

Heat transfer bibliography—Japanese works

YASUO MORI

Department of Mechanical Engineering, The University of Electro-Communications,
Tokyo 182, Japan

and

RYOZO ECHIGO

Department of Mechanical Engineering, Tokyo Institute of Technology, Tokyo 152, Japan

APPLICATION AND OUTLOOK

Y. Eguchi, G. Yagawa and Y. Miyauchi, Development of computer code for axisymmetric and three-dimensional thermal convection analyses using penalty finite elements, *J. Atom. Energy Soc. Japan* **26**(1), 75 (1984).
T. Fujita and S. Tezuka, Calculations on thermal performance capability of mechanical draft cooling towers, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1521 (1983).
T. Fujita and S. Tezuka, Simplified methods of calculating cooling tower coefficients, *Refrigeration* **58**(668), 541 (1983).
M. Hasatani, Recent progresses of solar collectors and concentrators, *Kagaku Kogaku (J. Chem. Engng)* **47**(10), 625 (1983).
M. Hattori and M. Hirai, Plate heat exchangers, *Kagaku Kogaku (J. Chem. Engng)* **47**(4), 253 (1983).
J. Koh and K. Itagaki, Thermodynamic investigation of the liquid Pb-S binary system by using a drop-calorimeter, *Bull. Res. Inst. Mineral Dressing Met., Tohoku Univ.* **39**(1), 37 (1983).
N. Matsui, S. Mizuno, K. Akagawa, H. Kutsuna, K. Ito, T. Kato and M. Hanagai, Study on greenhouse heating by long-term storage of solar energy under ground, *Mem. Grad. School Sci. Tech. Kobe Univ.* No. 1-B, 1 (1983).
H. Matsuki, K. Murakami and H. Niizuma, Soft heating method for stereotaxic operations in neurosurgery, *Tech. Rep. Tohoku Univ. (English)* **48**(2), 173 (1983).
F. Matsuoka, Dynamic characteristics of a refrigerating cycle, *Refrigeration* **59**(676), 109 (1984).
H. Matsushima, W. Nakamura, T. Daikoku and Y. Osawa, Shell-side single-phase flows and heat transfer in shell-and-tube heat exchangers (1st report, Experimental study on local heat transfer coefficients), *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 550 (1984).
Y. Mori, Forefront and prospects of thermal engineering, *J. Japan Soc. Mech. Engrs* **87**(782), 34 (1984).
A. Saito, Y. Utaka, M. Ishida, Y. Saito and K. Katayama, Transient characteristics of flat-plate solar collector (2nd report, Estimation method of outlet water temperature amplitude and efficiency under periodic intensity variation), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2427 (1983).
T. Saitoh, On the optimum design for latent heat thermal energy storage reservoirs, *Refrigeration* **58**(670), 749 (1983).
T. Saitoh and K. Hirose, A study on the latent heat thermal energy storage reservoir of spherical capsule type, *Refrigeration* **58**(672), 933 (1983).
H. Shida, M. Kuragasaki and T. Adachi, On the numerical analysis method of flow and heat transfer in condensers, *Bull. Japan Soc. Mech. Engrs (English)* **26**(215), 785 (1983).
Y. Sudo and M. Osakabe, Effects of partial flow blockage on core heat transfer in forced-feed reflood tests, *J. Nucl. Sci. Technol (English)* **20**(4), 322 (1983).
M. Takayasu and F. Sato, Development of components in coal liquefaction plant (Current status of arts in slurry pump, let-down valve, slurry instrument and slurry heater), *Kagaku Kogaku (J. Chem. Engng)* **47**(6), 377 (1983).

I. Tanaka and O. Miyatake, An experimental study on a heat storage water tank (Dynamic characteristics and flow behavior), *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 75, 29 (1983).

T. Tanaka, M. Itoh, M. Kudoh and A. Tomita, Development of inclined lower-fin heat exchangers, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1204 (1983).

I. Todo, Response of multipass heat exchangers to sinusoidal flow rate changes of large amplitude, *Bull. Japan Soc. Mech. Engrs (English)* **27**(223), 87 (1984).

T. Yokoyama, H. Umemiya, K. Katayama and K. Katsuragi, Realization of recoverable zone from the stand point of flow lines, *Bull. Japan Soc. Mech. Engrs (English)* **26**(217), 1162 (1983).

HEAT CONDUCTION

K. Kawashimo and K. Morikawa, Irreversible thermodynamical structure of heat conduction, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(449), 79 (1984).

K. Morikawa and K. Kawashimo, Analysis of heat conduction fields with moving boundary, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(449), 85 (1984).

A. Saito, Y. Utaka, S. Nagakubo and K. Katayama, A study on the heat transfer of latent heat thermal energy storage (2nd report, Discussions of the inner structure to improve the heat removal performance), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1485 (1983).

I. Tsuji, K. Yamaguchi and T. Yamamoto, Finite element analysis of temperature distribution in steel plates by spot-heating, *Tech. Rep. Kyushu Univ.* **56**(2), 117 (1983).

T. Watanabe and Y. Urano, An approximate transfer function of the multi-layer wall heat conduction system, *Mem. Fac. Engng. Kyushu Univ. (English)* **43**(3), 205 (1983).

T. Watanabe and Y. Urano, Dynamic calculations of multi-layer wall heat transfer by a successive state transition method, *Mem. Fac. Engng Kyushu Univ.* **43**(4), 265 (1983).

I. Yamada, S. Hiraoka, H. Nakamura, S. Mori, Y. Mizutani and S. Matsui, Numerical method for solving steady three-dimensional heat conduction problem in sector column, *J. Chem. Engng, Japan (English)* **16**(2), 152 (1983).

