

# HEAT TRANSFER BIBLIOGRAPHY—RUSSIAN WORKS

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## BOOKS

- T. A. AVDONINA, *Handbook on Aerodynamics*, p. 1. Leningrad (1965).  
*Convective Heat Transfer*. Naukova Dumka, Kiev (1965).  
*Flows of Liquids and Gases*. Naukova Dumka, Kiev (1965).
- O. A. GERASHCHENKO and V. G. FEDEROV, *Thermal and Temperature Measurements. A Reference Book*. Naukova Dumka, Kiev (1965).
- E. I. GUIGO, N. K. ZHURAVSKAYA and E. I. KAUKHCHESHVILI, *Sublimation Drying of Food Products*. Pishchev. Prom., Moscow (1966).
- A. P. KLIMENKO and G. E. KANEVETS, *Calculation of Heat-transfer Installations on Electronic Computers*. Energiya, Moscow-Leningrad (1966).
- P. K. KONAKOV (Ed.), *Problems of Complex Heat Transfer*, Collected papers. Moscow (1965).
- V. S. MILLER, *Contact Heat Transfer in Elements of High-temperature Machines*. Naukova Dumka, Kiev (1966).
- P. A. REBINDER (Ed.), *Physico-Chemical Mechanics of Dispersed Structures*, Collected papers. Nauka, Moscow (1966).
- YA. B. ZEL'DOVICH and YU. P. RAIZER, *Physics of Shock Waves and High-temperature Hydrodynamic Phenomena*. Nauka, Moscow (1966).

## GENERAL

- M. E. DEICH, A scientific seminar, devoted to problems of two-phase fluid gasdynamics, *Teploenergetika* No. 2, 92 (1966).
- A. I. ERSHOV and L. M. GUKHMAN, On the intensification of heat and mass transfer processes in interacting gas-liquid systems, *Inzh.-Fiz. Zh.* 10 (4), 552 (1966).
- G. P. FILIPPOVA and L. P. FILIPPOV, Application of a similarity theory for the determination of density of saturated vapours of organic fluids, *Zh. Fiz. Khim.* 39 (12), 2932 (1965).
- V. V. KAFAROV, Analysis of chemical engineering processes, *Khim. Prom.* No. 4, 293 (1966).
- P. M. KESSEL'MAN, On some criteria of similarity of physical properties of substances, *Teplofiz. Vysok. Temper.* 4 (2), 196 (1966).
- M. V. LYKOV, V. A. MALYUSOV *et al.*, On some problems of treatment of experimental data on heat and mass transfer, *Khim. Prom.* No. 2, 120 (1966).
- G. A. OSTROUMOV, Electric convection, *Inzh.-Fiz. Zh.* 10 (5), 683 (1966).
- B. M. RASPOPOV, A problem of optimisation of the operation speed for processes of nonconnected heat and mass transfer, *Avtomat. i Telemekhan.* 26 (10), 1857 (1965).
- V. L. SHEVEL'KOV, On the 2nd All-Union Scientific-Engineering Conference on Drying Intensification in Chemical and Allied Branches of Industry, *Inzh.-Fiz. Zh.* 10 (5), 696 (1966).
- V. S. YUNGMAN and K. S. KRASNOV, Seminar on the determination of the molecular constants and on the calculation of thermodynamical gas properties, *Teplofiz. Vysok. Temper.* 3 (5), 816 (1965).

## THERMODYNAMICS

- K. A. BOL'SHAKOV and V. A. BARDIN, Thermodynamics of rhenium distillation from sulphuric acid solutions, *Zh. Neorgan. Khim.* 11, vyp. 5, 1176 (1966).
- V. M. BRODYANSKII and N. V. KALININ, The mass flow energy with changing parameters of the surrounding medium, *Inzh.-Fiz. Zh.* 10 (5), 596 (1966).
- L. A. BROVKIN, Additional experimental data on the growth effect of measured enthalpy of an insulated body in the process of temperature levelling, in *Heat and Mass Transfer in Industrial Plants*, p. 12. Yaroslavl (1964).
- I. E. FLIS, Thermodynamic characteristic of SO<sub>2</sub> in aqueous solutions at different temperatures, *Trudy Leningr. Tekhnolog. In-ta Tsellyulozno-Bum. Prom.* vyp. 16, 12 (1965).
- I. I. GALAKTIONOV, Thermodynamic parameters of CO<sub>2</sub>-A<sub>r</sub> mixtures behind the direct shock wave, *Teplofiz. Vysok. Temper.* 3 (6), 928 (1965).
- V. N. LAPSHOV, Calculation of irreversible polytropic processes of ideal gas, *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 4, 61 (1966).
- V. A. LEBEDEV, I. F. NICHKOV and S. P. RASTOPIN, Thermodynamics of liquid solutions in an uranium-bismuth system, *Elektrokhim.* 2, vyp. 2, 160 (1966).
- V. E. MIRONOV and N. P. LASTOVKINA, Thermodynamics of polybromide ions, *Zh. Neorganich. Khim.* 11, vyp. 3, 580 (1966).
- V. I. NEDOSTUP, A correlation method for the law of corresponding states for the calculation of thermodynamic properties of real gases and their mixtures, *Inzh.-Fiz. Zh.* 10 (6), 783 (1966).
- V. B. NESTERENKO and V. P. BUBNOV, Calculation of thermodynamic functions of chemical reacting gases, *Izv. Akad. Nauk. BSSR, ser. Fiz.-Tekn. Nauk* No. 1, 5 (1966).

- YU. G. PLINER, Some new calculation methods of thermodynamic properties of solutions, *Trudy Leningr. Tekhnolog. In-ta Tsellyulozno-Bum. Prom.* vyp. 16, 167 (1965).
- V. F. PRISNYAKOV, On the response of the thermodynamic gas expansion with heat supply, *Inzh.-Fiz. Zh.* 10, (4), 487 (1966).
- V. K. SEMENCHENKO and E. D. SOLDATOVA, Thermodynamic stability of germanium and silicon near an absolute zero, *Zh. Fiz. Khim.* 40 (2), 458 (1966).
- L. M. SHCHERBAKOV, The statistical evaluation of surplus free energy of small objects in the thermodynamics of microheterogeneous systems, *Dokl. Akad. Nauk SSSR* 168 (2), 388 (1966).
- E. E. SHPIL'RAIN, On a particular thermodynamic method of determination of dissociation heat of gases, *Teplotfiz. Vysok. Temper.* 4 (2), 292 (1966).
- S. A. SIMANOVA and M. M. SHUL'TS, A thermodynamic study of the  $\text{KB}_7\text{-NH}_4\text{B}_7\text{-H}_2\text{O}$  system at 25°C, I, *Vestn. Leningr. Un-ta No. 4, ser. Fiz. i. Khim.* vyp. 1, 75 (1966).
- S. A. SIMANOVA and M. M. SHUL'TS, A thermodynamic study of the  $\text{KB}_7\text{-NH}_4\text{B}_7\text{-H}_2\text{O}$  system at 25°C, II, *Vestn. Leningr. Un-ta No. 4, ser. Fiz. i. Khim.* vyp. 1, 82 (1966).
- R. L. SNEZHNOI, Thermodynamics of the initial stages of phase transformations, *Zh. Fiz. Khim.* 40 (2), 383 (1966).
- P. E. SUETIN, A contribution to the thermodynamic theory of "steady" states of two gas volumes, connected by a capillary, *Inzh.-Fiz. Zh.* 10 (3), 122 (1966).
- K. V. SUSHKOV, Thermodynamics and kinetics of reactions of lead, copper, zinc, bismuth, iron, calcium sulphides with some carbonates, *Trudy Kazakh. Politekh. In-ta, Sb.* 25, 484 (1965).
- E. T. VAS'KOV, Thermodynamic properties of freon-114 (tetra-fluorodichlorethane  $\text{C}_2\text{F}_4\text{Cl}_2$ ), *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 3, 133 (1966).
- A. A. VASSERMAN and V. A. RABINOVICH, Thermodynamic properties of nitrogen up to 1300°K and 1000 bar, *Izmerit. Tekh.* No. 3, 77 (1966).
- M. P. VUKALOVICH, V. N. ZUBAREV *et al.*, Properties of steam at temperatures 800–1500°C, *Teplotenergetika* No. 3, 77 (1966).
- K. B. YATSIMIRSKII, Thermodynamic characteristics of the solution of ionic crystals, *Zh. Neorganich. Khim.* 11, vyp. 4, 693 (1966).
- B. F. YUDIN and A. K. KARKLIT, Thermodynamics of evaporation of refractory oxides at high temperatures, *Zh. Prikl. Khim.* 39, vyp. 3, 537 (1966).
- YU. M. GRIGOR'EV, On unsteady-state conductive heat transfer in an infinite medium, *Inzh.-Fiz. Zh.* 10 (4), 491 (1966).
- E. B. KARPIN, A. G. KOSTYUK *et al.*, Calculation on a computer of transient temperature fields in plates and envelopes, *Teplotenergetika* No. 3, 53 (1966).
- P. E. KHIZHNYAK, Some investigation results of contact thermal resistance, *Izv. Vyssh. Ucheb. Zaved. Energetika* No. 2, 69 (1966).
- R. S. KUZNETSKII, On the temperature distribution in a liquid spherical layer near a gravitating sphere, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 6, 139 (1965).
- V. I. MAKHOVIKOV, Spatial heat conduction problems for some bodies made of heterogenous material, *Differents. Uravn.* 1 (10), 1383 (1965).
- V. A. MILCHEV, M. D. MIKHAILOV and T. T. TODOROV, Heat accumulation by a semi-infinite body with discontinuous temperature effect, *Inzh.-Fiz. Zh.* 10(3), 348 (1966).
- N. I. NIKITENKO, Approximate calculation method of a temperature field in a system with non-linear boundary conditions, *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 3, 118 (1966).
- S. YA. OSHEROV, V. G. PETUKHOV and N. V. SUKHOVA, Temperature calculation of the edge of a cooled vane with variable heat-conduction coefficients (About operation of gas turbines), *Energomashinostr.* No. 10, 19 (1965).
- E. M. POLISHCHUK, On functional analogues of the heat-conduction equations, *Sib. Matem. Zh.* 6 (6), 1322 (1965).
- V. S. RAVIN, On one presentation of the solution of a heat-conduction equation, *Inzh.-Fiz. Zh.* 10 (6), 750 (1966).
- A. N. REZNIKOV and YU. A. NOVOSELOV, Temperature rise in a wedge under the action of a source of variable dimensions and intensity, *Inzh.-Fiz. Zh.* 10 (6), 712 (1966).
- N. A. SMUROVA, Some unsteady-state problems of the heat-conduction theory for a two-layer half-space, *Inzh.-Fiz. Zh.* 10 (5), 678 (1966).
- V. S. STARIKOV, On an approximate solution of heat-conduction problems for a long cylinder with boundary conditions of the third kind, *Izv. Vyssh. Ucheb. Zaved., Chern. Metallurg.* No. 12, 143 (1965).
- N. YU. TAITs, E. M. GOL'DFARB *et al.*, Solution of unsteady heat-conduction problems on electrointegrators of  $\pi$ -12 type with boundary conditions of the second kind, *Izv. Vyssh. Ucheb. Zaved., Chern. Metallurg.* No. 10, 153 (1965).
- N. YU. TAITs and V. N. ASTSATUROV, Application of a finite-difference approximation to the solution of non-linear heat-conduction problems (steel), *Izv. Vyssh. Zaved., Chern. Metallurg.* No. 11, 164 (1965).
- A. A. UGLOV and V. F. BREKHOVSKIKH, The temperature field of a two-layer plate heated by a surface source, *Inzh.-Fiz. Zh.* 10 (4), 520 (1966).
- B. A. VASIL'EV, The solution of a plane steady-state problem of the heat-conduction theory with the boundary condition of the third kind for regions of a special class, *Inzh.-Fiz. Zh.* 10 (6), 728 (1966).

### HEAT CONDUCTION

- M. A. BAGIROV, V. P. MALIN and B. P. NIKOLAYEV, Temperature distribution in a bar with temperature oscillation on its surface, *Inzh.-Fiz. Zh.* 10 (6), 794 (1966).
- N. M. BORODACHEV, A thermoelastic problem for an infinite body with an axisymmetric crack, *Prikl. Mekh.* 2, vyp. 2, 91 (1966).
- A. M. FAIN, Application of the variation method for the solution of heat-conduction problems with internal heat sources, *Inzh.-Fiz. Zh.* 10 (5), 668 (1966).
- G. G. GOLOV, Transient heat conduction of a thin rod with a uniformly moving fusion boundary or thermally-insulated boundary, *Inzh.-Fiz. Zh.* 10 (5), 660 (1966).

### CONVECTIVE HEAT TRANSFER

- N. S. ALFEROV and R. A. RYBIN, Heat transfer in annuli, in *Heat and Mass Transfer*, v. 3, p. 60. Minsk (1965).

