

PII: S0017-9310(96)00322-5

Heat transfer bibliography—Japanese works 1995

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(Received for publication 17 September 1996)

CONDUCTION

- Ashiwake, N., Thermal conductance between two microscopically rough surfaces in contact at low contact pressure in a gas environment (effects of surface slope anisotropy and non-Gaussian asperity height distribution). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1855.
- Chung, K.-C., Experimental study on the effect of metallic-coated junctions on thermal contact conductance, *JSME International Journal*, **B38**(1), 100 (in English).
- Hui, P. and Tan, H. S., A rigorous series solution for a thermal dissipation system with a diamond heat spreader on an infinite slab heat sink. *Japan Journal of Applied Physics*, 1995, **34**(9A), 5056.
- Matsumoto, S. and Yoshino, H., Response factors for a multi-layer wall faced with a semi-infinite solid: part 1, explicit formulae. *Architectural Reports of the Tohoku University*, 1995, **34**, 105.
- Momose, K. and Kimoto, H., Green's function approach to optimal arrangement of heat sources in heat conductor. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1762.
- Momose, K. and Kimoto, H., Green's function approach to optimal control of unsteady heat conduction field. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2626.
- Nishihara, A., Sasaki, S., Oosone, Y. and Nakajima, T., Distribution of heat-transfer coefficients from small surfaces cooled with submerged jets of fluorocarbon liquid determined with inverse-problem analysis of heat conduction. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2241.
- Nitta, I., Iwabuchi, A., Minami, M. and Takao, T., Analysis of temperature rise induced by frictional heat through real contact points. *Cryogenic Engineering*, 1995, **30**(10), 457.
- Tang, D. and Araki, N., Non-Fourier temperature

response in a finite medium under oscillatory heating. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3316.

NATURAL CONVECTION

- Fujii, M., Gima, S., Tomimura, T. and Zhang, X., Natural convection to air from an array of vertical parallel plates with discrete and protruding heat sources. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 239.
- Iida, S., Ogawara, K., Mukai, K. and Atarashi, M., Numerical simulation of probability control for thermal convection cell pattern mode transition. *Transactions of the Japan Society Mechanical Engineers*, 1995, **B61**(592), 4348.
- Kamakura, K. and Ozoe, H., Transient change of the interface between roll cells in double-diffusive natural convection. *Japan Society of Mechanical Engineers International Journal*, 1995, **B38**(1), 86 (in English).
- Kitamura, K., Nagae, N. and Kimura, F., Enhancement of natural convection heat transfer from a horizontal plate using grid fins. *Transactions of the Japan Society of Engineers* 1995, **B61**(582), 659.
- Kuriyama, M., Tokanai, H., Harada E. and Konno, H., Natural-convection heat transfer around a horizontal array of heated cylinders in air. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering Japan)*, 1995, **21**(3), 514.
- Masuoka, T., Takatsu, Y., Kawamoto, S., Koshino, H. and Tsuruta, T., Buoyant plume through a permeable porous layer located above a line heat source in an infinite fluid space. *JSME International Journal*, 1995, **B38**(1), 79 (in English).
- Mizushima, J., Onset of the thermal convection in a finite two-dimensional box. *Journal of Physical Society Japan*, 1995, **64**(7), 2420 (in English).
- Mizusha, J. and Adachi, T., Structural stability of the pitchfork bifurcation of thermal convection in

- rectangular cavity. *Journal of Physical Society of Japan*, 1995, **64**(12), 4670 (in English).
- Misumi, T. and Kitamura, K., Enhancement technique for natural convection heat transfer from vertical finned plate. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 245.
- Nakazato, N., Hirasawa, S., Mori, T. and Daikoku, T., Natural convection cooling of vertical finned plates in an electronic cabinet. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2677.
- Oki, Y. and Tanahashi, T., Numerical analysis of natural convection of thermoelectrically conducting fluids in a square cavity under a uniform magnetic field (estimation of induced heating term). *JSME International Journal*, 1995, **B38**(3), 374 (in English).
- Suzuki, T., Mitachi, K. and Yokoo, H., Fluid motion and heat transfer in a horizontal liquid layer heated locally from free surface. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 650.
- ### FORCED CONVECTION
- Abe, K., Kondoh, T. and Nagano, Y., A two-equation heat-transfer model reflecting second-moment closures for wall and free turbulent flows. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4086.
- Ezato, K., Kunugi, T. and Shimizu, A., Numerical simulation of heat transfer and fluid flow of an impinging round jet of plasma into confined walls. *Thermal Science and Engineering*, 1995, **3**(4), 27 (in English).
- Fujita, Y. and Lopez, A. M., Heat transfer enhancement of twisted tape inserts in turbulent pipe flows. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3044.
- Funawatasahi, Y. and Tanasawa, I., Heat transfer in laminar flow between parallel plates with rib-type eddy promoters. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4144.
- Funazaki, K., Yamashita, Y., Yamawaki, S. and Watanabe, T., Studies of wake-affected heat transfer around a leading edge of turbine rotors (2nd report, effect of free-stream turbulence). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 267.
- Funazaki, K., Yokota, M. and Yamawaki, S., Effect of periodic passing wakes on the leading edge film cooling effectiveness (studies on 90-degree-inclination cooling holes). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2698.
- Haneda, Y., Tsuchiya, Y., Kurasawa, H. and Suzuki, K., A two-dimensional jet impinging heat transfer on a circular cylinder (2nd report, effect of angles between two plates mounted near the cylinder). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(593), 1078.
- Hashizume, K., Heat transfer correlations for high-finned tubes in staggered arrangement. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2638.
- Hattori, H. and Nagano, Y., Rigorous modeling of two-equation heat-transfer model using direct simulations (1st report, assessment and reconstruction of dissipation-rate equations for temperature variance). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1114.
- Hijikata, K., Suzuki, Y., Aizawa, Y. and Kozawa, Y., Local ventilation by tornadolike vortex. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2757.
- Hirose, K., Yokoyama, T. and Ouchi, M., Numerical study of convective heat transfer on the horizontal isothermal rotating disk. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(590), 3770.
- Hiwada, M., Oyakawa, K. and Kumada, M., Fluid flow behavior and heat transfer characteristics of a circular cylinder on the axis of turbulent opposed jets. *Research Report of the Faculty of Engineering, Gifu University*, 1995, **45**, 11.
- Inaba, H., Ozaki, K., Haruki, N. and Asano, H., Flow resistance and heat transfer characteristics of water solution flow with surfactant in circular tubes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3304.
- Inoue, N. and Goto, M., Heat transfer and pressure drop of single phase flow inside internally grooved tubes. *Journal of Tokyo University of Mercantile and Marine (Natural Science)*, 1995, **45**, 47.
- Ishigaki, H., Laminar convective heat transfer in rotating curved pipes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 672.
- Ishigaki, H., Analogy of laminar convective heat transfer in pipe flows with secondary stream (curved pipe and orthogonally rotating pipe). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1782.
- Katoh, K., Azuma, T. and Kano, S., Heat transfer characteristics of radial liquid film flow (local heat transfer characteristics near turbulent transition point). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(590), 3755.
- Kawamoto, A., Ozawa, M., Kataoka, M. and Takifuji, T., Experimental study on effects of frequency and mean pressure on heat pumping by acoustic oscillation. *Transactions of JAR*, 1995, **12**(2), 165.
- Kikuchi, Y., Ohno, Y. and Takahashi, M., Combined forced and free convective heat transfer from a cylinder in pulsating cross-flow. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1790.
- Kimura, T., Takeuchi, M. and Miyagawa, K., Effects of inner rotating horizontal cylinder on heat transfer in a differentially heated enclosure. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2605.
- Kobayashi, Y., Aerodynamic heating of reentry space shuttle vehicles. *Bulletin of the Kumamoto Institute of Technology*, 1995, **20**(1), 169.
- Komori, K. and Inagaki, T., Characteristics of heat transfer and fluid flow in the rectangular duct with a rotating cylinder. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2206.
- Kondo, Y. and Matsushima, H., Experimental study of impingement cooling of heat sinks for LSI packages with pin-fin arrays. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 697.
- Kondo, Y. and Matsushima, H., Prediction algorithm of pressure drop for impingement cooling of heat sinks with longitudinal fins. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2254.
- Kum, S.-M., Kawaguchi, Y. and Seo, J.-Y., A study on heat transfer enhancement by square rod array in impinging jet system. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3289.
- Mitsutake, Y., Monde, M. and Moriyama, H., Enhancement of heat transfer due to bubbles passing through a narrow vertical rectangular channel (change in heat transfer along the flow). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3311.

