

HEAT TRANSFER BIBLIOGRAPHY—RUSSIAN WORKS

Professor A. V. LUIKOV

Institute of Energetics of the Academy of Sciences of B.S.S.R.,
Podlesnaya 25, Minsk, B.S.S.R., U.S.S.R.

(Received 15 September 1962)

BOOKS

- YU. D. ARSEN'EV, *An Analysis of a Thermodynamic Cyclone of Atomic Power Stations by the Gas-point Method* (Analiz termodinamicheskogo tsikla atomnykh elektrostantsii metodom gazovoi tochki). Gosatomizdat, Moscow (1962).
- A. M. ARKHAROV, *A Thermodynamic Method and Some Problems on Technique of Low Temperatures* (Termodinamicheskii metod i nekotorye zadachi tekhniki nizkikh temperatur). Vysshaya shkola, Moscow (1962).
- A. G. BLOKH, *Fundamentals of Radiative Heat Transfer* (Osnovy teploobmena izlucheniem). Gosenergoizdat, Moscow-Leningrad (1962).
- A. F. CHUDNOVSKY, *Thermal Physical Characteristics of Dispersed Materials* (Teplofizicheskie kharakteristiki dispersnykh materialov). Fizmatgiz, Moscow (1962).
- M. E. DEICH, *Engineering Gas-Dynamics* (Tekhnicheskaya gazodinamika). Second revised edition, Gosnergoizdat, Moscow-Leningrad (1961).
- A. N. GORDOV, *Measurements of Temperatures of Gas Flows* (Izmereniya temperatur gazovykh potokov). Mashgiz, Moscow-Leningrad (1962).
- I. V. KRECHETOV, *Drying of Wood by Furnace Gases* (Sushka drevesiny topochnymi gazami). Goslesbumizdat, Moscow-Leningrad (1961).
- V. T. KUMSKOV and M. G. MAKHAN'KO, *Fundamentals of Thermal Engineering* (Osnovy teplotekhniki). Transzheldorizdat, Moscow (1962).
- G. A. MIKHAILOVSKY, *Thermodynamic Calculations of Processes of Vapor-Gas Mixtures* (Termodinamicheskie raschety protsessov parogazovykh smesei). Mashgiz, Moscow-Leningrad (1962).
- B. N. OLEINIK, *Investigations into Heat and Temperature Measurements* (Issledovaniya v oblasti teplovykh i temperaturnykh izmerenii). Standartgiz, Moscow-Leningrad (1962).
- N. N. PEICH and Z. V. BORONENKO, *Drying of Wood, Manual* (Spravochnik po sushke drevesiny). Goslesbumizdat, Moscow-Leningrad (1961).
- YU. V. PETROVSKY and V. G. FASTOVSKY, *Modern Effective Heat Exchangers* (Sovremennye effektivnye teploobmenniki). Gosenergoizdat, Moscow-Leningrad (1962).
- L. I. SEDOV, *Introduction into Mechanics of a Solid Medium* (Vvedenie v mekhaniku splushnoi sredy). Fizmatgiz, Moscow (1962).

ANALYTICAL METHODS FOR SOLVING HEAT AND MASS TRANSFER PROBLEMS

- G. P. BOIKOV, The relationship between excess temperatures of solids of finite dimensions (Zakon svyazi mezhdz izbytochnymi temperaturami tel konechnykh razmerov). *Inzh. Fiz. Zh.* 5, No. 3, 107-109 (1962).
- I. A. BUROVOI, B. M. ELIASHBERG, A. G. D'YACHKO and V. A. BRYUKVIN, Mathematical models of apparatuses with a fluidized bed for thermochemical processes. *Khim. Prom.* No. 11, 14-20 (1961).
- CHZHAN GUAN-UZGAN', On the minimum number of bundles with numerical integration of a heat-conduction equation (O minimal'nom chisle uzlov pri chislennoy integriruvanii uravneniya teploprovodnosti). *Zh. Vychislit. Mat. i Mat. Fiz.* 2, No. 1, 80-88 (1962).
- E. G. D. D'YAKONOV, Some difference schemes for solving boundary problems (O nekotorykh raznostnykh skhemakh dlya resheniya kraevykh zadach). *Zh. Vychislit. Mat. i Mat. Fiz.* 2, No. 1, 57-79 (1962).
- V. I. DOVNOVICH, One stationary problem of the heat conduction theory (Ob odnoi zadache teorii teploprovodnosti). *Inzh. Fiz. Zh.* 5, No. 6, 115-117 (1962).
- K. V. ELSHIN, An approximate solution of free-convection equations near a vertical non-isothermal wall (Priblizhennoe reshenie uravnenii svobodnoi konveksii u vertikal'noi neizotermicheskoi stenki). *Trudy Nauch.-Issledovat. In-ta po Transp. i Khraneniuyu Nefti i Nefteproduktov* vyp. 1, 230-239 (1961).
- L. A. GORYAINOV, V. T. KUMSKOV and V. I. LEBEDEV, An investigation into heat transfer in a furnace of a vapour boiler on a model and sample (Ob issledovanii teploobmena v topke parovogo kotla na modeli i obratzte). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 138, 87-92 (1961).
- A. N. GORDOV, An application of the heat-transfer theory to solving some problems on temperature measurements (Primenenie teorii teploobmena k resheniyu nekotorykh zadach temperaturnykh izmerenii). *Trudy Komiteta Standartov, Mer i Izmerit. Priborov* vyp. 51, 172-184 (1961).
- S. K. GODUNOV and K. A. SEMENDYAEV, Difference methods of a numerical solution of gas-dynamic problems (Raznostnye metody chislenogo resheniya zadach gazovoi dinamiki). *Zh. Vychislit. Mat. i Mat. Fiz.* 2, No. 1, 3-14 (1962).
- N. I. GAMAYUNOV, Certain problems of heat and mass

- transfer (Nekotorye zadachi teplo-i massoperenosa). *Inzh. Fiz. Zh.* 5, No. 2, 79-89 (1962).
- A. A. GUKHMAN, The similarity theory and its application to thermal engineering (Teoriya padobiya i ee primeneniye v teplotekhnike). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 31-44 (1961).
- N. B. KADIROV and SH. M. ISMAIL-ZADE, A precised semigraphical method for direct calculation of heat transfer apparatuses (Utochnenniy grafoanaliticheskii metod pryamogo rascheta teploobmennyykh apparatov). *Izv. Akad. Nauk Azerbaidzhan. SSR, ser. Fiz. Mat. i Tekh. Nauk* No. 6, 107-117 (1961).
- A. B. KARASEV, The solution of boundary-layer equations at the critical point for a triple mixture (Reshenie uravnenii pogranichnogo sloya v kriticheskoi tochke dlya troinnoi smesi). *Izv. Akad. Nauk SSSR, Otdel Tekh. Nauk, Mekhanika i Mashinostroyeniye* No. 6, 3-10 (1961).
- N. M. KIRILLOV, A graphical solution of a non-stationary heat conduction equation for a two-dimensional heat flow with intensive heat transfer (Graficheskoe reshenie uravneniya nestatsionarnoi teploprovodnosti dvukhmernogo teplovogo potoka pri intensivnom teploobmene). *Trudy Vses. Zaoch. Lesotekh. In-ta* No. 7, 107-110 (1961).
- P. I. KHRISTICHENKO, Non-stationary temperature field and thermoelastic stresses in a plate (O nestatsionarnom temperaturnom pole i termouprugikh napryazheniyakh v plastine). *Inzh. Fiz. Zh.* 5, No. 6, 73-80 (1962).
- P. K. KONAKOV, Modern state of the similarity theory and prospects of its application to thermal engineering (Sovremennoe sostoyaniye teorii podobiya i perspektivy ee primeneniya v teplotekhnike). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 4-10 (1961).
- M. A. KOROBOV, An application of the similarity theory to determining electrode dimensions and current density in them (Primeneniye teorii podobiya dlya opredeleniya razmerov elektrodov i plotnosti toka v nikh). *Zh. Prikl. Khim.* 35, vyp. 5, 1026-1029 (1962).
- G. N. KOSTENKO, On basic equations of engineering thermodynamics (Ob osnovnykh uravneniyakh tekhnicheskoi termodinamiki). *Izv. Vyssh. Uch. Zav. Energetika* No. 4, 114-117 (1962).
- O. YU. KOTSUBINSKY and E. S. ZALTSMAN, A method for calculation of cooling of flat castings in a mould (Metod rascheta ostyvaniya ploskikh otlivok v forme). *Inzh. Fiz. Zh.* 5, No. 4, 75-77 (1962).
- L. A. KOZDOBA and V. S. SEMENOV, Determination of a temperature field of pistons of internal combustion engines by electric simulation (Opredeleniye temperaturno polya porshnei dvigatelei vnutrennego sgoraniya metodom elektromodelirovaniya). *Izv. Vyssh. Uch. Zav. Energetika* No. 2, 79-84 (1962).
- L. F. KOZLOV, The calculation of transition from a laminar boundary to a turbulent layer under the action of turbulence of an incident flow (O raschete perekhoda laminarnogo pogranichnogo sloya v turbulentnyi pod deistviem turbulentnosti nabegayushchego potoka). *Inzh. Fiz. Zh.* 5, No. 3, 103-106 (1962).
- E. V. KUDRYAVTSEV and K. N. CHEKALEV, Calorimetric checking of methods for determining boundary conditions with non-stationary heat transfer (Kalorimetricheskii sposob proverki metoda opredeleniya granichnykh uslovii pri nestatsionarnom teploobmene). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 131-134 (1961).
- I. G. LIBERMAN and E. I. TAUBMAN, The calculation of convective heat transfer processes on electronic computers of continuous action (Raschet protsessov konvektivnogo teploobmena na elektronnykh vychislitel'nykh mashinakh nepreryvnogo deistviya). *Teploenergetika* No. 2, 67-70 (1962).
- A. V. LUIKOV, An application of integral transformation to the analysis of heat and mass transfer phenomena and their relation with the similarity theory (Primeneniye integral'nykh preobrazovaniy k issledovaniyu yavlenii teplo- i massoobmena i svyaz' ikh s teoriei podobiya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 10-19 (1961).
- V. S. LUKYANOV, The application of the hydraulic analogy method to calculations on the temperature behaviour of grounds taken into account heat transfer by filtration flow and to the deduction of certain criteria of similarity (Primeneniye metoda gidravlicheskikh analogii s raschetom temperaturnogo rezhima gruntov s uchetom perenosa tepla filtratsionnym potokom i k vyvodu nekotorykh kriteriev podobiya). *Inzh. Fiz. Zh.* 5, No. 2, 52-57 (1962).
- YA. M. NAZIEV, Calculation equations of heat conduction for plane, cylindrical and spherical bicalorimeters (Raschetnye uravneniya teploprovodnosti ploskogo, tsilindricheskogo i sharavogo bikalorimetrov). *Izv. Akad. Nauk Azerbaidzhan. SSR, ser. Fiz. Mat. i Tekh. Nauk* No. 6, 137-147 (1961).
- V. YA. NEILAND, The solution of laminar boundary layer equations near the critical point with injection of a radiant gas (Reshenie uravnenii laminarnogo pogranichnogo sloya v okrestnosti kriticheskoi toчки pri vduvanii izluchayushchego gaza). *Inzhenernyi Zhurnal* 4, vyp. 2, 31-36 (1961).
- A. A. NIKOL'SKY, On one class of exact solutions of space equations of gas dynamics (Ob odnom klasse tochnykh reshenii prostranstvennykh uravnenii gazovoi dinamiki). *Inzhenernyi Zhurnal* 1, vyp. 4, 11-17 (1961).
- D. A. PEREVERZEV, An approximate solution of a two-dimensional stationary heat conduction problem and its application to the determination of the artificial cooling effect of turbine elements (Priblizhennoe reshenie dvukhmernoi statsionarnoi zadachi teploprovodnosti i primeneniye ego dlya opredeleniya effekta iskustvennogo okhlazhdeniya elementov turbin). *Teploenergetika* No. 6, 24-31 (1962).
- SH. N. PLYAT, The solution of problems of non-stationary heat conduction of hollow cylinders by the Greenberg method: method of finite integral transformations (K voprosu o reshenii zadach nestatsionarnoi teploprovodnosti polykh tsilindrov metodom Grinberga: metod konechnykh integral'nykh preobrazovaniy). *Inzh. Fiz. Zh.* 5, No. 6, 81-87 (1962).
- YA. S. PODSTRIGACH and V. M. GEMBARA, An analysis of solutions of a one-dimensional heat conduction problem at small Biot criteria (Analiz reshenii odnomernoi