FORCED CONVECTION

M. Hiwada, T. Kawamura, I. Mabuchi and M. Kumada, Some characteristics of flow pattern and heat transfer past a circular cylindrical cavity, *Bull. Japan Soc. Mech. Engrs (English)* **26**(220), 1744 (1983).

M. Hiwada, I. Mabuchi and M. Kumada, Three-dimensional flow and heat transfer in a rectangular cavity, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(445), 1895 (1983).

T. Igarashi, Heat transfer mechanism in separated region of a circular cylinder, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(439), 656 (1983).

- Y. Kang, K. Suzuki, T. Sato and J. Nishino, Experiments and numerical computation of the heat transfer in confined jets (The cases when hot air or CO₂ is issued from central nozzle), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1513 (1983).
- Y. Kawashima, M. Nakagawa and S. Iuchi, Heat transfer characteristics in a rectangular, right-angled, T-shaped flow section, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(3), 333 (1983).
- Y. Komiyama, F. Mikami, K. Okui and T. Hori, Laminar forced convection heat transfer in curved channels of rectangular cross section, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 424 (1984).
- M. Kumada, M. Hiwada, M. Ito and I. Mabuchi, Heat transfer on three circular tubes normal to a stream, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 443 (1984).
- M. Kuriyama, K. Arai and S. Saito, Mechanism of heat transfer to pseudoplastic fluids in an agitated tank with helical ribbon impeller, *J. Chem. Engng, Japan (English)* **16**(6), 489 (1983).
- K. Momii and K. Jinno, Numerical calculation of a convective-dispersion equation in shear flow by method of shifting particles, *Mem. Fac. Engng Kyushu Univ. (English)* **43**(1), 55 (1983).
- T. Mochida, Mean skin temperature weighted by skin area, heat transfer coefficients and thermal sensitivity, *Bull. Fac. Engng Hokkaido Univ. (English)* **115**, 1 (1983).
- K. Oyakawa and I. Mabuchi, Heat transfer in parallel plate duct with circular cylinders inserted in staggered arrangement, *Bull. Japan Soc. Mech. Engrs (English)* **26**(214), 545 (1983).
- T. Sano, Second approximation to unsteady thermal boundary-layer, *Trans. Japan Soc. Mech. Engrs Series B* **49**(444), 1734 (1983).
- M. Takeuchi, Y. Ishibashi, A. Nagasaka and N. Isshiki, Heat transfer on cylinder covered with close-fitting fabrics (3rd Heat transfer on the stagnation point), *Bull. Japan Soc. Mech. Engrs (English)* **26**(218), 1373 (1983).
- M. Takeuchi, M. Suzuki, Y. Kurosaki and N. Isshiki, Heat transfer on cylinder covered with close-fitting fabrics (3rd report, Distribution of local heat transfer coefficients), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1493 (1983).
- K. Torii and T. Amano, Heat and mass transfer from spheres in circular free jets (1st report, Stagnation-point and average transfer), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2128 (1983).
- K. Torii and T. Amano, Heat and mass transfer from spheres in circular free jets (2nd report, Local transfer coefficients), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2137 (1983).

TURBULENCE

- H. Fujita, H. Takahama and C. Hattori, Effects of a strip inserted in the boundary layer on heat transfer from a plane surface (1st report, Distribution of heat transfer coefficients), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1178 (1983).
- N. Fukuchi, On the heat convection with approximate eddy diffusivity in the non-isothermal turbulent flow, *Rep. Fac. Engng Nagasaki Univ.* **13**(21), 187 (1983).
- M. Hishida, Y. Nagano, M. Tagawa and H. Miyakawa, Turbulent heat transfer associated with coherent structures in fully developed pipe flow, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 537 (1984).
- T. Igarashi, Heat transfer mechanism in separated region of a circular cylinder, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(439), 656 (1983).
- H. Ishigaki, Studies on the properties of turbulent jets (3rd report, Jets with different densities), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(444), 1650 (1983).
- H. Ishigaki, Studies on the properties of turbulent jets (5th report, Plane turbulent jet), *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 568 (1984).
- H. Matsushima, M. Mizomoto and S. Ikai, Structure of turbulent boundary layer along a flat surface with high wall temperature, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(444), 1734 (1983).
- Y. Mori, K. Hijikata and T. Nobuhara, A fundamental study of symmetrical vortices generation behind a cylinder by heating wake or providing splitter plate or mesh, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(444), 1782 (1983).
- I. Nakamura, Y. Sakai, M. Miyata and T. Suzuki, On characteristics of the fluctuation concentration field of the diffusion of matter from continuous point source in grid turbulence, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2530 (1983).
- H. Usui, H. Fukuma and Y. Sano, Fully developed turbulent flow in isosceles triangular ducts, *J. Chem. Engng, Japan (English)* **16**(1), 13 (1983).
- H. Usui, M. Yanagi, A. Endoh and Y. Sano, Fully developed turbulent mass transfer in a triangular duct with a narrow apex angle, *J. Chem. Engng, Japan (English)* **16**(2), 103 (1983).
- M. Yamazaki, S. Hirasawa, N. Kido, M. Ohya and K. Kagata, The effect of gas density on turbulent diffusion in free jet, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2043 (1983).
- S. Yasuda and N. Takimoto, Transition to turbulence in low-Prandtl-number-convection, *Tech. Rep. Tohoku Univ. (English)* **48**(2), 137 (1983).
- S. Yokobori, N. Kasagi and M. Hirata, Transport phenomena at the stagnation region of a two-dimensional impinging jet, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(441), 1029 (1983).

