HEAT TRANSFER BIBLIOGRAPHY—JAPANESE WORKS

TAKASHI SATŪ

Department of Mechanical Engineering, Kyoto University

(Received 29 January 1965)

APPLICATION AND OUTLOOK

- Y. OKAMOTO, Temperature distribution and efficiency of radiative and convective fin accompanied by internal heat source (Part 1, A sheet of plate fin and annular fin), Trans. Jap. Soc. Mech. Engrs 30, 210, 267 (1964).
- T. UEDA and I. HARADA, Experiment of heat transfer on the surfaces with transverse fins for flow direction, Trans. Jap. Soc. Mech. Engrs 30, 210, 278 (1964).
- K. Nakamura and M. Nakatani, Researches on new heat transmitting tubes (6th Report, Application of new heat transmitting tubes to automobile radiators), *Trans. Jap. Soc. Mech. Engrs* 30, 210, 287 (1964).
- Y. OKAMOTO, Temperature distribution and efficiency of a convective and radiative fin accompanied by heat generation (Part 2, A single sheet of convective fin), Trans. Jap. Soc. Mech. Engrs 30, 219, 1361 (1964).

CHANNEL FLOW

- T. MUNAKATA, S. SHIOTA and H. SHINOHARA, Mass and heat transfer in tube within viscous flow region at low pressure, J. Chem. Engng Japan 28, 5, 368 (1964).
- Y. Mori and W. Nakayama, Study on forced convective heat transfer in curved pipes (1st Report, Laminar region), *Trans. Jap. Soc. Mech. Engrs* 30, 216, 977 (1964).
- S. HAYASHI, A. SAKURAI and T. IWAZUMI, Study on transient heat transfer in the heterogeneous water reactor—Part 1, *Tech. Rept. Engng Res. Inst. Kyoto Univ.* 13, 6, Rept. No. 105 (1963).
- I. MICHIYOSHI and R. MATSUMOTO, An analytical study of heat transfer in a fluid fuel nuclear reactor, *Tech. Rept. Engng Res. Inst. Kyoto Univ.* 14, 2, Rept. No. 112 (1964).
- S. HAYASHI, A. SAKURAI and T. IWAZUMI, Studies on transient heat transfer in the heterogeneous water reactor—Part 2, *Tech. Rept. Engng Res. Inst. Kyoto Univ.* 14, 3, Rept. No. 113 (1964).
- Y. Mori, K. Futagami, S. Tokuda and A. Nakamura, Forced convective heat transfer in horizontal tubes (1st Report, Experimental study on the effect of buoyancy), *Trans. Jap. Soc. Mech. Engrs* 30, 219, 1378 (1964).
- S. HAYASHI, A. SAKURAI and T. IWAZUMI, Transient heat transfer in the heterogeneous water reactor (2). J. Atomic Energy Soc. Japan 6, 7, 399 (1964).

FORCED CONVECTION

- T. TSUBOUCHI, Heat transfer of a small particle, J. Jap. Soc. Mech. Engrs 67, 548, 1338 (1964).
- T. TSUBOUCHI and H. MASUDA, Heat transfer between single particles and various fluids in relative forced

- convection, *Trans. Jap. Soc. Mech. Engrs* **30**, 219, 1394 (1964).
- T. Tsubouchi and Y. Ōta, Experimental study of the heat transfer between single pin and air by forced convection, *Trans. Jap. Soc. Mech. Engrs* 30, 219, 1402 (1964).
- Y. Sano and S. Nishikawa, The heat transfer coefficient of fine wires in air flow, *J. Chem. Engng Japan* 28, 4, 275 (1964).

NATURAL CONVECTION

- M. SHIMIZU, Rate of air flow caused by natural convection in a vertical cylinder—Effect of temperature dependence of thermal conductivity, J. Chem. Engng Japan 28, 5, 390 (1964).
- K. YAMAGATA, K. NISHIKAWA, S. HASEGAWA, T. FUJII, K. MIYABE and K. TERAZAKI, Free convective heat transfer to a supercritical fluid (2nd Report), Technology Rept. Kyushu Univ. 37, 1, 47 (1964).
- I. MICHIYOSHI, Heat transfer from an inclined thin flat plate by natural convection, *Trans. Jap. Soc. Mech. Engrs* 30, 210, 261 (1964).
- S. AKAGI, Free convective heat transfer in viscous oil, Trans. Jap. Soc. Mech. Engrs 30, 213, 624 (1964).
- T. TSUBOUCHI, S. SATŌ and H. MASUDA, Effect of Prandtl number on the natural convective heat transfer of small particles, *Trans. Jap. Soc. Mech. Engrs* 30, 219, 1386 (1964).

CONDUCTION

- I. Mabuchi, An experimental study on the effectiveness of adiabatic plate covered by cold air film, *Trans. Jap. Soc. Mech. Engrs* 30, 219, 1369 (1964).
- K. MIURA, Heat conduction characteristics of membrane wall, 30th Anniv. Trans. Hitachi Central Res. Lab. 93 (1964).
- S. SUGIYAMA, M. HASATANI and K. MIWA, Heat conduction in double cylinders, J. Chem. Engng Japan 28, 8, 668 (1964).