- nestatsionarnoi zadachi teploprovodnosti pri malykh znacheniyakh kriteriya Bio). *Nauch. Zapiski In-ta Mashinovedeniya i Avtomatiki, Akad. Nauk Ukrainian SSR* 7, vyp. 7, 154-164 (1961).
- K. POPOV, Application of thermodynamic equations of irreversible processes to the case when one of the components disappears (O prilozhenii uravnenii termodinamiki neobratimyykh protsessov k sistemam s ischezayushchim komponentom). *Zh. Fiz. Khim.* 36, No. 5, 1062-1065 (1962).
- R. S. PRASOLOV, The generalization of a heat-conduction equation for gases (Obobshchenie uravneniya teploprovodnosti gazov). *Izv. Vyssh. Ucheb. Zav., Priborostroyeniye* 4, No. 6, 132-139 (1961).
- A. B. REZNYAKOV, Similarity and basic principles of modelling of cyclone physical-chemical processes (Podobie i osnovnye printsipy modelirovaniya tsiklonnykh fiziko-khimicheskikh protsessov). *Izv. Akad. Nauk Kazakh. SSR, ser. Energetika* vyp. 2, 46-59 (1961).
- D. V. REZODUBOV, Solution of some linear heat problems in limited and semi-infinite districts by motion of the boundary according to the βVt law (Reshenie nekotorykh tipov lineinykh teplovykh zadach v ogranichennoi i polubeskonechnoi oblastiakh pri dvizhenii granitsy po zakony βVt). *Zh. Tekh. Fiz.* 32, vyp. 5, 632-637 (1962).
- A. A. SAMARSKY, Uniform difference schemes for non-linear equations of parabolic type (Odnorodnye raznostnye skhemy dlya nelineinykh uravnenii parabolicheskogo tipa). *Zh. Vychislit. Mat. i Mat. Fiz.* 2, No. 1, 25-56 (1962).
- M. S. SMIRNOV, Boundary conditions for a transformed system of differential drying equations (Ob kraevykh usloviyakh dlya preobrazovannoi sistemy differentsial'nykh uravnenii sushki). *Inzh. Fiz. Zh.* 5, No. 3, 88-94 (1962).
- N. YU. TOBULEVICH, I. I. SATAN' and V. G. GARYAZHA, The determination of heat transfer coefficients when calculating evaporating installations and heaters of syrup grain stillage (Opredelenie koeffitsientov teploperedachi pri raschete vyparnyykh ustanovok i podogrevatelei patochnoi bardy). *Izv. Vyssh. Ucheb. Zav. Pitsch. Tekhnolog.* No. 6, 112-118 (1961).
- B. YA. TONKOSHKUROV and A. SH. ASATURYAN, On the application of the Leibenzon integral relation to heat transfer (K voprosu o primenenii integral'nogo sootnosheniya Leibenzona v teploobme). *Trudy Nauch.-Issledovat In-ta po Transp. i Khraneniyu Nefti i Nefteproduktov* vyp. 1, 22-28 (1961).
- of a plate and head of a cylinder in a laminar boundary layer of non-compressible liquid over a wide range of Prandtl numbers (K voprosu o teploobmene plastiiny i lobovoi chasti tsilindra obtekaemykh laminarnym pogranichnym sloem neshhimaemoi zhidkosti v shirokom diapazone chisel Prandtliya). *Inzh. Fiz. Zh.* 5, No. 1, 85-87 (1962).
- E. I. ANDRIANKIN, A heat wave with an energy source in the centre (Teplovaya volna s istochnikom energii v tsentre). *Trudy Moskovsk. Fiz.-Tekh. In-ta* vyp. 8, 109-118 (1962).
- S. I. ANISIMOV and G. S. ROMANOV, A non-equilibrium air flow in nozzles (Neravnovesnoe techenie vozdukh v soplakh). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 76-81 (1962).
- N. V. ANTONISHIN and S. S. ZABRODSKY, Combustion of gas fuel in a fluidized bed of an intermediate heat transfer agent (Szhiganie gazovogo topliva v psevdoozhizhennom sloe promezhutochnogo teplonositelya). *Inzh. Fiz. Zh.* 5, No. 2, 10-14 (1962).
- A. SH. ASATURYAN and B. M. TONKOSHKUROV, On heat transfer of a cylinder in a laminar flow (K voprosu o teplootdache tsilindra v laminarnom potoke). *Trudy Nauch.-Issledovat. In-ta po Transp. i Khraneniyu Nefti i Nefteproduktov* vyp. 1, 42-49 (1961).
- A. SH. ASATURYAN, B. A. TONKOSHKUROV and V. I. CHERNIKIN, Peculiarities of heat transfer and hydrodynamics in a flow with variable viscosity (Osobennosti teploobmena i gidrodinamiki v potoke s peremennoi vyazkost'yu). *Trudy Nauch.-Issledovat. In-ta po Transp. i Khraneniyu Nefti i Nefteproduktov* vyp. 1, 3-21 (1961).
- A. SH. ASATURYAN and B. A. TONKOSHKUROV, Free heat convection near a linear heat source (Svobodnaya teplovaya konveksiya vblizi lineinogo istochnika tepla). *Trudy Nauch.-Issledovat. In-ta po Transp. i Khraneniyu Nefti i Nefteproduktov* vyp. 1, 29-41 (1961).
- YA. I. ASNIN, Heat similarity, convective heat transfer and entropy (Teplovoe podobie, konvektivnyi teploobmen i entropiya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 78-81 (1961).
- V. I. BAKULEV, The calculation of a turbulent submerged jet of a real gas (Raschet turbulentnoi zatoplennoi strui realnogo gaza). *Inzhenernyi Zhurnal* 1, vyp. 3, 65-74 (1961).
- KH. A. BARLYBAEV and S. V. BUKHMAN, An investigation into heat transfer in a circular channel (Issledovanie teploobmena v kol'tsevom kanale). *Izv. Akad. Nauk Kazakh. SSR, ser. Energetika* vyp. 1, 21-29 (1961).
- A. P. BASKAKOV and A. S. PESTRYAEV, Regularities of fluidization of a polydisperse material (Zakonomenosti psevdoozhizheniya polidispersnogo materiala). *Inzh. Fiz. Zh.* 5, No. 6, 8-12 (1962).
- L. D. BERMAN, On peculiarities of heat and mass transfer in moving two-component mixtures (Ob osobennostyakh perenosu tepla i veshchestva v dvizhushchikhsya dvukhkomponentnykh smesyakh). *Teploenergetika* No. 1, 69-74 (1962).
- S. A. BOGATYKH and E. YA. REUT, An investigation into heat transfer processes in cyclone-foam apparatuses with liquid cooling of a gas (Issledovanie protsessov teploobmena v tsiklonno-pennykh apparatakh pri

GENERAL HEAT TRANSFER PROBLEMS

- M. G. ALISHAEV, Forced convection of a viscous compressed gas near a heat source (Vynuzhdennaya konveksiya vyazkogo szhimaemogo gaza okolo teplovogo istochnika). *Prikl. Mat. i Mekh.* 26, vyp. 1, 187-189 (1962).
- V. M. ANDREEV, Critical effects in open systems (Kriticheskie yavleniya v otkrytykh sistemakh). *Zh. Fiz. Khim.* 36, No. 1, 42-52 (1962).
- A. A. ANDREYEVSKY and E. D. FEDOROVICH, Heat transfer

- okhlazhdenii gaza zhidkost'yu). *Khim. Mashinostroyeniye* No. 6, 21-24 (1961).
- G. P. BOIKOV, The calculation of heating of bodies under the action of radiant heat transfer on the basis of the similarity theory (Raschet progrevva tel pod deistviem luchistogo tepla na osnove teorii podobiya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 105-110 (1961).
- G. P. BOIKOV and YU. A. KOROLENKO, The character of a temperature field in a rectangular bar with internal heat sources (Kharakter temperaturnogo polya v pryamougol'nom bruske pri vnutrennikh istochnikakh tepla). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 11, 84-86 (1961).
- B. V. BONDARENKO and B. M. TSAREV, On the nature of a temperature dependence of outlet work of thermal cathodes of semiconductor type (O prirode temperaturnoi zavisimosti raboty vykhoda termokatodov poluprovodnikovogo tipa). *Trudy Moskovsk. Fiz.-Tekh. In-ta* vyp. 8, 14-20 (1962).
- V. M. BORISHANSKY, N. I. IVASHCHENKO and T. V. ZABLOTSKAYA, Calculation of heat transfer for liquids flowing turbulently in tubes at $Pr < 1$ (Raschet teplootdachi v trubakh pri turbulentsnom techenii zhidkosti s malymi chislami Prandtl'ya $Pr < 1$). *Atomnaia Energiia* 11, vyp. 5, 426-430 (1961).
- P. M. BRDLIK, G. E. VERVOCHKIN and V. A. SMIRNOV, Heat transfer between a jet and plate normal to a flow (Teploobmen mezhdru struei i plastinoy, raspolozhennoi normal'no potoku). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 182-192 (1961).
- V. M. BRODYANSKY and A. V. MARTYNOV, The method of a thermodynamic analysis of losses in a vapour-ejection refrigerating installation (Metod termodinamicheskogo analiza poter' v paro-ezhektornoi kholodil'noi ustanovke). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 5, 76-83 (1962).
- V. M. BRODYANSKY and I. P. ISHKIN, Application of enthalpy-exergy diagram for thermodynamic calculations (Primenenie diagrammy ental'piya-eksertiya dlya termodinamicheskikh raschetov). *Kholodil'naiia Tekh.* No. 1, 19-24 (1962).
- M. V. BUIKOV and S. S. DUKHIN, Diffusion and heat relaxation of an evaporating drop (Diffuzionnaya i teplovaya relaksatsiya isparayushcheysya kapli). *Inzh. Fiz. Zh.* 5, No. 3, 80-87 (1962).
- M. V. BUIKOV, Diffusion and heat relaxation of an evaporating drop (Diffuzionnaya i teplovaya relaksatsiya isparayushcheysya kapli). *Inzh. Fiz. Zh.* 5, No. 4, 78-81 (1962).
- A. V. BULYGA, Analysis of schemes and operation conditions of pressure transmitters for Pirani vacuum gauges (Analiz skhem i rezhimov raboty datchikov davleniya vakuumetrov tipa Pirani). *Inzh. Fiz. Zh.* 5, No. 3, 72-79 (1962).
- A. V. BULYGA and T. N. ABRAMENKO, The effect of temperature gradient in the body of a thermistor data unit on the error in semiconductor instruments (Vliyanie temperaturnogo gradienta v tele termisternogo datchika na pogreshnost' poluprovodnikovykh priborov). *Inzh. Fiz. Zh.* 5, No. 6, 48-54 (1962).
- A. L. BYCHKOVSKY, An investigation into a heat regime of finned screens (Issledovanie teplovogo rezhima orebrennykh ekranov). *Teploenergetika* No. 2, 36-41 (1962).
- V. M. DEMENT'EV and YU. P. NEKHLEBAEV, An investigation into the burning of limestone in a fluidized bed (Issledovanie protsessa obzhiga izvestnyaka v psevdoozhizhennom sloe). *Khim. Prom.* No. 11, 34-39 (1961).
- L. A. DORFMAN, The effect of non-stationary temperature of a rotating disc on its heat transfer (Vliyanie neustanovivshcheysya temperatury vrashchayushchegosya diska na ego teploobmen). *Inzh. Fiz. Zh.* 5, No. 5, 89-91 (1962).
- L. A. DUBNIK, An investigation into thermal conditions of grids of miniature light bulbs (Issledovanie teplovogo rezhima setok miniatyurnykh lamp). *Inzh. Fiz. Zh.* 5, No. 5, 108-111 (1962).
- E. I. GANZHERLI and N. V. KVASHA, A programme controller of a temperature (Programnyi regulyator temperatury). *Energomashinostroyeniye* No. 5, 41-42 (1962).
- N. I. GEL'PERIN and V. G. EINSHTEIN, On the analogy between a fluidized bed of grained material and a drop liquid (Ob analogii mezhdru psevdoozhizhennym sloem zernistogo materiala i kapel'noi zhidkost'yu). *Khim. Prom.* No. 11, 8-14 (1961).
- S. B. GERASIMOVA, The effect of thermal diffusion on heat conduction of a binary mixture (O vliyaniie efekta termodiffuzii na teplovuyu konvektivnyu binarnoi smesi). *Inzh. Fiz. Zh.* 5, No. 7, 52-58 (1962).
- E. YA. GERTSBERG, Temperature voltages in a turbine rotor under non-stationary conditions (Temperaturnye napryazheniya v rotore turbiny pri nestatsionarnykh rezhimakh). *Energomashinostroyeniye* No. 2, 26-28 (1961).
- V. A. GERTSOVSKY, V. G. FASTOVSKY and A. E. ROVINSKY, Heat transfer in a laminar non-stationary flow of a viscous liquid in a short circular channel (Teplootdacha pri laminarnom techenii nestabilizirovannogo potoka vyazkoi zhidkosti v korotkom kol'tsevom kanale). *Teploenergetika* No. 3, 68-70 (1962).
- Z. P. GORBIS and R. A. BAKHTIOZIN, A study of convective transfer from a gas-graphite mixture during flow within vertical channels (Issledovanie konvektivnoi teplootdachi gazo-grafitovoi vzvesi v usloviyakh vnutrennego obtekaniya vertikal'nykh kanalov). *Atomnaia Energiia* 12, vyp. 5, 378-384 (1962).
- Z. P. GORBIS, Some problems of heat transfer between disperse flows and a wall (Nekotorye voprosu teploobmena dispersnykh potokov so stenкой). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 4, 95-103 (1962).
- Z. P. GORBIS and V. A. KALENDER'YAN, Heat transfer of a layer moving longitudinally in smooth cylindrical channels (Teplootdacha sloya, prodol'no dvizhushchegosya v gladkikh tsilindricheskikh kanalakh). *Teploenergetika* No. 1, 75-79 (1962).
- A. N. GORDOV, Z. U. ZABOROVSKAYA and M. S. KAYANDER, Instruments for determining dynamic errors of thermal detectors with measurement of temperatures under conditions of changing heat transfer (Ustanovki dlya opredeleniya dinamicheskikh pogreshnostei termopriemnikov pri izmerenii temperatur v usloviyakh

