekhn.*, No. 3, 45 (1964).
- P. M. KESSEL'MAN, Calculation of thermophysical properties of real gases at high temperatures. *Teplofiz. Vysok. Temper.* 2, No. 6, 879 (1964).
- V. S. KOBUSHKO, B. A. MERISOV and V. I. KHOTKEVICH, Method of determining thermal conductivity of metals at high temperatures. *Inzh.-Fiz. Zh.* 8, No. 1, 58 (1965).
- G. A. KOMLEV, Determination of saturated vapor pressure by the effusion method. *Zh. Fiz. Khim.* 38, v. 11, 2747 (1964).
- L. S. KOTOUSOV, Correction to the thermal diffusion factor formula. *Zh. Tekhn. Fiz.* 34, v. 12, 2196 (1964).
- I. N. KRUPSKY, D. G. DOLGOPOLOV *et al.*, Determination of heat conductivity of paraffin at low temperatures. *Inzh.-Fiz. Zh.* 8, No. 1, 11 (1965).
- E. S. LUKIN and G. A. SEROVA, Some properties of refractory materials from calcium oxide. *Teplofiz. Vysok. Temper.* 2, No. 5, 736 (1964).
- B. I. MAKAROV, Errors in measuring temperatures on solid surfaces by means of a thermocouple in heating and cooling according to an arbitrary law. *Inzh.-Fiz. Zh.* 7, No. 12, 60 (1964).
- B. M. MOGILEVSKY and A. P. CHUDNOVSKY, Measurement of thermal conductivity of semiconductors by the transient probe method. *Inzh.-Fiz. Zh.* 7, No. 12, 23 (1964).
- G. KH. MUKHAMEDZYANOV, A. G. USMANOV and A. A. TARZIMANOV, Heat conductivity measurements of organic liquids and their mixtures. *Izv. Vyssh. Ucheb. Zav. Neft i Gaz*, No. 10, 70 (1964).
- B. E. NEIMARK, V. E. LYUSTERNIK and S. F. KORYTINA, Complex investigation of physical properties of steel Kh 17N7Yu. *Teplofiz. Vysok. Temper.* 2, No. 5, 725 (1964).
- L. M. NIKITINA and M. A. KUCHMEL, The coefficient of potential conductivity of filter paper. *Dokl. Akad. BSSR* 8, No. 10, 645 (1964).
- A. S. PASHINKIN, Vapour pressure calculations in measurements by Knudsen's method for the case of complete dissociation of the vaporizing compounds. *Zh. Fiz. Khim.* 38, v. 11, 2690 (1964).
- I. I. PEREPECHKO, Sound propagation in a heat-conducting medium. *Akust. Zh.* 10, v. 3, 335 (1964).
- L. A. PIGAL'SKAYA and L. P. FILIPPOV, Measurement of metal thermal diffusivity at high temperatures. II. Application of the variable heating method in a high-frequency furnace. *Teplofiz. Vysok. Temper.* 2, No. 4, 558 (1964).
- E. S. PLATUNOV and V. B. FEDOROV, Application of photographic pyrometry in thermophysical investigations. *Teplofiz. Vysok. Temper.* 2, No. 4, 628 (1964).
- B. M. PODCHUFAROF, Some problems of pneumatic servo-system theory including heat transfer in the driving gear and pipelines. *Mashinost.*, No. 6, 134 (1964).
- I. S. RADOVSKY, Investigation of sound velocity in liquid and gaseous argon. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 172 (1964).
- P. G. RUSTAMOV, M. A. ALIDZHANOV and B. K. BABAEV, Electric and heat conductivities and their variation with temperature in a system GaSc-GaTe. *Trudy In-ta Khim. Akad. Nauk Az. SSR* 20, 169 (1964).
- L. G. SAPOGIN and YU. P. LETUNOV, On a change of thermal conductivity of a semiconductor affected by currents. *Izv. Vyssh. Ucheb. Zav. Fizika*, No. 4, 194 (1964).
- V. A. SHAPOCHKIN, The experimental installation for the investigation of physico-mechanical and heat resistance properties of refractory materials at high temperatures. *Teplofiz. Vysok. Temper.* 2, No. 6, 922 (1964).
- V. Z. SHEVEL'KOV, Thermal properties of outside walls of buildings. *Inzh.-Fiz. Zh.* 8, No. 2, 251 (1965).