CHANGE OF PHASE

- K. TAMARI and K. NISHIKAWA, The stirring effect of bubbles on the heat transfer, *Technology Rept. Kyushu Univ.* 37, 1, 52 (1964).
- K. TAKEUCHI, On the measurement of temperature distribution along heat conducting wall under transient boiling, Sci. Engng Rev. Doshisha Univ. 5, 2, 28 (1964).
- M. Haneda, Thermal and hydrodynamic experiments on boiling loops and their problematical points, *J. Jap. Soc. Mech. Engrs* 67, 543, 555 (1964).

- K. NISHIKAWA, H. KUSUDA and K. YAMASAKI, Growth and collapse of bubbles in nucleate boiling, *Trans. Jap. Soc. Mech. Engrs* 30, 216, 989 (1964).
- MICHIYOSHI and T. NAKAJIMA, An experimental study of bubble motion on a heating surface in nucleate boiling, Mem. Fac. Engng Kyoto Univ. 26, 1, 336 (1964).
- MICHIYOSHI, K. UEMATSU and T. NAKAJIMA, An analytical study of heat transfer in nucleate boiling, Mem. Fac. Engng Kyoto Univ. 26, 1, 16 (1964).

TWO-PHASE FLOW

- S. ISHIGAI, M. YAMANE and K. RŌKO, Measurement of the component flows in the vertical two-phase flow by making use of the pressure fluctuation (Part 1, Proposal of a characteristics number), *Trans. Jap. Soc. Mech. Engrs* 30, 219, 1323 (1964).
- S. ISHIGAI, M. YAMANE, K. RŌKO, T. TAKAGI and K. TANAKA, Measurement of the component flows in the vertical two-phase flow by making use of the pressure fluctuation (Part 2, The flow model for the slug-flow and its application). *Trans. Jap. Soc. Mech. Engrs* 30, 219, 1330 (1964).
- K. Gotō and K. Inoya, Dynamic characteristics of a pneumatic conveying pipe line, J. Soc. Instrum. Control Engrs 3, 9, 695 (1964).
- K. GOTŌ and K. INOYA, Particle size estimation from pressure drop of pneumatic conveying pipe line, *J. Soc. Instrum. Control Engrs* 3, 11, 862 (1964).
- T. Sasaki, Proposed treatment upward mixed phase flow of gas and liquid in vertical pipe, J. Chem. Engng Japan 28, 2, 117 (1964).
- K. IINOYA and K. GOTŌ, Particle size estimation from pressure drop of a pneumatic conveying pipe line, Mem. Fac. Engng Kyoto Univ. 26, 4, 328 (1964).

TRANSPIRATION AND MASS TRANSFER

- J. YAMAGUCHI and S. HORIUCHI, Diffusion of boron in silicon through silicon oxide layer 2, *Technology Rept. Osaka Univ.* 13, 541, 49 (1964).
- T. Takamatsu, E. Nakanishi and M. Naito, Dynamics of mass transfer in the double film resistance, *Mem. Fac. Engng Kyoto Univ.* 26, 3, 145 (1964).
- R. Toei and S. Hayashi, Temperature distribution of the bed during the second falling rate period of drying, Memo. Fac. Engng Kyoto Univ. 26, 3, 208 (1964).

- J. SAKAGAMI, Diffusion phenomena in the lower atmosphere, J. Jap. Soc. Mech. Engrs 67, 541, 281 (1964).
- K. WAKABAYASHI, Moving moisture in the drying of clay, J. Chem. Engng Japan 28, 1, 12 (1964).
- K. WAKABAYASHI, Moisture diffusion coefficients of solid during drying process, J. Chem. Engng Japan 28, 1, 33 (1964).
- K. WAKABAYASHI, Calculation of moisture distribution in clay during drying process, *J. Chem. Engng Japan* 28, 2, 102 (1964).
- H. YOSHITOME, M. MAKIHARA and Y. TSUCHIYA, Mass transfer in bubble bed—Dissolation of benzoic acid into water, J. Chem. Engng Japan 28, 3, 228 (1964).
- Y. KITAURA and H. TANAKA, Effects of diffusion controlled reaction on mass transfer from a single sphere—An investigation of flow geometry on reaction factors, *J. Chem. Engng Japan* 28, 6, 436 (1964).
- A. HIRATA, T. SATŌ and T. SHIROTSUKA, Mass transfer through compressible turbulent boundary layers on a cylinder and a tube, *J. Chem. Engng Japan* 28, 6, 467 (1964).
- S. OHTANI, M. SUZUKI and S. MAEDA, Mechanism of moisture movement in granular beds—moisture distribution under temperature gradient at a steady state, *J. Chem. Engng Japan*, 28, 8, 642 (1964).

PACKED BED

- M. IKEDA, Y. NISHIMURA and H. KUBOTA, On the mechanism of heat transfer in packed bed, *J. Chem. Engng Japan* 28, 5, 350 (1964).
- Y. KITAURA and H. TANAKA, Correlations of packed bed mass transfer in viscous flow region, J. Chem. Engng Japan 28, 8, 740 (1964).

PROPERTIES

S. NIGAWARA, The state's formula of water and steam properties for digital computer application, *J. Jap. Soc. Mech. Engrs* 67, 544, 740 (1964)

MEASUREMENT TECHNIQUES

T. TAKAMATSU, M. HIRAOKA, K. TANAKA, Y. INOUE and A. ŌSUGI, Diffusion measurements by the Schlieren knife-edge method, J. Chem. Engng Japan 28, 6, 451 (1964).