

References

- Adamek, T.A. (1981).** Bestimmung der Kondensationsgröße auf Feinewellten Oberflächen zur Auslegung optimaler Wandprofile, *Wärme- und Stoffübertragung*, Vol. 15, pp. 255-270.
- Adamek, T.A. and Webb, R.L. (1990).** Prediction of Film Condensation on Horizontal Integral Fin Tubes, *Int. J. Heat Mass Transfer*, Vol. 33, pp. 1721-1735.
- Agrawal, K.N., Varma, H.K. and Lal, S. (1986).** Heat Transfer during Forced Convection Boiling of R12 under Swirl Flow, *J. Heat Transfer*, Vol. 108, pp. 567-573.
- Akers, W.W., Deans, H.A. and Crosser, O.K. (1959).** Condensation Heat Transfer within Horizontal Tubes, *Chem. Eng. Prog. Symp. Ser.*, Vol. 55, pp. 171-176.
- Andreani, M. and Yadigaroglu, G. (1997).** A 3-D Eulerian-Lagrangian Model of Dispersed Flow Boiling Including a Mechanistic Description of the Droplet Spectrum Evolution, Parts 1 and 2, *Int. J. Heat Mass Transfer*, Vol. 40, pp. 1753-1793.
- Antonelli, R. and O'Neill, P.S. (1981).** Design and Application Consideration for Heat Exchanger with Enhanced Boiling Surfaces, Paper read at International Conference on Advances in Heat Exchangers, Dubrovnik, September.
- Arman, B. and Rabas, T.J. (1992).** Disruption Shape Effects on the Performance of Enhanced Tubes with the Separation and Reattachment Mechanism, *Enhanced Heat Transfer*, HTD Vol. 202, ASME, pp. 67-76.
- Arshad, J. and Thome, J.R. (1983).** Enhanced Boiling Surfaces: Heat Transfer Mechanism and Mixture Boiling, *Proc. ASME-JSME Thermal Engineering Joint Conference*, Vol. 1, pp. 191-197.
- Baker, O. (1954).** Design of pipelines for simultaneous flow of oil and gas, *Oil and Gas J.*, July, pp. 26.
- Bankoff, S.G. (1960).** A Variable Density Single-Fluid Model for Two-Phase Flow with Particular Reference to Steam-Water, *J. Heat Transfer*, Vol. II, Series B, pp. 265-272.
- Barnea, D. and Taitel, Y. (1986).** Flow pattern transition in two-phase gas-liquid flows, *Encyclopedia of Fluid Mechanics*, Vol. 3, Gulf Publishing, pp. 403-474.
- Baustian, J.J., Pate, M.B. and Bergles, A.E. (1988a).** Measuring the Concentration of a Flowing Oil-Refrigerant Mixture with a Vibrating U-Tube Densitymeter, *ASHRAE Trans.*, Vol. 94, Part 2, pp. 571-587.
- Baustian, J.J., Pate, M.B. and Bergles, A.E. (1988b).** Measuring the Concentration of a Flowing Oil-Refrigerant Mixture with an Acoustic Velocity Sensor, *ASHRAE Trans.*, Vol. 94, Part 2, pp. 602-615.
- Baustian, J.J., Pate, M.B. and Bergles, A.E. (1988c).** Measuring the Concentration of a Flowing Oil-Refrigerant Mixture with a Bypass Viscometer, *ASHRAE Trans.*, Vol. 94, Part 2, pp. 588-601.
- Bayini, A., Thome, J.R. and Favrat, D. (1995).** Online Measurement of Oil Concentrations of R-134a/Oil Mixtures with a Density Flowmeter, *HVAC&R Research*, ASHRAE, **1**(3), pp. 232-241.
- Bays, G.S. and McAdams, W.H. (1937).** *Ind. Eng. Chem.*, Vol. 29, pp. 1240-1246.
- Beatty, K.O. and Katz, D.L. (1948).** Condensation of Vapors on Outside of Finned Tubes, *Chem. Eng. Prog.*, Vol. 44, No. 1, pp. 55-70.
- Bell, K.J. (1960).** Exchangers Design Based on the Delaware Research Program, *Petroleum Engineering*, Vol. 32, No. 11, pp. C26-36 and C40a-C40c.
- Bell, K.J. (1963).** Final Report of the Cooperative Research Program on Shell-and-Tube Heat Exchangers, *Univ. of Delaware Eng. Exp. Sta. Bull.*, No. 5.
- Bell, K.J. (1986).** Delaware Method for Shell Side Design, *Heat Exchanger Sourcebook*, Edited by J.W. Palen, Hemisphere, New York, Chapter 6, pp. 129-166.
- Bell, K.J. and Ghaly, M.A. (1973).** An Approximate Generalized Design Method for Multi-Component Partial Condensers, *AIChE Symp. Ser.*, Vol. 69, pp. 72-79.