- B. I. STADNYK and G. V. SAMSONOV, Thermocouples for measurement of high temperatures. *Teplofiz. Vysok. Temper.* 2, No. 4, 634 (1964).
- M. A. STYRIKOVICH, E. P. SEROV *et al.*, Mass and heat exchange characteristics investigated by the salt method. *Dokl. Akad. Nauk SSSR* 157, No. 1, 91 (1964).
- V. A. SUKHNEV, Determination of the corrections for the indications of total head probes in a supersonic flow of rarefied gas. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinost.*, No. 5, 160 (1964).
- D. YA. SVET, Relation between temperatures of brightness and total radiation. *Teplofiz. Vysok. Temper.* 2, No. 5, 797 (1964).

- E. I. TERTICHNIK, Determination of moisture characteristics of building materials by the method of "a sectional column". *Inzh.-Fiz. Zh.* **8**, No. 2, 247 (1965).
- V. N. TOPORKOV, R. O. MATEVOSYAN *et al.*, Apparatus for studying the kinetics of chemical reactions. *Zh. Fiz. Khim.* **38**, vyp. 8, 2102 (1964).
- A. M. TROKHAN, Measurement of gas flow parameters by a beam of fast electrons. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 81 (1964).
- V. A. TYAGAI and YU. V. PLESKOV, Apparatus for electrochemical pulse measurements. *Zh. Fiz. Khim.* **38**, vyp. 8, 2111 (1964).
- N. B. VARGAFTIK and N. KH. ZIMINA, Nitrogen heat conductivity at high temperatures. *Teplofiz. Vysok. Temper.* **2**, No. 6, 869 (1964).
- N. B. VARGAFTIK and N. KH. ZIMINA, Water vapour heat conductivity at high temperatures. *Teploenergetika*, No. 12, 84 (1964).
- G. M. VOLOKHOV, E. V. IVASHKEVICH and G. A. SURKOV, A transient method for determination of thermal properties of non-metals. *Inzh.-Fiz. Zh.* **7**, No. 12, 39 (1964).
- A. E. YAKUBENKO, Measurement of fluid flow rate in a round tube by a magnetohydrodynamic method. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 151 (1964).
- R. P. YURCHAK and L. P. FILIPPOV, Measurement of thermal diffusivity of liquid metals. *Teplofiz. Vysok. Temper.* **2**, No. 5, 696 (1964).
- I. YA. ZALKIND, I. S. BELEVICH *et al.*, A new instrument for the determination of the heat conductivity coefficient at high temperatures. *Teploenergetika*, No. 10, 82 (1964).
- V. P. ZAMURAEV, A laminar boundary layer in radiative-absorbing gas near a flat plate. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 73 (1964).
- HEAT AND MASS TRANSFER INVOLVING HIGH TEMPERATURES AND IN PLASMA**
- I. A. AKHIEZER, A theory of turbulence in two-temperature plasma. *Zh. Eksper. i Teoret. Fiz.* **47**, vyp. 6 (12), 2269 (1964).
- I. A. AKHIEZER, On interaction of charged particles with turbulent plasma. *Zh. Eksper. i Teoret. Fiz.* **47**, vyp. 8, 667 (1964).
- V. I. ALFEROV and N. I. KRASOVSKAYA, Experimental study of vapour jet effects in heavy-current arcs. *Inzh.-Fiz. Zh.* **8**, No. 1, 27 (1965).
- M. YA. ALIEVSKY, V. M. ZHDANOV and V. A. POLYANSKY, A tensor of viscous stresses and thermal flow in two-temperature partially ionized gas. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 32 (1964).
- V. B. BARANOV, On the ranges of application of different equations for the investigation of completely ionized gas. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 52 (1964).
- V. YU. BARANOV and I. A. VASIL'EVA, An electric arc in argon flow. *Teplofiz. Vysok. Temper.* **2**, No. 5, 672 (1964).
- G. S. BISNOVATY-KOGAN, Heat transfer and diffusion in partially ionized two-temperature plasma. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 43 (1964).
- G. G. BRANOVER, A. B. TSINOBER and E. V. SHCHERBININ, On the transformation by a transverse magnetic field of the structure of a turbulent mercury flow behind a sudden expansion. *Inzh.-Fiz. Zh.* **8**, No. 1, 114 (1965).