- Mohamed, A. E. M. A., Elhefnawy, A. R. F. and Mahmoud, Y. D., Nonlinear electrohydrodynamic Kelvin-Helmholtz instability with mass and heat transfer. Effect of a perpendicular electric field. *Journal of Physical Society of Japan*, 1995, **64**(12), 4693 (in English).
- Nakata, H. and Kumada, M., Forced convection heat transfer for arrays of small strip in the wake, *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1485.
- Nakayama, W. and Park, S. H., Conjugate-mode heat transfer from a module on the floor of a parallel-plate channel to forced convective air flow (adiabatic wall temperature and heat transfer coefficient around the module). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1505.
- Nakayama, W. and Park, S. H., Conjugate-mode heat transfer from a module on the floor of a parallel-plate channel to forced convective air flow (numerical prediction of thermal conductance). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2612.
- Nishio, S. and Shin, H.-T., Oscillation-controlled heat transport tube (numerical simulation of overall thermal resistance). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3052.
- Okamura, T., Koga, A., Aburatani, Y., Yoshioka, Y., Fujiyama, K. and Okabe, N., Analysis of heat transfer on turbine moving blades using microstructural changes due to aging. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1085.
- Ota, T. and Yanaoka, H., Numerical analysis of separated and reattached flow and heat transfer over blunt flat plate. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2213.
- Oyakawa, K., Saitoh, T., Teruya, I. and Mabuchi, I., Heat transfer enhancement using slat at reattachment region downstream of backward-facing step. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4426.
- Oyakawa, K., Yaga, M. and Senaha, I., Heat transfer in duct with annular jet. *Bulletin of the Faculty of Engineering, University of Ryukyus*, 1995, **50**, 9.
- Park, S. H. and Nakayama, W., Conjugate-mode heat transfer from a module on the base of a parallel-plate channel to forced convective air flow (experimental determination of macroscopic thermal conductance). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1070.
- Sakamoto, Y., Kunugi, T. and Ichimiya, K., Three-dimensional numerical analysis of mixed convective heat transfer in a horizontal square channel with heated and cooled side walls. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2228.
- Sata, Y., Iwasaki, H. and Ishizuka, M., Development of prediction technique for cooling performance of a heatsink with plate fins. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(590), 3764.
- Sawada, A., Oyakawa, K., Yaga, M. and Senaha, I., Characteristics of heat transfer in rectangular ducts (effects of aspect ratio). *Bulletin of the Faculty of Engineering, University of Ryukyus*, 1995, **50**, 27.
- Senda, M., Hayashi, Y. and Kikkawa, S., Turbulent structure in the near wake of a bluff body in an axisymmetric confined jet. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2648.
- Shimada, M. and Nagano, Y., Development of two-equation heat transfer mode based on direct simulations of turbulent flows with different Prandtl numbers. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1462.
- Suzuki, T., Mitachi, K., Nishimura, M. and Takahashi, Y., Flow pattern and heat transfer of low-speed upward flow between uniformly heated vertical plates. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1093.
- Takahashi, I., Axial heat-transfer characteristics enhanced by oscillating fluid in a thin tube (a newly proposed model and expression for effective thermal diffusivity). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 275.
- Takuchi, M., Kimura, T., Kato, Y. and Kojima, H., Convective heat transfer from a rotating vertical cylinder. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1492.
- Tsutsui, T., Akiyama, M. and Sugiyama, H., Active boundary layer control by elastically vibrating flat plate. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1804.
- Xi, G., Torikoshi, K., Kawabata, K. and Suzuki, K., Numerical analysis of unsteady flow and heat transfer around bodies using a compound grid system. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1796.
- Yabe, A., Adachi, M., Katayama, R. and Nariyai, H., Augmentation mechanism of forced-convection heat transfer by applying electric fields in the restricted region near the wall. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1775.
- Yanase, S., Mizushima, J. and Araki, K., Multiple solutions for a flow between two concentric spheres with different temperatures and their stability. *Journal of Physical Society of Japan*, 1995, **64**(7), 2433 (in English).

BOILING AND EVAPORATION

- Abe, Y., Oka, T., Mori, Y. H., Nagashima, A., Pool boiling of non-azeotropic mixture in microgravity. *Bulletin of Electrotechnology Laboratory*, 1995, **59**(4), 303.
- Aihara, T., Komura, A., Okada, S., Ohara, T., Kuroda, K. and Yamamoto, H., Measurement of rapid transient boiling heat transfer with a carbon-paste film by aid of numerical analysis. *Cryogenic Engineering*, 1995, **30**(9), 420.
- Bai, Q., Tsutsui, M. and Fujita, Y., Measurement of nucleate boiling heat transfer to binary mixture on a horizontal wire. *Technology Reports of Kyushu University*, 1995, **68**(1), 45.
- Chung, S. S. and Kawaguchi, O., Evaporation rate of free paraffin hydrocarbon droplets in a high-temperature and high-pressure gas stream. *JSME International Journal*, 1995, **B38**(1), 121 (in English).
- Deguchi, S., Matsuda, H., Hasatani, M., Imamura, Y. and Sato, M., Enhancement of heat transfer rate in a falling film layer by ultrasonic irradiation. *Journal of Chemical Engineering of Japan*, 1995, **28**(5), 570 (in English).
- Fujii, T., Koyama, S., Inoue, N., Kuwahara, K. and Hirakuni, S., An experimental study of evaporation heat transfer of refrigerant HCFC22 inside an internally grooved horizontal tube. *JSME International Journal*, 1995 **B38**(4), 618 (in English).
- Fukano, T., Goto, A., Tsurusaki, Y. and Morooka, S., Dryout of water film on a heated tube surface caused by an obstruction in a boiling two-phase vertical upward flow (1st report, observation of flow pattern and dryout generation in annular channel). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2597.

- Furukawa, M., Kaji, M., Nishizumi, T., Ozaki, S. and Sekoguchi, K., Flow boiling heat transfer to lithium bromide aqueous solution in subcooled region (1st report, experimental results). *Transactions of JAR*, 1995, **12**(2), 191.
- Furuya, M., Inada, F. and Yasuo, A., A study on thermo-hydraulic instability of boiling natural circulation loop with a chimney (2nd report, experimental approach to clarify the flow instability in detail). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4074.
- Furuya, M., Inoue, A. and Tanno, R., Critical heat flux and convective heat transfer with a two-dimensional liquid jet impinging on flat and concave surface. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4094.
- Honda, H., Takamatsu, H. and Yamashiro, H., Minimum heat flux point and liquid-solid contact during rapid quenching of thin wires. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4440.
- Inaba, H. and Imai, S., Study on defrosting by means of sublimation phenomenon (1st report, sublimation phenomenon of a horizontal frost layer exposed to a moist air flow). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1818.
- Inaba, H. and Imai, S., Study on defrosting by means of sublimation phenomenon (2nd report, sublimation phenomenon of a horizontal frost layer exposed to forced convection air flow and radiant heat). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2261.
- Inada, F., Furuya, M. and Yasuo, A., Thermohydraulic instability of boiling natural circulation loop with a chimney (1st report, linear stability analysis using homogeneous two-phase flow model and experiment on thermohydraulic instability induced by flashing). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4067.
- Kaji, M., Mori, K., Nakanishi, S., Hirabayasi, K. and Ohishi, M., Dryout and wall temperature fluctuations in helically coiled evaporating tubes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1811.
- Kaji, M., Furukawa, M., Nishizumi, T., Ozaki, S. and Sekoguchi, K., Flow boiling heat transfer to lithium bromide aqueous solution in subcooled region (2nd report, theoretical prediction of heat transfer coefficient). *Transactions of JAR*, 1995, **12**(2), 201.
- Kajikawa, S., Ayukawa, K., Sogo, M. and Okita, Y., Boiling heat transfer and pressure drop of non-azeotropic mixtures inside a horizontal grooved tube. *Transactions of JAR*, 1995, **12**(1), 53.
- Katoh, M., Abe, Y., Mori, Y. and Nagashima, A., Aircraft experiments of spray cooling under microgravity. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1142.
- Kinoshita, I., Nishi, Y. and Furuya, M., Direct contact heat transfer characteristics between melting alloy and water. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3038.
- Kumagai, S., Kawazoe, M., Suzuki, S. and Kubo, R., Transient cooling of hot metal plate with impinging water jet. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(590), 3749.
- Kureta, M., Mishima, K. and Nishihara, H., Critical heat flux for flow-boiling of water in small-diameter tubes under low-pressure conditions. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4109.
- Lee, S., Inoue, A. and Takahashi, M., Critical heat flux characteristics of R-113 boiling two-phase flow in twisted shape-inserted tubes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1754.
- Lopez, A. M. and Fujita, Y., Post dryout heat transfer modeling with emphasis on wall-droplet heat transfer. *Technology Reports of Kyushu University*, 1995, **68**(1), 37.
- Matida, E. A. and Torii, K., Droplet deposition and heat transfer simulations of turbulent air-water dispersed flow in a vertical tube. *JSME International Journal*, 1995, **B38**(4), 628 (in English).
- Momoki, S., Yu, J., Koyama, S., Fujii, T. and Honda, H., A correlation for forced convective boiling heat transfer of refrigerants in a microfin tube. *Transactions of JAR*, 1995, **12**(2), 177.
- Monde, M., Mitsutake, Y. and Inamitu, K., Critical heat flux in forced convective subcooled boiling with multiple impinging jet (effect of subcooling). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1750.
- Murata, K. and Hashizume, K., A correlation for forced convective boiling heat transfer of binary refrigerant mixtures. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3282.
- Nagai, N. and Nishio, S., Pool boiling on a single-crystal sapphire surface (a measuring method of quantities upon liquid-solid contacts). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3018.
- Nakagawa, M. and Takenaka, T., Response analysis of pressure reduction in cooling cavitation in a closed pipe filled with hot water. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1134.
- Nakanishi, S., Sawai, T. and Yamauchi, S., An experimental study on chaotic behavior of thermohydraulic oscillation in an evaporating tube. *JSME International Journal*, 1995, **B38**(2), 171 (in English).
- Nakashima, K., Nishida, T. and Mori, K., Effect of zirconium addition and solidification condition on morphology and distribution of sulfide in steel. *Technology Reports of Kyushu University*, 1995, **68**(5), 491.
- Nomura, H. and Ujje, Y., Evaporation behavior of fuel droplet at high pressures. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1834.
- Nomura, H. and Ujje, Y., Evaporation behavior of fuel droplet at high temperatures and high pressures under microgravity conditions. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4137.
- Rao, Y. F., Fukuda, K., Kaneshima, R. and Uehiro, M., An analytic study of coupled nuclear/thermal instabilities of two-phase flows in a boiling channel. *Journal of Atomic Energy Society of Japan*, 1995, **37**(9), 866.
- Sudo, Y., Critical heat flux of comparatively low-velocity, upward-saturated two-phase flow in vertical channels. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 614.
- Takahashi, I. and Ishikawa, E., Microchannel heat sink based on boiling heat transfer. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1498.
- Takahashi, K., Yabe, A. and Maki, H., Electrohydrodynamical (EHD) research of saturated pool boiling heat transfer. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 628.
- Takano, K., Tanasawa, I. and Nishio, S., Enhancement

