

Table of Contents

SAMUILOV, E.V. Effect of spherical conducting foreign particles on the electrical conductivity of gases	1
ROZHDESTVENSKII, I.B., V.P. SHEVELEV, and K.K. OLEVINSKII. Calculation of the composition and thermodynamic functions of general reacting gaseous systems	14
ROZHDESTVENSKII, I.B., K.K. OLEVINSKII, and V.P. SHEVELEV. Thermo-dynamic functions of the combustion products of the system liquid ethyl alcohol—gaseous oxygen	23
TSITELAURI, N.N. Interaction potential of CO molecules	28
GVOZDEVA, L.G. and O.A. PREDVODITELEVA. Parameters of carbon dioxide and nitrogen behind shock waves interacting with a wedge . .	33
NIKOLAEV, G.N. and V.P. POPOV. Nonequilibrium expansion of air in supersonic nozzles	51
NABOKO, I.M. and R.G. NEMKOV. Study of the flow state behind a shock front by means of frame-scan photography	59
NEMKOV, R.G. Effective profile of the Mach line in a relaxing gas	64
POLYAKOV, Yu.A. Shock-tube study of the stagnation-point heat exchange of a blunt body	71
KON'KOV, A.A., A.P. RYAZIN, and V.S. RUDNEV. Experimental study of the spectral properties of air at high temperatures	79
PLASTININ, Yu.A. Spectroscopic investigations of the emission of hot nitrogen	90
BASHILOV, V.A. and V.P. SHEVELEV. Flow structure of ionized gas in an electromagnetic shock tube	98
BASHILOV, V.A. Electron concentration behind a shock front and in a gas-discharge plasma in a magnetohydrodynamic shock tube	105
BAZHENOVA, T.V. and Yu.S. LOBASTOV. Rate of thermal ionization of nitrogen at 3000—5000°K	108
PETROVA, G.P. and E.K. CHEKALIN. Argon plasma flow in a channel with a transverse magnetic field	112
CHEKALIN, E.K. and V.S. SHUMANOV. Radiation of an exploding wire in vacuum	118
CHEKALIN, E.K. and V.S. SHUMANOV. Electric characteristics of an exploding wire in vacuum	122

VYGOVSKII, V.F., E.K.CHEKALIN, and V.S.SHUMANOV. Deformation of solids by an exploding wire	127
PREDVODITELEV, A.S. Ignition theory of two-phase mixtures	129
PREDVODITELEV, A.S. Ignition conditions in combustible gas mixtures . . .	137
SALAMANDRA, G.D. Vibrational flame propagation in a tube	148
SALAMANDRA, G.D. Obtaining color Schlieren photographs of rapid processes using the IAB-451 instrument	153
FEDOSEEVA, N.K. Apparatus for projecting stills	157
ZAITSEV, S.G., E.V.LAZAREVA, and E.I.CHEBOTAREVA. The boundary layer behind a shock wave in argon and nitrogen	160
NEMKOV, R.G. A delay circuit for triggering shock-tube recording instruments, automatically controlled by the shock-wave velocity .	171
GUSEV, M.V., V.A.GORDYUSHIN, and V.D.LOBANOV. Pulse counting chronometer for shock-velocity measurements	175
GUSEV, M.V., V.D.LOBANOV, and V.A.GORDYUSHIN. An instrument for controlling the high-speed photorecording of the phases of a process	180
EROSHENKO, V.M., A.V.MORAR, and Yu.N.TERENT'EV. Front nature of the reaction surface with the medium	183
EROSHENKO, V.M. and Yu.N.TERENT'EV. The sublimation of solids in a supersonic stream	196
VORONTSOV, Yu.N., V.M.EROSHENKO, A.V.MORAR, and Yu.N.TERENT'EV. A method for visualizing isothermal surfaces	205