- V. A. BRONSHTEN and A. N. CHIGORIN, Determination of equilibrium ionization and temperature in a strong shock wave in air. *Teplofiz. Vysok. Temper.* **2**, No. 6, 860 (1964).
- S. A. GOLDENBERG, V. N. IEVLEV and Z. S. LEONT'EVA, Measurement of electric conductivity of a high-temperature gas jet. *Teplofiz. Vysok. Temper.* **2**, No. 5, 681 (1964).
- L. I. GRECHIKHIN and E. S. TYUNINA, Pressure effect of the surrounding gas on the physical state of plasma in arc discharge. *Teplofiz. Vysok. Temper.* **2**, No. 5, 689 (1964).
- YU. B. GOTT and V. G. TELKOVSKY, The analyser of energy spectrum of ions in high-temperature plasma. *Zh. Tekhn. Fiz.* **34**, vyp. 12, 2114 (1964).
- E. L. KITANIN, A laminar boundary layer of conductive gas on a plate with cross magnetic field. *Trudy LPI (Leningr. Politekhn. In-t)* No. 232, 14 (1964).
- E. YU. KRASIL'NIKOV, Influence of a longitudinal magnetic field on convective heat transfer in turbulent flow of conducting liquid in a tube. *Teplofiz. Vysok. Temper.* **2**, No. 4, 612 (1964).
- R. KH. KURTMULLAEV, YU. E. NESTERIKHIN and A. G. PONOMARENKO, Investigation of structure of a plasma jet, created by a conic source. *Teplofiz. Vysok. Temper.* **2**, No. 5, 661 (1964).
- R. KH. KURTMULLAEV, YU. E. NESTERIKHIN *et al.*, Velocity diagnostics of a plasma jet. *Teplofiz. Vysok. Temper.* **2**, No. 6, 837 (1964).
- M. A. LEBEDEV, The development of a low-voltage arc in the vapour of caesium. *Zh. Tekhn. Fiz.* **34**, vyp. 9, 1705 (1964).
- L. S. MAROCHNIK, Some remarks about steady magnetohydrodynamical turbulence. *Zh. Tekhn. Fiz.* **34**, vyp. 10, 1852 (1964).
- N. T. PASHCHENKO, Flow of a strongly rarefied plasma around bodies. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 3 (1964).
- B. S. PETUKHOV and V. N. POPOV, The theoretical calculation of heat transfer and frictional resistance in flow through a tube of hydrogen in dissociation equilibrium. *Teplofiz. Vysok. Temper.* **2**, No. 4, 599 (1964).
- V. A. POLYANSKY, Diffusion and conduction in partially ionized multi-temperature gas mixture. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 11 (1964).
- B. I. REZNIKOV, Ablation of a metal body near the stagnation point. *Inzh.-Fiz. Zh.* **8**, No. 1, 93 (1965).
- V. P. SILIN, Non-linear high-frequency conductivity of plasma. *Zh. Eksper. i Teoret. Fiz.* **47**, vyp. 6 (12), 2554 (1964).
- YU. V. SKVORTSOV, V. S. KOMELKOV and V. N. TERESHCHENKO, Radiation from a plasma jet. *Zh. Tekhn. Fiz.* **34**, vyp. 10, 1790 (1964).
- YU. A. SOKOVISHIN, Investigation of temperature and concentration distribution in a laminar jet of conducting gas. *Trudy LPI (Leningr. Politekhn. In-t)* No. 232, 9 (1964).
- V. A. SYROVOI, On single component beams of particles carrying same sign charges. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 3, 24 (1964).
- K. N. UL'YANOV, Steady and transient processes in non-

equilibrium plasma. *Teplofiz. Vysok. Temper.* 2, No. 6, 842 (1964).

- G. A. VOROBYEV, A. GOLYNSKY and G. A. MESYATS, Investigation of the influence of pressure on the onset of conductivity in a spark in different gases. *Zh. Tekhn. Fiz.* 34, vyp. 12, 2153 (1964).
- L. A. VULIS and K. E. DZHAUGASHTIN, Magnetogas-dynamics of Couette flow. *Zh. Tekhn. Fiz.* 34, vyp. 12, 2171 (1964).
- O. I. YASKO, Correlation of the characteristics of electric arcs. *Inzh.-Fiz. Zh.* 7, No. 12, 112 (1964).