of evaporation of a droplet using EHD effect (onset of instability of gas-liquid interface under electric field applied in a stepwise manner). *JSME International Journal*, 1995, **B38**(2), 288 (in English).

Takashima, T. and Iida, Y., A study on the mechanism of spontaneous vapor explosions with single molten tin drops and water. *JSME, International Journal*, 1995, **B38**(1), 114 (in English).

Umekawa, H., Ozawa, M., Miyazaki, A., Mishima, K. and Hibiki, T., Dryout in boiling channel under oscillatory flow condition. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1048.

Watanabe, T., Hanaoka, Y. and Tokura, I., Flashing phenomena of liquid nitrogen in a pressure vessel (1st report, the case of low depressurization rate). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1849.

Yasui, K. and Ohtsuki, Y. H., Effects of evaporation and condensation of water vapor on bubble dynamics. *Bulletin of the Centre for Informatics, Waseda University*, 1995, **18**, 8.

CONDENSATION

Aoki, I. and Kotake, S., Study of cluster size effects on film condensation. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4081.

Araki, H., Kataoka, Y. and Murase, M., Measurement of condensation heat transfer coefficient inside a vertical tube in the presence of noncondensable gas. *J. Nuclear Science Technology*, 1995, **32**(6), 517 (in English).

Fujikawa, S., Theory of film condensation on shock tube endwall behind reflected shock wave. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 635.

Goto, M., Kojima, M., Koyama, S., Fujii, T. and Kashiwagi, T., Free-convection condensation of ammonia/water vapour mixtures on a horizontal smooth tube. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 231.

Honda, H., Takamatsu, H., Makishi, O., Sejimo, H. and Takada, N., Film condensation of HCFC-123 on staggered bundles of horizontal finned tubes (effect of fin geometry). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1055.

Honda, H. and Makishi, O., Effect of circumferential rib on film condensation on a horizontal two-dimensional fin tube. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2591.

Mamyoda, T., Kosuge, H. and Asano, K., Experimental study of condensation of binary vapors on a short horizontal tube. *Journal of Chemical Engineering of Japan*, 1995, **28**(4), 405 (in English).

Matsumoto, M., Yasuoka, K. and Kataoka, Y., Molecular mechanism of evaporation and condensation. *Thermal Science & Engineering*, 1995, **3**(3), 27 (in English).

Takamori, K., Minato, A. and Aihara, T., Improvement of feed-water heater and three-dimensional two-phase flow analysis (numerical simulation of gas liquid two-phase flow behavior with condensation heat transfer). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1212.

Takamori, K., Murase, M., Baba, Y. and Aihara, T., Numerical simulation of gas-liquid two-phase flow behavior with condensation heat transfer. *Trans-*

actions of the Japan Society of Mechanical Engineers, 1995, **B61**(592), 4420.

Tsuruta, T., Sakamoto, N. and Masuoka, T., Condensation process at liquid-vapor interface and condensation coefficient. *Thermal Science & Engineering*, 1995, **3**(3), 85 (in English).

Utaka, Y. and Terachi, N., Measurement of condensation characteristic curves for binary mixture of steam-ethanol vapor. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1063.

Utaka, Y. and Terachi, N., Study on condensation heat transfer for steam-ethanol vapor mixture (relation between condensation characteristic curves and modes of condensate). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3059.

MULTIPHASE FLOW

Abc, Y., Tomiyama, A. and Kataoka, I., Study on prediction of annular-mist flow based on the three-fluid model (2nd report, study on constitutive equations of drag force and interfacial shear stress). *Japanese Journal of Multiphase Flow*, 1995, **9**(2), 132 (in English).

Adachi, H., Abe, Y. and Tsukakoshi, M., Characteristics of vertical annular two-phase flow with local liquid fall-back. *JSME International Journal*, 1995, **B38**(2), 280 (in English).

Adachi, H. and Abe, Y., Study on the characteristics of low-mass-velocity vertical gas-liquid two-phase flow. *Bulletin of the Yamagata University*, 1995, **23**(2), 85.

Fujii, Y., Ohta, K. and Hijikata, K., A numerical study of heterogeneous nucleation and mist development in turbulent flows. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4130.

Fujii, T., Nakazawa, T., Asano, H. and Yamada, H., Flow characteristics of gas-liquid two-phase flow under microgravity (experimental results utilizing parabolic trajectory flights). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1640.

Fujita, H., Ohara, T., Hirota, M., Furuta, H. and Sugiyama, H., Gas-liquid flows in narrow flat channels (influences of liquid properties). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4412.

Fukuda, K., Rao, Y.-F., Hasegawa, S., Nakagawa, K. and Kage, K., Study on two-phase flow instability in parallel multi-channels. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 259.

Furukawa, T., Effect of liquid viscosity on liquid-lump velocity in vertical-upward gas-liquid two-phase flow (velocity characteristics of the long-life liquid lump). *Japanese Journal of Multiphase Flow*, 1995, **9**(2), 121 (in English).

Inoue, A., Kurose, T., Aoki, T., Yagi, M., Mitsutake, T. and Morooka, S., Void fraction distribution in BWR fuel assembly and evaluation of subchannel code. *Journal of Nuclear Science and Technology*, 1995, **32**(7), 629 (in English).

Ishimoto, J., Okubo, M., Kamiyama, S. and Higashitani, M., Bubble behavior in magnetic fluid under a nonuniform magnetic field. *JSME International Journal*, 1995, **B38**(3), 382 (in English).