- N. S. ALFEROV, R. A. RYBIN and N. P. SHAMANOV, Study of heat transfer from a steel tube to water, saturated with gaseous carbon dioxide, *Teploenergetika* No. 4, 67 (1966).
- B. A. ARKAD'EV, An approximate calculation of free-convection heat transfer in a rectangular region, *Inzh.-Fiz. Zh.* 10 (5), 606 (1966).
- N. F. BABOI, M. K. BOLOGA and K. N. SEMENOV, Effect of electric fields on heat transfer in liquids and gases, *Elektronnaya Obrabotka Materialov* No. 1, 57 (1965).
- V. M. BORISHANSKII, Correlation of heat-transfer data in a two-phase flow, in *Heat and Mass Transfer*, v. 3, p. 62. Minsk (1965).
- P. M. BRDLIK and V. K. SAVIN, Heat transfer near the stagnation point in an axisymmetrical jet flow round plane surfaces normal to the flow, *Inzh.-Fiz. Zh.* 10 (4), 423 (1966).
- YU. T. BURBULYA, I. A. KOZHUKHAR' and M. K. BOLOGA, Electroconvective heat transfer in dielectric liquids, *Izv. Akad. Nauk Moldavsk. SSR* No. 2, 90 (1965).
- A. F. GANDEL'SMAN, V. V. USANOV and L. N. NAURITS, New data on heat transfer and hydraulic resistance in a subsonic region of gas flow, *Trudy VNIIMash(VNII Kislorodn. Mashinostr.)* vyp. 10, 105 (1965).
- V. V. IVANOV and A. V. FURMAN, Study of heating of solids by convective and radiant flows, *Izv. Akad. Nauk SSSR, Energetika i Transport* No. 1, 131 (1966).
- YU. A. KOSHMAROV, Heat transfer to a wedge in a hypersonic flow of highly rarefied gas, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 6, 135 (1965).
- E. V. KUDRYAVTSEV and I. A. TURCHIN, The dependence of transient heat transfer on heat flux, *Inzh.-Fiz. Zh.* 10 (5) 573 (1966).
- A. I. LEONT'EV and V. K. FYEDOROV, Experimental study of convective heat transfer in a gas flow in a starting portion of a cylindrical tube, *Inzh.-Fiz. Zh.* 10 (5), 584 (1966).
- T. V. MENDELEEVA and M. M. NAZARCHUK, On the calculation of one-dimensional gas flow in pipes with heat transfer, in *Flows of Liquids and Gases*, p. 48. Kiev (1965).
- V. K. MIGAI, On the intensification of convective heat transfer in channels by means of artificial agitation of the flow, *Izv. Akad. Nauk SSSR., Energetika i Transport* No. 6, 123 (1965).
- B. S. PETUKHOV and V. A. MUKHIN, The experimental study of heat transfer in supersonic flow of gas in a circular pipe, *Teplofiz. Vysok. Temper.* 4 (2), 228 (1966).
- A. K. PIMENOV, Study of heat transfer in a turbulent gas flow in rough channels of electric machines, *Elektrotekh.* No. 11, 60 (1965).
- K. N. SEMENOV, N. F. BABOI and M. K. BOLOGA, Efficiency of the influence of electric fields on heat transfer in gases and liquids, *Izv. Akad. Nauk Mold. SSR* No. 2, 82 (1965).
- E. P. VOLCHKOV and V. YA. LEVCHENKO, Heat transfer in protection of surfaces by jets, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 135 (1966).
- YU. A. ZAGROMOV and A. S. LYALIKOV, Free-convection heat transfer in a horizontal cylindrical sublayer with different locations of the fuel element, *Inzh.-Fiz. Zh.* 10 (5), 577 (1966).
- tion point of a blunt body, *Vestn. Leningr. Un-ta, No. 1, ser. Matem., Mekhaniki i Astronomii* vyp. 1, 120 (1966).
- A. T. ONUFRIEV and V. G. SEVAST'YANENKO, Transfer of radiant energy in spectral lines with reabsorption, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 122 (1966).
- E. A. ROMISHEVSKII, On the effect of a radiative entropy layer, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 182 (1966).
- V. V. SALOMATOV, Rate of crystal growth, with dissipation of the latent heat of crystallization by radiation, *Izv. Vyssh. Ucheb. Zaved., Fizika* No. 1, 60 (1966).
- B. A. SOLOV'EV, Optimization according to the weight of a hemispherical radiator, *Izv. Akad. Nauk SSSR., Energetika i Transport* No. 1, 135 (1966).

#### TRANSFER PROCESSES INVOLVING PHASE CONVERSIONS

- F. A. AGAFONOVA and B. S. FILIPPOVICH, Burnout heat fluxes in a low-pressure high-velocity steam-water mixture flow, *Inzh.-Fiz. Zh.* 10 (5), 620 (1966).
- V. M. BORISHANSKII and B. S. FOKIN, A semi-empirical heat-transfer theory for free convection film boiling near vertical heating surfaces, in *Heat and Mass Transfer*, v. 3, p. 109. Minsk (1965).
- V. M. BORISHANSKII and M. A. GOTOVSKII, A disturbance theory of hydraulic stability of a two-phase layer adjacent to a wall in boiling under conditions of free and forced convection, in *Heat and Mass Transfer*, v. 3, p. 125. Minsk (1965).
- V. M. BORISHANSKII, S. S. KUTATELADZE and L. L. SHNEIDERMAN, The experimental estimation of the effect of the circulation velocity on disturbing the film boiling of water, *Trudy TsKTI(Tsentr. Kotloturb. In-t)* vyp. 62, 42 (1965).
- V. M. BORISHANSKII, S. S. KUTATELADZE et al., Some physical laws of a boiling process under conditions of free and forced convection, *Trudy TsKTI (Tsentr. Kotloturb. In-t)* vyp. 62, 15 (1965).
- V. M. BORISHANSKII, I. I. PALEEV et al., Study of the behaviour of liquid drops in a high-temperature medium, *Trudy TsKTI (Tsentr. Kotloturb. In-t)* vyp. 62, 33 (1965).
- V. M. BYAKOV, O. P. STEPANOV and B. V. ERSHLER, Heat transfer and mixing in a boiling liquid, in *Heat and Mass Transfer*, v. 3, p. 84. Minsk (1965).
- V. A. EFIMOV, Study of a water boiling crisis in the model of a bundle of tubes, *Teploenergetika* No. 1, 59 (1966).
- B. S. FOKIN, Heat transfer in film boiling of liquids, *Trudy TsKTI (Tsentr. Kotloturb. In-t)* vyp. 62, 84 (1965).
- V. S. GOLOVIN, B. A. KOL'CHUGIN and E. A. ZAKHAROVA, Measurement of vapour bubbles growth rate in boiling of different liquids (Short review), *Teplofiz. Vysok. Temper.* 4 (1), 147 (1966).
- L. N. GRIGOR'EV, I. KH. KHAIRULLIN and A. G. USMANOV, The experimental study of critical heat fluxes during boiling of binary mixtures, in *Heat and Mass Transfer*, v. 3, p. 155. Minsk (1965).
- L. N. GRIGOR'EV, L. A. SARKISYAN and A. G. USMANOV, The experimental study of heat transfer during boiling of three-component mixtures, in *Heat and Mass Transfer*, v. 3, p. 79. Minsk (1965).
- O. P. IVANOV, Study of heat transfer in boiling of mixtures of freon-12 and freon-22, *Kholod. Tekh.* No. 4, 27 (1966).

#### RADIANT HEAT TRANSFER

- Z. S. GALANOVA, The radiant heat transfer near the stagna-

- S. K. KADYROV, On the design formulae of heat transfer with constant evaporation velocity, *Izv. Akad. Nauk UzSSR., ser. Tekh. Nauk* No. 5, 78 (1965).
- E. M. KOVALEV, V. S. FOKIN and I. M. KOVAL, Evaporation of the solution of common salt with crystal formation in installations with natural circulation, *Khim. i Neft. Mashinost.* No. 10, 19 (1965).
- S. S. KUTATELADZE, A. I. LEONT'EV *et al.*, A hydrodynamic theory of heat-transfer crisis in a forced flow of boiling liquid, in *Heat and Mass Transfer*, v. 3, p. 118. Minsk (1965).
- S. S. KUTATELADZE and I. G. MALENKOV, The experimental study of analogy of boiling and bubbling processes, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 140 (1966).
- E. I. NESIS, Liquid boiling, *Uspekhi Fiz. Nauk* 87, vyp. 4, 615 (1965).
- G. P. NIKOLAEV and V. P. SKRIPOV, Study of a boiling crisis of carbon dioxide at pressures, close to critical one, in *Heat and Mass Transfer*, v. 3, p. 146. Minsk (1965).
- G. P. NIKOLAEV, V. P. SKRIPOV and E. N. BUDIN, A boiling crisis of n-pentane and n-hexane under conditions of natural convection, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 62, 137 (1965).
- A. P. ORNATSKII and L. F. GLUSHCHENKO, Hydraulic resistance at surface boiling under conditions of forced liquid motion, *Teplotenergetika* No. 4, 63 (1966).
- YU. E. POKHVALOV, I. V. KRONIN and I. V. KURGANOVA, Experimental correlation of data on heat transfer in nucleate boiling of subcooled fluids in tubes, *Teplotenergetika* No. 5, 63 (1966).
- I. G. PORTNOV, Melting of a two-layer plate, in *Heat and Mass Transfer*, v. 3, p. 286. Minsk (1965).
- I. G. PORTNOV, On the evaporation and growth of drops in a gaseous medium, in *Heat and Mass Transfer*, v. 3, p. 229. Minsk (1965).
- N. YA. RABINER, Evaporation of viscous solutions in an apparatus with a rotating heating surface, in *Heat and Mass Transfer*, v. 3, p. 279. Minsk (1965).
- M. E. SHITSMAN, On the effect of the channel diameter on the critical heat fluxes, *Teplotenergetika* No. 4, 70 (1966).
- L. S. SHTOKOLOV, Treatment of experimental data on a propagated crisis of heat transfer in liquid boiling, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 142 (1966).
- B. I. STEFANOV, D. L. TIMROT *et al.*, The experimental study of viscosity and heat conductivity of sodium and potassium vapours, *Teplotfiz. Vysok. Temper.* 4 (1), 141 (1966).
- V. M. STEFANOVSKII, Study of heat transfer at dephlegmation of ammonia and water vapours, *Kholod. Tekh.* No. 4, 32 (1966).
- N. G. STYUSHIN and B. S. VARSHNEL, On heat-transfer peculiarities in surface boiling, in *Heat and Mass Transfer*, v. 3, p. 52. Minsk (1965).
- K. TAGANOV and KH. IL'YASOV, Heat transfer in boiling of freon-12 in a vertical tube, *Izv. Akad. Nauk. Turkm. SSR., ser. Fiz.-Tekh. Khim. i Geolog. Nauk* No. 5, 112 (1965).
- YU. K. VINOGRADOV and L. D. VOLYAK, The experimental determination of pressure of saturated vapour of sodium and potassium, *Teplotfiz. Vysok. Temper.* 4 (1), 50 (1966).
- V. K. ZAVOISKII, Heat transfer in boiling liquid, in *Heat and Mass Transfer*, v. 3, p. 100. Minsk (1965).