NATURAL CONVECTION

- S. Akagi and K. Yoshitani, Numerical solutions for natural convection heat transfer during heating of a coal oil mixture (COM), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(448), 2830 (1983).
- T. Fujii, S. Koyama and M. Koganei, A theoretical analysis for laminar free convection (Heat transfer from a vertical surface with arbitrary temperature distribution to a fluid with arbitrary temperature stratification), *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 74, 129 (1983).
- T. Hanzawa and K. Kato, Heat transfer by natural convection between enclosed concentric vertical cylinder (A part of inner cylinder is heated), *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(3), 257 (1983).
- H. Inaba and K. Kanayama, Natural convective heat transfer in an inclined rectangular cavity, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(448), 2838 (1983).
- H. Inaba and N. Seki, A study on transient characteristics of natural convective heat transfer in a confined rectangular cavity packed with porous media, *Bull. Japan Soc. Mech. Engrs (English)* **26**(222), 2142 (1983).
- H. Kimoto, A. Kadotsuji and T. Hirose, Effect of vibration to the natural convection heat transfer of a horizontal cylinder, *Bull. Japan Soc. Mech. Engrs (English)* **26**(217), 1154 (1983).
- K. Mizukami and A. Sakurai, An experiment of transient natural convection heat transfer from a vertical flat plate subject to time-dependent heat input, *Mem. Fac. Engng Ehime Univ.* **10**(3), 83 (1984).
- I. Tokura, H. Saito and K. Kishinami, An experimental study on heat and mass transfer of frost layers on vertically-arranged horizontal cylinders in natural convection, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(449), 173 (1984).
- T. Torii and W. Nakayama, Natural convection in a vertical annular space heated from below (3rd report, Effects of physical and design variables), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2418 (1983).

MASS TRANSFER

- S. Asai, J. Hatanaka and Y. Uekawa, Liquid-liquid mass transfer in an agitated vessel with a flat interface, *J. Chem. Engng, Japan (English)* **16**(6), 463 (1983).
- S. Kato, H. Inazumi and T. Suzuki, A simplified method for estimation of mass transfer rates in ternary gaseous mixtures,

- Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(2), 203 (1983).
- K. Komori, A. Iguchi and R. Izumi, Characteristics of turbulent flow and mass transfer in divergent channels of rectangular section, *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 543 (1984).
- H. Kosuge and K. Asano, Effect of column length and vapor condensation on heat and mass transfer in ternary distillation by a wetted-wall column, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **10**(1), 1 (1984).
- O. Kuroda, H. Matsuzaki and S. Takahashi, Characteristics of net-type spacer as mass transfer promoter in electro dialysis, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(2), 142 (1983).
- H. Miyashita, A. Nakamura, S. Hirano and K. Wakabayashi, Circumferential distributions of mass transfer coefficient and wall shear stress on inner tube in eccentric annulus flow, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **10**(1), 38 (1984).
- Y. Nakaike, T. Mizukoshi, T. Aonuma and T. Tadaki, Mass transfer accompanied by interfacial turbulence during liquid drop formation in liquid-liquid system, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(2), 135 (1983).
- S. Nakao and M. Suzuki, Mass transfer coefficient in cyclic adsorption and desorption, *J. Chem. Engng, Japan (English)* **16**(2), 114 (1983).
- S. Nakao and M. Suzuki, Effects of pre-adsorption on transient processes in cyclic adsorption and desorption, *J. Chem. Engng, Japan (English)* **16**(4), 330 (1983).
- M. Sakakibara, H. Tatsuta and K. Endoh, Mass transfer from a sphere in ultrasonic fields, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(3), 336 (1983).
- T. Sato, T. Yonemoto and T. Tadaki, Multicomponent mass transfer under condition of high mass flux in a wetted-wall column, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(5), 509 (1983).
- Y. Shindo, T. Hakuta, H. Yoshitome and H. Inoue, Gas diffusion in Knudsen's regime, *J. Chem. Engng, Japan (English)* **16**(2), 120 (1983).
- Y. Shindo, T. Hakuta, H. Yoshitome and H. Inoue, A dimensionless equation for gas diffusion in microporous media in Knudsen's regime, *J. Chem. Engng, Japan (English)* **16**(6), 521 (1983).
- N. Wakao and S. Tanisho, Recovery of heavy species by pulse gas diffusion, *J. Chem. Engng, Japan (English)* **16**(3), 182 (1983).
- R. Yamaguchi, Analysis of mass transport from arterial wall to viscous fluid flow, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1170 (1983).
- S. Yumoto and H. Ohya, Studies of dialysis (Estimation of an over-all mass transfer coefficient for dialysis in the case that osmotic flow of water is taken account of), *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(3), 277 (1983).
- ## TWO-PHASE FLOW
- Y. Akagi, S. Yamamoto and T. Takahashi, Transitional gas velocity from froth to spray regimes on sieve trays, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(2), 111 (1983).
- H. Akimoto, Y. Kozawa, A. Inoue and S. Aoki, Analysis of direct contact condensation of flowing steam onto injected water with multifluid model of two-phase flow, *J. Nucl. Sci. Technol. (English)* **20**(12), 1006 (1983).
- M. Fujita and H. Madarame, Bubble dynamics in a horizontal rectangular pipe with rough wall, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(444), 1676 (1983).
- T. Fukano, A. Itoh, T. Kuriwaki and Y. Takamatsu, Liquid films flowing concurrently with air in horizontal duct (3rd report, The relation between occurrence of viscous wave and breakdown of liquid film), *Bull. Japan Soc. Mech. Engrs (English)* **26**(220), 1703 (1983).
- T. Fukano, A. Ousaka, T. Morimoto and K. Sekoguchi, Flow configuration of gas-liquid two-phase annular flow in a horizontal circular tube, *Tech. Rep. Kyushu Univ.* **56**(5), 671 (1983).
- T. Fukano, A. Ousaka, T. Morimoto and K. Sekoguchi, Air-water annular two-phase flow in a horizontal tube (2nd report, Circumferential variations of film thickness parameters), *Bull. Japan Soc. Mech. Engrs (English)* **26**(218), 1387 (1983).
- K. Hashizume, Flow pattern and void fraction of refrigerant two-phase flow in a horizontal pipe, *Bull. Japan Soc. Mech. Engrs (English)* **26**(219), 1597 (1983).
- K. Higashitani, K. Yamauchi, Y. Matsuno and G. Hosokawa, Turbulent coagulation of particles dispersed in a viscous fluid, *J. Chem. Engng, Japan (English)* **16**(4), 299 (1983).
- E. Hihara and T. Saito, Slugging in a horizontal duct (Air-water two-phase flow), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1440 (1983).
- S. Hinata, A study on the measurement of bubble size distribution in the upward bubbly flow, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2119 (1984).
- Y. Ito and R. Oba, Rob of separation bubble in cavitation-inception and its limit, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2257 (1983).
- H. Kawasaki and H. Tanaka, Average gas holdup of gas-liquid upward co-current flow in vertical channels, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(6), 695 (1983).
- M. Kumagai and K. Endoh, Mean residence time and gas holdup of entrained gas by an impinging water jet, *J. Chem. Engng, Japan (English)* **16**(5), 357 (1983).
- Y. Masuhara, M. Murase, M. Utamura and T. Nakao, Evaluation model of turbine meter for two-phase flow, *J. Nucl. Sci. Technol. (English)* **20**(10), 861 (1983).
- Y. Matsumoto and M. Aoki, Growth and collapse of cavitation bubbles (Change of nuclei population due to collapse of bubbles), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2267 (1983).
- K. Momose, H. Ueki and H. Kimoto, Behavior of a bubble between parallel walls, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2273 (1983).
- S. Nakamura, T. Matsushima, Y. Mizushima and Y. Horikawa, Study of two-phase flow diffuser for erosion due to self-flashing hot water in piping, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2371 (1983).
- A. Nishiwaki, S. Tanaka, T. Fukuda and Y. Kato, Interrelation between mixing models of suspended solid particles for single-stage bubble column, *J. Chem. Engng, Japan (English)* **16**(6), 526 (1983).
- A. Ousaka, T. Fukano, T. Morimoto and K. Sekoguchi, Flow configuration of air-water two-phase downward annular flow in a near horizontal tube ($\alpha = -10^\circ$), *Tech. Rep. Kyushu Univ.* **56**(6), 831 (1983).
- A. Ousaka, T. Fukano, T. Morimoto and K. Sekoguchi, Flow configuration of air-water two-phase upward annular flow in a near horizontal tube (1st report: in the case of $\alpha = 10^\circ$), *Tech. Rep. Kyushu Univ.* **57**(1), 37 (1984).
- K. Sekoguchi, K. Morikawa, K. Takahashi, M. Takeishi and T. Fukano, An investigation into the flow characteristics in froth flow and the transition region between froth and annular flow (1st report, On liquid lumps), *Bull. Japan Soc. Mech. Engrs (English)* **26**(219), 1542 (1983).
- K. Sekoguchi, O. Tanaka, T. Ueno, T. Furukawa, S. Esaki and M. Nakasatomi, An investigation of the flow characteristics in the disturbance wave region of annular flow (1st Report, Effect of tube diameter), *Bull. Japan Soc. Mech. Engrs (English)* **26**(220), 1719 (1983).
- A. Serizawa, K. Mishima and I. Kataoka, Some aspects of two-phase flow models, *J. Atom. Energy Soc. Japan* **25**(8), 606 (1983).
- S. Shirakura, S. Nishijima and A. Togiya, Simulation study on coal dust dispersion and its prevention, *Therm. Nucl. Power* **34**(5), 479 (1983).
- Y. Sudo and A. Ohnuki, Mechanism of falling water limitation under counter-current flow through single vertical flow path, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(444), 1685 (1983).

H. Takahama, O. Okada, H. Fujita and A. Mizuno, Study on annular mist flow in pipe (2nd report, Behavior of water film in the non-equilibrium region of downward annular mist flow with low water flow rate), *Bull. Japan Soc. Mech. Engrs* (English) **26**(222), 2091 (1983).

N. Takaki and M. Shoji, An experimental study on small scale vapor explosions in stationary molten tin-flowing water system, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2190 (1983).

Y. Tomita, T. Totaki and S. Yutani, Pressure drop in vertical pneumatic transport lines of powdery material, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1434 (1983).

J. Tsubaki, K. Kato, Y. Nagahiro and G. Jimbo, Experimental investigation of the disintegrating phenomena of aggregates of fine powders in air flow, *Kagaku Kogaku Ronbunshu* (Trans. Chem. Engng, Japan) **9**(2), 189 (1983).

Y. Tsuji, Y. Morikawa, T. Shiragami, Y. Fujiwara and H. Chikai, Plug conveying of coarse particles in a horizontal pipe (3rd report, Effects of particle size and pitch of air injection), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(441), 1020 (1983).