- menyayushcheysya teplootdachi). *Trudy Komiteta Standartov, Mer i Izmerit. Priborov* vyp. 51, 185–197 (1961).
- A. N. GORDOV and Z. U. ZABOROVSKAYA, An experimental investigation into the method for determining dynamic errors of measurement of temperatures in a gas flow at monotonously changing temperature and heat transfer (Eksperimental'noe issledovanie metoda opredeleniya dinamicheskikh pogreshnostei izmereniya temperatur gazovogo potoka pri monotonno menyayushchikhsya temperature i teplootdache). *Trudy Komiteta Standartov, Mer i Izmerit. Priborov* vyp. 51, 198–220 (1962).
- L. A. GORYAINOV, An investigation into complex heat transfer in a cooled channel (Ob issledovanii slozhnogo teploobmena v okhlazhdaemom kanale). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 101–105 (1961).
- YU. P. GUPALO, Motion of a body in a fluidized bed (Dvizhenie tela v kipiyashchem sloe). *Inzh. Fiz. Zh.* 5, No. 2, 15–18 (1962).
- I. G. FEDOROV, N. S. IDIATULLIN, V. K. SHCHUKIN and G. A. MUKHACHEV, Heat transfer and hydraulic resistance of slotted channels with a staggered location of conic punchings (Teplootdacha i gidravlicheskoe soprotivlenie shchelevykh kanalov s shakhmatnym raspolozheniem konicheskikh vyshtampovok). *Teploenergetika* No. 6, 57–60 (1962).
- K. N. CHAKALEV, Heating of a plate with a moving heat-transfer surface (Nagrevanie plastiny pri peremeshchayushcheysya poverkhnosti teploobmena). *Inzh. Fiz. Zh.* 5, No. 4, 25–30 (1962).
- A. I. CHAPLINA, The effect of the initial hydrodynamic stabilization section on heat transfer of a slab in a longitudinal flow (O vliyaniy nachal'nogo uchastka gidrodinamicheskoi stabilizatsii na teploobmen prodol'noobtekaemoi plity). *Inzh. Fiz. Zh.* 5, No. 3, 21–26 (1962).
- A. I. CHAPLINA, An application of the regular conditions method for the investigation into heat transfer of a plate in a forced turbulent flow (Primenenie metoda regul'yarnogo rezhima dlya issledovaniya teploobmena plastiny pri vynuzhdennom turbulentnom obtekanii). *Inzh. Fiz. Zh.* 5, No. 6, 88–92 (1962).
- A. I. CHAPLINA, An experimental study of heat transfer of a slab in a longitudinal flow (Eksperimental'noe issledovanie teploobmena prodol'no obtekaemoi plity). *Inzh. Fiz. Zh.* 5, No. 7, 34–38 (1962).
- B. B. CHESNOKOV, M. G. CLIN'KO and V. SH. KERNERMAN, The determination of the critical velocity of fluidization by a gas at pressure (Opredelenie kriticheskoi skorosti psevdoozhizheniya gazom pod davleniem). *Khim. Prom.* No. 11, 25–26 (1961).
- A. M. KAGAN, V. G. FASTOVSKY and A. E. ROVINSKY, Heat transfer between a fluidized bed of solid particles and a coil surface (Teplootdacha ot psevdoozhizhennogo sloya tverdykh chastits k poverkhnosti zmeevika). *Khim. Prom.* No. 11, 48–51 (1961).
- M. A. KAGANOV and I. G. MUSHKIN, A semiconductor thermoanemometer with temperature compensation (Poluprovodnikoviy termoanemometer s temperaturnoi kompensatsiei). *Inzh. Fiz. Zh.* 5, No. 1, 72–78 (1962).
- G. E. KALININ, The application of the similarity theory to an experimental investigation into work conditions of gas turbines (Prilozhenie teorii podobiya k eksperimental'nomu issledovaniyu rezhimov raboty gazovykh turbin). *Teploenergetika* No. 5, 35–38 (1962).
- S. K. KAROCHKINA and N. I. SYROMYATNIKOV, A study of heat transfer between particles in a filling (K voprosu izucheniya teploobmena mezhdru chastitsami v zasypke). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 2, 67–72 (1962).
- A. S. KASPEROVICH and A. G. SHASHKOV, The effect of parameters and heat transfer conditions on the frequency of vibrations in a circuit with a thermistor (Vliyanie parametrov i uslovii teploobmena na chastotu kolebaniy v konture s termistorom). *Inzh. Fiz. Zh.* 5, No. 7, 65–69 (1962).
- V. N. KEFER, Heat transfer and depression of staggered tubular air coolers with flat circular fins in a transverse flow (Teploperedacha i depressiya shakhmatnykh trubchatykh vozdukhookhladitelei s ploskimi kruglymi rebrami v poperechnom potoke). *Sb. Nauch. Statei Makeevskogo Nauch.-Issledovat. In-ta po Bezopasnosti Rabot v Gornoj Prom-ti* No. 17, 31–35 (1961).
- N. V. KOCHERGIN, A. G. KASATKIN and YU. I. DYTNERSKY, An investigation into hydrodynamics and mass transfer on valve discs (Issledovanie gidrodinamiki i massoobmena na klapannykh tarelkakh). *Trudy po Khim. i Khim. Tekhnologii* vyp. 4, 860–865 (1961).
- V. I. KOFANOV, The criterial equation of heat transfer for liquid suspensions (Kriterial'noe uravnenie teploobmena zhidkikh suspenzii). *Inzh. Fiz. Zh.* 5, No. 6, 27–31 (1962).
- L. S. KOKOREV and V. N. RYAPOSOV, Turbulent heat transfer in a flow in a tube of a heat agent at the small Prandtl number (Turbulentnyi perenos tepla pri techenii v trube teplonositelya s malym chislom Prandtlya). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 42–49 (1962).
- B. N. KOLBASOV, An experimental investigation into heat transfer of carbon acid in a thermodynamic crisis region in a turbulent flow in tubes (Eksperimental'noe issledovanie teplootdachi uglekisloty v oblasti termodinamicheskogo krizisa pri turbulentnom techenii v trubakh). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 193–200 (1961).
- P. K. KONAKOV, Some regularities of complex heat transfer (Nekotorye zakonomernosti slozhnogo teploobmena). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 82–84 (1961).
- P. K. KONAKOV, V. A. SMIRNOV and G. E. VERVOCHKIN, Basic criteria of a heat process for obtaining ingots by the Chokral'sky method (Osnovnye kriterii teplovogo protsessa polucheniya slitkov metodom Chokhral'skogo). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 210–217 (1961).
- YU. A. KOSHMAROV, Hydrodynamics and heat transfer of a turbulent flow of an incompressible liquid in a gap between rotating coaxial cylinders (Gidrodinamika i teploobmen turbulentnogo potoka neszhimaemoi zhidkosti v zazore mezhdru vrashchayushchimysya

- koaksial'nymi tsilindrami). *Inzh. Fiz. Zh.* **5**, No. 5, 5-14 (1962).
- YU. A. KOSHMAROV, Heat transfer in a turbulent boundary layer of a compressed gas (Teploobmen v turbulentnom pogranchnom sloe szhimaemogo gaza). *Inzhenernyi Zhurnal* **2**, vyp. 1, 41-54 (1962).
- S. I. KOSTERIN, YU. A. KOSHMAROV and YU. S. OSIPOV, An investigation into flow and heat transfer of a rarefied gas in a flat supersonic nozzle (Issledovanie techeniya i teploobmena razrezhennogo gaza v ploskom sverkhzvukovom sope). *Inzh. Fiz. Zh.* **5**, No. 4, 3-9 (1962).
- S. I. KOSTERIN, A. I. LEONTIYEV and V. K. FEDOROV, On methods of generalization of experimental data on convective heat transfer at gas motion in the initial tube portion (O metodakh obobshcheniya opytnykh dannykh po konvektivnomu teploobmenu pri dvizhenii gaza v nachal'nom uchastke truby). *Teploenergetika* No. 5, 70-72 (1962).
- S. I. KOSTERIN, YU. A. KOSHMAROV and YU. P. FINATYEV, An experimental investigation into hydrodynamics of a turbulent air flow in the gap between rotating coaxial cylinders (Eksperimental'noe issledovanie gidrodinamiki turbulentnogo potoka vozdukh v zazore mezhdru vrashchayushchimisya koaksial'nymi tsilindrami). *Inzh. Fiz. Zh.* **5**, No. 5, 15-20 (1962).
- L. S. KOTOUSOV, On the connexion between the thermodiffusion coefficient and thermodynamic properties of binary mixtures—I. Calculation of thermodiffusion coefficient for dense gases (K voprusu o svyazi koeffitsienta termodiffuzii s termodinamicheskimi svoystvami binarnykh smesei—I. Raschet koeffitsienta termodiffuzii plotnykh gazov). *Zh. Tekh. Fiz.* **32**, vyp. 1, 89-100 (1962).
- L. B. KOZLOV, The determination of the heat transfer coefficient by a regular regime with regard for heat leakage inside a model (Opredelenie koeffitsienta teplootdachi metodom regul'yarnogo rezhima s uchetom utechek tepla vnutr modeli). *Izv. Akad. Nauk SSSR, Otdel. Tekh. Nauk, Mekhanika i Mashinostroyeniye* No. 6, 42-46 (1961).
- L. M. KOVALENKO, An investigation into a convective heat transfer process in twisting slotted channels (Issledovanie protsessa konvektivnogo teploobmena v izvilistykh shechelevykh kanalakh). *Teploenergetika* No. 2, 77-79 (1962).
- O. A. KREMNEV, N. V. ZOZULYA and A. A. KHAVIN, Heat transfer of tubes in a longitudinal flow with loop-wire finning (Teplootdacha prodol'no obtekaemykh trub s petel'no-provolochnym orebreniem). *Energomashinostroyeniye* No. 5, 29-31 (1962).
- N. V. KRYLOV and K. I. STRAKHOVICH, Heat transfer of horizontal surfaces of thermally insulating structures through which metal passes in deep freezing systems (K voprusu o teploobmene gorizonta'nykh poverkhnostei teploizolyatsionnykh konstruksii, prorezannykh metallom, v sistemakh glubokogo okhlazhdeniya). *Inzh. Fiz. Zh.* **5**, No. 7, 28-33 (1962).
- N. V. KRYLOV and K. I. STRAKHOVICH, A temperature field of an insulating wall with finite transverse section traversed by a metal rod (Temperaturnoe pole v izolyatsionnoi stenke s konechnym poperechnym secheniem, prorezannoi metallicheskim sterzhnem). *Inzh. Fiz. Zh.* **5**, No. 2, 72-78 (1962).
- P. N. KUBANSKY, Intensification of heat transfer by acoustic flows with forced convection (Intensifikatsiya teploobmena akusticheskimi techeniyami pri vynuzhdennoi konveksii). *Akusticheskii Zhurnal* **8**, vyp. 1, 85-90 (1962).
- E. V. KUDRYAVTSEV and N. V. SHUMAKOV, The similarity of non-stationary heat transfer of solids under identical conditions (Podobie nestatsionarnogo teploobmena tverdykh tel v tozhdestvennykh usloviyakh). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 122-130 (1961).
- V. T. KUMSKOV, An investigation into complex heat transfer in (furnace) chambers of combustion (Issledovanie slozhnogo teploobmena v (topochnykh) kamerakh sgoraniya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 84-90 (1961).
- V. B. KURZIN, Oscillation of a lattice of thin profiles in a compressed subsonic flow (Kolebanie reshetki tonkikh profilei v szhimaemom dozvukovom potoke). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 44-50 (1962).
- S. S. KUTATELADZE and A. I. LEONTYEV, The calculation of a turbulent boundary layer in the presence of substantial positive pressure gradients (K raschetu turbulentnogo pogranchnogo sloya pri sushchestvennykh polozhitel'nykh gradientakh davleniya). *Inzh. Fiz. Zh.* **5**, No. 1, 33-41 (1962).
- S. S. KUTATELADZE and A. I. LEONTYEV, A turbulent boundary layer of a gas on a permeable wall (Turbulentnyi pogranchnyi sloi gaza na pronitsaemoi stenke). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 51-60 (1962).
- V. V. LAKHANIN, Heat calculations of piston machines on the basis of the similarity theory and perspectives of their development (Teplovye raschety porshnevnykh mashin na osnove teorii podobiya i perspektivy ikh razvitiya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 224-229 (1961).
- V. I. LEBEDEV, On the effect of emissivity of a furnace medium on heat transfer in combustion chambers (O vliyanii stepeni chernoty topochnoi sredy na teploobmen v kamerakh sgoraniya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 90-101 (1961).
- A. K. LEONTYEV, A simple method for determining the temperature of a heat transfer surface (Prostoi metod opredeleniya temperatury teploobmennoi poverkhnosti). *Inzh. Fiz. Zh.* **5**, No. 7, 78-82 (1962).
- V. V. LUNEV and A. I. RUMYNSKY, Interaction between a boundary layer and an external flow caused by radiant heat transfer (Vzaimodeistvie pogranchnogo sloya s vneshnim potokom, obuslovlennoe luchistym teploobmenom). *Zh. Prikl. Mekh. i Teor. Fiz.* No. 6, 44-53 (1961).
- D. I. MARIEV, Thermodynamics of a cooled gas turbine (K termodinamike okhlazhdaemoi gazovoi turbiny). *Inzh. Fiz. Zh.* **5**, No. 4, 41-46 (1962).
- YU. L. MARSHAK, On heat transfer in slag catching tube bundles (O teploobmene v shlakoulavliyayushchikh puchkakh trub). *Teploenergetika* No. 5, 17-19 (1962).
- V. S. MARTYNOVSKY and V. A. NAER, An investigation