## TRANSFER PROCESSES INVOLVING CHEMICAL CONVERSIONS AND COMBUSTION

- S. K. ASLANOV, A contribution to the calculation of the flame wave length in vibration combustion in tubes, *Inzh.-Fiz. Zh.* 10 (3), 382 (1966).
- A. A. AVDEEVA and M. A. POLYATSKIN, On the accuracy of the determination of fuel components in combustion products, *Elektr. Stantsii* No. 11, 25 (1965).
- R. D. BACHELIS and V. G. MELAMED, On the nonuniqueness of stationary solution of a system of equations of a combustion theory, *Prikl. Matem. Mekh.* 30, vyp. 2, 368 (1966).
- YU. A. FINAEV, On heat transfer rate in a particle of natural solid fuel in combustion, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 1, 129 (1966).
- YU. A. FINAEV, On the methods of investigation of natural solid fuel combustion, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 2, 89 (1966).
- A. M. GRISHIN, Application of the method of integral relations to the solution of problems of the inflammation theory, *Inzh.-Fiz. Zh.* 10 (5), 653 (1966).
- A. M. GRISHIN, Ignition by a hot plate, *Inzh.-Fiz. Zh.* 10 (4), 523 (1966).
- A. G. ISTRATOV and V. B. LIBROVICH, Hydrodynamic stability of a spherical flame, *Dokl. Akad. Nauk SSSR* 168 (1), 43 (1966).
- A. G. ISTRATOV and V. B. LIBROVICH, On the stability of propagation of the spherical flame, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 67 (1966).
- S. S. KUTATELADZE, Turbulent heat and mass transfer in physicochemical transformations, in *Heat and Mass Transfer*, v. 3, p. 7. Minsk (1965).
- P. I. LAVROV, YU. G. KLIMENKO and B. G. VISHNYAK, Comparative investigations of mixing processes in isothermal and nonisothermal simulation of flows in combustion chambers, in *Flows of Liquids and Gases*, p. 56. Kiev (1965).
- YU. V. MIKHAILOVSKII, A method of combustion of gaseous fuel, *Teplotenergetika* No. 3, 69 (1966).
- A. L. MOSSE and G. T. SERGEEV, Heat-transfer processes in a fuel-oxidizer mixture injected into a reacting boundary layer, *Inzh.-Fiz. Zh.* 10 (3), 311 (1966).
- S. S. NOVIKOV and YU. S. RYAZANTSEV, On the interaction between acoustic waves and a burning surface of condensed systems, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 57 (1966).
- B. V. NOVOZHILOV, Burning of powder at harmonically changing pressure, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 6, 141 (1965).
- V. N. PODYMOV and D. S. KAYUMOVA, A note on vortex occurrence in vibration combustion, *Inzh.-Fiz. Zh.* 10 (5), 676 (1966).
- A. V. POTAPOV, Chemical equilibrium of multitemperature systems, *Teplotfiz. Vysok. Temper.* 4 (1) 55 (1966).
- A. S. SHTEINBERG, V. B. ULYBIN *et al.*, On the ignition of condensed materials in constant temperature on a surface, *Inzh.-Fiz. Zh.* 10 (4), 482 (1966).
- E. I. VITKIN, Time development of thermal explosion, *Dokl. Akad. Nauk BSSR* 9 (12), 794 (1965).

- F. S. ZAVELEVICH, Burning of graphite in a boundary layer in chemical equilibrium, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 161 (1966).
- YA. B. ZEL'DOVICH, On a particular effect, stabilizing the curved laminar flame front, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 102 (1966).

## MASS TRANSFER

- A. A. ABRAMZON, L. YA. KREMNEV and YU. L. KIYANOVSKAYA, Mass transfer of two interacting surface-active reagents in a liquid-liquid system, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 172. Moscow-Leningrad (1965).
- R. Z. ALIEV, P. G. ROMANKOV and A. A. MEDVEDEV, On equations of molecular diffusion in a gravitational field, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 133. Moscow-Leningrad (1965).
- R. Z. ALIEV, P. G. ROMANKOV and A. A. MEDVEDEV, On a conjugated generalized solution of a transient mass-transfer problem in channels with porous walls, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 138. Moscow-Leningrad (1965).
- R. Z. ALIMOV, Intensification of mass transfer with the help of a vortex two-phase flow, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 292. Moscow-Leningrad (1965).
- M. A. AL'TSHULER, E. I. VASILEVSKAYA and B. V. DERYAGIN, Diffusional extraction from polydispersed capillary-porous bodies, *Dokl. Akad. Nauk SSSR* 169 (2), 368 (1966).
- I. M. ANOSHIN, R. V. KOREN' and V. N. MAMIN, Intensification of mass transfer processes in rotary plants, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 6, 117 (1965).
- R. D. BACHELIS and V. G. MELAMED, Steady-state solutions of the equation of diffusion associated with an increase in quantity of substance in the general case, *Vestn. Mosk. Un-ta., ser. 1, Matematika, Mekhanika* No. 1, 43 (1966).
- F. M. BOCHEVER, A. E. ORADOVSKAYA and V. I. PAGUROVA, Convective diffusion of salts in a radial flow of underground waters, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 128 (1966).
- E. A. BONDAREV and A. R. SHKIRICH, The experimental study of longitudinal and cross convective diffusion in a porous medium, *Izv. Akad. Nauk SSSR., Mekhanika* No. 6, 138 (1965).
- V. D. BORMAN, B. I. NIKOLAEV and N. I. NIKOLAEV, Transfer phenomena in a polar gas, *Zh. Eksp. Teoret. Fiz.* 50, vyp. 3, 821 (1966).
- L. N. BRAGINSKII, M. A. EVILEVICH and I. S. PAVLUSHENKO, On mass transfer in bubbling aeration, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 304. Moscow-Leningrad (1965).
- T. B. DENISOVA and M. KH. KISHINEVSKII, Mass transfer kinetics from a rotating disc in turbulent flow, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 165. Moscow-Leningrad (1965).
- V. V. DIL'MAN, M. B. AIZENBUD and E. Z. SHUL'TS, The role of longitudinal mixing in macrokinetics of chemical reactors, *Khim. Prom.* No. 2, 123, (1966).
- YU. I. DYTNERSKII and G. S. BORISOV, Study of mass transfer in the gaseous phase, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 263. Moscow-Leningrad (1965).
- YU. I. DYTNERSKII and G. S. BORISOV, Study of mass transfer in the liquid phase, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 266. Moscow-Leningrad (1965).
- YU. I. DYTNERSKII, A. G. KASATKIN and L. P. KHOLPANOV, A generalized mass transfer equation during fluidisation, *Zh. Prikl. Khim.* 39, vyp. 1, 92 (1966).
- M. A. FIALKOV, On the thermal gradient coefficient of milk-protein concentrates, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 6, 108 (1965).
- I. N. FIKLISTOV and G. A. AKSEL'RUD, Kinetics of mass transfer from a bed of solids to a fluctuating liquid flow, *Inzh.-Fiz. Zh.* 10 (4), 531 (1966).
- L. K. GUSACHENKO, An asymptotic solution of the sublimation problem, *Inzh.-Fiz. Zh.* 10 (4), 548 (1966).
- N. I. KADENSKAYA, A. S. ZHELEZNYAK and B. I. BROUNSHTEIN, Study of mass transfer in an extraction spray column, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 215. Moscow-Leningrad (1965).
- E. A. KAPUSTIN, Mass transfer between a solid and a bubbling liquid, *Izv. Vyssh. Ucheb. Zaved., Chern. Metallurg.* No. 9, 192 (1965).
- V. M. KAZANSKII, On mass-transfer potential in colloidal bodies, *Inzh.-Fiz. Zh.* 10 (3), 393 (1966).
- N. E. KHAZANOVA, Isothermal diffusion near the critical point, in *Heat and Mass Transfer*, v. 3, p. 21. Minsk (1965).
- A. A. KOMAROVSKII and G. F. MIRONOVA, Mass transfer in stepped-counter-current installations with a suspended ionite layer, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 321. Moscow-Leningrad (1965).
- L. YA. KREMNEV, L. YA. SKVIRSKII and A. A. ABRAMZON, Mass transfer through a liquid-liquid interface in the presence of surface-active materials, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 186. Moscow-Leningrad (1965).
- V. M. KUZNETSOV, B. A. LUGOVTSOV and E. I. SHER, On the motion of gas bubbles in liquid under action of a temperature gradient, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 124 (1966).
- L. M. NIKITINA, A problem on air conditioning, *Izv. Akad. Nauk BSSR. ser. Fiz.-Tekh. Nauk* No. 1, 48 (1966).
- L. M. NIKITINA, M. A. BUT'KO *et al.*, On mass transfer between a body and the surrounding medium, *Dokl. Akad. Nauk BSSR* 10 (3), 159 (1956).
- L. M. NIKITINA, M. A. BUT'KO *et al.*, Thermodynamic mass-transfer parameters of some high molecular compounds, *Dokl. Akad. Nauk BSSR* 10 (5), 307 (1966).
- V. A. OLENEV, The effect of the reaction temperature and mass transfer in a layer on the recovery rate of carbon dioxide by peat coke, in *Heat and Mass Transfer at Industrial Plants*, p. 79. Yaroslavl (1964).
- N. U. RIZAEV, K. V. MERENKOV *et al.*, Mass transfer in liquid adsorption, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 308. Moscow-Leningrad (1955).

- A. M. ROZEN and V. S. KRYLOV, Problems of mass-transfer theory, *Khim. Prom.* No. 1, 51 (1966).
- M. S. SAFONOV, Solution of a sorption dynamics problem with longitudinal diffusion, *Zh. Fiz. Khim.* **40** (2), 422, (1966).
- V. I. SERDYUK and I. M. ANOSHIN, Application of diffusion equations to extraction from anisotropic porous solids, *Izv. Vyssh. Ucheb. Zaved. Pishchev. Tekhnolog.* No. 2, 155 (1966).
- L. YA. SKVIRSKII, A. A. ABRAMZON and L. YA. KREMNEV, Interaction between iodine and sulphur dioxide under mass transfer conditions in a system liquid-liquid, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 131. Moscow-Leningrad (1965).
- L. S. SLOBODKIN and B. A. LARIONOV, The effect of the structure of solid adsorbents on the process of contact mass transfer with absorption of bond from thermoplastic systems, *Inzh.-Fiz. Zh.* **10** (6), 789 (1966).
- I. P. SLOBODYANIK and V. B. GASHKEVICH, Study of mass transfer on a plate tray with recirculation of the liquid phase, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 1, 164 (1966).
- V. N. SOKOLOV and A. S. RESHANOV, Study of mass transfer in a fluidized extractor, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 201. Moscow-Leningrad (1965).
- N. A. STODOL'NIK, L. A. ROTT and Zh. N. GORBATOVICH, On a diffusion theory in the critical region, in *Heat and Mass Transfer*, v. 3, p. 34. Minsk (1965).
- M. A. STYRIKOVICH, E. I. NEVSTRUEVA and A. S. MEKHDI, Some new studies of mass transfer for high heat fluxes, in *Heat and Mass Transfer*, v. 3, p. 42. Minsk (1965).
- A. A. TARZIMANOV and V. E. MASHIROV, On the transfer coefficients of normal limiting hydrocarbons and alcohols, *Izv. Vyssh. Ucheb. Zaved., Neft i Gaz* No. 2, 70 (1966).
- A. P. VERKHOLA and V. M. LYSYANSKII, Study of mass transfer in an extractor for a system "solid-liquid", *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 1, 154 (1966).

#### SIMULTANEOUS HEAT AND MASS TRANSFER

- R. Z. ALIMOV, Hydraulic resistance and heat and mass transfer in vortex flow, *Inzh.-Fiz. Zh.* **10** (4), 437 (1965).
- N. A. ANFIMOV, Stagnation point heat and mass transfer at injection and suction of different gases through a surface of a body, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 22 (1966).
- V. M. BORISHANSKII, Account of the effect of physical properties of a heat-transfer agent on heat and mass transfer, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 62, 3 (1965).
- P. M. BRDLIK, I. A. KOZHINOV and N. G. PETROV, Experimental study of heat and mass transfer for steam condensation from humid air on a vertical surface under conditions of natural convection, in *Heat and Mass Transfer*, v. 3, p. 265. Minsk (1965).
- A. A. GRYAZNOV, Heat and mass transfer in liquid evaporation from free surface in forced convection, in *Heat and Mass Transfer*, v. 3, p. 192. Minsk (1965).
- L. D. IVANOV, Solution of the system of multigroup transfer equations, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 2, 119 (1966).
- M. KH. KISHINEVSKII, Heat and mass transfer from a rotating disc in turbulent flow, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*. p. 160 Moscow-Leningrad (1965).
- L. A. MARNEVSKAYA, On the solution of a particular system of differential equations, in the heat- and mass-transfer theory, *Differents Uravn.* **1** (10), 1397 (1965).
- P. A. NOVIKOV, On some peculiarities of sublimation heat and mass transfer in rarefied gas medium, in *Heat and Mass Transfer*, v. 3, p. 220. Minsk (1965).
- A. I. RODIONOV, V. M. RADIKOVSKII and V. V. ZENKOV, Determination of heat- and mass-transfer coefficients on the interphase contact surface, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 127. Moscow-Leningrad (1965).