K. Usui, S. Aoki and A. Inoue, Flow behavior and phase distribution in two-phase flow around inverted U-bend, *J. Nucl. Sci. Technol.* (English) **20**(11), 915 (1983).

A. Yamaguchi, K. Hayashi and H. C. Piao, Study on contraction and disappearance of a bubble in oils, *Bull. Japan Soc. Mech. Engrs* (English) **26**(216), 993 (1983).

H. Yoshida, Y. Mori and K. Hijikata, Theoretical and experimental study on heat transfer mechanism of impinging bubble jets, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(445), 1904 (1983).

CHANGE OF PHASE

M. Arinobu and I. Suzuki, Evaluation of dynamic pressure due to steam condensation in water and multi-vent effects, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2094 (1983).

A. Atsumi, T. Morita and T. Saito, Dynamic simulator of a suction line accumulator used in the refrigeration cycles, *Refrigeration* **58**(673), 1027 (1983).

M. Fujii, T. Fujii and T. Nagata, A numerical analysis of flow and heat transfer of air in an in-line tube bank, *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 74, 135 (1983).

T. Fujii, Reference velocity in the definition of friction factor for tube banks with suction, *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 74, 123 (1983).

T. Fujii, M. Fujii, M. Inaishi and H. Aramaki, Effect of side wall on flow around a tube, *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 75, 55 (1983).

T. Fujii, S. Koyama and S. Nishida, Expressions of physical properties concerning condensation of ethanol-water-air mixtures, *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 75, 63 (1983).

S. Fukada and N. Mitsuishi, Heat and mass transfer in a laminar boundary layer under mist formation, *Tech. Rep. Kyushu Univ.* **57**(1), 9 (1984).

Y. Haramura and Y. Katto, A new hydrodynamic model of critical heat flux (Mechanism of critical heat flux for pool boiling and forced convection boiling on submerged bodies in saturated liquid), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(445), 1919 (1983).

E. Hasegawa and J. Kojima, Breakup of a thin liquid layer heated from below, *Bull. Japan Soc. Mech. Engrs* (English) **26**(213), 380 (1983).

Y. Hatate, H. Nomura and A. Ikari, Vertical flow of gas-liquid-solid particles system, *Res. Rept. Fac. Engng Kagoshima Univ.* No. 25, 127 (1983).

Y. Hatate, H. Nomura, M. Migita and A. Ikari, Horizontal flow of gas-liquid-solid particles system, *Res. Rept. Fac. Engng Kagoshima Univ.* No. 25, 137 (1983).

K. Higuchi, Frequency responses of plate-fin coil type evaporator outlet temperature to refrigerant flow rate change, *Refrigeration* **58**(672), 941 (1983).

H. Inaba, Freezing phenomena of a horizontal cooling cylinder in water at rest, *Refrigeration* **58**(669), 651 (1983).

S. Ito, Heat transfer problems of a cylindrical capsule for latent heat thermal energy storage (For the case of slowly variable wall temperature), *Trans. Japan Soc. Mech. Engrs*, Series B **50**(450), 556 (1984).

K. Katsuta, I. Ishihara and T. Mukai, Experimental studies of defrosting by the ambient air under natural convection, *Refrigeration* **58**(665), 229 (1983).

K. Katsuta, I. Ishihara and T. Mukai, An analytical study of defrosting by the ambient air under natural convection, *Refrigeration* **58**(669), 645 (1983).

Y. Katto, An analytical investigation on CHF of flow boiling in uniformly heated vertical tubes (With special reference to governing dimensionless groups), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2401 (1983).

Y. Katto and Y. Haramura, Critical heat flux on uniformly heated, horizontal cylinders normal to an upward, low velocity flow of saturated liquid, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(445), 1928 (1983).

Y. Katto and A. Sanaka, Critical heat flux for uniformly heated vertical channels with low ratios of heated length to heated equivalent diameter, *J. Fac. Engng, Univ. of Tokyo*, Series B, **37**(1), 1 (1983).

S. Kotake, Heterogeneous nucleation and condensation with very fine solid particles, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(445), 1946 (1983).

S. Kumagai, J. Ogata, R. Shimada, M. Ouchi and T. Takeyama, Experimental study on a circumferential fin in boiling heat transfer (1st report, Parallel, converging, diverging and parallel fin with holes at single situation), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(448), 2847 (1983).

S. Kumagai, J. Ogata, R. Shimada and T. Takeyama, Experimental study on a circumferential fin in boiling heat transfer (2nd report, The effects of some factors of bulk liquid and the interference between fin array), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(448), 2856 (1983).

T. Mochida, Characteristics of wettendness and equi-skin temperature line in the evaporative regulation region, *Bull. Fac. Engng, Hokkaido Univ.* (English) **115**, 11 (1983).

T. Mochida, Determination of equal thermal sensation lines in the evaporative regulation region, *Mem. Fac. Engng Hokkaido Univ.* (English) **16**(2), 101 (1983).

M. Monde, H. Kusuda, H. Uehara and K. Fujishiro, Boiling heat transfer in narrow vertical rectangular channel, *Rep. Fac. Sci. Engng Saga Univ.* (11), 213 (1983).

A. Nakayama and M. Kano, Effect of bubble frequency on bubble departure in nucleate pool boiling, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(440), 885 (1983).

K. Nishikawa, Boiling heat transfer and nuclear power, *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 74, 227 (1983).