Kawaguchi, I., Fukano, T. and Fukuyama, N., Jet flow characteristics of hot water nozzles (improvement of nozzle efficiency by jet flow test using

- saturated hot water and two-phase flow of air and water mixture). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1914.
- Kawahara, A., Sadatomi, M., Saito, H. and Sato, Y., Turbulent mixing between subchannels in a gas-liquid two-phase flow (for the equilibrium flow without net fluid transfer between subchannels). *Japanese Journal of Multiphase Flow*, 1995, **9**(1), 26 (in English).
- Kawano, S., Hashimoto, H., Ihara, A. and Ajima, T., Liquid transport system utilizing encapsulated liquid drops. *Japanese Journal of Multiphase Flow*, 1995, **9**(3), 221 (in English).
- Mishima, K. and Hibiki, T., Effect of inner diameter on some characteristics of air-water two-phase flows in capillary tubes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3197.
- Mishima, K., Hibiki, T., Fujine, S., Yoneda, K., Tsuruno, A., Matsubayashi, M. and Sobajima, M., Visualization and measurements of two-phase flows in metallic ducts using neutrons as microscopic probes (1st report, time-resolved neutron radiography and its limited time-resolution). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 3959.
- Nakamura, H., Kukita, Y. and Tasaka, K., Flow regime transition to wavy dispersed flow for high-pressure steam/water two-phase flow in horizontal pipe. *Journal of Nuclear Science and Technology*, 1995, **32**(7), 641 (in English).
- Nakazatomi, M., Shimizu, H., Ochiai, T. and Kakuno, Y., Effect of pressure on flow parameters in vertical upwards gas-liquid two-phase plug flow. *Research Report Ube Technical College*, 1995, **41**, 41.
- Ousaka, A., Morioka, I., Kiyota, M. and Kariyasaki, A., Effect of inclination on hold-up and frictional pressure drop in inclined annular two-phase up-flow. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4353.
- Sakai, S., Sumida, I. and Wakai, K., Measurement of mist concentration distribution by optical CI method. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4061.
- Shibata, Y., Kaminaga, F. and Saito, T., Theoretical analysis of interfacial instability in a countercurrent annular two-phase flow. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2655.
- Shirakashi, M., Kawada, Y. and Takahashi, S., Characteristics of ice/water mixture in horizontal circular pipes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1632.
- Sumida, I., Yamakita, T., Sakai, S., Wakai, K. and Kondo, T., Investigation of two-phase flow mixing between two subchannels (1st report, fluctuating pressure model and its experimental verification). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2662.
- Takahashi, H., Kato, M., Sasaki, M., Kawashima, T. and Masuyama, T., Pressure loss for ice-water slurry flows in pipelines. *Japanese Journal of Multiphase Flow*, 1995, **9**(4), 308 (in English).
- Takahira, H., Miyamoto, H. and Akamatsu, T., Numerical analysis of the dynamics of a non-spherical bubble near a rigid wall (thermal effects of the internal gas). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4249.
- Tomiyama, A., Minagawa, H., Furutani, N. and Sakaguchi, T., Application of a two phase flow model based on local relative velocity to gas-liquid-solid three-phase flows. *Japanese Society of Mechanical Engineering, International Journal*, 1995, **B38**(4), 555 (in English).

MELTING AND SOLIDIFICATION

- Chirifu, S., Honma, T., Aoki, H. and Miura, T., Heterogeneous nucleation of supercooled water on heat transfer surface. *Transactions of JAR*, 1995, **12**(1), 115.
- Esaka, H., Shirakami, T., Mizoguchi, T. and Ogibayashi, S., Solidification of middle carbon steel on the smooth or rough mold surface. *Tetsu to Hagane (Journal of Iron and Steel Institute of Japan)*, 1995, **81**(6), 631.
- Endoh, T. and Hasegawa, E., Method of enhancing velocity of melting using a heating plate made of porous medium. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(590), 3776.
- Fukada, S., Tsuru, H. and Nishikawa, M., Frost formation under different gaseous atmospheres. *Journal of Chemical Engineering of Japan*, 1995, **28**(6), 732 (in English).
- Fukada, S., Inoue, K. and Nishikawa, M., Frost deposition on cooled surfaces under reduced pressure. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering of Japan)*, 1995, **21**(1), 166.
- Hasegawa, M., Freezing of the hard spheres: re-examination of the weighted-density-functional theories. *Journal of Physics Society of Japan*, 1995, **64**(11), 4242 (in English).
- Hasegawa, M., Thermodynamic perturbation approach to freezing of the classical one-component plasma. *Journal of Physical Society of Japan*, 1995, **64**(11), 4248 (in English).
- Hasuno, A., Anzai, K. and Niyama, E., Solidification analysis by FVM on irregular grid. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1470.
- Hirata, T., Ishikawa, M. and Hashimoto, R., Direct contact melting of two-dimensional arbitrarily shaped solid on an isothermally heated horizontal plate. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4117.
- Horibe, A., Fukusako, S. and Yamada, M., Freezing characteristics of droplet on a cooled wall. *Transactions of JAR*, 1995, **12**(1), 63.
- Hu, Y. X., Mihori, T. and Watanabe, H., Freezing time estimation for a cylindrical food using an inverse method. *Transactions of JAR*, 1995, **12**(2), 157.
- Inaba, H., Ozaki, K. and Ikegami, H., Solidification and flow characteristics of molten high-density polyethylene injected into a rectangular cavity. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 223.
- Inaba, H., Miyahara, S. and Takeya, K., Fundamental study on continuous ice making in a circular tube by flowing water solution. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3296.
- Inaba, H. and Morita, S., Cold heat release characteristics of solidified oil droplet-water solution latent heat emulsion by air bubbles. *Transactions of JAR*, 1995, **12**(1), 31.
- Inaba, H., Miyahara, S. and Takeya, K., Effect of some factors on critical condition of ice formation for flowing supercooled organic water solution in cooled circular tube. *Transactions of JAR*, 1995, **12**(1), 73.
- Kajitani, T., Esaka, H., Wakoh, M., Misumi, H. and Ogibayashi, S., Regularity of initial solidification in ultra low carbon steel. *Tetsu to Hagane (Journal of*

- Iron and Steel Institute of Japan*), 1995, **81**(11), 1055.
- Kamioka, H., Elastic variations of paraffin wax during solid-liquid phase transition. *Japan Journal of Applied Physics*, 1995, **34**(5B), 2565 (in English).
- Kawahara, O., Hayashi, Y. and Takimoto, A., Simulation of freezing and melting of water by molecule dynamics method. *Thermal Science & Engineering*, 1995, **3**(3), 81 (in English).
- Kawamoto, M., Watanabe, T. and Ikeda, T., Melting behavior of mold powder for continuous casting of steel by thermo mechanical analysis. *Tetsu to Hagane (Journal of Iron and Steel Institute of Japan)*, 1995, **81**(12), 1132.
- Kunimine, K., Hayashi, Y. and Yoshioka, H., Micro-heat transfer of solidification of mixtures with supercooling (analysis of two-dimensional solidification). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4151.
- Kunugi, T. and Ezato, K., Numerical analysis of melting and evaporation behavior of molybdenum layer irradiated with a laser beam. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1826.
- Makino, H., Kuwabara, M. and Asai, S., Process analysis of non-contact continuous casting of materials using cold crucible. *Tetsu to Hagane (Journal of Iron and Steel Institute of Japan)*, 1995, **81**(5), 523.
- Mizoguchi, T., Ogibayashi, S. and Kajitani, T., Mathematical mode analysis on the growth of initially solidified shell. *Tetsu to Hagane (Journal of Iron and Steel Institute of Japan)*, 1995, **81**(10), 971.
- Nakashima, K., Nishida, T. and Mori, K., Effect of zirconium addition and solidification condition on morphology and distribution of sulfide in steel. *Technology Reports of Kyushu University*, 1995, **68**(5), 491.
- Ohkubo, H. and Tajima, O., Effect of surface temperature on frosting phenomena. *Transactions of JAR*, 1995, **12**(3), 285.
- Sakuma, K. and Suzuki, T., Rapid solidification analysis of 18Cr-8Ni stainless steel considering dendrite growth conditions. *Tetsu to Hagane (Journal of Iron and Steel Institute of Japan)*, 1995, **81**(5), 518.
- Sasaguchi, K., Kusano, K. and Kitagawa, H., Solid/liquid phase change heat transfer around two horizontal, vertically spaced cylinders (an experimental study on the effect of density inversion of water). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 208.
- Sasaguchi, K. and Kusano, K., A numerical study on the solidification of water around horizontal cylinder(s) in a rectangular cavity. *Transactions of JAR*, 1995, **12**(3), 295.
- Sato, Y. and Shibata, J., Factors controlling the thickness of Fe-B-Si-C amorphous ribbon in single-roller process. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3024.
- Shirakashi, R. and Tanasawa, I., Numerical simulation of freezing process of biological tissues. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2642.
- Tsuchiya, K. and Okada, M., Solidification around a horizontal cylinder in a porous medium saturated with aqueous solution (influence of natural convection and forced convection). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4123.
- Ujihara, M., Yamaguchi, R., Aizawa, N. and Tanishita, K., Injury of larger biological tissue by extracellular freezing. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3066.
- POROUS MEDIA (INCLUDING FLUIDIZED AND PACKED BEDS)**
- Fujii, Y., Ohta, K. and Hijikata, K., Natural convection in the saturated packed bed around a horizontal cylinder with a periodically heated wall. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1128.
- Fujima, Y., Tagashira, K., Takatsuka, H., Arakawa, Y., Hasegawa, T. and Nakajima, F., Formation of fast fluidization and the vertical profile of solid concentration (2nd report, diffusive feature of fast fluidization). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2669.
- Fukai, J., Orita, H., Yu, X., Isokawa, I. and Miyatake, O., Modelling of heat transfer, gas flow and stress in porous material with thermal decomposition. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering of Japan)*, 1995, **21**(2), 378.
- Hashizume, K. and Abe, N., Development of liquid-fluidized-bed heat exchangers (1st report, experimental results using horizontal single tube). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 283.
- Hashizume, K. and Abe, N., Development of liquid-fluidized-bed heat exchangers (2nd report, experimental results using horizontal tube bundles). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 692.
- Niu, M., Akiyama, T., Takahashi, R. and Yagi, J., Heat transfer analysis of a single cylinder and a packed bed of carbonaceous material in a high-frequency induction furnace. *Tetsu to Hagane (Journal of Iron and Steel Institute of Japan)*, 1995, **81**(2), 111.
- Okada, M., Matsumoto, K. and Fukuzaki, M., Permeability in a state of solidification of a porous medium saturated with aqueous solution (influence of initial concentration and supercooling degree of aqueous solution). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2248.
- Saito, A., Okawa, S., Maeda, H. and Suzuki, T., Simulation of rarefied gas flow through porous media using direct simulation Monte Carlo method. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 606.
- MASS TRANSFER**
- Fukano, T., Kinoue, Y. and Ishibashi, K., Mass transfer into a liquid film flowing concurrently with gas flow (3rd report, examination in a region of high-speed gas flow). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1035.
- Kamakura, K. and Ozoe, H., Mass transfer across an interface between layers in a double diffusive natural convection. *Journal of Chemical Engineering of Japan*, 1995, **28**(6), 745 (in English).
- Kikuchi, K., Takahashi, H. and Ishida, K., Gas-liquid mass transfer in upward two-phase flow through a vertical tube. *Japanese Journal of Multiphase Flow*, 1995, **9**(3), 231 (in English).
- Kiyota, M., Morioka, I. and Ousaka, A., Effect of surface geometry on steam absorption into falling film of aqueous solution of LiBr. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1436.
- Nagata, K. and Komori, S., Heat and mass transfer in strong stable stratification. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2197.
- Nishimura, T., Mass-transfer enhancement in a fur-