#### AEROHYDRODYNAMICS

- V. D. ANDREEV, On the solution of Stokes' problem for a levelled spheroidal surface, *Prikl. Matem. Mekh.* **30**, vyp. 2, 410 (1966).
- V. S. AVDUEVSKII and K. I. MEDVEDEV, Separation of the three-dimensional boundary layer, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 19 (1966).
- S. I. AVERIN and I. D. SEMKIN, Effect of different factors on the length of a turbulent gas flame, *Izv. Vyssh. Ucheb. Zaved., Chern. Metallurg.* No. 10, 146 (1965).
- K. I. BABENKO and V. V. RUSANOV, Finite difference methods of solution for spatial problems of gasdynamics, in *Proceedings of the Second All-Union Conference on Theoretical and Applied Mechanics*, vyp. 2, p. 247. Moscow (1965).
- V. E. BASKIN, Motion of a three-dimensional diffusible vortex tube in incompressible viscous fluid, *Dokl. Akad. Nauk SSSR* **165**, (6), 1261 (1965).
- V. V. BAZHANOVA and B. A. SILANT'EV, Experimental verification of the hypothesis of constancy of liquid vorticity in the separation region, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 120 (1966).
- S. Z. BELEN'KII and E. S. FRADKIN, Turbulent mixing theory, *Trudy Fiz. In-ta im. Lebedeva* **29**, 207 (1965).
- A. A. BERKENGEM, Natural convection in cylindrical liquid layers, *Inzh.-Fiz. Zh.* **10**(4), 459 (1966).
- A. G. BOEV and V. L. GERMAN, Curvilinear co-ordinates in the theory of boundary layer, *Izv. Akad. Nauk SSSR., Mekhanika* No. 6, 3 (1965).
- A. A. BUTUZOV, On the boundary parameters of an artificial cavity, formed on a lower surface of a horizontal wall, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 167 (1966).
- V. A. CHERNYKH, Outflow of a jet into a blind pass, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 139 (1966).
- A. M. CHIBISOV, On the approximation of the equations of plane gas flow at high supersonic velocities, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 181 (1966).
- A. SH. DORFMAN, An approximate solution of the internal

- problem of the laminar boundary-layer theory, *Inzh.-Fiz. Zh.* **10**(3), 298 (1966).
- A. SH. DORFMAN, On a particular calculation method of a laminar boundary layer, in *Flows of Liquids and Gases*, p. 42. Kiev (1965).
- S. A. DRUZHININ and A. I. LEONT'EV, To the calculation of temperature distribution over a porous plate, *Inzh.-Fiz. Zh.* **10**(4), 479 (1966).
- E. P. DYBAN, V. G. PROKOPOV *et al.*, On the hydraulic resistance in flow of air through porous metallic media, in *Flows of Liquids and Gases*, p. 7. Kiev (1965).
- E. T. DZHRBASHYAN, Application of high-speed filming for the measurement of properties of a turbulent two-component flow in an open channel, *Uspekhi Nauchn. Fotogr.* **9**, 267 (1964).
- N. S. GALYUN and A. N. KRAIKO, On a particular variation problem of one-dimensional non-equilibrium gas dynamics, *Izv. Akad. Nauk SSSR. Mekhanika Zhidkosti i Gaza* No. 2, 27 (1966).
- T. A. GIRSHOVICH, On a turbulent jet in a drifting flow, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 151 (1966).
- L. V. GOGISH, Study of short supersonic nozzles, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 175 (1966).
- M. A. GOL'DSHTIK and V. N. SOROKIN, On the rotation of a cylinder at the jet boundary, *Zh. Prikl. Mekhan. i Tekhn. Fiz.* No. 1, 123 (1966).
- O. V. GOLUBEVA, A generalization of a theorem about the circumference of filtration flows, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 113 (1966).
- N. P. IKRYANNIKOV, Temperature distribution in a laminar incompressible flow in a rectangular duct with energy dissipation, *Inzh.-Fiz. Zh.* **10**(3), 306 (1966).
- T. F. IVANOV, On the developed rotations of liquid masses at small  $Re$  numbers, *Izv. Akad. Nauk SSSR. Mekhanika Zhidkosti i Gaza* No. 2, 149 (1966).
- V. T. KHARIN, On the stability of incompressible potential flow, *Vestn. Mosk. Un-ta. ser. 1., Matematika, Mekhanika* No. 1, 125 (1966).
- I. KHOMYAK, On the mechanism of breaking of jets into large drops. Remarks on the paper by M. I. Vivdenko and K. N. Shabalin [*Inzh.-Fiz. Zh.* **8**(4) (1965)], *Inzh.-Fiz. Zh.* **10**(5), 681 (1966).
- A. I. KHOZHAINOV, Turbulent flow of a liquid metal in magnetohydrodynamic channels of circular cross-section, *Zh. Tekhn. Fiz.* **36**, vyp. 1, 147 (1966).
- A. V. KOLESNIKOV, Comparison of experimental and semi-empirical data for an incompressible turbulent boundary layer with a pressure gradient, *Inzh.-Fiz. Zh.* **10**(4), 465 (1966).
- B. A. KOLOVANDIN, Some results of the experimental study of the structure of electrically-conducting turbulent liquid flow, *Inzh.-Fiz. Zh.* **10**(5), 567 (1966).
- L. F. KOZLOV, On integration of equations of a laminar boundary layer on a porous surface, *Prikl. Mekh.* **11**, vyp. 3, 119 (1966).
- A. N. KRAIKO, On the solution of variation problems of supersonic gas dynamics, *Prikl. Matem. Mekh.* **30**, vyp. 2, 312 (1966).
- G. A. KULONEN and L. A. KULONEN, On the calculation of a curved axial-symmetrical stream of ideal incompressible fluid in curvilinear channels, *Vestn. Lening. Un-ta* No. 1, ser. *Matem., Mekhaniki i Astronomii* vyp. 1, 145 (1966).
- G. A. KULONEN and L. A. KULONEN, Study of a laminar boundary layer in incompressible and compressible fluids, *Izv. Vyssh. Ucheb. Zaved. Aviats. Tekhnika* No. 4, 29 (1965).
- V. B. KURZIN, On the aerodynamic interference of profiles in a subsonic transient flow, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 117 (1966).
- L. A. LADNOVA, On the method of the small parameter for the solution of the laminar boundary-layer equation on a flat plate, *Vestn. Leningr. Un-ta*, No. 1, ser. *Matem., Mekhaniki i Astronomii* vyp. 1, 154 (1966).
- M. A. LAVRENT'EV, On particular problems of liquid motion in the presence of free surfaces, *Prikl. Matem. Mekh.* **30**, vyp. 1, 177 (1966).
- E. E. LEMEKHOV, On the turbulent motion of a fluid in annular pipes, *Vestn. Leningr. Un-ta* No. 7., ser. *Matem., Mekhaniki i Astronomii* vyp. 2, 81 (1966).
- A. I. LEONT'EV, B. P. MIRONOV and P. P. LUGOVSKII, Experimental determination of the critical injection parameter for a porous plate, *Inzh.-Fiz. Zh.* **10**(4), 447 (1966).
- A. T. LITVINOV, On the relative motion and inertia run of particles, *Inzh.-Fiz. Zh.* **10**(6), 776 (1966).
- B. I. LOMASHEV and N. I. VASIL'EV, Effect of dissociation on skin friction in a turbulent boundary layer, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 2, 42 (1966).
- V. V. LUNEV, V. G. PAVLOV and S. G. SINCHENKO, A hypersonic flow around a sphere by equilibrium dissociating air, *Zh. Vychisl. Matem. i Matem. Fiz.* **6**(1), 121 (1966).
- YU. P. LUN'KIN and F. D. POPOV, The influence of vibrational-dissociative relaxation on supersonic flow around blunt bodies, *Zh. Tekh. Fiz.* **36**, vyp. 3, 661 (1966).
- G. I. MAIKAPAR, Bodies formed by the surfaces of conical streams, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 126 (1966).
- I. S. MAKAROV and B. G. KHUDENKO, A system of plane turbulent streams in a chamber, *Inzh.-Fiz. Zh.* **10**(6), 707 (1966).
- A. M. MAKAROV and L. K. MARTINSON, Oblique shock wave with complete condensation, *Inzh.-Fiz. Zh.* **10**(4), 545 (1966).
- N. A. MAKHIN and V. F. SYAGAIEV, Numerical solution of a problem of a supersonic flow around conical bodies set at an angle of attack, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 140 (1966).
- V. K. MIGAL, Artificial turbulization of a flow in a tube bundle, *Inzh.-Fiz. Zh.* **10**(5), 600 (1966).
- V. K. MIGAL, On the effect of initial turbulence on the efficiency of diffuser flows, *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 2, 116 (1966).
- L. A. MOVSESYAN, On a theory of one-dimensional transitional motions of an ideal compressible fluid, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 159 (1966).
- I. N. MURZINOV, A laminar boundary layer on a sphere in hypersonic flow of equilibrium dissociated air, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 184 (1966).

- M. M. NAZARCHUK, On a pre-crisis portion of a laminar adiabatic gas flow in a parallel plane channel, *Inzh.-Fiz. Zh.* **10**(3), 294 (1966).
- M. M. NAZARCHUK, On a resistance coefficient in gas flow in a circular pipe with subsonic velocity, in *Flows of Liquids and Gases*, p. 32. Kiev (1965).
- YU. A. PANOV and A. I. SHVETS, Detachment of a turbulent boundary layer in a supersonic flow, *Prikl. Mekh.* **2**, vyp. 1, 99 (1966).
- K. S. POLYAKOV, On the design of nozzles and cylindrical channels in adiabatic flow of evaporating fluid, *Trudy LPI (Leningr. Politekhn. In-t)* No. 247, 16 (1965).
- G. N. PYKHTEEV, General and fundamental boundary value problems of plane jet developed flows and corresponding nonlinear equations, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 32 (1966).
- R. N. RUDAKOV, On small perturbations of convective motion between vertical parallel planes, *Prikl. Matem. Mekh.* **30**, vyp. 2, 362 (1966).
- P. A. RUDCHENKO, Calculation of filtration from canals and beds, *Prikl. Mekh.* **2**, vyp. 2, 117 (1966).
- V. A. RUSKOL, Auto-modeled solution of laminar boundary-layer equations in the presence of a flame front, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 10 (1966).
- YU. N. SHCHIPKOV, Determination of the void fraction for small velocities of steam-water mixture flow in pipes, in *Heat and Mass Transfer*, v. 3, p. 335. Minsk (1965).
- V. K. SHCHUKIN, The temperature field effect on liquid stability between rotating discs, *Inzh.-Fiz. Zh.* **10**(3), 357 (1966).
- A. I. SHVETS, Study of a flow around elliptic cones, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 130 (1966).
- L. M. SIMUNI, Mixing of plane laminar jets, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 149 (1966).
- YU. A. SOKOVISHIN, Propagation of a laminar jet in the presence of a co-current flow, *Trudy LPI (Leningr. Politekhn. In-t)* No. 247, 10 (1965).
- P. K. TAGIROV, The effect of an initial boundary layer on bottom pressure, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 145 (1966).
- M. A. TAIROV, Solution of a particular non-linear problem of two phase flow in a porous medium, *Zh. Vychisl. Matem. i Matem. Fiz.* **6**(1), 106 (1966).
- M. D. TARNOPOL'SKII and E. S. GOLIKOV, On the determination of the bottom pressure after a step in a disturbed flow, *Inzh.-Fiz. Zh.* **10**(6), 718 (1966).
- M. D. TARNOPOL'SKII and G. I. KHROMUSHIN, On the parameters of a plane stalled flow, *Inzh.-Fiz. Zh.* **10**(5), 628 (1966).
- S. G. TELETOV, Problems of hydrodynamics of two-phase mixtures, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 3 (1965).
- V. I. TOKAREV, Thermodynamics of turbulent flows, *Hidroaeromekhanika* vyp. 2, 69 (1965).
- A. D. TYUPTSOV, Hydrostatics in weak force fields. Stability of equilibrium forms of liquid surface, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 78 (1966).
- V. I. VLASOV, Refinement of the method of statistical tests (Monte Carlo) for the computation of rarefied gas flows, *Dokl. Akad. Nauk SSSR* **167**(5), 1016 (1966).
- A. E. VOITENKO, Strong shock waves in air, *Zh. Tekhn. Fiz.* **36**, vyp. 1, 178 (1966).
- D. M. VOITENKO, A. I. ZUBKOV *et al.*, A supersonic gas flow around a cylindrical obstacle on a plate, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 1, 121 (1966).
- A. M. YAGLOM, Fluctuations in energy dissipation as influencing the shape of turbulence characteristics in an inertial interval, *Dokl. Akad. Nauk SSSR* **166**(1), 49 (1966).
- O. S. ZELENKOV and A. VYURKOV, The bottom pressure in case of a sudden expansion of a sonic flow, *Vestn. Leningr. Un-ta*, No. 7, ser. Matem., *Mekhan. i Astronomii* vyp. 2, 76 (1966).