- into semiconductor variants of heat flows (Issledovanie poluprovodnikovyykh variantov teplovykh potokov). *Teploenergetika* No. 6, 68–71 (1962).
- D. YA. MAZUROV, Gas dynamics and heat transfer in a coarse-grained fluidized bed (K voprosu gazodinamiki i teploobmena v krupnozernistom kipiyashchem sloe). *Inzh. Fiz. Zh.* 5, No. 1, 13–20 (1962).
- V. A. METAKSA and E. M. YUDAeva, Heat transfer in furnaces of fixed steam boilers (Teploobmen v topkakh statsionarno ustanovlennykh parovoznykh kotlov). *Trudy Vses. Nauch.-Issledovat. In-ta Zh.-d. Transp.* vyp. 228, 71–77 (1962).
- I. R. MIKK, On the calculation of volume radiation of a parallelepiped (O raschete ob'emnogo izlucheniya parallelipipeda). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 3, 71–75 (1962).
- G. A. MIKHAILOVSKY, On thermodynamic processes of vapour-gas mixture (K voprosu o termodinamicheskikh protsessakh parogazovykh smesei). *Teploenergetika* No. 5, 92–95 (1962).
- YU. A. MIKHAILOV, Similarity criteria of heat and mass transfer in disperse media (Kriterii podobiya teplo -i massoobmena v dispersnykh sredakh). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 172–182 (1961).
- R. S. MINASYAN, On heat propagation in a rotating non-uniform sphere in the presence of heat transfer with a surrounding medium (O rasprostraneniі tepla vo vrashchayushchemsya neodnorodnom share pri nalichii teploobmena s okruzhayushchei sredoi). *Dokl. Akad. Nauk Armenian SSR* 34, No. 3, 97–104 (1962).
- Z. L. MIROPOL'SKY and L. E. FAKTOROVICH, Generalization of experimental data concerning the influence of heated channel length on critical heat flows (Obobshchenie eksperimental'nykh dannykh o vliyaniі obogrevaemoi dliny kanala na kriticheskie teplovyte potoki). *Dokl. Akad. Nauk SSSR* 141, No. 6, 1353–5316 (1961).
- E. I. MOLCHANOV and A. R. KHENVEN, The calculation of temperature fields in the blade of a gas turbine cooled through erection clearances (Raschet temperaturnykh polei v lopatke gazovoi turbiny, okhlazhdaemoi cherez montazhnye zazory). *Inzh. Fiz. Zh.* 5, No. 3, 45–50 (1962).
- I. N. MURZINOV, On the effect of the variable Prandtl number on the flow near the critical point of a blunt body at small Reynolds numbers (O vliyaniі peremennogo chisla Prandtlya na techenie v okrestnoi toчке tupogo tela pri malykh chislakh Reinol'dsa). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 39–43 (1962).
- V. A. NAER, Calculation of non-stationary operation of semi-conductor refrigerators and heaters (Raschet nestatsionarnykh rezhimov poluprovodnikovyykh kholodil'nikov i nagrevatelei). *Kholodil'naiia Tekh.* 1, 16–19 (1962).
- V. YA. NEILAND and G. I. TAGANOV, On heat transfer to a body near the front separation zone with a hypersonic flow velocity (O teploperedache k telu vblizi perednei sryvnoi zony pri giperzvukovoi skorosti potoka). *Inzhenernyi Zhurnal* 1, vyp. 3, 151–153 (1961).
- N. I. NIKITENKO, A non-stationary temperature field of an infinite hollow cylinder with distributed heat sources (Nestatsionarnoe temperaturnoe pole neogranichennogo pologo tsilindra s raspredelennymi teplovyimi istochnikami). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 5, 101–103 (1962).
- N. E. MINUA, Heat transfer and resistance in a regenerative rotating air heater with a movable ball checker (Teploobmen i soprotivlenie v regenerativnom vrashchayushchemsya vozdukhopodogrevatele s podvizhnoi sharikovoi nasadkoi). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 119–121 (1961).
- I. I. NOVIKOV, Viscosity of gas and liquid mixtures (Vyazkost 'smesei gazov i zhidkostei). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 82–84 (1962).
- A. N. OBLIVIN, An experimental method for determining local coefficients of friction in non-isothermal conditions (Eksperimental'nyi metod opredeleniya lokal'nykh koeffitsientov treniya v neizotermicheskikh usloviyakh). *Inzh. Fiz. Zh.* 5, No. 3, 15–20 (1962).
- E. KH. ODEL'SKY, External and internal heat transfer in calorifiers (Vneshnii i vnutrennii teploobmen v plasnitchatykh kaloriferakh). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 12, 77–82 (1961).
- YU. M. OSHURKOV and V. N. PETRI, On the heat transfer coefficient of a finned tube in a superheated-vapour flow (O koeffitsiente teploperedachi rebristoi trubyy v potoke peregretoho para). *Izv. Vyssh. Ucheb. Zav. Lesnoi Zhurnal* No. 2, 109–114 (1962).
- V. M. PAVLOV and I. I. SHISHKO, Mixing of chromite stock in a boiling layer (Smeshanie khromitovoi shikhty v kipiyashchem sloe). *Khim. Prom-st'* No. 11, 39–40 (1961).
- G. B. PETRAZHITSKY and V. M. POLEZHAEV, An engineering method for calculating non-stationary heat-conduction processes in thin multilayer walls (Inzhenernyi metod rascheta nestatsionarnykh protsessov teploprovodnosti v tonkikh mnogosloinykh stenkakh). *Teploenergetika* No. 2, 73–76 (1962).
- V. M. POLYAEV and I. V. BASHMAKOV, The calculation of a turbulent boundary layer with the supply of a cooler through a porous wall (Raschet turbulentnogo pogranichnogo sloya pri podache okhladitel'noy skvoz' poristuyu stenkku). *Izv. Vyssh. Ucheb. Zav. Mashinostroeniye* No. 11, 118–128 (1961).
- G. L. POLYAK and V. N. ADRIANOV, The algebra of resolving fluxes in radiant exchange (Algebra rezolventnykh potokov luchistogo obmena). *Inzh. Fiz. Zh.* 5, No. 7, 70–77 (1962).
- V. B. PORUCHNIKOV, Temperature of the front edge of a plate with aerodynamic heating (Temperatura perednei kromki plastiny pri aerodinamicheskom nagreve). *Vestnik Moskovsk. Univ. Ser. 1, Mat. i Mekh.* No. 1, 47–52 (1962).
- V. POSPELOV, The application of ultrasound in heat exchangers (Primenenie ul'tra zvuka v teploobmennikakh). *Myasnaya Industriya SSSR* No. 2, 22–23 (1962).
- A. K. REBROV, Free-molecular heat transfer near a wall (Svobodnomolekulyarnyi perenos tepla u stenki). *Inzh. Fiz. Zh.* 5, No. 1, 111–114 (1962).
- A. B. REZNYAKOV, The development of heat-power engineering and heat-power science in Kazakhstan for