rowed channel with arc-shaped walls for pulsatile flow. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1041.

- Saito, T., Hihara, E., Daiguji, H. and Saruwatari, T., Some aspects of absorption refrigerating machines. *Journal of Graduate School & Faculty of Engineering, University of Tokyo*, 1995, **A33**, 30.
- Yamamoto, I., Makino H. and Kanagawa, A., Optimum feed point for isotope separating thermal diffusion column. *Journal of Nuclear Science and Technology*, 1995, **32**(3), 200 (in English).

THERMAL RADIATION

- Fukuchi, T., Applicability of a flux method to radiative heat transfer analysis in furnaces. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1477.
- Kou, H., Masuda, H., Higano, M. and Ogimura, T., Directional control of radiation heat transfer from solid surface using grating composed of parallel elliptical cylinders. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 251.
- Kudo, K., Taniguchi, H., Kuroda, A., Bingxi, L. and Oguma, M., Analysis of radiative energy transmittance through Ni fibrous layer. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 679.
- Kudo, K., Kuroda, A., Eid, A., Saito, T. and Oguma, M., Solution of the inverse radiative load problem using the singular value decomposition technique. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1768.
- Kudo, K., Kuroda, A., Taniguchi, H., Otaka, M., Ushijima, T. and Obata, M., Analysis of combined radiative-convective heat transfer in nongray gas jet. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2235.
- Sasanuma, M., On the radiative equilibrium condition and the thermal radiation. *Journal of the Physical Society of Japan*, 1995, **64**(2), 448 (in English).

MOLECULAR AND MICROSCALE HEAT TRANSFER

- Fujikawa, S., Matsumoto, M., Kotani, M. and Sato, H., Molecular study of evaporation and condensation of an associating liquid (shock-tube experiment and molecular dynamics simulation). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 215.
- Fujikawa, S., Kotani, M. and Sato, H., Molecular study on phase transition phenomena of fluid. *Thermal Science & Engineering*, 1995, **3**(3), 45 (in English).
- Hashimoto, H. and Kotake, S., Spectroscopic study of clustering process near condensate. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4463.
- Hashimoto, H. and Kotake, S., *In-situ* measurement of clustering process near condensate. *Thermal Science & Engineering*, 1995, **3**(3), 37 (in English).
- Hijikata, K., Ito, K. and Torikoshi, K., Thermoelectric voltage at metallic point contact by nonequilibrium effect and electron tunneling effect. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1863.
- Hirai, S., Okazaki, K., Kuraoka, S. and Kawamura, K., Investigation for the stability of CO₂ clathrate-hydrate using molecular dynamics simulation. *Thermal Science & Engineering*, 1995, **3**(3), 69 (in English).
- Inoue, T., Effect of translational energy of Ag atoms on crystalline structure of thin films. *Thermal Science & Engineering*, 1995, **3**(2), 17 (in English).
- Inoue, T., Effect of the translational energy of silver atoms and the deposition rate on the film condensation process and crystalline structure of thin film. *Thermal Science & Engineering*, 1995, **3**(3), 51 (in English).
- Ito, K. and Hijikata, K., Nonequilibrium effect on thermoelectric voltage at point contact. *Thermal Science & Engineering*, 1995, **3**(3), 91 (in English).
- Iwaki, T., Molecular dynamics study on propagation of pressure wave and its control. *Thermal Science & Engineering*, 1995, **3**(3), 1 (in English).
- Kotake, S., Thermo-fluid engineering with quantum, molecular and continuum dynamics. *Thermal Science & Engineering*, 1995, **3**(3), 21 (in English).
- Maruyama, S. and Yamaguchi, Y., A Molecular dynamics simulation for the formation mechanism of fullerene. *Thermal Science & Engineering*, 1995, **3**(3), 105.
- Matsumoto, S., Surface behaviors of a liquid droplet by molecular dynamics method. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 599.
- Mizobata, K., Kubota, H. and Wada, Y., Analysis of coupled molecular vibration and dissociation using quasiclassical collision trajectory calculations. *Thermal Science & Engineering*, 1995, **3**(4), 17 (in English).
- Nagatani, T., Extended DLA models for metal-thin films. *Thermal Science & Engineering*, 1995, **3**(3), 101 (in English).
- Ohara, T. and Aihara, T., Molecular dynamics study on hydrogen bond in water (1st report, dependence of number and lifetime on temperature and density). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 592.
- Ohara, T. and Aihara, T., Molecular dynamics study on hydrogen bond in water (2nd report, analysis of hydrogen bond network). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1107.
- Ohara, T. and Aihara, T., Molecular dynamics study on phase change and cluster formation in fluids. *Thermal Science & Engineering* 1995, **3**(3), 7 (in English).
- Qui, T., Aoki, I. and Kotake, S., Molecular-scale transport phenomena in thin-film deposition. *Thermal Science & Engineering*, 1995, **3**(3), 95 (in English).
- Shibahara, M. and Kotake, S., Quantum molecular dynamics study on the light absorption of metal. *Thermal Science & Engineering*, 1995, **3**(3), 15 (in English).
- Sugiyama, K., Numerical simulation on unsteady flow induced in rarefied gas container by the Monte Carlo method. *Thermal Science & Engineering*, 1995, **3**(3), 111 (in English).
- Takahira, H., Thermal effects of the internal gas on the oscillations of a cluster of bubbles. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4241.
- Yamanishi, N. and Matsumoto, Y., Molecular dynamics study of a diatomic gas molecule scattering from a solid surface. *Thermal Science & Engineering*, 1995, **3**(2), 25 (in English).
- Yamanishi, N. and Matsumoto, Y., Molecular dynamics simulation of a diatomic gas molecule scattering from a solid surface. *Thermal Science & Engineering*, 1995, **3**(3), 33 (in English).
- Zolotoukhina, T. N., Quantum molecular dynamics study of energy transfer of diatomic molecules to solid surfaces. *Thermal Science & Engineering*, 1995, **3**(4), 7.