- V. K. ZHIBRITSKY, Influence of nitrogen admixture on losses of electron energy in non-equilibrium argon-cesium plasma. *Teplofiz. Vysok. Temper.* 2, No. 6, 945 (1964).

TRANSFER PROCESSES IN TECHNOLOGICAL APPARATUSES

- G. N. ABAEV and T. YA. GUSMAN, On the choice of a hydrodynamic model of a fluidized bed. *Khim. i Tekhnol. Topliv i Masel*, No. 10, 14 (1964).
- A. D. AKIMENKO, Heat-transfer processes in obtaining a continuous steel ingot. *Trudy (Gor'k. Politekhn. In-t)* 20, vyp. 1, 64 (1964).
- L. A. AKOPYAN, N. N. VARYGIN *et al.*, Theory and practice of heterogeneous processes in a fluidized bed. *Trudy Mosk. In-ta Khim. Mashinostr.* 26, 3 (1964).
- I. V. ANISIMOV, YU. I. DYTNERSKY and A. A. MATVEEV, Calculation, using Ts.B.M., of optimum values of design parameters for the rectification plate columns for separation binary mixtures. *Khim. Prom.*, No. 10, 776 (1964).
- M. YA. ANTIMIROV, An integral value of thermal losses in pumping hot liquid into a layer. *Izv. Vyssh. Ucheb. Zav. Neft i Gaz*, No. 11, 64 (1964).
- B. I. ARLYUK and G. V. TELYATNIKOV, Heat transfer in a refrigerator with a fluidized bed. (Alumina cooling). *Trudy VAMI (Vsecouzn. Nauchn.-Issled. i Proekt. In-t Alyumin., Magnievoi i Electrodr. Prom.)* No. 52, 47 (1964).
- V. V. BARSOV, A new method of technological thermal calculations. *Trudy Leningr. Tekhnol. In-ta (Tsellyulozno-Bum. Prom.)* vyp. 14, 158 (1964).
- A. P. BASKAKOV and V. S. VERSHININA, A method of investigation of heat transfer to fine-grained material, fluidized in a packing. *Zh. Prikl. Khim.* 37, vyp. 11, 2445 (1964).
- I. M. BELOUSOVA and L. M. SELIVANOV, Inclusion of physical property variations of components in calculations of multicomponent mixture rectification. *Khim. Prom.*, No. 10, 782 (1964).
- P. A. BELOZEROV, A. N. PLANOVSKY and O. S. CHEKHOV, Investigation of the hydrodynamics of the flow through a disk irrigator at small liquid heads with cross gas motion. *Khim. Prom.*, No. 10, 733 (1964).
- B. E. BERKMAN, Reactors of continuous action in aniline-paint industry. *Khim. Prom.*, No. 8, 561 (1964).
- S. A. BOGATYKH, The kinetics of heat transfer between gas and liquid in an apparatus with a plane-parallel nozzle. *Khim. Prom.*, No. 11, 837 (1964).
- G. K. BORESKOV, K. I. MATVEEV *et al.*, A circular flow apparatus for studying reactions in gaseous substances in the presence of a liquid catalyst. *Zh. Fiz. Khim.* 38, vyp. 8, 2104 (1964).
- V. A. BORODULYA and A. I. TAMARIN, Investigation of effective thermal diffusivity of a fluidized bed. *Inzh.-Fiz. Zh.* 7, No. 12, 8 (1964).
- R. YA. BRIL, S. A. DOVGAL and E. P. DRUZHININ, Some problems of the method for choosing the different kinds of energy for high-temperature processes in industry. *Trudy Leningr. Inzh.-Ekon. In-ta*, vyp. 51, 135 (1964).
- S. N. BULATOV, Calculation of the velocity of motion and time of residence in installations with two-phase flows. *Khim. Prom.*, No. 12, 887 (1964).
- V. A. BUSHMELOV and V. F. MAKSIMOV, On estimation of the efficiency of dust removing and of pressure drop in a turbulent apparatus for cleaning fumes in lime regenerative furnaces. *Trudy Leningr. Tekhnol. In-ta Tsellyulozno-Bum. Prom.*, vyp. 12, 258 (1964).
- V. S. BZHOZOVSKY, I. DUL *et al.*, An MGD open cycle experimental generator. *Teplofiz. Vysok. Temper.* 2, No. 5, 771 (1964).