K. Nishikawa, S. Yoshida, H. Mori and H. Takamatsu, Post-burnout heat transfer to freon flowing in a vertical tube at high subcritical pressures, *Mem. Fac. Engng Kyushu Univ.* (English) **43**(1), 109 (1983).

S. Nishio, Study on minimum heat flux point in boiling heat transfer from spheres, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1185 (1983).

S. Nozu, T. Fujii and H. Honda, Expressions for mean condensing heat transfer coefficient and friction factor for air-cooled condensers, *Refrigeration* **58**(670), 733 (1983).

S. Nozu, T. Fujii and H. Honda, Simplified expressions for mean condensing heat transfer coefficient and friction factor for air-cooled condensers, *Refrigeration* **58**(670), 743 (1983).

S. Nozu, H. Honda and T. Fujii, Condensation of superheated vapor inside a horizontal tube (Proposal of correlations for heat transfer and pressure drop), *Refrigeration* **58**(669), 659 (1983).

M. Osakabe and Y. Sudo, Analysis of saturated film boiling heat transfer in reflood phase of PWR-LOCA (Turbulent boundary layer model), *J. Nucl. Sci. Technol.* (English) **21**(2), 115 (1984).

A. Saito, F. Kuriyama and R. Shimomura, Numerical analysis

on the freezing process with super-cooling, *Refrigeration* **58**(670), 757 (1983).

A. Saito, Y. Utaka, K. Katayama and H. Matsui, A study on the heat transfer of latent heat thermal energy storage (1st report, Removal and storage characteristics of the latent heat TES capsule), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(440), 843 (1983).

S. Sakaguchi and H. Yamazaki, Effect of fluorocarbon concentration on boiling heat transfer of oil-fluorocarbon mixture, *Refrigeration* **58**(672), 913 (1983).

S. Sakaguchi, H. Yamazaki and Y. Akatsu, Flow dynamics and heat transfer of evaporator using oil-fluorocarbon binary mixture, *Therm. Nucl. Power* **34**(9), 961 (1983).

N. Seki, S. Fukusako, J. Tanaka, K. Ito and T. Hiraga, Transient freezing heat transfer of flowing-fluid in parallel plates, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2172 (1983).

R. Shimomura, K. Ichimiya, T. Miyazawa, Y. Hanada and Y. Shintani, The supercooling of water droplets, *Refrigeration* **58**(666), 339 (1983).

K. Shiozaki, M. Kawahashi and M. Suzuki, Condensation of SF₆ in supersonic nozzles, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1373 (1983).

M. Shoji and N. Takagi, An experimental study of small-scale vapor explosions for molten tin dropped into water, *Bull. Japan Soc. Mech. Engrs* (English) **26**(215), 791 (1983).

S. Tezuka, N. Noji, N. Simada and O. Matuno, Performance of evaporative cooler (No. 6 report, The heat characteristics of plate-type evaporative cooler), *Refrigeration* **58**(673), 1041 (1983).

T. Tsuruta and H. Tanaka, Microscopic study of dropwise condensation, *Trans. Japan Soc. Mech. Engrs*, Series B, **49**(446), 2181 (1983).

T. Ueda, M. Inoue, Y. Iwata and Y. Sogawa, Rewetting of a hot surface by a falling liquid film, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1477 (1983).

H. Uehara, H. Kusuda, T. Nakaoka and M. Yamada, Experimental study of filmwise condensation on a vertical surface, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(439), 666 (1983).

H. Uehara, T. Nakaoka and S. Nakashima, Study on plate type condenser (Heat transfer coefficient for film condensation on a vertical flat plate), *Refrigeration* **58**(668), 549 (1983).

H. Uehara, T. Nakaoka and S. Nakashima, Plate type condenser (Heat transfer coefficient for film condensation on a vertical fluted plate), *Refrigeration* **58**(673), 1017 (1983).

H. Uehara, T. Nakaoka and K. Hagiwara, Plate type condenser (Cold water side heat transfer coefficient and friction factor), *Refrigeration* **59**(675), 3 (1984).

H. Uehara, T. Nakaoka and M. Kurosaki, Turbulent film condensation in a forced convection boundary layer flow, *Rep. Fac. Sci. Engng Saga Univ.* No. 11, 225 (1983).

S. Yoshida, K. Nishikawa, H. Mori, A. Yamada and M. Ohno, Critical heat flux in forced convection boiling of freon in a tube at high subcritical pressure (In the case of vapor-liquid mixture at inlet), *Tech. Rep. Kyushu Univ.* **56**(3), 259 (1984).

RADIATION

Y. Asano and H. Nakamura, Heat transfer in parallelogram shaped enclosure (4th report, Combined free convection, radiation and conduction heat transfer), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2154 (1983).

F. Chida, K. Kawasaki and U. Nishina, Performance of prototype thermocouple sensor in far-infrared band, *Gijutsu Kenkyu Hokoku, KINZAIKEN, Tohoku Univ.* No. 10, **59** (1983).

R. Echigo and Y. Yoshizawa, Sophisticated technology on radiant heating and/or shielding (Basic concept and applications for effective energy conversion method between gas enthalpy and thermal radiation), *J. Japan Soc. Mech. Engrs* **86**(780), 1285 (1983).

F. Hasegawa, Y. Ishikawa and H. Matsumoto, Theoretical

study on room temperature variation of multi-room in consideration of mutual radiation between indoor surfaces, *Tech. Rep., Tohoku Univ.* (English) **48**(1), 79 (1983).

H. Hayasaka, H. Taniguchi, K. Kudo and H. Tashiro, The numerical analysis of radiative heat transfer in furnace with an arbitrary geometry, *Therm. Nucl. Power* **34**(2), 165 (1983).