- 40 years (Razvitie teploenergetiki i teploenergeticheskoi nauki v Kazakhstane za 40 let). *Trudy In-ta Energetiki Akad. Nauk. Kazakh. SSR* 3, 21–25 (1961).
- L. I. ROIZEN, Heat transfer in a doughnut-shaped channel with turbulent flow conditions (Teploobmen v kol'tsevom kanale pri turbulentnom rezhime techeniya). *Inzh. Fiz. Zh.* 5, No. 1, 42–51 (1962).
- P. N. ROMANENKO and A. I. LEONTEYEV, An experimental investigation into a turbulent boundary layer with gas motion in axisymmetrical diffusers with cooled walls (Eksperimental'noe issledovanie turbulentnogo pogranichnogo sloya pri dvizhenii gaza v osesimmetrichnykh diffuzorakh s okhlazhdaemyimi stenkami). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 134–158 (1961).
- G. B. ROZENBLIT, An investigation into heat transfer in a working cylinder of a diesel engine (Issledovanie teploperedachi v rabochem tsilindre dizelya). *Energemashinostroyeniye* No. 2, 19–22 (1961).
- G. B. ROZENBLIT, An investigation into heat transfer between a gas and a working cylinder of the diesel engine (Issledovanie teplootdachi ot gaza k stenke rabocheho tsilindra dizelya). *Vestnik Mashinostroyeniya* No. 2, 22–26 (1962).
- G. B. ROZENBLIT, A method for investigation into heat transfer in the diesel engine by analysing temperature vibrations in walls of a combustion chamber (Metod issledovaniya teploperedachi v dizele s pomoshch'yu analiza temperaturnykh kolebaniy v stenkakh kamery sgoraniya). *Trudy Khar'kovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 46, 121–132 (1961).
- E. RUKENSHTEIN, On a heat or mass transfer mechanism in a boiling layer (K voprosu o mekhanizme teplo ili massoperedachi v kipyashchem sloe). *Zh. Prikl. Khim.* 35, vyp. 1, 70–80 (1962).
- E. RUKENSHTEIN, Heat and mass transfer between particles and a moving medium (Teplo i massoobmen mezhdru chastitsami i dvizhushcheyiya sredoi). *Zh. Prikl. Khim.* 35, vyp. 2, 377–384 (1962).
- A. N. RUMYSKY, The effect of diffusion of radiant admixtures on convective heat transfer (Vliyanie diffuzii izluchayushchikhsya primesei na konvektivnyi teploobmen). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 50–58 (1962).
- Z. B. SAKIPOV, On the relation of turbulent transfer coefficients of impulse and heat in a free turbulent jet (Ob otnoshenii koeffitsientov turbulentnogo obmena impul'sa i tepla v svobodnoi turbulentnoi strue). *Izv. Akad. Nauk Kazakh. SSR, Ser. Energetika* vyp. 1, 30–35 (1961).
- L. M. SELIVANOV and D. D. ZYKOV, Motive force of mass transfer under the cross-flow conditions with rectification (Dvizhushchayasya sila massoobmena v usloviyakh perekresnogo toka pri rektifikatsii). *Izv. Akad. Nauk SSSR, Otdel. Tekh. Nauk, Metallurgiya i Toplivo* No. 2, 168–173 (1962).
- Z. V. SEMILET and N. D. BUTSKY, Investigation of surface heat transfer and pressure drop in a longitudinally streamlined split fin (Issledovanie teplootdachi i soprotivleniya prodol'noobtekaemogo razreznogo rebra). *Kholodil'naya Tekh.* No. 1, 13–16 (1962).
- E. M. SEMYASHKIN, An investigation into the heat transfer coefficient of infinite cylinders with free convection (Issledovanie koeffitsienta teplootdachi ograniichennykh tsilindrov v usloviyakh svobodnoi konveksii). *Izv. Vyssh. Ucheb. Zav. Priborostroyeniye* 4, No. 6, 140–150 (1961).
- A. A. SHEVELEV, The determination of optimum heating velocity of some bodies (Opredelenie optimal'noi skorosti nagrevaniya nekotorykh tel). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 11, 77–83 (1961).
- I. A. SHEPELEV, A turbulent convective jet over a heat source (Turbulentnaya konvektivnaya struya nad istochnikom tepla). *Sb. Trudov Nauch.-Issledovat. In-ta San. Tekh. Akad. Stroitel'stva i Arkhitektury SSSR* No. 9, 185–195 (1961).
- I. S. SHIKIN, A contribution to the general theory of steady motions in relativistic hydrodynamics (K obshchei teorii statsionarnykh dvizhenii v relyativistkoi gidrodinamike). *Dokl. Akad. Nauk SSSR* 142, No. 2, 296–298 (1962).
- M. E. SHITSMAN, An investigation into heat transfer with water cooling near a critical region (Issledovanie teplootdachi pri okhlazhdenii vody v okolokriticheskoi oblasti). *Teploenergetika* No. 1, 83–86 (1962).
- Z. P. SHULMAN, The calculation of a laminar boundary layer with heat and mass transfer in an incompressible liquid (K raschetu laminarnogo pogranichnogo sloya s teplo-i massoobmenom v neszhimaemoy zhidkosti). *Inzh. Fiz. Zh.* 5, No. 5, 102–104 (1962).
- K. P. SHUMSKY, I. S. MAKSIMOVSKAYA and E. L. LAMM, An instrument for cooling loose materials in a "fluidized" bed (Apparat dlya okhlazhdeniya sypuchikh materialov v "kipyashchem" sloe). *Khim. Mashin.* No. 1, 7–9 (1962).
- V. K. SHCHUKIN, A temperature state of a porous wall with effusion cooling (Temperaturnoe sostoyanie poristoi stenki pri effuzionnom okhlazhdenii). *Teploenergetika* No. 1, 80–82 (1962).
- V. P. SKRIPOV and P. I. POTASHEV, Heat transfer with carbonic acid along supercritical isotherms with free convection (Teploobmen s uglekislotoi vdol' zakriticheskikh izoterm pri svobodnoi konveksii). *Inzh. Fiz. Zh.* 5, No. 2, 30–34 (1962).
- V. N. SOKOLOV and A. D. SALAMAKHIN, Heat transfer between a gas-liquid system and a heat-transfer element wall at bubbling conditions (Teplootdacha ot gazo-zhidkostnoi sistemy k stenke teploobmennogo elementa pri barbotazhnom rezhime). *Zh. Prikl. Khim.* 35, vyp. 5, 1022–1026 (1962).
- A. P. SOLODOV, The effect of the end and temperature distribution in a tube with thermally insulated terminals (Kontsevoi effekt i raspredelenie temperatur v trube s teploizolirovannymi vyvodami). *Teploenergetika* No. 6, 60–63 (1962).
- V. V. STEPANOV, A theoretical investigation into heat and mass transfer between a water drop and cooled air (Teoreticheskoe issledovanie teplo-i massoobmena mezhdru kaplei vody i kholodnym vozdukhom). *Trudy Dnepropetrovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 37, 5–19 (1961).
- V. V. STEPANOV, A theoretical investigation into heat and

- mass transfer of a flame of an instrument for freezing ice (Teoreticheskoe issledovanie teplo-i massoobmena fakela ustanovki dlya namorazhivaniya l'da). *Trudy Dnepropetrovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 37, 20-33 (1961).
- V. V. STEPANOV, An experimental investigation into freezing of ice on a trestle-tower (Eksperimental'noe issledovanie namorazhivaniya l'da na estakadegradirne). *Trudy Dnepropetrovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 37, 34-45 (1961).
- V. I. SUBBOTIN, M. KH. IBRAGIMOV and E. V. NOMOFILOV, The measurement of turbulent pulsations of temperature in a liquid flow (Izmerenie turbulentnykh pulsatsii temperatury v potoke zhidkosti). *Teploenergetika* No. 3, 64-67 (1962).
- A. M. SUPONITSKY, On calculation of thermal diffusion in a laminar flow of an incompressible viscous liquid at the large Prandtl numbers (O raschete termicheskoi difuzii v laminarnom potoke neshhimaemoi vyazkoi zhidkosti pri bol'shikh chislakh Prandtlya). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 126-128 (1962).
- S. G. TELETOV, Problems of an experimental set-up and the similarity theory (Voprosy postanovki eksperimentov i teoriiya podobiya). *Trudy Moskovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 139, 44-54 (1961).
- M. P. TETERIN, A decrease in heat transfer with the help of positive pressure gradients (Umen'shenie teploperedachi s pomoshch'yu polozhitel'nykh gradientov davleniya). *Inzhenernyi Zhurnal* 1, vyp. 4, 140-149 (1961).
- K. V. TOPCHIEVA and I. P. PLANOVSKAIA, The extent of gaseous phase mixing in a "boiling layer" as dependent on the rate of flow and the height of the catalyst layer (Izuchenie zavisimosti stepeni peremeshivaniya gazovoi fazy v "kipyashchem sloe" ot skorosti potoka i vysoty sloya katalizatora). *Dokl. Akad. Nauk SSSR* 141, No. 3, 679-682 (1962).
- G. I. URUSHADZE, On the theory of antiferromagnetic thermal conduction at low temperatures (K teorii teploprovodnosti antiferromagnetikov pri nizkikh temperaturakh). *Fizika Tverdogo Tela* 4, vyp. 2, 350-356 (1962).
- I. A. VAKHRUSHEV, YA. A. BOTNIKOV and N. G. ZINCHENKOV, On heat transfer between a fluidized bed of hot coke and a surface of horizontal tubes (Ob teplotdache ot psevdoozhizhennogo sloya goryachego koks k poverkhnosti gorizontallykh trub). *Khim. Prom-st'* No. 11, 45-47 (1961).
- L. K. VASANOVA, YU. N. SHIMANSKY and N. I. SYROMYATNIKOV, Measurement of temperatures in polydisperse media during induction heating (Izmerenie temperatur v polidispersnykh sredakh pri induktsionnom nagreve). *Inzh. Fiz. Zh.* 5, No. 4, 82-85 (1962).
- A. I. VEINIK, The development of the heat theory (Razvitiye teorii teploty). *Vestnik Akad. Nauk SSSR* No. 4, 82-85 (1962).
- A. L. VEREZOMSKAYA and M. F. KAZANSKY, Certain characteristics of the shrinkage of clays of various minerals with drying (Nekotorye osobennosti usadki glin raznykh mineralov pri sushke). *Inzh. Fiz. Zh.* 5, No. 2, 104-107 (1962).
- V. V. VYSHENSKY, A study of convective heat transfer in a cyclone chamber (Izuchenie konvektivnogo teploobmena v tsiklonnoi kamere). *Izv. Akad. Nauk Kazakh. SSR, Ser. Energetika* vyp. 2, 22-31 (1961).
- O. V. YAKOVLEVSKY, Regularities of turbulent mixing of parallel flows in a channel with the constant cross-section (Zakonomernosti turbulentnogo peremeshivaniya soosnykh potokov v kanale s postoyannym poperechnym secheniem). *Inzhenernyi Zhurnal* 1, vyp. 4, 39-50 (1961).
- S. S. ZABRODSKY, The expansion of non-uniform fluidized beds (Rasshirenie neodnorodnykh psevdoozhizhennykh sloev). *Inzh. Fiz. Zh.* 5, No. 5, 48-53 (1962).
- I. F. ZEMSKOV, A. V. STEPANOV, A. V. MELKIKH and V. F. DENISOV, Continuous multistep adsorption in a "fluidized" bed of a solid grained material (Nepreryvnaya mnogostupenchataya adsorbtsiya v "kipyashchem" sloe tverdogo zernistogo materiala). *Trudy po Khim. i Khim. Tekhnologii* vyp. 4, 815-820 (1961).
- A. A. ZENIN, Errors in readings of thermocouples passing through a flame (Ob oshibkakh pokazanii termpar prokhodyashchikh cherez plamy). *Inzh. Fiz. Zh.* 5, No. 5, 68-74 (1962).
- V. S. ZHUKOVSKY, The isothermal flow of gas along pipes (Ob izotermicheskom techenii gaza po trubam). *Inzh. Fiz. Zh.* 5, No. 7, 45-51 (1962).
- E. P. ZIMIN, The effect of Archimedes forces on the liquid flow and heat transfer in the channel formed by rotating co-axial cylinders with the presence of axial liquid motion (Vliyanie arkhimedovykh sil na techenie zhidkosti i teplotdachu v kanale, obrazovannymi vrashchayushchimisya tsilindrami, pri nalichii oseвого dvizheniya zhidkosti). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 123-125 (1962).
- V. N. ZMEIKOV and B. P. USTIMENKO, An investigation into heat transfer to mercury in the transient region under the conditions of the internal problem (Issledovanie teplotdachi k rtuti v perekhodnoi oblasti v usloviyakh vnutrennei zadachi). *Trudy In-ta Energetiki Akad. Nauk Kazakh. SSR* 3, 147-155 (1961).
- L. M. ZYSINA-MOLOZHEN, The calculation of a heat boundary layer in a compressible gas flow (Raschet teplovogo pogranichnogo sloya v potoke szhimaemogo gaza). *Inzh. Fiz. Zh.* 5, No. 6, 21-26 (1962).

HEAT AND MASS TRANSFER WITH PHASE CONVERSIONS

- G. V. ALEKSEYEV, B. A. ZENKEVICH and V. I. SUBBOTIN, An investigation into heat transfer with nucleate water boiling in tubes (Issledovanie teplotdachi pri puzyr'kovom kipenii vody v trubakh). *Teploenergetika* No. 4, 74-77 (1962).
- S. S. BARDASARYAN, A temperature dependence of vapour-formation heat and of surface liquid tension (Temperaturnaya zavisimost' teploty paroobrazovaniya i poverkhnostnogo natyazheniya zhidkostei). *Dokl. Akad. Nauk SSSR* 17, No. 9, 773-777 (1961).
- M. N. BODYAKO and S. A. ASTAPCHIK, The effect of temperature and heating time on the process of