- O. S. CHEKHOV, A. N. PLANOVSKY and YU. A. SOKOLINSKY, Allowance for liquid mixing in the calculation of the disk mass-transfer columns. *Khim. Prom.*, No. 10, 768 (1964).
- V. A. CHLENOV and N. V. MIKHAILOV, The vibrofluidized bed and some of its properties. *Khim. Prom.*, No. 12, 910 (1964).
- M. A. DALIN, B. G. BERTO *et al.*, Investigation of a scheme of low-temperature pyrogas rectification with a split column. *Khim. Prom.*, No. 10, 785 (1964).
- V. M. DEMENTIEV, YU. P. NEKHLEBAEV and M. A. SHKLYAR, Burning limestone in a fluidized bed furnace. *Stroit. Mater.*, No. 7, 27 (1964).
- V. V. DIL'MAN, A static analysis of cell and diffusion models of longitudinal mixing. *Khim. Prom.*, No. 8, 611 (1964).
- G. N. DUL'NEV and A. M. KARAPETYAN, Heat and mass transfer in radio-electron installations of cassette construction. *Izv. Vyssh. Ucheb. Zaved. Priborostr.* 7, No. 4, 137 (1964).
- YU. I. DYTNERSKY, Calculation of the numbers of contact plates in disk installations. *Khim. Prom.*, No. 10, 764 (1964).
- YU. I. DYTNERSKY, Comparison and choice of the type of a disk mass-transfer apparatus. *Khim. i Neft. Mashinostr.*, No. 3, 13 (1964).
- YU. I. DYTNERSKY, A. G. KASATKIN *et al.*, On calculation of the hydraulics and of mass transfer in valve plates. *Khim. i Neft. Mashinostr.*, No. 2, 15 (1964).
- A. P. FOKIN, A. N. PLANOVSKY and L. A. AKOPYAN, Calculation of spray driers including stirring. *Inzh.-Fiz. Zh.* 8, No. 1, 116 (1965).
- V. V. FROLOV, An optimum arrangement of radiating ribs. *Izv. Akad. Nauk SSSR. Energ. i Transport*, No. 6, 750 (1964).
- I. A. GAMZAEV, Investigation of gas transfer between a pre-ignition chamber and a cylinder of an engine. *Uch. Zap. Azerb. S.-Kh. In-ta*, No. 1, 75 (1964).
- A. V. GAVRILIN, The use of refrigerators as thermal pumps for low-temperature evaporating installations. *Kholod. Tekhnika*, No. 6, 11 (1964).
- N. I. GEL'PERIN and V. G. AINSHTEIN, On a two-phase

- fluidization theory. *Zh. Vsesoyuzn. Khim. O-va im. Mendeleeva* 9, No. 3, 356 (1964).
- N. I. GEL'PERIN, V. G. AINSHTEIN and M. S. GERSHANOVA, On the calculation of the onset of fluidization of granular materials. *Zh. Vsesoyuzn. Khim. O-va im. Mendeleeva* 9, No. 4, 473 (1964).
- N. I. GEL'PERIN, V. G. AINSHTEIN and I. D. GOIKHMAN, Investigation of a fluidization process of granular materials in a field of centrifugal forces. *Khim. i Neft. Mashinostr.*, No. 1, 13 (1964).
- N. I. GEL'PERIN, V. G. AINSHTEIN and I. D. GOIKHMAN, On gas (liquid) speed limit at fluidization of granular materials. *Zh. Vsesoyuzn. Khim. O-va im. Mendeleeva* 9, No. 4, 478 (1964).
- N. L. GRANAT, Steady oscillations of vessels with two-phase mixture. *Izv. Akad. Nauk SSSR. Mekhan. i Mashinostr.*, No. 5, 61 (1964).
- M. N. IOSIFOV, On laws of convective heat-transfer intensification. *Trudy Leningr. In-ta Vodn. Transp.*, vyp. 53, 48 (1964).
- V. V. KAFAROV and YU. G. ZELINSKY, On the hydrodynamics of lattice plates. *Zh. Prikl. Khim.* 37, vyp. 12, 2678 (1964).
- B. B. KADOMTSEV, A. B. MIKHAILOVSKY and A. V. TIMOFEEV, Waves with negative energy in dispersing media. *Zh. Eksper. i Teoret. Fiz.* 47, vyp. 6 (12), 2266 (1964).