### DRYING PROCESSES

- G. A. ANISOVICH and A. A. MIKHALEVICH, Heat transfer between a rod and a box in a process of high-frequency drying, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 2, 95 (1966).
- V. E. BABENKO, P. G. ROMANOV and N. B. RASHKOVSKAYA, Drying of solutions in a fluidized bed, in *Application of A Fluidized Bed in Chemical Industry*, p. 1. Leningrad 73 (1965).
- S. G. BARASHKOV, Drying of chemico-pharmaceutic products in a suspended layer, *Med. Prom. SSSR.* No. 12, 35 (1965).
- I. P. BAUMSHTEIN, On the optimum control of drying apparatuses, *Trudy VTsNII Kompleksn. Avtomatiz.* vyp. 12, 14 (1965).
- M. I. BEILIN, A. V. KHADZHIQLO *et al.*, Some factors affecting drying of coal in a fluidized bed (at coke-chemical plants), *Ugol' Ukrainy* No. 11, 48 (1965).
- A. S. BOGMA and V. M. VITYUGIN, Study of a drying process for iron ore pellets, *Izv. Vyssh. Ucheb. Zaved., Chern. Metallurg.* No. 12, 36 (1965).
- V. N. BRATCHIKOV and K. OMAROV, Drying of fine-grained materials by a solid heat-transfer agent, *Sb. Statei Aspirantov i Soiskatelei (M-vo Vyssh. i Sredn. Spets. Obrazov. Kaz. SSR). Tekh. Nauki* **1**, 125 (1965).
- M. A. BUZ, Criteria for the formation of cracks in ceramic materials during drying, *Sb. Trudov (VNII Stroit. Mater. i Konstr.)* No. 5, 13 (1965).
- M. CHERNENKO and V. KASHIN, Grain drying by active ventilation, *Kolkhozno-Sovkhozn. Proizvodstvo RSFSR* No. 7, 10 (1965).
- YU. G. ERSHOV, Characteristics of the drying mechanism in fluids, in *Heat and Mass Transfer in Industrial Plants*, p. 22. Yaroslavl' (1964).
- B. V. FEDOSEEV, G. S. NIKOLAEV *et al.*, A new small-size grain-cleaning-drying plant, *Seleksiya i Semenovodstvo* No. 6, 13 (1965).
- L. KIM, L. BABUSHKIN and L. LOKSHIN, Drying of slag on garret ceiling, *Na Stroikakh Rossii* No. 11, 14 (1965).
- B. S. KRYLOV, T. M. ROMANOVA and B. I. PYATACHKOV, Intensification of the drying processes of peat insulating slabs, in *Heat and Mass Transfer in Industrial Plants*, p. 65. Yaroslavl' (1964).
- B. MEL'NIK, Ventilation and drying of rice in piles, *Mukomol'no-Elevatorn. Prom.* No. 10, 18 (1965).



- O. G. NELIPA, Disintegration of ammonia sulphate during drying in a fluidized bed, *Koks i Khimiya* No. 4, 37 (1966).
- P. NOVIKOV, A double shaft grain dryer C3C-8, *Tekhnika v Sel. Khoz.* No. 5, 81 (1965).
- A. S. OGIENKO, Drying of a zinc cake from a pulp in a fluidized bed with simultaneous granulating of the product, *Tsvetn. Metallurgiya* No. 10, 36 (1965).
- YU. N. PCHELKIN, Study of drying of wheat grain in a fixed bed, *Nauch. Trudy VIESKh (VNII Elektr. Sel. Khoz.)* vyp. 17, 64 (1965).
- B. I. PYATACHKOV, Calculation method of the drying curve for the first period for variable conditions, in *Heat and Mass Transfer in Industrial Plants*, p. 54. Yaroslavl' (1964).
- V. I. PEREDISTYI, Drying of frames for lingots, *Metallurg.* No. 1, 22 (1966).
- E. O. REGER, P. G. ROMANKOV and N. B. RASHKOVSKAYA, On the effect of mechanic oscillations (vibrations) on the kinetics of the drying process of paste-like materials, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 342. Moscow-Leningrad (1965).
- S. G. ROMANOVSKII, Electromagnetic method of drying and thermal treatment of materials by electrical current of industrial frequency, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 2, 50 (1966).
- G. A. ROVNYI, Calculation of the drying process of ventilated grain, *Mekh. i Elektrifik. Sots. Sel. Khoz.* No. 2, 11 (1965).
- V. A. SEBALLO, N. B. RASHKOVSKAYA and P. G. ROMANKOV, Drying in a fluidized bed, in *Application of a Fluidized Bed in Chemical Industry*, p. 1. Leningrad, 46 (1965).
- V. I. SMIRNOV, On the intensification of the utilisation of peat drying fields, *Torf. Prom.* No. 2, 21 (1966).
- A. V. VALYAEV and A. I. DEMENT'EV, Drying chambers for overalls of workers on refrigerators, *Kholodil'n. Tekhnika* No. 3, 47 (1966).
- L. N. VOLOSHIN, On the theory and calculation of vibration dryers, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 2, 138 (1966).
- S. G. SIMONYAN and N. N. DOLGOPOLOV, On the simultaneous acoustic and high frequency drying of capillary-porous materials, *Inzh.-Fiz. Zh.* 10(4), 542 (1966).
- V. S. VARENTSOV, A. F. DEROV and V. I. SMIRNOV, Effect of the frozen deposit layer on the drying of milling peat, *Torf. Prom.* No. 2, 19 (1966).
- V. ZHIDKO and A. KORCHAK, On the drying operating conditions of maize grain in shaft dryers, *Mukomol'no-Elevatorn. Prom.* No. 8, 22 (1965).
- V. S. BIL' and N. D. AVTOKRATOVA, Temperature dependences of heat conductivity and thermal diffusivity of some polymeric materials, *Plast. Massy* No. 10, 37 (1965).
- V. YA. CHEKHOVSKOI, On a particular empirical equation for the calculation of enthalpy and heat capacity of some solid substances, *Zh. Fiz. Khim.* 39(12), 2947 (1965).
- V. S. CHIRKIN, Thermal diffusivity and thermal conductivity of metallic beryllium, *Atomn. Energiya* 20, vyp. 1, 80 (1966).
- P. D. DAVIDOV, On the theory of engineering design of steady-state thermal processes in powerful semiconductor devices, *Elektrichestvo* No. 4, 46 (1966).
- A. N. DEVOINO and L. V. MISHINA, On the calculation of evaporation heat of liquid nitrogen tetroxide, *Izv. Akad. Nauk BSSR., ser. Fiz.-Tekh. Nauk* No. 2, 31 (1966).
- F. N. DRESVYANNIKOV, The experimental determination of heat conductivity of nitrogen oxide at high temperatures, *Teploenergetika* No. 2, 86 (1966).
- E. B. FEDOROV, B. A. IVAKIN and P. E. SUETIN, Measurement of gas diffusion coefficients by means of an optical method, *Zh. Tekhn. Fiz.* 36, vyp. 3, 569 (1966).
- L. P. FILIPPOV and R. P. YURCHAK, Methods for the measurement of heat capacity of solid and liquid metals, *Teplofiz. Vysok. Temper.* 3(6), 901 (1965).
- L. E. GUREVICH and G. A. ROMAN, Thermal conductivity of ferrites at low temperatures and phonon- and magnon-drag effect, *Fiz. Tverd. Tela* 8(2), 525 (1966).
- P. M. KESSEL'MAN and A. S. LITVINOV, Calculation of viscosity of gas mixtures under atmospheric pressure, *Inzh.-Fiz. Zh.* 10(3), 385 (1966).
- I. KH. KIPNIS, On the extrapolation of experimental thermal data in to the high pressure region, *Inzh.-Fiz. Zh.* 10(3), 374 (1968).
- YA. A. KRAFTMAKHER, A potentiometric scheme for measurement of heat capacity by a modulated method, *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 144 (1965).
- V. A. KRIVTSOV, G. I. GUSHCHIN and A. A. FRAKTOVNIKOVA, Measuring methods of temperature in nuclear reactors, *Teplofiz. Vysok. Temper.* 4(2), 279 (1966).
- V. I. KSENZENKO, S. ISMAILOV and N. A. ZANEMONETS, Thermodynamic calculation of a process in which glaubertite interacts with silica and sodium chloride in the presence of water vapour, *Dokl. Akad. Nauk SSSR* 167(4), 838 (1966).
- V. M. KUL'GAVCHUK and G. A. NOVOSKOL'TSEVA, Study of heating and evaporation of exploding wires by means of the x-ray method, *Zh. Tekhn. Fiz.* 36, vyp. 3, 549 (1966).
- V. A. LATYSHEVA and O. A. KOZHEVNIKOV, The double adiabatic calorimeter for measuring the specific heats of liquids, *Vestn. Leningr. Un-ta* No. 22, ser. Fiz. i Khim. vyp. 4, 109 (1965).
- V. V. MAIOROV, Measurement of a pipe wall temperature in the study of heat transfer in boiling solutions, *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 2, 115 (1966).
- V. A. MASLIKOV and R. F. SKAKOVSKII, Dependences of the thermal properties of sunflower mint on weight, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 2, 159 (1966).
- K. P. MISHCHENKO and S. V. SHADSKII, Some thermodynamic properties of dioxane-aqueous solutions of sodium iodide, *Dokl. Akad. Nauk SSSR* 167(3), 621 (1966).

**THERMAL PROPERTIES AND THEIR  
DETERMINATION METHODS: THERMAL  
MEASURING DEVICES**

- KH. I. AMIRKHANOV and YA. B. MAGOMEDOV, Heat conductivity of gallium antimonite in solid and liquid states, *Fiz. Tverd. Tela* 8, vyp. 1, 290 (1966).
- V. A. BAKAEV, On the statistical thermodynamics of adsorption equilibrium in the case of ceolites, *Dokl. Akad. Nauk SSSR* 167(2), 369 (1966).
- L. M. BIBERMAN and A. KH. MNATSAKANYAN, Optical properties of air in the temperature range 4000-10000°K, *Teplofiz. Vysok. Temper.* 4(2), 148 (1966).

- L. G. NAGORNYYKH, On the derivation of the formula for lattice thermal conductivity at high temperatures by the dimensional analysis, *Fiz. Tverd. Tela* **8**(2), 587 (1966).
- R. I. NOVIKOV, An instrument for the measurement of temperature, *Mekh. i Avtomatiz. Upravlen.* No. 2, 26 (1966).
- YU. N. OVCHINNIKOV, Thermal capacity of thin superconducting films in a magnetic field, *Zh. Eksp. Teoret. Fiz.* **50**, vyp. 3, 795 (1966).
- L. P. PHILIPPOV and R. P. YURCHAK, Application of the radial temperature wave to a complex measurement of heat properties of solid and liquid metals at elevated temperatures, *Vestn. Mosk. Un-ta, ser. III. Fizika, Astronomiya* No. 1, 110 (1966).
- L. A. PIGAL'SKAYA, L. P. FILIPPOV and V. D. BORISOV, Thermal diffusivity of wolfram at high temperatures, *Teplotfiz. Vysok. Temper.* **4**(2), 293 (1966).
- V. N. POPOV, On the distortion of a temperature field in the region of thermocouple framing, *Teplotfiz. Vysok. Temper.* **4**(2), 261 (1966).
- S. M. REPRINTSEVA and S. G. KRASNICH, Changes of heat capacity of peat in the process of thermal destruction, *Torf. Prom.* No. 3, 36 (1966).
- S. L. RIVKIN and A. YA. LEVIN, Experimental study of water and steam viscosity, *Teploenergetika* No. 4, 79 (1966).
- I. A. ROZOV, The method for determining temperature dependence of thermal conductivities of dielectric and semiconducting materials, *Inzh.-Fiz. Zh.* **10**(6), 723 (1966).
- O. S. RYZHOV, On the effect of viscosity and heat conductivity on the propagation of sonic pulses, *Prikl. Matem. Mekh.* **30**, vyp. 2, 296 (1966).
- G. V. SHANTYR', Automatic measurement of temperature and moisture fields in a boundary layer, *Inzh.-Fiz. Zh.* **10**(3), 321 (1966).
- YU. M. SHASHKOV and V. P. GRISHIN, On thermal conductivity of flint in the solid and liquid states near the melting point, *Fiz. Tverd. Tela* **8**(2), 567 (1966).
- E. E. SHPIL'RAIN, YU. A. SOLDATENKO *et al.*, Experimental study of thermal and electrical properties of liquid alkali metals at high temperatures, *Teplotfiz. Vysok. Temper.* **3**(6), 930 (1965).
- I. A. SMIRNOV, On the effect of plastic deformation on heat conductivity of NaCl and KCl single crystals, *Fiz. Tverd. Tela* **8**, vyp. 1, 28 (1966).
- A. N. SOLOV'EV and O. P. MAKAROVA, Study of surface tension of liquid sodium and potassium, *Teplotfiz. Vysok. Temper.* **4**(2), 189 (1966).
- G. A. SURKOV, On determination of thermal properties of materials as functions of temperature, *Dokl. Akad. Nauk BSSR* **10**(1), 22 (1966).
- G. A. SURKOV, I. I. ZEDLETS *et al.*, Determination of a heat conductivity coefficient as a temperature function under steady-state operating conditions, *Izv. Akad. Nauk BSSR, ser. Fiz.-Tekhn. Nauk* No. 4, 29 (1965).
- D. L. TIMROT and A. S. UMANSKII, Study of heat conductivity of hydrogen and argon, *Teplotfiz. Vysok. Temper.* **4**(2), 289 (1966).
- S. A. ULYBIN, V. P. BUGROV and A. V. IL'IN, On the temperature dependence of heat conduction of rarefied gaseous mixtures without chemical reactions, *Teplotfiz. Vysok. Temper.* **4**(2), 214 (1966).
- M. I. VERBA and V. D. PORTNOV, Heat conduction in a multi-component gas mixture involving equilibrium chemical reactions, *Inzh.-Fiz. Zh.* **10**(4), 516 (1966).
- V. A. VERTOGRADSKII, A particular method of heat-conduction coefficient determination depending on temperature, *Inzh.-Fiz. Zh.* **10**(4), 513 (1966).
- V. YU. VOSKRESENSKII, V. E. PELETSKII and D. L. TIMROT, Heat conductivity and emissivity of niobium at temperatures over 1000°C, *Teplotfiz. Vysok. Temper.* **4**(1), 46 (1966).
- P. N. V'YUGOV and V. S. GUMENYUK, Thermal expansion of tungsten and tantalum in the temperature range 1500-3000°C, *Teplotfiz. Vysok. Temper.* **3**(6), 936 (1965).
- N. V. ZHUKOV and A. M. GUTKIN, On apparatus and methods of investigation of rheological properties of clay soils, *Inzh.-Fiz. Zh.* **10**(3), 396 (1966).