- recrystallization of copper (O vliyaniy temperatury i vremeni nagreva na protsess rekristallizatsii medi). *Inzh. Fiz. Zh.* **5**, No. 5, 61-67 (1962).
- G. N. DANILOVA and V. K. BELSKY, Experimental investigation of heat exchange in boiling Freon-22 (Eksperimental'noe issledovanie teploobmena pri kipenii Freone-22). *Kholodil'naya Tekh.* No. 1, 7-13 (1962).
- I. M. FEDOTKIN and N. YU. TOBULEVICH, Heat transfer with down liquid motion in boiling tubes of vertical evaporators and evaporative apparatuses (Teploobmen pri opusknom dvizhenii zhidkosti v kipyatil'nykh trubakh vertikal'nykh isparitelei i vyparnykh apparatov). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 11, 70-76 (1961).
- V. V. KONSETOV, On heat transfer with vapour condensation inside horizontal tubes (K voprosu o teplootdache pri kondensatsii para vnutri gorizonta'nykh trub). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 12, 68-75 (1961).
- S. S. KUTATELADZE and V. V. KONSETOV, Heat transfer with vapour condensation inside vertical tubes (Teploobmen pri kondensatsii para vnutri vertikal'nykh trub). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 11, 63-69 (1961).
- Z. L. MIROPOL'SKY, Heat transfer with condensation of a high-pressure vapour inside tubes (Teplootdacha pri kondensatsii para vysokogo davleniya vnutri trub). *Teploenergetika* No. 3, 79-83 (1962).
- V. G. MOROZOV, An experimental investigation into the stoppage of film boiling of a liquid over a submerged heating surface (Eksperimental'noe issledovanie prekrashcheniya plenoch'nogo kipeniya zhidkosti na pogruzhennoi poverkhnosti nagreva). *Inzh. Fiz. Zh.* **5**, No. 4, 15-19 (1962).
- S. K. OGORODNIKOV, V. B. KOGAN and A. I. MOROZOVA, On the determination of boiling temperatures of mixtures formed by substances, considerably differing by vapour elasticity (K voprosu ob opredelenii temperatur kipeniya smesei, obrazovannykh veshchestvami, znachitel'no razlichayushchimisya po uprugosti para). *Zh. Prikl. Khim.* **35**, vyp. 1, 193-195 (1962).
- E. M. OGRYZKIN, A thermodynamic analysis of the state of a boiling steel melting bath (Termodinamicheskii analiz sostoyaniya kipiyashchei stale-plavil'noi vannы). *Inzh. Fiz. Zh.* **5**, No. 7, 59-64 (1962).
- A. P. ORNATSKY and A. M. KICHIGIN, Critical heat loads with boiling of underheated water in small-diameter tubes under high pressures (Kriticheskie teploye nagruzki pri kipenii nedogretoi vody v trubakh malogo diametra v oblasti vysokikh davlenii). *Teploenergetika* No. 6, 44-47 (1962).
- YU. N. PIOTTUKH and S. I. SHABANOV, Heat transfer in three-component flow (Teploobmen v usloviyakh trekhkomponentnogo potoka). *Izv. Sibirsk. Otdel. Akad. Nauk SSSR* No. 11, 40-47 (1961).
- A. S. PLESHANOV, Melting of central-symmetrical bodies with the heat flow with entrainment of liquid (Opredelenie tsentral'nosimmetrichnykh tel teplovym potokom pri unose zhidkoi fazy). *Zh. Tekh. Fiz.* **32**, vyp. 1, 101-106 (1962).
- E. M. SHAKOV, On evaporation of a solid absorbing radiant energy (Ob isparenii tverdogo tela, poglashchayushchego luchistuyu energiyu). *Inzhenernyi Zhurnal* **1**, vyp. 4, 27-38 (1961).
- E. M. SHAKHOV, One-dimensional non-stationary heating and melting of a solid with its motion in a gas along its flat surface (Odnomernyy nestatsionarnyy progrev i plavlenie tverdogo tela pri ego dvizhenii v gaze vdol' svoei ploskoi poverkhnosti). *Inzhenernyi Zhurnal* **1**, vyp. 3, 46-59 (1961).
- V. K. SHCHERBAKOV, Heat transfer in circular channels with surface water boiling (Teplootdacha v kol'tsevykh kanalakh pri poverkhnostnom kipenii vody). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 5, 93-100 (1962).
- P. T. SMENKOVSKAYA and K. B. GISINA, The effect of the disposition of a heat source on heat and mass transfer with sublimation in a vacuum (Vliyaniye mestoraspolyazheniya istochnika tepla na teplo-i massoobmen pri sublimatsii v vakuume). *Inzh. Fiz. Zh.* **5**, No. 5, 96-101 (1962).
- N. V. TARASOVA and V. M. ORLOV, An investigation into hydraulic resistance with surface water boiling in a tube (Issledovanie gidravlicheskogo soprotivleniya pri poverkhnostnom kipenii vody v trube). *Teploenergetika* No. 6, 48-52 (1962).
- D. E. TEMKIN, A temperature field in a crystallizing ingot of cylindrical shape (Temperaturnoe pole v kristaliziruyushchemsya slitke tsilindricheskoi formy). *Inzh. Fiz. Zh.* **5**, No. 44, 89-92 (1962).

HEAT AND MASS TRANSFER WITH CHEMICAL CONVERSIONS AND COMBUSTION

- A. F. BELYAEV and G. V. LUKASHENYA, The temperature coefficient of the burning rate of gunpower (O temperaturnom koeffitsiente skorosti goreniya dymnogo porokha). *Zh. Fiz. Khim.* **36**, No. 5, 1050-1053 (1962).
- SH. A. ERSHIN and L. P. YARIN, Aerodynamics of a turbulent diffusion torch in a co-current flow (Aerodinamika turbulentnogo diffuzionnogo fakela v sputnom potoke). *Vestnik Akad. Nauk Kazakh. SSR* No. 4, 46-51 (1962).
- A. M. GURVICH and G. M. PLUDOVSKAYA, Characteristics of combustion and of heat transfer of a dust-coal torch (Kharakteristiki goreniya i teplootdachi pyleugol'nogo fakela). *Teploenergetika* No. 6, 3-9 (1962).
- N. I. IVANOVA and S. V. KUZNETSOVA, An investigation into heat transfer in furnaces of small boilers with gas burning (Issledovanie teploobmena v topkakh malykh parovykh kotlov pri szhiganiy gaza). *Trudy Vses. Nauch.-Issledovat. In-ta Inzh. Fiz. Zh.-d. Transp.* vyp. 228, 45-70 (1962).
- L. N. KHITRIN, M. B. RAVICH and L. L. KOTOVA, A method and results of an investigation into the kinetic combustion characteristics of a dust-like fuel in a flow (Metod i rezul'taty issledovaniya kinicheskikh kharakteristik goreniya pylevidnogo topliva v potoke). *Inzh. Fiz. Zh.* **5**, No. 1, 7-12 (1962).
- N. I. KOBOZEV, The problem of the ordering of energy in chemical thermodynamics I, II (Problema uporyadochennosti i neuporyadochennosti energii v khimi-

- cheskoi termodinamike). *Zh. Fiz. Khim.* **35**, No. 12, 2736-2744 (1962).
- N. I. KOBOZEV, The problem of ordered and disordered energy in chemical thermodynamics III (Problema uporyadchennosti i neuporyadchennosti energii v khimicheskoi termodinamike III). *Zh. Fiz. Khim.* **36**, No. 2, 266-273 (1962).
- N. I. KOBOZEV, Thermodynamic factors in the kinetics of the autocatalytic multiplication of simple and complex prototypes I (Termodinamicheskie faktory v kinetike avtokatalicheskogo razmnozheniya prostykh i slozhnykh prototipov). *Zh. Fiz. Khim.* **36**, No. 1, 21-31 (1962).
- N. I. KOBOZEV, Thermodynamic factors in the kinetics of the autocatalytic multiplication of simple and complex prototype II (Termodinamicheskie faktory v kinetike avtokatalicheskogo razmnozheniya prostykh i slozhnykh prototipov II). *Zh. Fiz. Khim.* **36**, No. 1, 32-41 (1962).
- M. R. KURMANGALIEV, The effect of a location of fuel supply on temperature and concentration fields in a cyclone chamber (Vliyanie mesta vvoda topliva na polya temperatur i kontsentratsii v tsiklonnoi kamere). *Izv. Akad. Nauk Kazakh. SSR, Ser. Energetika* vyp. 2, 37-45 (1961).
- NEMET ANDRASH, A study of the upper combustion limit of carbon gases as affected by pressure changes (Izuchenie verkhnego predela goryuchesti uglevodorodnykh gazov pri izmenenii davleniya). *Inzh. Fiz. Zh.* **5**, No. 1, 27-32 (1962).
- L. A. NIKOLAEV, Thermodynamics of irreversible processes and problems of biogenesis (Termodinamika neobratimnykh protsessov i problemy biogeneza). *Zh. Fiz. Khim.* **36**, No. 1, 3-14 (1962).
- V. S. PELEVIN, The change in the length of a combustion zone of a homogeneous mixture in a turbulent flow as a function of pressure (Izmenenie dliny zony goreniiya gomogennoi smesi v turbulentsnom potoke v zavisimosti ot davleniya). *Inzh. Fiz. Zh.* **5**, No. 6, 3-7 (1962).
- V. P. POPOV, An aerodynamic investigation of the combustion chamber of furnaces with nozzles (Aerodinamicheskoe issledovanie kamer sgoraniya topok s nasadkoi). *Inzh. Fiz. Zh.* **5**, No. 3, 39-44 (1962).
- V. I. SKOBELKIN, The relaxation oscillations theory for burning in camera (Teoriya relaksatsionnykh kolebanii pri gorenii v kamere). *Zh. Tekh. Fiz.* **32**, vyp. 3, 346-355 (1962).
- YU. P. SOSIN, Problems of the theory of water heating in immediate contact with high-temperature products of gas combustion (Voprosu teorii nagreva vody pri neposredstvennom kontakte s vysokotemperaturnymi produktami sgoraniya gaza). *Gazovaya Prom-st'* No. 3, 17-24 (1962).
- V. P. STULOV, Heat transfer in a laminar boundary layer on a plate accounting for chemical non-uniformity (Teplootdacha v laminarnom pogranichnom sloe na plastine s uchetom khimicheskoi neravnomernosti). *Izv. Akad. Nauk SSSR, Otdel. Tekh. Nauk i Mashin.* No. 6, 11-14 (1961).
- YU. B. SMIRNOV, A combustion mechanism of pulverized fuel (Mekhanizm sgoraniya raspylennogo topliva). *Trudy Khar'kovsk. In-ta Inzh. Zh.-d. Transp.* vyp. 46, 12-29 (1961).
- E. P. VAULIN and N. N. GVOZDIKOV, The diffusion thermal shielding of a porous plate in gas dynamical flow by leakage of liquid and physical-chemistry reactions in laminar boundary layer (O diffuzionnoi teplozashchite poristo plastiny v gazodinamicheskom potoke prosachivaniem zhidkosti i fiziko-khimicheskimi reaktsiyami v laminarnom pogranichnom sloe). *Zh. Tekh. Fiz.* **32**, vyp. 2, 239-247 (1962).
- V. I. YAGODKIN, The gas flow with combustion in tubes with porous walls (Technie gaza pri gorenii v trubakh s poristymi stenkami). *Inzhenernyi Zhurnal* **1**, vyp. 3, 165-169 (1961).
- L. P. YARIN, Heat combustion conditions of non-mixed gases (Teplovoi rezhim goreniiya neperemeshannykh gazov). *Izv. Akad. Nauk Kazakh. SSR, Ser. Energetika* vyp. 1, 47-55 (1961).
- I. A. ZOTIKOV and L. N. BRONSKY, An experimental study of heat transfer during melting of metal and during feed of molten metal through a porous wall in a supersonic flow (Eksperimental'noe izuchenie teploobmena pri oplavlenii metalla i pri podache raspavlenogo metalla cherez poristuyu stenu k sverkhzvukovom potoke). *Inzh. Fiz. Zh.* **5**, No. 4, 10-14 (1962).

HEAT AND MASS TRANSFER IN DRYING PROCESSES

- G. F. DEGTEV and V. V. SAVICH, Drying of coloured metal articles with the application of gas heating (Sushka okrashennykh metallicheskikh izdelii s primeneniem gazovogo obogreva). *Gazovaya Prom-st'* No. 3, 33-35 (1962).
- V. F. FROLOV and P. G. ROMANKOV, On time of stay of a grained material in the apparatus with a fluidized bed (K voprosu o vremeni prebyvaniya zernistogo materiala v apparate s kipyashchem sloem). *Zh. Prikl. Khim.* **35**, vyp. 1, 80-89 (1962).
- A. S. GINZBURG and V. A. REZCHIKOV, The basic aerodynamic and structural characteristics of a fluidized bed of grain (Osnovnye aerodinamicheskie i strukturnye kharakteristiki psevdoozhizhennogo sloya zerna). *Inzh. Fiz. Zh.* **5**, No. 5, 55-60 (1962).
- V. V. KRASNIKOV and V. A. DANILOV, The local intensity of mass transfer with composite drying (Lokal'nye intensivnosti massoobmena pri kombinirovannoi sushke). *Inzh. Fiz. Zh.* **5**, No. 7, 39-44 (1962).
- V. A. KULYASOV, Thermal drying of coal in the U.S.A. (Termicheskaya suska uglya v S.Sh.A.). *Koks i Khim.* No. 2, 58-61 (1962).
- G. I. KUZHMAN and S. N. NOVICHKOV, An investigation into the process of drying and moistening small peat pieces (Issledovanie protsessa sushki i uvlazhneniya melkokuskovogo torfa). *Inzh. Fiz. Zh.* **5**, No. 3, 33-38 (1962).
- S. P. KUZNETSOV, Productive capacity of tubular driers depending of the coal amount in them (Proizvoditel'