MEASUREMENT

- Ashizawa, M., Inumaru, J., Ichikawa, K., Takahashi, T. and Hamamatsu, T., Development of technology to measure ash fusion temperature in range of ultra-high temperature and characteristics of coal ash fusion. *Thermal Nuclear Power*, 1995, **46**(6), 608.
- Edholm, B., Söderbärg, A., Olsson, J. and Johansson, E., Transient measurements of heat distribution in devices fabricated on silicon-on-diamond material. *Japan Journal of Applied Physics*, 1995, **34**(9A), 4706 (in English).
- Fujii, M., Zhang, X. and Kumamori, T., Noninvasive measurement of internal temperature distribution using ultrasonic computed tomography. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1888.
- Fujihara, T. and Hattori, S., Study on accuracy of a new calibration method for monochromatic radiation thermometer. *Bulletin NRLM (National Research Laboratory of Metrology)*, 1995, **44**(3), 236.
- Hara, Y., Ito, S., Ni-imi, T. and Fujimoto, T., Measurement of temperature by pure rotational CARS (2nd report, application of pure rotational CARS to gas mixture). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 622.
- Hinata, S., Himeno, N., Sakurai, M., Iida, H. and Yokota, N., Measurement technique of a refractive index of liquid using optical fiber sensor. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1901.
- Iida, H., Hinata, S., Nakazawa, M., Himeno, N., Sakurai, M. and Terao, K., Measurement of flow rate in a thin elastic tube using miniaturized fiberoptic refractometer. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1895.
- Iida, T., Murakami, M. and Shimazaki, T., Application of laser holographic interferometer to thermo-fluid dynamic phenomena in cryogenic liquids. *Cryogenic Engineering*, 1995, **30**(2), 85.
- Katoh, K., Tsao, Y., Yamamoto, M., Fujita, H. and Azuma, T., A study on measurement of solid-liquid contact angle and surface tension. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1456.
- Katoh, K., Azuma, T. and Tsao, Y., Measurement of solid-liquid contact angle and liquid surface tension (method using inclined plate). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4171.
- Nara, K., Kato, H. and Okaji, M., Design of platinum resistance thermometer with small magnetic field correction. *Bulletin NRLM (National Research Laboratory of Metrology)*, 1995, **44**(2), 139.
- Nawata, Y., Measurement of temperature distribution in phantom body by an ultrasonic CT method. *Research Report of Yatsushiro National College of Technology*, 1995, 17, 1.
- Okada, S., Aihara, T., Yamamoto, H. and Komura, A., Optical observations of normal zone propagation in an immersion-cooled superconducting coil and of pressure wave propagation induced in liquid helium. *Cryogenic Engineering*, 1995, **30**(4), 177.
- Takahashi, K., Nagayama, K. and Ouchi, M., Measurement of laser-ablation plume by highly sensitive interferometer. *Thermal Science & Engineering*, 1995, **3**(3), 75 (in English).
- Yano, T., Torii, S., Kinoshita, K. and Hirata, K., Estimation of land surface temperature based on satellite image data. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585) 1907.
- Zhu, N., Kato, S., Maruyama, N. and Ito, N., Acoustic tomography for three dimensional temperature and CO₂-concentration measurements of environmental fields. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1122.

THERMOPHYSICAL PROPERTIES

- Agari, Y., Shimada, M. and Ueda, A., Measurement of effective thermal diffusivity of a polyethylene composite filled with copper particles, by laser flash method. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(1), 17.
- Fujii, M., Park, S., Tomimura, T. and Zhang, X., A non-contact measuring method of thermal conductivity and diffusivity of isotropic materials. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(4), 231.
- Fukai, J., Orita, H., Isokawa, I., Yu, X. and Miyatake, O., Heating-rate dependence of expansion and contraction behaviors of formed green carbon. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering of Japan)*, 1995, **21**(1), 152.
- Gao, X., Nagasaka, Y. and Nagashima, A., Thermal conductivity of HFC-134a in the solid phase. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(4), 219.
- González, E. and Ortega, J., Vapor-liquid equilibria for mixtures of several butyl esters (methanoate to butanoate) and 1-propanol at 101.32 kPa. *Journal of Chemical Engineering of Japan*, 1995, **28**(6), 765 (in English).
- Hafnan, M. and Nishiwaki, K., Determination of thermal conductivity and thermal diffusivity of s.i. engine combustion chamber deposits. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3390.
- Haga, H., Onodera, A., Shiozaki, Y., Ema, K. and Sakata, H., Three dimensional XY critical behavior of heat capacity at normal-incommensurate phase transition in Rb₂ZnCl₄. *Journal of Physical Society of Japan*, 1995, **64**(3), 822 (in English).
- Haga, H., Nozaki, R., Shiozaki, Y. and Ema, K., Preasymptotic 3D XY critical behavior of heat capacity at normal-incommensurate phase transition in K₂ZnCl₄ and K₂SeO₄. *Journal of Physical Society of Japan*, 1995, **64**(11), 4528 (in English).
- Hamada, Y. and Kumada, M., Thermal diffusivity measurement of low conductivity materials by laser flash method (optimization of the measuring condition using a front shielding plate and correction of heat loss effect). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1100.
- Hiaki, T., Takahashi, K., Tsuji, T. and Hongo, M., Isothermal vapor-liquid equilibrium with computer-aided measurement. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(3), 175.
- Higano, M., Ozeki, Y., Nakamura, K., Ibe, M. and Masuda, H., Improved technique for measuring total hemispherical emissivities of metals at low temperatures. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(1), 9.
- Higano, M., Ozeki, Y., Nakamura, K., Ibe, M. and Masuda, H., Accurate measuring method for total hemispherical emissivity of aluminum at low temperatures. *Cryogenic Engineering*, 1995, **30**(2), 76.
- Inaba, H. and Morita, S., Evaluation of thermophysical properties of fine capsulated latent heat storage material and water mixture. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(1), 24.
- Inoue, M., Specific heat of the two-dimensional $\pm J$