- V. D. KANFER, V. N. KRIVOSHEEV *et al.*, Lime quality and lime burning operating conditions in a fluidized bed furnace. *Stroit. Mater.*, No. 7, 29 (1964).
- V. M. KAPINOS, Hydraulic resistance and heat transfer of a free rotating disk with a hub. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 11, 85 (1964).
- A. S. KAPUSTIN, Investigation of heat transfer in an apparatus with a mixer in mixing viscous non-Newtonian liquids. *Trudy (Vsesoyuzn. Nauchn.-Issled. i Konstr. In-t Khim. Mashinostr.)* vyp. 46, 3 (1964).
- E. S. KARASINA, V. V. KARPOV *et al.*, Heat-transfer investigation in a furnace and in superheaters burning mazut. *Teploenergetika*, No. 11, 39 (1964).
- S. M. KARPACHEVA, E. I. ZAKHAROV and A. F. KISELEVA, Investigation of the laws of motion of dispersed phase in a pulsating packed column. *Zh. Prikl. Khim.* 37, vyp. 12, 2668 (1964).
- D. P. KOLODNYI, Temperature distribution in heat-transfer agents along a surface of parallel-flow heat exchanger. *Sb. Nauchn.-Issled. Rabot (Tashk. Tekst. In-t)* vyp. 16, 347 (1964).
- G. S. KONOKOTIN, Investigation of the duration of fish freezing in blocks. *Kholod. Tekhnika*, No. 6, 39 (1964).
- V. M. KOSTIN, Hydraulic resistance of liquid wetted packing in parallel flow of gas and liquid. *Khim. Prom.*, No. 10, 73 (1964).
- N. N. KOVLYASHENKO, Unification of heat-transfer functions including variable velocities of gas motion in a cylinder and the polytropic indices. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 8, 115 (1964).
- YU. V. KRASOVITSKY and V. A. ZHUZHNIKOV, A role of the frontal beds of a filter baffle in a separation process of solid particles from gas. *Khim. Prom.*, No. 8, 620 (1964).
- L. I. KUDRYASHEV, V. P. VLASOV and A. V. TEMNIKOV, Electrosimulation of heat transfer in heat exchangers with variable properties of the heat-transferring substances. *Matem. Model. i Electr. Tsepi*, vyp. 2, 300 (1964).
- A. L. KUZNETSOV, Heat transfer of a disk (gas turbine), rotating in a casing with a radial supply of cooling air. *Trudy Leningr. Korablestr. In-ta*, vyp. 43, 153 (1964).
- V. M. LEGKII and YU. N. OSTROVSKY, Calculation of heat transfer and aerodynamic resistance of staggered bundles of finned tubes. *Teploenergetika*, No. 11, 86 (1964).
- A. M. LEONKOV, V. F. STEPANCHUK and N. L. PALLADI, Investigation of aerodynamic characteristics of a combined burner apparatus. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 11, 47 (1964).
- V. I. LOKAI, Temperature distribution along the profile of a cooling turbine blade with heat-insulated edges. *Izv. Vyssh. Ucheb. Zaved. Aviats. Tekhn.*, No. 3, 58 (1964).
- V. P. MAIKOV, Mathematical description of a rectification process for static optimization of operating industrial columns. *Khim. Prom.*, No. 10, 772 (1964).
- I. G. MARTYUSHIN and V. N. GOLOVIN, Investigation of installations with a fluidized bed, sectionalized by grid trays. *Trudy Mosk. In-ta Khim. Mashinostr.* 26, 23 (1964).
- G. A. MATUZOK, An approximate method of calculation of a heat insulating layer with radiation. *Izv. Vyssh. Ucheb. Zaved. Aviats. Tekhnika*, No. 3, 117 (1964).
- A. F. MESHKII, Cross motion of granulous material in a rotary furnace and its influence on the heat-transfer process. *Nauchn. Soobshchen. (VNII Tsementn. Prom.)* No. 17, 1 (1964).
- P. M. MIKHAILOV and A. N. SHTYM, Pressure distribution in a vortex-type combustion chamber. *Trudy LPI (Leningr. Politekhn. In-t)* No. 232, 42 (1964).
- A. E. MIKHLIN, Calcination of carbonic materials in a fluidized bed. *Trudy VAMI (Vsesoyuzn. Nauchn.-Issled. i Proektn. In-t Alum. Magn. i Electrodn. Prom.)* No. 52, 96 (1964).