- nost' trubchatykh sushilok v zavisimosti ot stepeni zapolneniya ikh uglem). *Ugol'* No. 5, 48-52 (1962).
- A. E. LEMPERT, Modernization of a ribbon dryer (Modernizatsiya lentochnoi sushilki). *Khim. Mashin.* No. 2, 37-38 (1962).
- L. N. LYUBARSKY, A. A. RYBKINA and A. P. ORDIN, Peculiarities of grain drying in vacuum (Osobennosti sushki zerna v usloviyakh vakuuma). *Trudy Vses. Nauch.-Issledovat. In-ta Zerna i Produktov ego Pere-rabotki* vyp. 40, 27-40 (1961).
- YU. A. OLENEV, Freeze drying of food stuffs (Sublimatsionnaya sushka produktov). *Kholodil'naya Tekh.* No. 1, 64-67 (1962).
- N. B. RASHKOVSKAYA and P. G. ROMANKOV, A new method for drying of paste-like materials (in a boiling layer) [Novyi metod sushki pastoobraznykh materialov (v kipyashchem sloe)]. *Trudy po Khim. i Khim. Technolog.* vyp. 4, 899-904 (1961).
- F. A. ROZENTAL', An investigation into a sorption process of moisture fumes by means of silica gel with air drying (Issledovanie protsessy sorptsii parov vlagi silikagelem pri sushke vozdukh). *Trudy Vses. Nauch.- Issledovat. Kinofoto In-ta* vyp. 45, 57-76 (1962).
- L. I. SAFRONOV, N. B. RASHKOVSKAYA and V. N. SOKOLOV, Drying in an air dryer (Sushka v aerofontannoi sushilke). *Trudy Leningrad. Technolog. In-ta imeni Lenseveta* vyp. 59, 77-80 (1961).
- B. S. SAZHIN, Principal factors determining the process of drying of chemical products in air dryers (Ob osnovnykh faktorakh opredelyayushchikh protsess sushki khimicheskikh produktov v aerofontannykh sushkakh). *Inzh. Fiz. Zh.* 5, No. 2, 19-23 (1962).
- N. A. SHAKHOVA, A. I. RYCHKOV and E. V. DMITRENKO, An investigation into drying of crystal ammonium bicarbonate in a fluidized bed (Issledovanie sushki kristalicheskogo bikarbonata ammoniya v psevdoozhizhennom sloe). *Khim. Prom-sti'* No. 11, 41-44 (1961).
- SHI YAN-FU, P. G. ROMANKOV and N. B. RASHKOVSKAYA, An investigation into a drying process in a fluidized bed (Issledovanie protsessy sushki v kipyashchem sloe). *Zh. Prikl. Khim.* 35, vyp. 3, 530-536 (1962).
- A. P. TISHCHENKO, Drying of candied fruit jelly-pastila by infra-red rays (Sushka marmeladno-pastil'nykh izdelii infrakrasnymi luchami). *Trudy Belorusk. Nauch.-Issledovat. In-ta Prom-sti Prod. Tovarov* vyp. 4, 77-81 (1961).
- M. I. VERBA, B. I. LEONCHIK and L. L. PAVLOVSKY, The determination of optimum drying conditions of vanish-colour coatings (Opredelenie optimal'nykh rezhimov lako-krasochnykh pokrytii). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 3, 76-80 (1962).
- V. V. YASNOPOL'SKY, An investigation into a control system of moisture of brown coal in a steam tubular dryer (Issledovanie sistemy avtomaticheskogo regulirovaniya vlazhnosti burogo uglya v parovoi trubchatoi sushilke). *Avtomatizatsiya i Priborostroyeniye In-ta Avtomatiki Gosplana Ukrainian SSR* vyp. 2, 78-87 (1961).
- HEAT AND MASS TRANSFER IN THE PRODUCTION OF BUILDING MATERIALS AND CONSTRUCTIONS**
- G. N. DANILOVA and N. A. BUCHKO, A method of calculating the temperature field and average temperature in the laying of blocks in large concrete structures (Metod rascheta temperaturnogo polya i sredneob'emnoi temperatury pri kladke blokov massivnykh betonnykh sooruzhenii). *Inzh. Fiz. Zh.* 5, No. 1, 92-95 (1962).
- L. I. GINZBURG, A change in mean volume temperatures in rooms with excess heat transfer in a non-stationary ventilation process (Izmenenie sredneob'emnoi temperatury v pomeshcheniyakh s izbytochnoi teploot-dachei pri neustanovivshemysya protsesse ventilyatsii). *Vodosnabzhenie i San. Tekh.* No. 4, 26-27 (1962).
- K. E. GORYAINOV and E. S. VEKSLER, Heat and mass transfer with heating of hardening concrete (K voprosu teplo-i massoobmena pri nagreve tverdeyushchego betona). *Inzh. Fiz. Zh.* 5, No. 4, 47-51 (1962).
- B. V. SPEKTOR, V. I. RYAZANTSEV and G. A. KAZACHENKO, An automatic instrument for determining the heat conduction coefficient of building and thermally insulated materials (Avtomaticheskii pribor dlya opredeleniya koeffitsienta teploprovodnosti stroitel'nykh i teploizolyatsionnykh materialov). *Zavodsk. Lab.* 28, No. 1, 104-105 (1962).
- THERMOPHYSICAL PROPERTIES OF VARIOUS MATERIALS, HEAT AGENTS AND THE METHODS OF THEIR DETERMINATION**
- G. V. ABDULAEV *et al.*, On heat conduction of sulphide, selenide and telluride of antimony (O teploprovodnosti sul'fida, selenida i tellurida sur'my). *Izv. Akad. Nauk. Azerbaidzhan. SSR* No. 5, 55-63 (1961).
- S. G. AGABAKOV, A method for measuring the emissivity coefficient of solids over a temperature range from 100 to 500°C (Metod izmereniya koeffitsienta chernoty tverdykh tel v interval'e temperatur 100-500°C). *Teploenergetika* No. 3, 71-72 (1962).
- B. D. ALIEV, G. M. ALIEV and I. G. KERIMOV, The effect of a gallium admixture and temperature on heat conduction of amorphous and crystalline selenium (Vliyanie primesi galliya i temperatury na teploprovodnost' amorfnoy i kristallicheskogo selena). *Izv. Akad. Nauk. Azerbaidzhan. SSR, Ser. Fiz. Mat. i Tekh. Nauk* No. 5, 39-43 (1961).
- A. I. ANDRIEVSKY, E. N. DIMAROVA and M. M. PIDORYA, On thermal conductivity of Cu₂O mono- and polycrystals (O teploprovodnosti mono kristalov i polikristalov zakisi medi). *Fizika Tverdogo Tela* 4, vyp. 1, 163-167 (1962).
- KH. I. AMIRKHANOV and A. M. KERIMOV, An experimental investigation into heat capacity of water and water vapour at temperatures from 50 to 450°C and at pressures from 1 to 1000 kg/cm³ (Eksperimental'noe issledovanie teploemkosti vody i vodyanogo para pri temperaturakh ot 50 do 450°C i davleniyakh ot 1 do 1000 kg/cm²). *Teploenergetika* No. 6, 72-78 (1962).

- G. K. AVDEEV, Simplified calculation methods of thermal physical coefficients of materials (Uproshchennye metody rascheta teplofizicheskikh materialov). *Izv. Vyssh. Ucheb. Zav. Priborostroyeniye* No. 1, 128–135 (1962).
- V. O. FOGEL' and P. G. ALEKSEEV, A new method of complex determination of thermophysical characteristics of polymeric materials and their dependence on external-medium parameters (Temperature and pressure). (Novyi metod kompleksnogo opdeleniya teplofizicheskikh materialov i ikh zavisimosti ot parametrov vneshnei sredy—temperatury i davleniya). *Inzh. Fiz. Zh.* 5, No. 2, 35–41 (1962).
- YU. A. KIRICHENKO, Method and instrument for measuring thermal diffusion coefficient by temperature waves (Metod i apparatura dlya izmereniya koeffitsienta temperaturoprovodnosti s pomoshch'yu temperaturnykh voln). *Trudy Komiteta Standartov, Mer i Izmerit Priborov* vyp. 51, 138–157 (1961).
- YU. A. KIRICHENKO, Regularization of heat conditions of an infinite cylinder placed in a medium with periodically changing temperature (Regulyarizatsiya teplovogo rezhima neogranichennogo tsilindra, pomeshchennogo v sredu s periodicheski izmenyayushcheyu temperaturoi). *Trudy Komiteta Standartov, Mer i Izmerit Priborov* vyp. 51, 158–166 (1961).
- V. A. KIRILLIN, A. E. SHEINDLIN and V. YA. CHEKHOVSKOI, Thermodynamic properties of tungsten over a temperature range from 0 to 2400°C (Termodinamicheskie svoystva vol'frama v intervale temperatur 0–2400°C). *Teploenergetika* No. 2, 63–66 (1962).
- A. G. KHARLAMOV, An instrument for measuring heat conduction of materials under compressible load being controlled (Pribor dlya izmereniya teploprovodnosti materilov v usloviyakh kontroliruemoi szhimayushchei nagruzki). *Teploenergetika* No. 1, 91–92 (1962).
- E. M. KRAVCHUK, The determination of thermophysical coefficients according to the regular-regime methods of the third kind (K voprosu ob opredelenii teplofizicheskikh koeffitsientov po metodam regul'yarnogo rezhima tret'ego roda). *Inzh. Fiz. Zh.* 5, No. 1, 59–63 (1962).
- L. S. KOTOUSOV, Connection between the thermo-diffusion coefficient and thermodynamic properties of binary mixtures II (K voprosu o svyazi koeffitsienta termodiffuzii s termodinamicheskimi svoystvami binarnykh smesei II). *Zh. Tekh. Fiz.* 32, vyp. 2, 224–230 (1962).
- O. D. LAGUTKIN and G. P. VERKHIVKER, Thermodynamic properties of sulphur hexafluoride in a wide range of pressures and temperatures (Termodinamicheskie svoystva shestifloristoi sery v shirokom diapazone davlenii i temperatur). *Kholodil'naiia Tekh.* No. 1, 24–29 (1962).
- I. S. LISKER, A non-stationary method of measuring thermoelectric and thermophysical characteristics of semiconductors (Nestatsionarnyi metod izmereniya termoelektricheskikh i teplofizicheskikh kharakteristik poluprovodnikovykh materialov). *Inzh. Fiz. Zh.* 5, No. 3, 58–65 (1962).
- S. N. L'VOV, V. F. NEMCHENKO and G. V. SAMSONOV, Heat conduction of infusible borides, carbides and nitrides (Teploprovodnost' tugoplavkikh boridov, karbidov i nitridov). *Poroshkovaya Metallurgiya* No. 6, 70–74 (1961).
- V. E. MIKRYUKOV and N. M. SPERANSKY, Heat conduction and specific electrical resistance of nickel-zinc ferrites (Teploprovodnost' i udel'noe elektrosoprotivlenie nikel'-tsinkovykh ferritov). *Inzh. Fiz. Zh.* No. 6, 38–42 (1962).
- I. I. NOVIKOV and YU. S. TREMIN, A new method of plotting of thermodynamic diagrams of working media (Novyi metod postroyeniya termodinamicheskikh diagram rabochikh veshchestv). *Teploenergetika* No. 2, 79–85 (1962).
- G. I. PAVLOVSKY, Heat conduction in a two-layered plate under boundary conditions of the third kind (Teploprovodnost' v dvukhsloinoi plastine pri granichnykh usloviyakh tret'ego roda). *Inzh. Fiz. Zh.* 5, No. 4, 86–88 (1962).
- P. G. POLETAVKIN, Hydraulic resistance with boiling of water heated up to saturation temperature (Gidravlicheskoe soprotivlenie pri kipenii vody nagretoi do temperatury nasyshcheniya). *Teploenergetika* No. 4, 80–83 (1962).
- P. I. POVARNIN, Calculation of some physical parameters of a heat agent by the thermodynamic similarity method (Raschet nekotorykh fizicheskikh parametrov teplonositelya metodom termodinamicheskogo podobiya). *Teploenergetika* No. 6, 52–57 (1962).
- Z. V. PROSHINA and T. N. REZUKHINA, Heat capacity of Ni_4W at high temperatures (Teploprovodnost' Ni_4W pri vysokikh temperaturakh). *Zh. Fiz. Khim.* 36, No. 1, 153–155 (1962).
- V. V. PUSTOVALOV, Heat conduction of fire-resistant powders and sintered ceramics (Teploprovodnost' ognepornykh poroshkov i spechennoi keramiki). *Steklo i Keramika* No. 12, 17–19 (1961).
- G. B. RAVIN and YU. N. BURTSSEV, Heat conduction of 2,4,6-trinitrotoluene in solid and liquid states (Teploprovodnost' 2,4,6-trinitrotoluola v tverdom i zhidkom sostoyaniyakh). *Izv. Akad. Nauk SSSR, Otdel. Khim. Nauk* No. 11, 2091–2092 (1961).
- B. S. SAZHIN, The basic factors governing the process of drying of paste-like materials under the conditions existing in ribbon dryers (Ob osnovnykh faktorakh, opredelyayushchikh protsess sushki pastoobraznykh materialov v usloviyakh val'tselentochnykh sushilok). *Inzh. Fiz. Zh.* 5, No. 6, 8–13 (1962).
- V. K. SEMENCHENKO, On the thermodynamics of protoplasma (K termodinamike protoplazmy). *Zh. Fiz. Khim.* 36, No. 1, 15–20 (1962).
- V. V. SHAPOVALOV, The effect of the fluctuating character of the thermal diffusivity of ground on its temperature (Vliyaniye peremennogo kharaktera koeffitsienta temperaturoprovodnosti pochvy na ee temperaturu). *Inzh. Fiz. Zh.* 5, No. 1, 64–71 (1962).
- E. E. SHPILRAIN and E. I. ASIMOVSKY, The calculation of latent heat of vaporization of alkali metals (K raschetu skrytoi teploty paroobrazovaniya shchelochnykh metallov). *Inzh. Fiz. Zh.* 5, No. 4, 35–40 (1962).