- Ising model. *Journal of Physical Society of Japan*, 1995, **64**(10), 3699 (in English).
- Katayama, H. and Ichikawa, M., Liquid-liquid equilibria of three ternary systems: methanol-heptane including 1,3-dioxolane, 1,4-dioxane and tetrahydropyran in the range of 253.15 to 303.15 K. *Journal of Chemical Engineering of Japan*, 1995, **28**(4), 412 (in English).
- Kimura, M., Masui, T., Miyata, K., Nishioka, N., Hanayama, Y. and Nishitake, T., Measurement of ultrasound velocity in condensed helium gas up to 3 GPa. *Memoirs of Faculty of Engineering, Ehime University*, 1995, **14**, 411.
- Kiyohashi, H. and Tokuta, M., Thermal conductivity measurement of low-conductive sheet material by instantaneous and simple measuring using a transient hot-wire comparative method (measured results on several kinds of thermal transfer paper). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2221.
- Kobayashi, N. and Yamamoto, I., Thermal diffusion coefficient in multi-component mixture expressed in terms of binary thermal diffusion factors and binary diffusion coefficients. *Journal of Nuclear Science and Technology*, 1995, **32**(12), 1236 (in English).
- Kobayashi, T. C., Honda, H., Koda, A. and Amaya, K., Low temperature thermal and magnetic properties of Cu-doped Haldane gap antiferromagnet NENP. *Journal of Physical Society of Japan*, 1995, **64**(7), 2609 (in English).
- Lee, C., Baba, T. and Ono, A., Development of a differential laser flash calorimeter. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(4), 224.
- Makino, A. and Araki, N., Estimation of the thermal diffusivity profile in functionally gradient materials. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(2), 83.
- Matsukawa, M., Tatezaki, F., Ogasawara, H., Noto, K. and Yoshido, K., Thermal transport and percolative transition in the Ag-BPSCCO composite system. *Journal of Physical Society of Japan*, 1995, **64**(1), 164 (in English).
- Matsumoto, T., Ono, A. and Sano, T., A simplified measurement of thermal conductivity based on radiative heat exchange. *Bulletin of NRLM (National Research Laboratory of Metrology)*, 1995, **44**(3), 244.
- Matsumoto, T. and Ono, A., Specific heat capacity and emissivity measurements of ribbon-shaped graphite using pulse current heating. *Bulletin of NRLM (National Research Laboratory of Metrology)*, 1995, **44**(3), 260.
- Matsumura, Y., Wang, S., Shinohara, K. and Hatta, I., Thermal conductivity of ribbonlike carbon films. *Japan Journal of Applied Physics*, 1995, **34**(1), 232 (in English).
- Matsunaga, N., Hori, M. and Nagashima, A., The mutual diffusion coefficients between halogenated-hydrocarbon refrigerants and air. *Bulletin of Science and Engineering Takushoku University*, 1995, **5**(2), 109.
- Matsunaga, N., Hori, M. and Nagashima, A., The generalization of mutual diffusion coefficients between the halogenated-hydrocarbon refrigerants and air by applying the principle of corresponding states. *Bulletin of Science Engineering Takushoku University*, 1995, **5**(2), 116.
- Morioka, N., Yurai, A. and Nakanishi, T., Thermal diffusivity measurement of liquid samples by inverse photopyroelectric detection. *Japan Journal of Applied Physics*, **34**(5B), 2579.
- Murakami, K., Sato, H. and Watanabe, K., Thermodynamic properties of LiBr/H₂O solution (1st report, Measurements of bubble-point pressures). *Transactions of JAR*, 1995, **12**(1), 107.
- Murakami, K., Sato, H. and Watanabe, K., Thermodynamic properties of LiBr/H₂O solution (2nd report, developments of duhring chart and duhring equation). *Transactions of JAR*, 1995, **12**(3), 307.
- Nagashima, H., Okamoto, H., Okada, Y. and Ishihara, Y., High-temperature specific heats of Nb₃X₄ with X = S, Se and Te. *Journal of Physical Society of Japan*, 1995, **64**(10), 3804 (in English).
- Nemoto, E. and Kawashimo, K., Thermal conductivity measurement of two-dimensional anisotropic heat conductor using steady heat source and sink. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2620.
- Ohkubo, K., Terada, Y., Mohri, T. and Suzuki, T., Effects of sample conditions on the reliability of thermal conductivity data taken by the laser-flash method. *Bulletin of the Faculty of Engineering Hokaido University*, 1995, **175**, 97.
- Rikitoku, M. and Idogaki, T., Magnetic susceptibility and specific heat of a transversing chain with a random distribution of two types of exchange interactions. *Technology Reports of Kyushu University*, 1995, **68**(4), 261.
- Susial, P. and Ortega, J., Vapor-liquid equilibria of methyl ethanoate with n-butyl and iso-butyl alcohol at 74.66 and 127.99 kPa. *Journal of Chemical Engineering of Japan*, 1995, **28**(1), 66 (in English).
- Takasuka, E., Tokizaki, E., Terashima, K. and Kimura, S., Thermal diffusivity of liquid germanium. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(3), 169.
- Takei, T., Saito, K. and Kawai, S., Evaluation of enthalpy diagrams for NH₃-H₂O absorption refrigerator (analysis and comparison between Ziegler's equations and merkel's enthalpy diagrams). *Transactions of JAR*, 1995, **12**(1).
- Takiguchi, Y., Kamiya, M. and Uematsu, M., Measurements of the vapor pressure for ethanol at temperatures from 310 K to 400 K. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 644.
- Tanaka, H. and Kato, M., Vapor-liquid equilibrium properties of carbon dioxide+ethanol mixture at high pressure. *Journal of Chemical Engineering of Japan*, 1995, **28**(3), 263.
- Tazawa, M., Fujii, A. and Tanemura, S., The surface substructural effects on restrahlen bands in reflectance of alumina ceramics with different sized grains. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(3), 157.
- Todate, T., Matsukawa, M., Noto, K., Yamada, Y., Jikihara, K. and Ishihara, M., Thermal conductivity of STYCAST reinforced Bi-2223 superconducting materials. *Cryogenic Engineering*, 1995, **30**(11), 495.
- Tokunaga, Y., Minamide, A. and Nakada, N., Measurement of thermal diffusivity of transparent adhesives by photoacoustic microscope. *Japan Journal of Applied Physics*, 1995, **34**(5B), 2900 (in English).
- Tokura, I., Hanaoka, Y. and Saito, H., Effective thermal conductivity of liquid-gas foams. *Japan Journal of Thermophysical Properties (Netsu Bussei)*, 1995, **9**(3), 163.
- Tsuchiya, Y., Thermodynamic evidence for structural changes in liquid CdSb. *Journal of Physical Society of Japan*, 1995, **64**(1), 159 (in English).
- Yoshida, T., Sanagi, Y. and Uematsu, M., Prediction of thermodynamic properties of argon and methane with molecular simulation (applicability of calculation of the properties of natural gases). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1442.

HEAT EXCHANGER

- Ikegami, Y., Urata, K., Tsuru, T., Sumitomo, H., Yamasaki, T. and Uehara, H., Prevention of marine biofouling by ozonation using plate-type heat exchanger. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2269.
- Isogami, H., Saho, N., Kunugi, Y., Yokoi, K. and Yoshida, C., Heat transfer and flow characteristics of perforated-plate heat exchangers with crosscut fins. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2632.
- Itoh, M., Urata, K., Matsushima, H., Kunugi, Y., Kogure, H. and Harada, I., Development of heat exchangers for air-conditioners capable of supplying high-temperature (80°C) air. *Transactions of JAR*, 1995, **12**(2), 185.
- Itoh, M., Kogure, H., Miyagi, M., Mochizuki, S., Yagi, Y. and Kunugi, Y., Development of an accordion-type offset-fin heat exchanger for air-conditioners. *Transactions of JAR*, 1995, **12**(2), 219.
- Takeshita, H., Matsuda, H. and Kitahara, K., The optimal position of the heat exchanger of the boiler. *Research Report of the Kogakuin University*, 1995, **79**, 9.

HEAT PIPE AND THERMOSYPHON

- Hirashima, M., Kawabata, K. and Negishi, K., Experimental study of separate type thermosyphon (on the generation of carry-over of working fluid by bumping). *Transactions of JAR*, 1995, **12**(1), 85.
- Ippohshi, S., Imura, H. and Yamamura, H., Development of an osmotic heat pipe. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4178.
- Kuncoro, H., Iwahashi, K., Rao, Y. F. and Hukuda, K., Study on geysering mechanism in closed thermosyphon. *Engineering Sciences Reports, Kyushu University (Kyushu Daigaku Sogorikogaku Kenkyuka Hokoku)*, 1995, **16**(4), 415.
- Miyasaka, A., Heat-transport characteristics of capillary looped pipes. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 665.
- Monde, M., Mitsutake, Y. and Kurihara, A., Analysis of critical heat flux in two-phase thermosyphon (relationship between maximum falling liquid rate and critical heat flux). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4101.
- Shimizu, A., Morita, H. and Wani, T., Heat transfer experiment of a closed two-phase thermosyphon with partially perforated concentric tube. *Research Report of Tokyo National College of Technology*, 1995, **27**, 33.
- Takahashi, Y., Umeda, H., Sumomogi, T., Hashimoto, R. and Mizuta, K., Flow pattern of working fluid and heat transfer performance in annular type rotating heat pipes with horizontal axis (1st report, flow pattern and the heat flow rate at the evaporation section). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(589), 3321.
- Takahashi, Y., Umeda, H., Sumomogi, T., Hashimoto, R. and Mizuta, K., Heat transfer rate of annular-type rotating heat pipes with horizontal axis (2nd report, experiments and theoretical analysis for the heat transport rate). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4432.
- Yamamoto, T. and Wu, W., Material compatibility of inconel 660/sodium heat pipe. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1869.

THERMAL STORAGE

- Inaba, H. and Morita, S., Fundamental study of cold heat-storage and heat-release systems of fine capsulated latent heat-storage material-water mixture (1st report, physical properties evaluation of fine capsulated latent heat storage material-water mixture). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1841.
- Inaba, H. and Morita, S., Fundamental study of cold heat-storage and heat-release systems of fine capsulated latent heat-storage material-water mixture (2nd report, flow and cold heat-storage characteristics of fine capsulated latent heat-storage material-water mixture in a coiled double-tube heat exchanger). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(588), 3030.
- Inaba, H. and Morita, S., Fundamental study of cold heat-storage system of O/W-type emulsion having cold latent-heat-dispersion material (3rd report, cold heat-release characteristics of emulsion by air-emulsion direct-contact heat exchange method). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(583), 1149.
- Inaba, H. and Morita, S., Fundamental study of cold energy storage and energy release systems of fine capsulated latent-heat storage material-water mixture (3rd report, measurement of cold energy release characteristics in direct heat exchanger between air and water laden with fine capsules containing latent heat material). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4448.
- Ishikawa, M., Hirata, T. and Matsushita, T., Experimental performance estimation of capsule-type thermal energy storage system. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4456.
- Moriya, M., Tanino, M., Kikuchi, S., Hayashi, T., Okonogi, T. and Kozawa, Y., An ice storage system using supercooled water (1st report, stable control of supercooling water and ice making). *Transactions of JAR*, 1995, **12**(3), 253.
- Tanino, M., Moriya, M., Kikuchi, S., Shiraishi, H., Okonogi, T. and Kozawa, Y., An ice storage system using supercooled water (2nd report, ice storage and melting characteristics). *Transactions of JAR*, 1995, **12**(3), 263.
- Tanino, M., Iribe, M., Okonogi, T. and Kozawa, Y., An ice storage system using supercooled water (3rd report, economic analysis of system design factors). *Transactions of JAR*, 1995, **12**(3), 275.
- Tsutsui, K. and Yamazaki, S., Characteristic of heat recovery on latent thermal storage by paraffin. *Research Report of Tokyo National College of Technology*, 1995, **27**, 37.