## HEAT AND MASS TRANSFER

## AT HIGH TEMPERATURES AND IN PLASMA

- S. M. APOLLONSKII, On the calculation of the boundary layer on insulator walls in magnetohydrodynamic generator channel involving the Hall current, *Inzh.-Fiz. Zh.* **10**(4), 495 (1966).
- A. I. BERTINOV, D. A. BUT *et al.*, On an approximate account of gas electric conductivity change in vortex magnetogasdynamic flow, *Teplotfiz. Vysok. Temper.* **4**(1), 66 (1966).
- A. G. BOEV, Similar solutions of transient equations of a plane laminar magnetohydrodynamic boundary layer, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 15 (1966).
- K. E. BOGOSLOVSKII, Unstationary interaction of blunt bodies with a shock wave, *Dokl. Akad. Nauk SSSR* **167**(5), 1019 (1966).
- V. S. BORODIN and YU. M. KAGAN, Study of a hollow cathode discharge, *Zh. Tekh. Fiz.* **36**, vyp. 1, 181 (1966).
- K. V. BRUSHLINSKII, N. I. GERLAKH and A. I. MOROZOV, Two-dimensional steady flow of well conducting plasma in a coaxial system, *Izv. Akad. Nauk SSSR. Mekhanika Zhidkosti i Gaza* No. 2, 189 (1966).
- K. V. BRUSHLINSKII, N. M. ZUEVA and A. I. MOROZOV, Determination of quasi-one-dimensional flow of plasma in a profiling channel, *Izv. Akad. Nauk SSSR, Mekhanika* No. 5, 3 (1965).
- A. V. DONSKOI, S. V. DRESVIN and D. G. RATNIKOV, A high-frequency inductive discharge in a chamber with metallic water-cooled walls, *Teplotfiz. Vysok. Temper.* **3**(6), 922 (1965).
- YU. A. DUNAEV, I. P. YAVOR and E. P. BUSYGIN, On the low voltage arc in cesium vapour, *Zh. Tekh. Fiz.* **36**, vyp. 3, 533 (1966).
- K. E. DZHAUGASHTIN, On propagation of a plane jet of a conducting liquid in a magnetic field, *Inzh.-Fiz. Zh.* **10**(3), 503 (1966).
- S. I. FADEEV, On hydrodynamic acceleration of plasma in a discharge tube, *Inzh. Zh.* **5**, vyp. 5, 950 (1965).
- L. G. GENIN and V. G. ZHILIN, Effect of a longitudinal magnetic field on a resistance coefficient in flow of mercury in a circular pipe, *Teplotfiz. Vysok. Temper.* **4**(2), 233 (1966).

- G. Z. GERSHUNI and E. M. ZHUKHOVITSKII, On convective instability of a heat skin-layer, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 6, 53 (1965).
- A. B. KAMNEV and V. B. LEONAS, Kinetic coefficients of rare gases at high temperatures, *Teplofiz. Vysok. Temper.* 4(2), 288 (1966).
- N. A. KERVALISHVILI and A. V. ZHARINOV, Characteristics of a low pressure discharge in the transverse magnetic field, *Zh. Tekhn. Fiz.* 35, vyp. 12, 2194 (1965).
- E. YA. KOGAN, S. S. MOISEEV and V. N. ORAEVSKII, Application of hydrodynamical models for the study of the magnetic plasma stability, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 6, 41 (1965).
- V. S. KOLOMOITSEV, On the theory of the electrical arc column, *Zh. Tekhn. Fiz.* 35, vyp. 12, 2249 (1965).
- O. R. KONENKO and A. K. MUSIN, Waves of concentration of charged particles in a moving plasma, *Teplofiz. Vysok. Temper.* 4(1), 12 (1966).
- L. S. KOTOUSOV, Diffusion thermoeffect, I, *Zh. Tekh. Fiz.* 35, vyp. 12, 2215 (1965).
- L. S. KOTOUSOV, Diffusion thermoeffect, II, *Zh. Tekh. Fiz.* 35, vyp. 12, 2221 (1965).
- N. YA. KOTSARENKO and A. M. FEDORCHENKO, Stationary fields and currents in plasma produced by the strong superhigh frequency field, *Zh. Tekh. Fiz.* 36, vyp. 3, 460 (1966).
- I. A. KRINBERG, About V. S. KOLOMOITSEV's letter "On the theory of the electrical arc column", *Zh. Tekh. Fiz.* 35, vyp. 12, 2251 (1965).
- I. A. KRINBERG, Effect of ionization reactions on plasma heat conductivity, *Teplofiz. Vysok. Temper.* 3(6), 838 (1965).
- V. I. KRYLOVICH and T. N. ABRAMENKO, Heat removal from a fast-moving arc spot, *Teplofiz. Vysok. Temper.* 4(1), 80 (1966).
- R. E. KRZHIZHANOVSKII and I. D. SKURATOVA, Experimental study of the wall temperature effect on the axial temperature of an electric arc, *Inzh.-Fiz. Zh.* 10(5), 626 (1966).
- V. N. KUNIN and N. M. PISAREV, On electron conductivity of thermal ionized gas in an electric field, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 20 (1966).
- YU. P. LADIKOV, Stability of flow of conducting fluid, flowing down a sloping plane in the presence of a magnetic field, *Izv. Akad. Nauk SSSR, Mekhanika Zhidkosti i Gaza* No. 1, 3 (1966).
- G. A. LYUBIMOV, Layers of sharp potential change adjacent to "hot" electrodes, *Teplofiz. Vysok. Temper.* 4(1), 120 (1966).
- L. K. MARTINSON and K. B. PAVLOV, Plane laminar flow of non-Newtonian fluid in a transverse magnetic field, *Magnitn. Hidrodinamika* No. 4, 61 (1965).
- S. A. MEDIN and V. A. PROKUDIN, On a quasi-one-dimensional flow problem in the Hall magnetohydrodynamic generator, *Teplofiz. Vysok. Temper.* 3(6), 924 (1965).
- R. V. MITIN, YU. R. KNYAZEV *et al.*, Pulse heating of a high pressure arc in argon, in *Interaction Between Beams of Charged Particles and Plasma*, p. 248. Kiev (1965).
- R. V. MITIN and K. K. PRYADKIN, High pressure electrodeless discharge, in *Interaction Between Beams of Charged Particles and a Plasma*, p. 267. Kiev (1965).
- R. V. MITIN and K. K. PRYADKIN, High pressure electrodeless discharge and its magnetic properties, *Zh. Tekh. Fiz.* 36, vyp. 5, 913 (1966).
- B. A. OSADIN, Anode erosion at a high-current discharge in vacuum, *Teplofiz. Vysok. Temper.* 3(6), 914 (1965).
- YU. YA. POLYAK, On a theory of voltage-current characteristics of one-dimensional gas discharge, *Teplofiz. Vysok. Temper.* 4(1), 134 (1966).
- YU. A. POLYAKOV, Study of heat transfer near the reflection of a shock wave, *Teplofiz. Vysok. Temper.* 3(6), 879 (1965).
- A. V. PUSTOGAROV, A stabilized arc column with axial gas flow, *Teplofiz. Vysok. Temper.* 4(2), 173 (1966).
- V. I. RAKHOVSKII, On the mechanism of emission from the cathode in arc discharge, *Zh. Tekh. Fiz.* 35, vyp. 12, 2228 (1965).
- N. N. RYKALIN, A. V. NIKOLAEV and I. D. KULAGIN, Heat flux in a body, interacting with a plasma jet, *Teplofiz. Vysok. Temper.* 3(6), 871 (1965).
- V. A. RYKOV, Non-dimensional solutions of equations in magneto-gas dynamics, *Inzh. Zh.* 5, vyp. 5, 945 (1965).
- DZH. V. SHARIKADZE, On a transient magnetic boundary layer, *Trudy Tbilissk. Un-ta* 110, 246 (1965).
- A. P. SHISTER, On conductivity of a nonisothermal plasma, *Teplofiz. Vysok. Temper.* 3(6), 920 (1965).
- R. I. SOLOUKHIN, Conductivity and velocity of the medium behind the detonation front in gas, *Teplofiz. Vysok. Temper.* 4(2), 177 (1966).
- B. D. VORONIN, A. M. TSIRLIN and M. YA. SMELYANSKII, Estimation of gasdynamic factors in the calculation of electric arc heaters with vortex gas stabilization of the arc, *Inzh.-Fiz. Zh.* 10(3), 287 (1966).
- L. A. VULIS and K. E. DZHAUGASHTIN, On the electrical discharge in a jet of conducting viscous fluid, *Zh. Prikl. Mekh. i Tekh. Fiz.* (2), 36 (1966).
- E. I. YANTOVSKII, On the flow of conductive fluid in a channel with a rotating magnetic field, *Izv. Akad. Nauk SSSR, Energetika i Transport* No. 1, 151 (1966).
- F. B. YUREVICH and M. V. VOLK-LEVANOVICH, Velocity of a plasma jet, *Izv. Akad. Nauk BSSR. ser. Fiz.-Tekh. Nauk*, No. 1, 125 (1966).

#### TRANSFER PROCESSES IN TECHNOLOGICAL APPARATUS

- A. A. AKHROMENKOV and A. S. KRUGLOV, Determination of the velocity of solids in a fluidized bed by the tracer method, *Inzh.-Fiz. Zh.* 10(5), 649 (1966).
- YU. A. ALEKSEEV, An analytical equation of statics of the rectification process of non-ideal binary mixtures, *Izv. Vyssh. Ucheb. Zaved. Pishchev. Tekhnolog.* No. 5, 154 (1965).
- R. Z. ALIMOV, On some peculiarities of transpiration cooling by a vortex flow, *Teplofiz. Vysok. Temper.* 4(2), 238 (1966).
- I. M. ANOSHIN, N. P. RYABCHENKO and D. O. OMURZAKOV, The rectification process in bubbling installations and the form of the dimensionless equations, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 5, 151 (1965).
- V. A. ASTAKHOV, V. N. LEFILIN and P. G. ROMANKOV, On the adsorption kinetics in moving packed and suspended