K. Kamiuto, Y. Miyoshi, I. Kinoshita and S. Hasegawa, Combined conductive and radiative heat transfer in an optically thick ceramic porous body (In the case of cordierite porous body), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(446), 2147 (1983).

I. Kinoshita, K. Kamiuto and S. Hasegawa, Effect of anisotropic scattering on heat transfer by simultaneous conduction and radiation in a gray dispersed medium, *Bull. Japan Soc. Mech. Engrs* (English) **26**(221), 1922 (1983).

I. Kinoshita, K. Kamiuto and S. Hasegawa, Radiative properties of high porosity materials, *J. Nucl. Sci. Technol.* (English) **20**(8), 704 (1983).

T. Kunitomo, Thermal radiative properties of heat resisting materials, *J. Japan Soc. Mech. Engrs* **87**(783), 152 (1984).

T. Makino, T. Kunitomo and T. Mori, Study on radiative properties of heat resisting metals and alloys (2nd report, Optical properties and emissivities of stainless steels and superalloys), *Bull. Japan Soc. Mech. Engrs* (English) **27** (223), 57 (1984).

M. Nishimura, M. Kuraishi and Y. Bando, Effect of internal heating on infrared of drying of coated films, *Kagaku Kogaku Ronbunshu* (Trans. Chem. Engng, Japan) **9**(2), 148 (1983).

T. Shigechi, T. Ito and K. Nishikawa, The effect of radiation on film boiling heat transfer (Plane wall parallel to upward vertical flow), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(445), 1912 (1983).

S. Tanaka and T. Kunitomo, Calculation method of the optimum configurations of the extended surfaces with simultaneous conductive, convective and radiative heat transfer in heat exchanger, *Mem. Fac. Engng Kyoto Univ.* (English) **45**(1), 45 (1983).

A. Yoshida and T. Kunitomo, Theoretical investigation of the effects of aerosol characteristics on the radiative heat transfer in the atmospheric boundary layer, *Bull. Japan Soc. Mech. Engrs* (English) **26**(221), 1929 (1983).

PACKED AND FLUIDIZED BEDS

M. Horio, A. Nishiyama, J. Liu and I. Muchi, Horizontal jet penetration into powder beds under different aeration conditions, *Kagaku Kogaku Ronbunshu* (Trans. Chem. Engng, Japan) **9**(6), 609 (1983).

T. Ishikura and H. Shinohara, Elutriation of fines from a spouted bed in a solid-gas system (Effect of fines concentration on elutriation rate coefficient), *Kagaku Kogaku Ronbunshu* (Trans. Chem. Engng, Japan) **10**(1), 116 (1984).

N. Ito, K. Obata, T. Hakuta and H. Yoshitome, Heat transfer from wall to particles bed in a rotary drum, *Kagaku Kogaku Ronbunshu* (Trans. Chem. Engng, Japan) **9**(6), 628 (1983).

R. Izumi, H. Yamashita, S. Kaga and S. Abe, Study on the heat exchanger using fluidized bed (1st report, Characteristics of wall to bed heat transfer in vertical tube), *Bull. Japan Soc. Mech. Engrs* (English) **26**(222), 2149 (1983).

K. Kato, I. Onozawa and Y. Noguchi, Gas-particle heat transfer in a dispersed bed, *J. Chem. Engng, Japan* (English) **16**(3), 178 (1983).

H. Kawasaki and H. Tanaka, Average gas holdup of gas-liquid upward co-current flow in packed beds, *Kagaku Kogaku Ronbunshu* (Trans. Chem. Engng, Japan) **9**(3), 289 (1983).

A. J. Kenhinde, R. R. Hudgins and P. L. Silveston, Measurement of mass transfer in packed beds at low Reynolds numbers by imperfect pulse chromatography, *J. Chem. Engng, Japan* (English) **16**(6), 483 (1983).

S. D. Kim and C. H. Kim, Axial dispersion characteristics of three phase fluidized beds, *J. Chem. Engng, Japan* (English) **16**(3), 172 (1983).

Y. Kurosaki, N. Okubo, E. Yagi, Y. Miyamoto, J. Tatebayashi and T. Shimizu, Dynamic characteristics and control of fluidized bed steam generators, *Therm. Nucl. Power* **34**(1), 67 (1983).

Y. Nagahashi and N. Hirayama, Heat transfer of a single horizontal tube in a fluidized bed (Maximum heat transfer coefficient and optimum velocity) *Trans. Japan Soc. Mech. Engrs*, series B **49**(446), 2163 (1983).

H. Takahashi, K. Kawamukai and T. Takeuchi, Characteristics of axial temperature distribution in solids-fluid countercurrent moving beds heated externally, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(2), 123 (1983).

H. Tanimoto, T. Chiba and H. Kobayashi, Mechanism of particle ejection from gas-fluidized beds, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(5), 497 (1983).

H. Tanimoto, T. Chiba and H. Kobayashi, Effects of segregation on fine elutriation from gas-fluidized beds of binary solid mixture, *J. Chem. Engng, Japan (English)* **16**(2), 149 (1983).

LIQUID METAL, MHD AND PLASMA

R. Ishiguro, Thermal engineering of liquid metal and molten salt (In connection with ensuring safety of newly developed nuclear reactors), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(439), 555 (1983).

M. Makino, Plasma gasification of coal, *Kagaku Kogaku (J. Chem. Engng)* **47**(7), 444 (1983).

INSTABILITY

H. Hamabata and M. Takashima, Nature of the neutral state in convective instability in a horizontal fluid layer with internal heat generation, *J. Phys. Soc. Japan (English)* **52**(12), 4038 (1983).