- YU. K. MOLOKANOV, Calculation of hydraulic resistance of lattice and perforated contact plates with overflow arrangements. *Khim. Prom.*, No. 10, 728 (1964).
- YA. YU. NEL'KIN, Calculation of heat transfer between a heat releasing wall and a medium. (Dokl. na I Konf. Molod. Spets. In-ta. May 1962) *Trudy TsKTI*, vyp. 43, 192 (1964).
- E. I. NEVSTRUEVA and A. S. MEKHDIY, Salt deposition on heating surfaces at high thermal loads. *Teplofiz. Vysok. Temper.* 2, No. 5, 809 (1964).
- A. M. NIKOLAEV and L. G. GOLUBEV, Basic hydrodynamic characteristics of a spouting bed. *Izv. Vyssh. Ucheb. Zaved. Khim. i Khim. Tekhnolog.* 7, No. 5, 855 (1964).
- N. A. NIKOLAEV and N. M. ZHAVORONKOV, Investigation of hydrodynamics and mass transfer in an apparatus with uniflow contact arrangements. *Khim. Prom.*, No. 11, 835 (1964).
- S. I. NIZOV, Investigation of the process of freezing meat in half-carasses at low temperatures in free convective heat transfer. *Kholod. Tekhn.*, No. 6, 28 (1964).
- L. A. NORKINA, B. P. VOLGIN and L. D. BEREZINA, Gas absorption in a multi-stage installation from Venturi scrubbers. *Izv. Vyssh. Ucheb. Zaved. Khim. i Khim. Tekhnol.* 7, No. 4, 669 (1964).
- V. K. ORLOV and P. A. TSELISHCHEV, Heat transfer in a spiral

- coil with turbulent water motion. *Teploenergetika*, No. 12, 75 (1964).
- I. B. PALATNIK and D. ZH. TEMIRBAEV, Investigation of combustion chamber mixers of gas and steamgas turbines. *Probl. Teploen. i Prikl. Teplofiz.*, vyp. 1, 73 (1964).
- D. A. PEREVERZEV, Temperature calculation for a turbine disk, cooled by heat removal in the mounting gaps of the blade roots and from the disk surface. *Trudy Laborat. Gidrav. Mashin (Akad. Nauk USSR)* vyp. 11, 190 (1964).
- YU. V. PETROVSKY, V. G. FASTOVSKY and V. A. GERTSOVSKY, Investigation of a plate contact apparatus for rectification and fractional condensation of binary mixtures. *Khim. Prom.*, No. 10, 741 (1964).
- E. P. PLOTKIN and E. I. MOLCHANOV, Heat transfer to the blade surface of gas turbines. *Teploenergetika*, No. 11, 72 (1964).
- A. M. PROTASOV and A. M. TOPUNOV, Calculation of a three-dimensional axi-symmetric flow in turbomachines and aerodynamic installations. *Izv. Vyssh. Ucheb. Zaved. Energetika*, No. 9, 43 (1964).
- S. A. RAPOPORT, On cooling of zephyr-pastila mass. *Kholod. Tekhn.*, No. 6, 34 (1964).
- V. F. RATNIKOV, Investigation of heat absorption by furnace walls. *Trudy Ural'sk. Politekh. In-ta*, sb. 137, 59 (1964).
- N. U. RIZAEV and K. V. MERENKOV, The dynamics of an ionic transfer process in a fluidized bed. *Trudy Tashk. Politekh. In-ta*, vyp. 22, 71 (1963).
- A. I. RODIONOV, A. M. KASHNIKOV and V. M. RADIKOVSKY, Interphase surface determination in a system gas-liquid on contact plates. *Khim. Prom.*, No. 10, 737 (1964).
- M. S. ROMANOV, Small thermo-chambers with heat and cold supply from large thermo-chambers. *Kholod. Tekhn.*, No. 5, 56 (1964).
- A. Z. ROSINSKY and G. G. SHKLOVER, Heat transfer and hydraulic resistance in oil coolers KTZ. *Energomashinostr.*, No. 10, 21 (1964).
- O. V. RUMYANTSEV, YU. A. SOKOLINSKY *et al.*, The optimum designing of reactors for the synthesis of ammonia and methane with internal heat transfer. *Khim. Prom.*, No. 8, 605 (1964).