- beds of an adsorbent, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 391. Moscow-Leningrad (1965).
- V. A. ASTAKHOV, V. N. LEPILIN and P. G. ROMANKOV, On the adsorption kinetics in moving packed and suspended beds of a sorbent, in *Processes of Chemical Engineering. Hydrodynamics Heat and Mass Transfer*, p. 385. Moscow-Leningrad (1965).
- G. L. BABUKHA and A. A. SHRAJBER, Concentration distribution of a dispersed material along the two-phase flow, in *Flows of Liquids and Gases*, p. 18. Kiev (1965).
- L. L. BACHILO, Predicted relation for content of the light component phase in two-component gas-liquid and liquid-liquid mixtures, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 258 (1965).
- YU. E. BAGDASAROV, Calculation of heat transfer in the bayonet-tube channel, *Inzh.-Fiz. Zh.* 10(4), 472 (1966).
- YU. I. BAKALIN, On a characteristic of circulation flow in evaporating installations, *Izv. Akad. Nauk BSSR, ser. Fiz.-Tekhn. Nauk* No. 4, 34 (1965).
- O. M. BALDINA, R. I. KALININ and N. M. KUZNETSOV, On the nature of pulsating oscillations of steam consumption in steam generating elements of heat exchangers, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 62, 7 (1965).
- B. N. BASARGIN, A new equation for the calculation of the rectification columns with packing, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 271. Moscow-Leningrad (1965).
- YU. N. BASHKATOV and L. S. BUTOVSKII, Study of the heat-transfer characteristics of a water-cooled combustion chamber, *Vestn. Kievsk. Politekhn. In-ta, ser. Teploenergetiki* No. 2, 20 (1965).
- V. A. BASHKATOV and A. A. TSVETKOVA, Estimation of the temperature fall inside a drop in a two-phase flow calculation, *Izv. Sibirsk Otd. AN SSSR. No. 10, ser. Tekh. Nauk* vyp. 3, 159 (1965).
- A. P. BASKAKOV and B. V. BERG, Heat transfer between a fluidized bed and a cylinder immersed in it, *Inzh.-Fiz. Zh.* 10(6), 738 (1966).
- V. I. BEGACHEV, L. N. BRAGINSKII and I. S. PAVLUSHENKO, On heat transfer in installations with mechanic mixing, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 120. Moscow-Leningrad (1965).
- YA. A. BERMAN, Study and comparison of finned tubular surfaces of heat transfer in a wide range of  $Re$ , *Khim. i Neft. Mashinostr.* No. 10, 21 (1965).
- YU. I. BINDER and N. B. KONDUKOV, Study of heat transfer between phases in a fluidized bed, *Inzh.-Fiz. Zh.* 10(6), 754 (1966).
- L. I. BLYAKHMAN and A. M. YAKUBSON, Hydrodynamics of submerged columns with packing, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 67. Moscow-Leningrad (1965).
- K. A. BLINOV and L. I. SHCHEGOLEV, On the entrainment of drops in fluidized systems, *Trudy KsKTI (Tsent. Kotloturb. In-t)*, vyp. 59, 111 (1965).
- L. N. BRAGINSKII and I. S. PAVLUSHENKO, Power consumption on mixing in a gas-liquid system, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 85. Moscow-Leningrad (1965).
- V. I. BUDNIKOV and A. V. SERGIEVSKII, Addition to the paper "Stability of a parallel boiling channel assembly", [*Inzh.-Fiz. Zh.* 8(3), (1965)], *Inzh.-Fiz. Zh.* 10(4), 550 (1966).
- V. I. BUDNIKOV and A. V. SERGIEVSKII, Dynamic analysis of a system of parallel boiling channels, *Inzh.-Fiz. Zh.* 10(5), 632 (1966).
- YU. A. BUEVICH, On mass-transfer kinetics of a poly-dispersed system of particles with a surrounding medium, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 50 (1966).
- A. L. BURKA, Asymmetric radiant-convective heating of an infinite plate, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 126 (1966).
- M. D. BURSHEIN, N. M. KARAVAEV *et al.*, Methods of determination of heat-transfer coefficients in heat-transfer equipment, *Koks i Khim.* No. 4, 16 (1966).
- V. N. CHAZOV, L. K. UDALOV and O. B. KLEBANOV, Recovery of granulated barite concentrate by gas in a fluidized bed, *Khim. Prom.* No. 2, 113 (1966).
- V. V. CHUKIN and R. F. KUZNETSOV, Aerodynamics of moving and fixed beds at high superficial velocities, *Inzh.-Fiz. Zh.* 10(5), 6328 (1966).
- L. L. DOBROSERDOV and V. P. IL'INA, Rectification of aqueous solutions of formaldehyde, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 280. Moscow-Leningrad (1965).
- K. D. DOBRYSHIN, I. I. BLOSHTEIN and I. E. FLIS, Determination of the absorption coefficient of chlorine dioxide by water, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 228. Moscow-Leningrad (1965).
- L. A. DORFMAN, Comparison of radial and frontal blowing of a rotating screened disc, *Inzh.-Fiz. Zh.* 10(4), 452 (1966).
- YU. A. DUSHIN, Scouring of crystalline polymers, *Inzh.-Fiz. Zh.* 10(4), 538 (1966).
- YU. I. DYTNERSKII and V. I. ANDREEV, Effect of physical properties of a gaseous phase on liquid entrainment in plate columns, *Khim. Prom.* No. 5, 386 (1966).
- I. T. EL'PERIN and A. L. PARNAS, Intensification of heat-transfer processes in a non-uniform gas-suspension flow, *Inzh.-Fiz. Zh.* 10(3), 352 (1966).
- N. I. GEL'PERIN and V. G. AINSHEIN, Pressure drop in a fluidized bed, *Khim. i Tekhnolog. Topliv i Masel* No. 4, 1 (1966).
- N. I. GEL'PERIN, V. G. AINSHEIN and A. V. ZAIKOVSKII, Intensity changes of heat transfer over the cross-section perimeter of a horizontal tube in a fluidized bed, *Inzh.-Fiz. Zh.* 10(6), 799 (1966).
- E. M. GOL'DIN, Stability of a flow between plates of a separator, *Izv. Akad. Nauk, Mekhanika Zhidkosti i Gaza* No. 2, 152 (1966).
- A. D. GOL'TSIKER, N. B. RASHKOVSKAYA and P. G. ROMANKOV, Conical installations with fluidized and spouting beds, in *Application of a Fluidized Bed in Chemical Industry*, p. 2. Leningrad, 74 (1965).
- A. M. GREKOVA, L. L. NEMETS and V. V. MANSHILIN, On the regeneration of alumino-silicate catalyzers in a fluidized bed, *Khim. i Tekhnolog. Topliv i Masel* No. 2, 34 (1966).
- A. I. GULYAEV, On conical vortex tubes, *Inzh.-Fiz. Zh.* 10(3), 326 (1966).
- I. S. IZRAILEVICH and S. N. NOVIKOV, Determination of the

- specific surface (particle size) of powders by a new method-comparing the flux magnitudes corresponding to different conditions of gas flow through porous media, *Dokl. Akad. Nauk SSSR* **165**(1), 77 (1965).
- V. V. KAFAROV, V. V. EREMENKO and V. V. BIRYUKOV, On the criterion of chemical reactor stability, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 416. Moscow-Leningrad (1965).
- L. D. KAPUSTA, M. I. RABINOVICH and A. A. SHRAIBER, On the motion and heat transfer of particles in a pulsating gas flow, *Inzh.-Fiz. Zh.* **10**(6), 744 (1966).
- G. D. KAVETSKII, A. N. PLANOVSKII *et al.*, Calculation of mass-transfer installations and reactors with longitudinal mixing of phases, *Khim. i Neft. Mashinostr.* No. 1, 17 (1966).
- L. I. KHEIFETS, V. I. MUKOSEI and R. V. DZHAGASPANYAN, On particle trajectories in radiation and chemical processes in a fluidized bed, *Dokl. Akad. Nauk SSSR* **166**(6), 1405 (1966).
- V. A. KIRILLIN, G. I. ROSSIEVSKII *et al.*, Prospective efficiency of power plants with magnetohydrodynamic generators of high power of an open type, *Teplofiz. Vysok. Temper.* **4**(2), 267 (1966).
- V. I. KISLYKH, Fluctuation of the number of solids in a bed, fluidized by liquid, *Inzh.-Fiz. Zh.* **10**(5), 644 (1966).
- D. P. KOLODNYI, On a coefficient of resistance of a particle, moving in a medium, *Teploenergetika* No. 4, 93 (1966).
- G. A. KOMOV, Suspension flow in the Laval nozzle, *Inzh.-Fiz. Zh.* **10**(3), 368 (1966).
- A. N. KORNILAEV and N. B. KONDUKOV, Study of the parameters of particle motion in a fluidized bed by the method of radio-active isotopes, III. Mean particle velocities, *Inzh.-Fiz. Zh.* **10**(6), 764 (1966).
- T. I. KOZLOVA, V. N. LEPILIN *et al.*, On the kinetics of an adsorption process in a counter-current column apparatus with a suspended adsorbent layer (report III), in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 360. Moscow-Leningrad (1965).
- T. I. KOZLOVA, V. N. LEPILIN *et al.*, On the kinetics of an adsorption process in a counter-current column apparatus with a suspended adsorbent layer (report IV), in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 369. Moscow-Leningrad (1965).
- L. YU. KRASYAKOVA, Study of the hydraulics and of the temperature operating conditions in elements of coal with lift-drop motion of two-phase mixture, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 12 (1965).
- L. YU. KRASYAKOVA and B. N. GLUSKER, Study of a contour with multi-valued hydraulic performance, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 62, 96 (1965).
- R. A. KRIVENKO, Calculation of packed columns for rectification of binary mixtures under vacuum, *Khim. Prom.* No. 12, 33 (1965).
- S. I. KUCHANOV and L. M. PIS'MEN, Local heating at the points of contact between solid particles in a granular layer, *Dokl. Akad. Nauk SSSR* **167**(6), 1335 (1966).
- YU. P. KUROCHKIN, Heat transfer between tubes of various profiles and the flow of granular material, *Inzh.-Fiz. Zh.* **10**(6), 759 (1966).
- N. M. KUZNETSOV and V. N. OLEINIK, Heat transfer to organic heat-transfer agent in annuli, *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 3, 114 (1966).
- N. A. LEBEDEV and V. V. KONSETOV, Flow of liquid through a ring slit between a plug and a rotating shaft in the presence of heat transfer, *Khim. i Neft. Mashinostr.* No. 10, 27 (1965).
- A. G. LEVACHEV, L. A. ZYKOV and N. Z. ATAROV, On the simulation of steady processes in a multi-frame evaporator, *Khim. Prom.* No. 2, 141 (1966).
- V. N. LINETSKII, Some problems of condensate motion in vapour condensation in heat-transfer installations, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 125 (1965).
- S. A. LOGVINOV, A. P. MAKAROV *et al.*, On the methods of investigation of hydrodynamic stability of parallel evaporation channels, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 162 (1965).
- S. E. LYANDRES, A. N. PLANOVSKII *et al.*, On gas phase mixing in a fluidized bed, *Khim. i Tekhnolog. Topliv i Masel* No. 3, 21 (1966).
- V. A. MAKHIN, N. P. BELIK and D. A. KOSAREV, On the calculation of heat transfer in straight ribs of displaced thickness, *Gidraeromekhanika* vyp. 1, 43 (1965).
- A. N. MAL'SKII and N. YA. SAVINA, Heat transfer between a heating surface and frying vegetables, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 5, 169 (1965).
- YU. A. MARKOV and A. E. SMOLDYREV, On the hydraulic resistances in the motion of hydraulic mixtures in ascending flows in pipes, *Izv. Akad. Nauk SSSR., Mekhanika* No. 5, 182 (1965).
- I. G. MARTYUSHIN and V. N. SEVRYUKOV, Expansion of a non-uniform fluidized bed, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 5. Moscow-Leningrad (1965).
- I. G. MARTYUSHIN and V. N. SEVRYUKOV, Expansion of a uniform fluidized bed, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 10. Moscow-Leningrad (1965).
- A. M. MASLOV, Calculation of heat transfer in plate installations with the help of a nomogram, *Kholodil'n. Tekhnika* No. 6, 25 (1965).
- Z. L. MIROPOL'SKII, M. E. SHITSMAN and R. E. SHNEEROVA, The heat flux and velocity effects on hydraulic resistance of steam-water mixture flow in pipes, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 31 (1965).
- YU. K. MOLOKANOV, On the efficiency of a bubbling plate with cross phase motion, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 72. Moscow-Leningrad (1965).
- A. G. MOROZOV, Approximate calculation of heat transfer in internal combustion engines, *Trudy Sverdlovsk. S-Kh. In-ta* **13**, 22 (1965).
- A. G. MOROZOV, On heat transfer of radiators of the engine cooling system, *Trudy Sverdlovsk. S-Kh. In-ta* **13**, 28 (1965).
- I. I. MOROZOV and V. A. GERLIGA, On the stability of motion of a flow in heat exchangers, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 144 (1965).
- I. P. MUKHLENOV and V. E. SOROKO, Processes of inorganic catalysis in a suspended layer, in *Application of a Fluidized Bed in Chemical Industry*, p. 1. Leningrad, 4 (1965).
- S. P. NALIMOV, V. N. LEPILIN and P. G. ROMANKOV, Multichamber and packed installations with fluidized