- Blasius, H. (1913).** Das Ähnlichkeitsgesetz bei Reibungsvorgängen in Flüssigkeiten, *Forschg. Arb. Ing.-Wes.*, No. 131, Berlin.

- Brauer, H. (1956).** Stromung und Wärmeübergang bei Reiselfilmen, *VDI Forschung*, Vol. 22, pp. 1-40.
- Briggs, A., Yang, X.X. and Rose, J.W. (1995).** An Evaluation of Various Enhanced Tubes for Shell-Side Condensation of Refrigerant, *Heat Transfer in Condensation*, Eurotherm Seminar 47, Paris, Oct. 4-5, pp. 62-70.
- Bromley, L.A. (1952).** Effect of Heat Capacity of Condensate, *Ind. Eng. Chem.*, Vol. 44, pg. 2966.
- Burnside, B.M., Bruce, T., Martin, A.J., McNeil, D.A., Miller, K.M. and Wilkinson, D.A. (1999).** Velocity and Heat Transfer Measurements in a Kettle Reboiler, *Two-Phase Flow Modelling and Experimentation 1999*, Eds. G.P. Celata, P. di Marco and R.K. Shah, Edizioni ETS, Pisa, Vol. 3, pp. 1719-1726.
- Butterworth, D. (1975).** A Comparison of Some Void Fraction Relationships for Co-Current Gas-Liquid Flow, *Int. J. Multiphase Flow*, Vol. 1, pp. 845-850.
- Butterworth, D. (1981).** Simplified Methods for Condensation on a Vertical Surface with Vapour Shear, UKAEA Rept. AERE-R9683.
- Butterworth, D. (1983).** Film Condensation of Pure Vapor, *Heat Exchanger Design Handbook*, Chapter 2.6.2, Hemisphere, Washington.
- Carnavos, T.C. (1979).** Heat Transfer Performance of Internally Finned Tubes in Turbulent Flow, *Advances in Enhanced Heat Transfer*, ASME, pp. 61-67.
- Casciaro, S. and Thome, J.R. (2001a).** Thermal Performance of Flooded Evaporators, Part 1: Review of Boiling Heat Transfer Studies, *ASHRAE Trans.*, Vol. 107, Pt. 1, paper AT-01-16-1.
- Casciaro, S. and Thome, J.R. (2001b).** Thermal Performance of Flooded Evaporators, Part 1: Review of Void Fraction, Two-Phase Pressure Drop, and Flow Pattern Studies, *ASHRAE Trans.*, Vol. 107, Pt. 1, paper AT-01-16-2.
- Cavallini, A., Bella, B., Longo, G.A. and Rossetto, L. (1995).** Experimental Heat Transfer Coefficients during Condensation of Halogenated Refrigerants on Enhanced Tubes, *J. Enhanced Heat Transfer*, Vol. 2, No. 1-2, pp. 115-125.
- Cavallini, A., Censi, G., Del Gol, D., Doretti, L., Longo, G.A. and Rossetto, L. (2001).** Experimental Investigation on Condensation Heat Transfer and Pressure Drop of New HFC Refrigerants (R134a, R125, R32, R410A, R236ea), *Int. J. Refrig.*, Vol. 24, pp. 73-87.
- Cavallini, A., Del Gol, D., Doretti, L., Longo, G.A. and Rossetto, L. (1999).** Condensation Heat Transfer with Refrigerants, *Two-Phase Modelling and Experimentation 1999*, Edizioni ETS, pp. 71-88.
- Cavallini, A., Doretti, L., Klammsteiner, N., Longo, G.A. and Rossetto, L. (1995).** Condensation of New Refrigerants inside Smooth and Enhanced Tubes, *Proc. 19th International Congress of Refrigeration*, The Hague, Vol. Iva, pp. 105-114.
- Cavallini, A., Doretti, L., Longo, G.A. and Rossetto, L. (1994).** Flow Patterns during Condensation of Pure Refrigerants on Enhanced Tubes under High Vapour Velocity, *Proc. 1994 International Refrigeration Conference at Purdue*, July 19-22, pp. 311-316.
- Cavallini, A., Doretti, L., Longo, G.A. and Rossetto, L. (1996).** A New Model for Forced-Convection Condensation on Integral-Fin Tubes, *J. Heat Transfer*, Vol. 118, pp. 689-693.
- Cavallini, A. and Zecchin, R. (1974).** A Dimensionless Correlation for Heat Transfer in Forced Convective Condensation, *Proc. 5th International Heat Transfer Conference*, Tokyo, Vol. 3, pp. 309-313.
- Cerza, M. (1992).** Nucleate Boiling in Thin Falling Liquid Films, Pool and External Flow Boiling Conference, Santa Barbara, pp. 459-466.
- Chaddock, J.B. (1957).** Film Condensation of Vapors in Horizontal Tubes, *Refrig. Engng.*, Vol. 65, pp. 36-41 and 90-95.