VARIOUS APPLICATIONS

- Aihara, T., Ohara, T. and Sasago, A., Overall performance of heat sink-fan/pump unit and the optimum design. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1528.
- Copeland, D., Manifold microchannel heat sinks: analysis and optimization. *Thermal Science & Engineering*, 1995, **3**(1), 7 (in English).
- Copeland, D., Takahira, H., Nakayama, W. and Pak, B.-C., Manifold microchannel heat sinks: theory and experiment. *Thermal Science & Engineering*, 1995, **3**(2), 9 (in English).
- Dang, R., Kawashima, H. and Hayashi, H., Lattice temperature analysis taking account of carrier energy transport in MOSFETs. *Bulletin of College of Engineering, Hosei University*, 1995, **31**, 1.

- Fujii, T., Nishiguchi, A., Fukushima, T., Ohuchi, T. and Kunugi, Y., Analysis of dynamic behavior of an absorption chiller heater (2nd report, experimental validation of the mathematical model of evaporator and absorber). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(587), 2683.
- Fujii, T., Kataoka, Y., Murase, M. and Sumida, I., Effect of a divided wetwell on heat removal capability of the water wall type passive containment cooling system. *Journal of Nuclear Science and Technology*, 1995, **32**(1), 18 (in English).
- Fukushima, T., Yanagi, K., Mihara, K., Hashimoto, R., Mizuta, K. and Wada, K., Numerical analysis of a roll for thermal deformation and contact with strip. *Japan Society of Mechanical Engineering International Journal*, 1995, **B38**(1), 92 (in English).
- Fukuta, M., Yanagisawa, T., Shimizu, T. and Shikata, T., Compression characteristics of refrigerant-oil mixture in refrigerant compressors (1st report, modeling of leakage and heat transfer). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 542.
- Hayashi, M., Hasegawa, T. and Ohiwa, N., Numerical simulation of glass-pressing process. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(591), 4157.
- Hido, E. M., Bando, Y. and Nishimura, M., Collection characteristics of a solar air heater with built-in net. *Journal of Chemical Engineering of Japan*, 1995, **28**(3), 340 (in English).
- Inada, T. and Nishio, S., Analysis of shuttle loss including influence of pressure oscillation in GM refrigerators. *Cryogenic Engineering*, 1995, **30**(1), 26.
- Inada, T., Nishio, S., Takahashi, M. and Nakagome, H., Measurement of shuttle loss in GM refrigerators. *Cryogenic Engineering*, 1995, **30**(1), 36.
- Inada, T., Nishio, S. and Ohtani, Y., Effect of phase control on orifice and double-inlet pulse tube refrigerators. *Cryogenic Engineering*, 1995, **30**(10), 468.
- Ishimoto, J., Okubo, M. and Kamiyama, S., Basic study on an energy conversion system using boiling two-phase flows of temperature-sensitive magnetic fluid (theoretical analysis based on thermal non-equilibrium model and flow visualization using ultrasonic echo). *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 157.
- Kagawa, N., Analytical method for stirling engines and coolers. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(586), 2312.
- Kaneko, A., Dye diffusion thermal transfer model including partition coefficients in dye diffusion thermal transfer printing. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1880.
- Kiguchi, Y., Watanabe, T. and Kanzawa, A., Heat transfer characteristics in tert-butanol dehydration reaction used for heat transport. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering of Japan)*, 1995, **21**(4), 746.
- Kinoshita, I., Nishi, Y. and Furuya, M., Innovative steam generator for FBRs with direct contact heat transfer (evaluation of size, safety and material compatibility). *CRIEPI (Central Research Institute of Electric Power Industry)*, 1995, Rep. T95006.i.
- Kodama, A., Goto, M., Hirose, T. and Kuma, T., Performance evaluation for a thermal swing honeycomb rotor adsorber using a humidity chart. *Journal of Chemical Engineering of Japan*, 1995, **28**(1), 19 (in English).
- Kurokawa, H. and Sawa, T., Heat recovery characteristics of membrane distillation. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering of Japan)*, 1995, **21**(2), 286.
- Lu, W.-M., Lan, C.-M. and Fang, H.-W., Local heat transfer in a stirred vessel with and without aeration. *Journal of Chemical Engineering of Japan*, 1995, **28**(6), 666 (in English).
- Miyanaga, T. and Oonuma, T., Thermal environment of radiant cooling and heating space (part 2, improvement of hybrid air-conditioning system and its operation characteristics). *CRIEPI (Central Research Institute Electric Power Industry)*, 1995, Rep. T95005.i.
- Murao, Y., Araya, F., Iwamura, T. and Okumura, K., A concept of passive safety pressurized water reactor system with inherent matching nature of core heat generation and heat removal. *Journal of Nuclear Science and Technology*, 1995, **32**(9), 855 (in English).
- Murata, A., Mochizuki, S., Morimoto, Y. and Egashira, N., Printing characteristics of full-color thermal dye-transfer printers using semiconductor laser heat. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(582), 686.
- Nagata, T., Sato, K. and Watanabe, M., Printing characteristics estimation of thermal head. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(581), 289.
- Nagata, T. and Watanabe, M., Sixteen dot/mm thermal printing head using polyimide heat-resistant layer. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(585), 1874.
- Numao, T., Fukuzawa, K., Okamoto, Y., Watanabe, I. and Oguro, H., A fundamental study on measuring heat environment of houses. *Journal of Faculty of Engineering Ibaraki University*, 1995, **43**, 27.
- Sakakibara, Y. and Ohno, T., The application of the heat balance in reservoir to the stratification model-case study. *Journal of Toyota National College of Technology*, 1995, **28**, 43.
- Suzuki, K., Kakitsubata, N., Tsuchikawa, T. and Hori-koshi, T., Determination of a human body model representing physiological factors. *Journal of Toyota National College of Technology*, 1995, **28**, 87.
- Sakaya, T., Fujiwara, H. and Kurashige, T., Heat removal study on dry vault storage system for spent fuel. *Thermal Nuclear Power*, 1995, **46**(9), 940.
- Takemori, T., Nakajima, T. and Shoji, Y., A fundamental model of the human thermal system for prediction of thermal comfort. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(584), 1513.
- Tominaga, A., Entropy production and efficiency of refrigerator. *Cryogenic Engineering*, 1995, **30**(3), 135.
- Yamaguchi, M., Sayama, S., Yoneda, H., Iwamoto, K., Harada, M., Watanabe, S. and Fukai, K., Heat storage-type floor heating system with heat pump driven by discount electricity supplied at night. *Kagaku Kogaku Ronbunshu (Transactions of Chemical Engineering of Japan)*, 1995, **21**(5), 853.
- Yasui, H. and Tsuda, Y., ITO thin films prepared by magnetron sputtering method using ITO target (effects of plasma conditions and substrate temperature on ITO film properties). *JSME International Journal*, 1995, **B38**(1), 108 (in English).
- Yoon, J., Oh, H. and Kashiwagi, T., Characteristic simulation of the waste-heat utilization absorption cycles. *Transactions of JAR*, 1995, **12**(1), 43.

MISCELLANEOUS

- Churchill, S. W., New wine in new bottles; unexpected findings in heat transfer. *Thermal Science & Engineering*, 1995, **3**(4), 1 (in English).

- Okazaki, K., Nozaki, T., Uemitsu, Y., Yasuda, S. and Hijikata, K., Direct conversion of methane to methanol and effect of basic factors in nonequilibrium plasma at atmospheric pressure. *Transactions of the Japan Society of Mechanical Engineers*, 1995, **B61**(592), 4471.
- Yasuda, S. and Okazaki, K., Enhancement of nucleation density in plasma CVD by ultra-short high-voltage pulses. *Thermal Science & Engineering*, 1995, 3(3), 63 (in English).