- B. S. SAZHIN, Ways of intensification of convective drying processes. *Khim. i Neft. Mashinostr.*, No. 2, 11 (1964).
- M. A. SHALIMO, Acoustic coagulation of cement paste. *Inzh.-Fiz. Zh.* 8, No. 3, 364 (1965).
- V. S. SHKLYAR, Gas motion and convective heat transfer in sectional furnaces of the "Azovstal" plant. *Izv. Vyssh. Ucheb. Zaved. Chern. Metallurg.*, No. 7, 221 (1964).
- V. A. SHVARTS, Heat transfer and hydraulic resistance of interspersed tube bundles with longitudinal fin plates. *Teploenergetika*, No. 10, 57 (1964).
- E. L. SUKHANOV and D. L. BUDRIN, Heat-transfer coefficients when heating metal in liquid media. *Trudy Ural'sk. Politekh. In-ta*, sb. 137, 48 (1964).
- I. G. TARANYAN, Investigation of heat transfer and aerodynamic resistance of a bundle of finned aluminium tubes. *Izv. Akad. Nauk Arm.SSR. ser. Tekhn. Nauk* 17, No. 3, 19 (1964).
- P. G. VDYMA and T. A. KOLACH, Investigation of hydrodynamics and heat transfer in installations with submerged burners. *Khim. i Neft. Mashinostr.*, No. 1, 16 (1964).
- V. L. VAISMAN, V. D. POPOV *et al.*, Investigation of heat transfer and crystallization processes of cooling of typical crystals. *Trudy (VNII Sakharn. Orom.)* vyp. 12, 174 (1964).
- I. A. VAKHRUSHEV and L. A. DAVYDOVA, Investigation of operation of internal cyclone standpipes in installations with a fluidized bed. *Khim. Prom.*, No. 9, 697 (1964).
- G. A. VARSHAVSKY and I. A. REZGOL, Thermal calculation of a thermogenerator with variable temperatures along the surfaces of thermal contact. *Izv. Akad. Nauk SSSR. Energetika i Transport*, No. 6, 735 (1964).
- N. N. VARYGIN, Heat transfer from thin wires to a fluidized bed. *Trudy Mosk. In-ta Khim. Mashinostr.* 26, 33 (1964).
- L. K. VASANOVA and N. I. SYROMYATNIKOV, On temperature distribution of the suspended medium in a fluidized bed. *Tsvetn. Metall.*, No. 5, 55 (1964).
- M. A. VEIDERMA and S. I. VOL'FKOVICH, Kinetics of defluorization of phosphorites in a fluidized bed. *Khim. Prom.*, No. 8, 587 (1964).
- E. F. VINOKUROV, Iteration method for the solution of the elasto-plastic problems of soil mechanics applicable to morainic grounds. *Inzh.-Fiz. Zh.* 8, No. 1, 98 (1965).
- A. N. ZELIKMAN and G. M. VOL'DMAN, On calculation of furnaces for roasting in a fluidized bed. *Tsvetn. Metall.*, No. 5, 23 (1964).
- A. G. ZENUKOV, Investigation of temperature distribution along a profile of a hollow blade (gas turbine). *Izv. Vyssh. Ucheb. Zaved. Aviats. Tekhn.*, No. 3, 110 (1964).
- A. P. ZHUCHKOV, Determination of the angle of elevation of the working unit of a vibrating-conveyor dryer. *Izv. Vyssh. Ucheb. Zaved. Mashinostr.*, No. 8, 112 (1964).
- L. V. ZYSIN, High-temperature turbines with partial supplies of gas and steam. *Trudy LPI (Leningr. Politekh. In-t)* No. 232, 20 (1964).

RHEOLOGY

- A. V. DOLGOV and N. I. MALININ, On the creep of polymers in a glass-like state. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 75 (1964).
- N. P. LESHCHII and D. YU. MOCHERNYUK, On velocity distribution along a section of a turbulent flow of a clay solution. *Izv. Vyssh. Ucheb. Zaved. Neft i Gas*, No. 10, 79 (1964).
- G. V. VINOGRADOV and A. YA. MALKIN, Rheological properties of polymers in fluid state. *Zh. Prikl. Mekhan. i Tekhn. Fiz.*, No. 5, 66 (1964).