- beds, in *Application of a Fluidized Bed in Chemical Industry*, p. 2. Leningrad, 49 (1965).
- V. S. NOSOV and N. I. SYROMYATNIKOV, Fundamental heat-transfer relations of fine dispersion flows, *Dokl. Akad. Nauk SSSR* 163(3), 624 (1965).
- A. P. ORNATSKII and L. F. GLUSHCHENKO, Hydraulic resistance in surface water boiling in annuli in the region of high and superhigh pressures, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 59 (1965).
- A. P. ORNATSKII and L. S. VINYARSKII, Heat transfer crisis in flows of subcooled water-alcohol solutions in pipes of diameter 0.5 mm, *Teplofiz. Vysok. Temper.* 3(6), 938 (1965).
- A. PAVEL, A. I. SKOBLO and S. A. KRUGLOV, Calculation of the number of stages of multistage counter-current heat-transfer apparatus with a fluidized bed of a solid granular heat transfer agent, *Trudy (Mosk. In-ta Neftekhim. i Gaz. Prom.)* vyp. 54, 3 (1965).
- I. S. PAVLUSHENKO and S. S. MAKSIMOVA, On the calculation of installation with air-lift mixing, in *Processes of Chemical Engineering. Hydrodynamics, Heat and Mass Transfer*, p. 78. Moscow-Leningrad (1965).
- A. P. PEROVSKII and V. G. KOSSYKH, Basic characteristics of pulsation columns, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 208. Moscow-Leningrad (1965).
- F. B. PETLYUK and V. M. PLATONOV, A new calculation method of multi-component rectification by the principle "from plate to plate", in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 283. Moscow-Leningrad (1965).
- T. G. PLACHENOV, A. N. SHIRYAEV and YU. YU. KUROCHKIN, On steam adsorption in suspended and stationary layers of zeolite, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 356. Moscow-Leningrad (1965).
- I. G. PLIT, On the duration of contact of interacting phases in pulverizing scrubbers with counter-current flows, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 92. Moscow-Leningrad (1965).
- M. A. POLYATSKIN, O. A. TASS and A. A. SHATIL, Study of combined cooling in a combustion chamber of gas-turbine installations using gas, *Teploenergetika* No. 2, 47 (1966).
- YA. L. POLYNOVSKII and M. L. SHVARTSMAN, Average temperature drop in multipass heat exchangers with parallel current in the absence of mixing, *Energomashinostr.* No. 1, 36 (1966).
- A. E. PROTSKII, On relative velocities in a two-phase helical flow, *Izv. Vyssh. Ucheb. Zaved., Energetika* No. 11, 54 (1965).
- M. M. PRZHIYAL'KOVSKII, On some laws of hydraulic resistance of steam mixture flow, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 27 (1965).
- P. I. PUCHKOV and O. S. VINOGRADOV, Heat-transfer surfaces with longitudinal fins, *Energomashinostr.* No. 6, 22 (1965).
- V. M. RAMM, YU. V. AKSEL'ROD and E. I. SURKOV, Study of hydraulics of a  $\text{SO}_3\text{-H}_2\text{SO}_4$  system under bubbling conditions on perforated trays, in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 49. Moscow-Leningrad (1965).
- V. M. RAMM and Z. V. CHAGINA, Study of mass transfer in a liquid phase in gas absorption in packed columns, *Khim. Prom.* No. 12, 30 (1965).
- A. O. ROGALIN, An installation for sand cooling in a fluidized bed, *Liteinoe Proizvodstvo*, No. 6, 23 (1965).
- P. G. ROMANKOV and V. F. FROLOV, Automation of processes in a fluidized bed, in *Application of a Fluidized Bed in Chemical Industry*, p. 2. Leningrad, 115 (1965).
- P. G. ROMANKOV, V. N. LEPILIN *et al.*, On the kinetics of an adsorption process in a counter-current column apparatus with a suspended adsorbent layer (report V), in *Chemical Engineering Processes. Hydrodynamics, Heat and Mass Transfer*, p. 379. Moscow-Leningrad (1965).
- P. G. ROMANKOV, V. N. LEPILIN and V. L. KOLIN, Adsorption in a fluidized bed, in *Application of a Fluidized Bed in Chemical Industry*, p. 1. Leningrad, 86 (1965).
- L. L. ROTKOP, E. M. TRAKHTENBERG and M. L. MAL'DENSHTEIN, Study of mass transfer in a rectification column according to data of normal performance, *Khim. Prom.* No. 5, 389 (1966).
- I. I. SAGAN', N. YU. TOBILEVICH and S. I. TKACHENKO, Friction losses in low pressure air-water and air-solution flows in vertical circular tubes, *Inzh.-Fiz. Zh.* 10(3), 341 (1966).
- S. I. SERGEEV and G. A. KHOTINA, Liquid oscillations in tubes and the intensification of heat transfer, *Trudy VNIKIMash (VNII Kislородn. Mashinostr.)* vyp. 10, 74 (1965).
- V. K. SHCHERBAKOV and V. V. BOSYI, Determination of a temperature field and a maximum heat flux over the cooled periphery of channels with straight longitudinal ribs, *Teplofiz. Vysok. Temper.* 4(2), 250 (1966).
- L. N. SIDEL'KOVSKII and V. N. SHCHEVELEV, Mathematical simulation of convective heat transfer between a gas and particles in cyclone chambers, *Teploenergetika* No. 4, 74 (1966).
- L. N. SIDEL'KOVSKII, V. N. SHCHEVELEV and YU. M. BOITSOV, Study of temperature fields and heat fluxes in a cyclone chamber, *Prom. Energetika* No. 1, 44 (1966).
- YA. P. SHLAPKOVA, Low-pressure heat transfer in a fluidized bed with an immersed cylindrical surface, *Inzh.-Fiz. Zh.* 10(3), 318 (1966).
- A. L. STASENKO, Characteristics of a band radiator with self-irradiation and true contact, *Teplofiz. Vysok. Temper.* 4(1), 99 (1966).
- G. P. STEL'MAKH, N. A. CHESNOKOV and A. S. SAKHIEV, On peculiarities of heat transfer in the channel of a sectional electric arc gas heater, *Inzh.-Fiz. Zh.* 10(4), 508 (1966).
- L. E. SUM-SHIK, M. E. AEROV and T. A. BYSTROVA, Study of liquid phase mixing of a bubbling layer on lattice plates, in *Chemical Engineering Processes*, p. 251. Moscow-Leningrad (1965).
- A. S. SUSHCHENKO, Use of a fluidized bed in polymer processes, in *Application of a Fluidized Bed in Chemical Industry*, p. 1. Leningrad, 114 (1965).
- N. V. TARASOVA, Hydraulic resistance in boiling of water and water-steam mixture in heated pipes and in annuli, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 47 (1965).
- O. A. TASS, The calculation method for mixing process

- quality in the outlet opening of a boiler burner, *Inzh.-Fiz. Zh.* **10**(3), 332 (1966).
- A. I. TIKHONOV, S. K. CHUCHMAREV and V. I. SMIRNOV, Kinetic regularities in the oxidation of the lower nickel sulfide in a fluidized bed, *Dokl. Akad. Nauk SSSR* **163**(3), 686 (1965).
- N. YU. TOBILEVICH, I. I. SAGAN' and S. I. TKACHENKO, Study of relative velocities of gas in viscous two-phase flows, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 6, 139 (1965).
- O. M. TODÉS, Heat-transfer processes in a fluidized bed, in *Application of a Fluidized Bed in Chemical Industry*, p. 2. Leningrad, 4 (1965).
- O. M. TODÉS and V. G. KOBULOV, Structure of a fluidized bed, in *Application of a Fluidized Bed in Chemical Industry*, p. 2. Leningrad, 28 (1965).
- YU. I. TSELUIKO, A. D. FAERSHTEIN *et al.*, Temperature distribution of vertical steam-generating pipes in unsteady-state heating, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 249 (1965).
- G. V. UL'FSKII, On the choice of an average heat flux at the fuel element surface of pressurized-water reactor, *Inzh.-Fiz. Zh.* **10**(5), 513 (1966).
- M. I. VAINER, On the unbonded saturated state filtration of an aerated fluid and filtration of a fluid with phase change, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 123 (1965).
- M. M. VEVIOROVSKII and S. A. RUMYANTSEV, Addition to the paper "Determination of phase contact surface in bubbling systems", [*Inzh.-Fiz. Zh.* **8**(6), (1964)], *Inzh.-Fiz. Zh.* **10**(6), 803 (1966).
- N. E. VISHNEVSKII, R. V. TARASOV and YU. L. KONONENKO, Study of heat transfer in reactors with a hermetic drive, *Trudy (Vsesoyuzn. Nauchno-Issled. i Konstr. In-t Khim. Mashinostr.)* vyp. 49, 93 (1965).
- L. A. VITMAN, On the calculation of centrifugal pulverizers, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 284 (1965).
- L. A. VITMAN, N. S. LEPEKHIN and L. A. SMYSLOVA, On the distribution of liquid in gaseous jets, *Trudy TsKTI (Tsent. Kotloturb. In-t)* vyp. 59, 116 (1965).
- E. P. VOLCHKOV and V. YA. LEVCHENKO, The effect of a gas screen on a tubular surface, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 115 (1966).
- S. I. VOL'FKOVICH, M. V. LYKOV *et al.*, Production of granulated potassium metaphosphate in installations with a fluidized bed, *Zh. Prikl. Khim.* **39**, vyp. 1, 3 (1966).
- N. F. VOROB'EV, Mixing of two gaseous flows, moving in coaxial pipes, separated by a perforated wall, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 112 (1966).
- V. S. VYZGO, A. I. PAVLOVA and M. N. NABIEV, On the possibility of intensification of a process of fertilizer preparation using fluidization, *Uzbeksk. Khim. Zh.* No. 4, 5 (1965).
- V. A. ZAGORUIKO, Study of heat transfer and hydraulic resistance in an air plate heat exchanger, *Kholodil'n. Tekhnika* No. 4, 30 (1966).
- RHEOLOGY**
- G. I. BARENBLATT, YU. I. KOZYREV *et al.*, Vibrocreep of polymeric materials, *Dokl. Akad. Nauk SSSR* **166**(4), 813 (1966).
- O. V. DOMANSKII and V. V. KONSETOV, Heat transfer in a thermally stabilized portion of channels with laminar non-Newtonian liquid flows, *Inzh.-Fiz. Zh.* **10**(4), 429 (1966).
- A. B. EFIMOV, The axisymmetric contact problem for linear viscoelastic bodies, *Vestn. Mosk. Un-ta. ser. I. Matem., Mekhanika* No. 2, 120 (1966).
- SHT. I. GEORGITSE, On the motion of viscous-plastic fluids in a porous non-uniform medium, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 133 (1966).
- YU. V. KOSTYLEV, V. I. POPOV and E. M. KHABAKHPASHEVA, Velocity profiles in laminar flow of structural-viscous fluids between parallel planes, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 2, 100 (1966).
- S. S. KUTATELADZE, V. I. POPOV and E. M. KHABAKHPASHEVA, On the hydrodynamics of fluids with variable viscosity, *Zh. Prikl. Mekh. Tekh. Fiz.* No. 1, 45 (1966).
- T. B. LARINA, On the strain law of a visco-elasto-plastic fluid, *Inzh. Zh., Mekhanika Tverd. Tela* No. 2, 101 (1966).
- A. I. LEONOV, On the extension of a cylinder from viscoelastic fluid, *Izv. Akad. Nauk SSSR., Mekhanika Zhidkosti i Gaza* No. 2, 92 (1966).
- A. A. LISOV and G. N. MASLENNIKOVA, Visco-elasto-plastic properties of porcelain masses, *Steklo i Keramika* No. 1, 32 (1966).
- V. A. LOMAKIN, Elasto-plastic deformations of bodies exposed to random forces, *Vestn. Mosk. Un-ta. ser. I., Matem., Mekhanika* No. 1, 77 (1966).
- A. YA. MALKIN, G. V. VINOGRADOV and V. A. KARGIN, Rheology of polymers. On the creep of polymers in fluid state, *Vysokomolec. Soedineniya* **7**(11), 1930 (1965).
- A. N. NAUMOV, Study of unsteady motion of visco-plastic fluids, *Trudy (Proektno-Konstr. i NII Morsk. Transporta)* No. 5, 151 (1965).
- B. E. POBEDRYA, On nonlinear viscous elasticity, *Mekhanika Polimerov* No. 6, 30 (1965).
- V. N. POKROVSKII, A contribution to the theory of polymer flows, *Inzh.-Fiz. Zh.* **10**(3), 337 (1966).
- G. L. SHVED, Developed flow of a visco-plastic fluid between parallel walls, *Izv. Vyssh. Ucheb. Zaved., Pishchev. Tekhnolog.* No. 1, 130 (1966).
- K. I. STRAKHOVICH and S. L. LUR'E, Approximate solution of the laminar boundary-layer equations of a non-Newtonian liquid flow past a flat plate, *Inzh.-Fiz. Zh.* **10**(5), 592 (1966).
- KH. VALLNER, Plastic flow of rigidly fixed annular plates made of visco-plastic material, *Sb. Nauchn. Trudov. Estonsk. S.-Kh. Akad.* No. 42, 42 (1965).
- R. A. VASIN, On the inversion of relations between strain rates and stress rates in the flow theory, *Vestn. Mosk. Un-ta. ser. I. Matem., Mekhanika* No. 1, 85 (1966).
- M. P. VOLAROVICH and N. I. MALININ, On the deformation and rigidity properties of concentrated disperse systems, *Inzh.-Fiz. Zh.* **10**(6), 804 (1966).
- M. A. ZADOYAN, On some solutions of equations of plastic flow of an anisotropic medium, *Inzh. Zh., Mekhanika Tverd. Tela* No. 2, 91 (1966).
- D. Z. BIK, Experimental verification of simplified variants of the theory of plasticity, *Vestn. Mosk. Un-ta., ser. I., Matem., Mekhanika* No. 1, 107 (1966).