- V. I. SMEKALIN, A method of rapid determination of thermal diffusivity and heat conduction of non-current conducting materials (Metod uskorennoogo opredeleniya koeffitsientov temperaturno-i teploprovodnosti netokoprovodyashchikh materialov). *Inzh. Fiz. Zh.* 5, No. 1, 99-101 (1962).
- A. S. TROFIMOV, Heat conduction of multilayered heat emitting elements (Teploprovodnost' mnogosloynnykh teplovydelyayushchikh elementov). *Inzh. Fiz. Zh.* 5, No. 4, 93-96 (1962).
- D. S. TSIKLIS, A. I. KULIKOVA and L. I. SHENDEREI, Calculation of thermal dynamic properties of gas solutions of water in ethylene and plotting of heat diagrams (Raschet termodinamicheskikh svoystv gazovykh rastvorov vody v etilene i postroenie teplovykh diagram). *Khim. Prom-st'* No. 1, 52-58 (1962).
- M. P. VUKALOVICH and R. I. ARTYM, Calculation of thermodynamic functions of polyatomic gases (Vychislenie termodinamicheskikh funktsii mnogoatomnykh gazov). *Teploenergetika* No. 6, 63-68 (1962).
- M. P. VUKALOVICH, V. V. ALTUNIN and N. I. TIMOSHENKO, An experimental investigation into specific volumes of dioxide carbon at temperatures 200-750°C and pressure up to 600 kg/cm² (Eksperimental'noe issledovanie udel'nykh ob'emov dvyokisi ugleroda pri temperature 200-750°C i davlenii do 600 kg/cm²). *Teploenergetika* No. 5, 56-62 (1962).
- M. P. VUKALOVICH, V. N. ZUBAREV and P. G. PRUSAKOV, An experimental investigation into enthalpy of water vapour (Eksperimental'noe issledovanie ental'pii vodyanogo para). *Teploenergetika* No. 3, 56-63 (1962).
- M. P. VUKALOVICH, V. N. ZUBAREV and A. A. ALEKSANDROV, An experimental determination of specific volumes of water vapour at temperature from 700 to 900°C and pressure up to 1200 kg/cm² (Eksperimental'noe opredelenie udel'nykh ob'emov vodyanogo para pri temperature 700-900°C i davlenii do 1200 kg/cm²). *Teploenergetika* No. 1, 49-51 (1962).
- V. L. ZAKHAROV, An investigation into heat conduction of moist air (Issledovanie teploprovodnosti vlazhnogo vozdukh). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 5, 104-110 (1962).
- PHYSICS OF HIGH TEMPERATURE PROCESSES AND MAGNETIC HYDRODYNAMICS**
- E. I. ANDRIANKIN, On the effect of a magnetic field on a boundary layer in plasma with account for diffusion (O vliyanii magnitnogo polya na pogranichnyi sloi v plazme s uchedom diffuzii). *Trudy Moskovsk. Fiz.-Tekh. In-ta* vyp. 8, 119-130 (1962).
- E. I. ANDRIANKIN, On generation of electric current when plasma flows over a tube (O generirovani elektricheskogo toka pri techenii plazmy po trubee). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 7-13 (1962).
- A. I. ANISIMOV and N. I. VINOGRADOV, Experimental determination of the frequency of electron collisions in a dense plasma (Eksperimental'noe opredelenie chastoty stolknovenii elektronov v plotnoi plazme). *Zh. Tekh. Fiz.* 32, vyp. 3, 308-312 (1962).
- V. G. BARJAKHTAR and M. I. KAGANOV, Homogeneous and non-homogeneous resonances in plasma (Odnorodny i neodnorodny rezonansy v plazme). *Zh. Tekh. Fiz.* 32, vyp. 5, 554-558 (1962).
- L. S. BOGDANKEVICH and A. A. RUKHADZE, Electromagnetic waves in plasma in the region of ion cyclotron resonance (Ob elektromagnitnykh volnakh v plazme v oblasti ionnogo tsiklotronnogo rezonansa). *Zh. Tekh. Fiz.* 32, vyp. 3, 322-328 (1962).
- G. YU. DAUTOV, One-dimensional stationary motion of plasma in a channel with external transverse magnetic field and resistance (Odnomernoe ustanovivshesya dvizhenie plazmy v kanale s vneshnim poperechnym magnitnym polem i soprotivleniem). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 5-11 (1962).
- V. S. IMSHENNIK, On structure of shock waves in high-temperature dense plasma (O strukture udarnykh voln v vysokotemperaturnoi plotnoi plazme). *Zh. Eksp. i Teor. Fiz.* 42, vyp. 1, 236-246 (1962).
- A. A. HLAZOV, Automodulation of a spiral electron beam moving through the plasma in magnetic field (Ob avtomodulyatsii spiral'nogo elektronnoogo puchka, dvizhushchegosya cherez plazmu v magnitnom pole). *Zh. Tekh. Fiz.* 32, vyp. 5, 575-578 (1962).
- V. A. GOLUBEV, On calculation of a turbulent jet with very high temperature (K voprosu rascheta turbulentnoi strui s ochen' vysokoi temperaturoi). *Inzhenernyi Zhurnal* 1, vyp. 4, 51-58 (1961).
- D. P. GOKHSHEIN, A thermodynamic analysis of a heat diagram of a magnetic hydrodynamic generator (Termodinamicheskii analiz teplovoi skhemy magnitogidrodinamicheskogo generatora). *Teploenergetika* No. 3, 51-56 (1962).
- A. A. KALMYKOV, V. I. TERESHIN, S. A. TRUBCHANINOV and B. G. SAFRONOV, The interaction between plasma clots and space-periodical magnetic field (Vzaimodeistvie plazmennyykh sgustkov s prostranstvennoperiodicheskim magnitnym polem). *Zh. Tekh. Fiz.* 32, vyp. 5, 579-583 (1962).
- A. B. KITSENKO and K. N. STEPANOV, The excitation of magnetic-sound waves in rarefied plasma by the flow of charged particles (O vzbuzhdenii magnitnozvukovykh voln v razrezhennoi plazme potokom zaryazhennykh chastits). *Zh. Tekh. Fiz.* 32, vyp. 3, 303-307 (1962).
- M. S. KOVNER, On the generation of waves in the endless unequilibrium plasma (K voprosu o vzbuzhdenii voln v neogranichennoi neravnovesnoi plazme). *Zh. Tekh. Fiz.* 32, vyp. 2, 145-155 (1962).
- N. N. KOMAROV and V. M. FADEEV, Investigation of plasma stationary states for kinetics approximation (Issledovanie statsionarnykh sostoyanii plazmy v kineticheskom priblizhenii). *Zh. Tekh. Fiz.* 32, vyp. 2, 133-138 (1962).
- E. I. KUZNETSOV and E. P. VELIKOV, The international conference on plasma physics and controlled thermonuclear reactions (Mezhdunarodnaya konferentsiya po fizike plazmy i upravlyаемym termoyadernym reaktivam). *Atomnaya Energiya* 12, vyp. 12, 101-110 (1962).
- A. D. PATARAYA and D. G. LOMINADZE, Excitation of magneto-hydrodynamic waves in anisotropic plasma (Vzbuzhdenie magnitogidrodinamicheskikh voln v

- anizotropnoi plazme). *Zh. Tekh. Fiz.* **32**, vyp. 1, 44–47 (1962).
- A. D. PATARAYA, The propagation of non-linear oscillation along a magnetic field in plasma I (Rasprostranenie nelineinykh kolebaniy plazmy vdol' magnitnogo polya I). *Zh. Tekh. Fiz.* **32**, vyp. 2, 139–144 (1962).
- A. D. PATARAYA, The distribution of non-linear plasma oscillations along magnetic field II (Rasprostranenie nelineinykh kolebaniy plazmy vdol' magnitnogo polya II). *Zh. Tekh. Fiz.* **32**, vyp. 5, 584–588 (1962).
- S. A. REGIRER, Magnetic hydrodynamic problems on stationary convection in vertical channels (Magnitogidrodinamicheskie zadachi ob ustanovivsheysya konveksii v vertikal'nykh kanalakh). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 15–19 (1962).
- A. G. RYABININ and A. I. KHOZHAINOV, Stationary laminar flow of conducting fluid through the rectangular pipe under action of ponderomotor forces (Ustanovivsheysya laminarnoe techenie elektroprovodyashei zhidkosti v pryamougol'noi trube pod deistviem ponderomotornykh sil). *Zh. Tekh. Fiz.* **32**, vyp. 1, 15–21 (1962).
- V. M. SARYCHEV, On isothermal acceleration of a one-dimensional plasma flow in external transverse uniform magnetic and electric fields (Ob izotermicheskom uskorenii odnomernogo potoka plazmy vo vneshnikh poperechnykh odnomernom magnitnom i elektricheskoy polyakh). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 1, 12–14 (1962).
- V. M. SARYCHEV, Transformation of kinetic energy of a stationary plasma flow into electric with its isothermal deceleration in a magnetic cross field (Preobrazovanie kineticheskoy energii statsionarnogo potoka plazmy v elektricheskuyu pri izotermicheskom tormozhenii ego v poperechnom magnitnom pole). *Zh. Prikl. Mekh. i Tekh. Fiz.* No. 2, 3–6 (1962).
- A. E. STEFANOVICH, Instability of anisotropic plasma (K voprosu o neustoichivosti anizotropnoi plazmy). *Zh. Tekh. Fiz.* **32**, vyp. 5, 638–640 (1962).

HEAT AND MASS TRANSFER IN NUCLEAR REACTORS

- A. V. ANTONOV, B. V. GRANATKIN, YU. A. MERKUL'EV and CH. K. SMOLIK, Pulse measurements on neutron diffusion and thermalization in water and ice over a wide range of temperatures (Issledovanie diffuzii i termalizatsii neutronov v vode i vo l'du s pomosh'yu impul'snogo metoda v shirokom diapozone temperatura). *Atomnaya Energiya* **12**, vyp. 1, 22–23 (1962).
- B. R. BERGEL'SON, On calculation of non-stationary thermophysical and hydrodynamic processes in boiling reactors (K raschetu nestatsionarnykh teplofizicheskikh i gidrodinamicheskikh protsessov v kipyashchikh reaktorakh). *Teploenergetika* No. 1, 44–48 (1962).
- E. D. MAL'TSEV, F. P. YUDIN, V. S. SHAMIN and P. F. DOLGIKH, Heat factor in the problem of the liquid radioactive wastes disposal in deep formations (Teplovoi faktor v probleme udaleniya zhidkikh radioaktivnykh otkhodov v nedra). *Atomnaya Energiya* **12**, vyp. 1, 36–39 (1962).
- T. KH. MARGULOVA, On heating of vapour at atomic power stations (O peregreve para na atomnykh elektrostantsiyakh). *Teploenergetika* No. 6, 39–41 (1961).
- V. S. MILLER, Peculiarities of contact heat transfer in fuel elements of a reactor (Osobennosti kontaktnogo teploobmena v teplovydelyayushchikh elementakh reaktora). *Izv. Vyssh. Ucheb. Zav. Energetika* No. 3, 67–70 (1962).
- N. N. PONOMAREV-STEPNOI, Profiling of a thermal load along the length of a reactor channel taking into account irregularities of heating of a heat agent (Profilirovanie teplovoi nagruzki po dline kanal'nogo reaktora s uchetom neravnomernosti podagreva teplonositelya). *Inzh. Fiz. Zh.* **5**, No. 2, 42–46 (1962).