H. Hamabata and M. Takashima, The effect of rotation on convective instability in a horizontal fluid layer with internal heat generation, *J. Phys. Soc. Japan (English)* **52**(12), 4145 (1983).

M. Ozawa, K. Akagawa, T. Sakaguchi and S. Takagi, Oscillatory flow instabilities in air-water two-phase flow system (3rd report, Pressure drop oscillation in parallel channel system), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 2715 (1983).

M. Takashima, The stability of natural convection in a vertical fluid layer with internal heat generation, *J. Phys. Soc. Japan (English)* **52**(7), 2364 (1983).

S. Wakitani, Instability of a two-dimensional wall plume, *J. Phys. Soc. Japan (English)* **53**(1), 148 (1984).

MEASUREMENT TECHNIQUES

N. Araki and K. Natsui, A measuring method for thermal diffusivity of liquid by stepwise radiative heating (1st report, Principle of the method and theoretical analysis of errors), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(441), 1048 (1983).

N. Araki, M. Ochi and K. Kobayashi, A measuring method for thermal diffusivity of liquid by stepwise radiative heating (2nd report, Error due to heat loss and measurements for molten salts), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(441), 1058 (1983).

K. Fujii and N. Suzuki, Measurement of particle velocity using a time interval distribution of photoelectric pulses, *Japan J. Appl. Phys. (English)* **22**(4), 719 (1983).

N. Fujita and T. Tsubouchi, An application of a Wollaston prism schlieren interferometer to measurement of forced convective heat transfer from a flat plate, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1295 (1983).

T. Hachiga, T. Wakisaka, Y. Hamamoto and Y. Shimamoto, A

method for measuring the gas temperature in a cylinder of internal combustion engine using a cold-wire (Examination of the method by numerical analysis) *Trans. Japan Soc. Mech. Engrs*, Series B **49**(440), 909 (1983).

M. Ikegami, M. Shoji and T. Ishiyama, Measurement of flows in luminous flames with photoelectron correlation laser-Doppler method, *Bull. Japan Soc. Mech. Engrs (English)*, **26**(220), 1768 (1983).

M. Kamiwano, F. Saito and H. Yoda, Method using an electrode for measurement of diffusion coefficient of electrolyte solute having low-molecular weight in highly viscous solutions, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)*, **9**(6), 689 (1983).

N. Kasagi, Visualization of temperature field—Application of temperature-sensitive liquid crystals, *J. Japan Soc. Mech. Engrs* **87**(783), 145 (1984).

M. Masataka, Y. Hamamoto, H. Ohkawa and O. Sato, Laser Doppler velocimetry effect of refractive index change at flame front, *Bull. Japan Soc. Mech. Engrs (English)* **26**(221), 1908 (1983).

T. Miura, J. Fukai and S. Ohtani, Measurement of thermal diffusivity at continuous heating rate (Periodic heating method), *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(2), 129 (1983).

T. Miura, J. Fukai, S. Tanno and S. Ohtani, Effect of thermocouple sheaths on temperature response in thermal property measurement, *Kagaku Kogaku Ronbunshu (Trans. Chem. Engng, Japan)* **9**(6), 642 (1983).

I. Nakamura, M. Miyata and Y. Sakai, On a method of the concentration measurement by the use of light absorption law, *Bull. Japan Soc. Mech. Engrs (English)* **26**(218), 1357 (1983).

M. Nakayama and T. Arai, A laser diagnostic investigation of liquid droplets (1st report, Measurements of local spray characteristics in high temperature gas stream), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1270 (1983).

M. Nakayama and T. Arai, A laser diagnostic investigation of liquid droplets (2nd report, Measurement of droplets evaporation coefficient), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(442), 1279 (1983).

K. Ohba and T. Matsuno, Local velocity measurement of opaque fluid flow using laser Doppler velocimeter, *Trans. Japan Soc. Mech. Engrs*, Series B **49**(447), 2380 (1983).

O. Sano and R. Takaki, New method for visualizing temperature distribution using thermochromism, *J. Phys. Soc. Japan (English)* **52**(5), 1549 (1983).

I. Shimizu, Determination of size, number density and velocity of particles using dual laser beam particle count method (Error estimation of particle size measurement using monodisperse particles), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1381 (1983).

M. Takeuchi, M. Suzuki and K. Nagata, Analytical discussion on the transient hot wire method (Applicability to measurement of an electrically conductive medium), *Trans. Japan Soc. Mech. Engrs*, Series B **49**(443), 1468 (1983).

H. Tanaka and T. Fujii, Measurement of flow rate through a pipe by external heating, *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 74, 115 (1983).

H. Tanaka and T. Fujii, Measurement of flow rate through a pipe by external heating (Part 2: Local heat transfer coefficient in a pipe), *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 75, 49 (1983).

H. Tanaka and T. Fujii, A new method for measuring thermal conductivity of small amount of fluid (Application of the characteristic of steady free convection from a small sphere), *Rep. Res. Inst. Ind. Sci., Kyushu Univ.* No. 75, 39 (1983).

Y. Tanaka, M. Masuda and Y. Shimamoto, Instantaneous two-directional velocity measurement by sensitive pressure detecting method, *Bull. Japan Soc. Mech. Engrs (English)* **26**(219), 1526 (1983).

K. Teshima and N. Takahashi, Temperature measurement of the reflected shock region by the time-of-flight method, *Japan J. Appl. Phys. (English)* **22**(11), 1742 (1984).