- Chamra, L.M. and Webb, R.L. (1995).** Condensation and Evaporation in Micro-Fin Tubes at Equal Saturation Temperatures, *J. Enhanced Heat Transfer*, Vol. 2, No. 3, pp. 219-229.
- Chamra, L.M., Webb, R.L. and Randlett, M.R. (1996).** Advanced Micro-Fin Tubes for Evaporation, *Int. J. Heat Mass Transfer*, Vol. 39, No. 9, pp. 1827-1838.

- Chato, J.C. (1962).** Laminar Condensation inside Horizontal and Inclined Tubes, *ASHRAE J.*, Vol. 4, pp. 52-60.
- Chawla, J. M (1967).** Wärmeübergang und Druckabfall in Waagerechten Rohren beider Strömung von verdampfenden Kältemitteln, *Kältetechnik-Limatisierung*, Vol. 8, pp. 246-252.
- Chen, J.C. (1963).** A Correlation for Boiling Heat Transfer of Saturated Fluids in Convective Flow, ASME Paper 63-HT-34, 6th National Heat Transfer Conference, Boston, Aug. 11-14.
- Chen, J.C. (1966).** A Correlation for Boiling Heat Transfer of Saturated Fluids in Convective Flow, *Ind. Eng. Chem. Process Des. Dev.*, Vol. 5, No. 3, pp. 322-329.
- Chen, J.C. and Tuzla, K. (1996).** Heat Transfer Characteristics of Alternate Refrigerants, Vol. 3: Condenser and Evaporator Outside Tube, EPRI TR-106016-V3, Lehigh University, January.
- Chen, J.C., Tuzla, K., Wang, Q. and Starner, K. (1994).** Falling Film Evaporation of Refrigerants, *Proc. 10th International Heat Transfer Conference*, Brighton, Vol. 6, pp. 169-173.
- Chiang, R. (1993).** Heat Transfer and Pressure Drop during Evaporation and Condensation of Refrigerant-22 in a 7.5 mm and 10 mm Axial and Helical Grooved Tubes, *AIChE Symp. Ser.*, Vol. 89, No. 295, pp. 205-210.
- Chisholm, D. (1967).** A Theoretical Basis for the Lockhart-Martinelli Correlation for Two-Phase Flow, *Int. J. Heat Mass Transfer*, Vol. 10, pp. 1767-1778.
- Chisholm, D. (1972).** An Equation for Velocity Ratio in Two-Phase Flow, NEL Report 535.
- Chisholm, D. (1973).** Pressure Gradients Due to Friction during the Flow of Evaporating Two-Phase Mixtures in Smooth Tubes and Channels, *Int. J. Heat Mass Transfer*, Vol. 16, pp. 347-358.
- Chisholm, D. (1985).** Two-phase flow in heat exchangers and pipelines, *Heat Trans. Engineering*, Vol. 6, pp. 48-57.
- Cho, K. and Kim, B.G. (1998).** Heat Transfer Characteristics in the U-bend of a Microfin Tube Evaporator using R-407C, *ASHRAE Trans.*, Vol. 104, Part 2, Paper TO-98-19-3.
- Christoffersen, B.R., Chato, J.C., Wattelet, J.P. and de Souza, A.L. (1993).** Heat Transfer and Flow Characteristics of R-22, R-32/R-125 and R-134a in Smooth and Micro-Fin Tubes, ACRC Report TR-47, University of Illinois at Urbana-Champaign.
- Chun, K.R. and Seban, R.A. (1971).** Heat Transfer to Evaporating Liquid Films, *J. Heat Transfer*, Vol. 93, November, pp. 391-396.
- Churchill, S.W. (1983).** The Development of Theoretically Based Correlations for Heat and Mass Transfer, *Latin American Journal of Heat and Mass Transfer*, Vol. 7, pp. 207-229.
- Chyu, M.-C. and Bergles, A.E. (1985a).** Falling Film Evaporation on a Horizontal Tube, *Multiphase Flow and Heat Transfer*, ASME HTD Vol. 47, pp. 39-48.
- Chyu, M.-C. and Bergles, A.E. (1985b).** Enhancement of Horizontal Tube Spray Film Evaporators by Structured Surfaces, *Advances in Enhanced Heat Transfer-1985*, ASME HTD Vol. 43, pp. 39-47.
- Chyu, M.-C. and Bergles, A.E. (1987).** An Analytical and Experimental Study of Falling-Film Evaporation on a Horizontal Tube, *J. Heat Transfer*, Vol. 109, No. 4, pp. 983-990.
- Chyu, M.-C. and Bergles, A.E. (1989).** Horizontal Tube Falling-Film Evaporation with Structured Surfaces, *J. Heat Transfer*, Vol. 111, pp. 518-524.
- Chyu, M.-C., Bergles, A.E., and Mayinger, F. (1982).** Enhancement of Horizontal Tube Spray Film Evaporators, *Proc. 7th International Heat Transfer Conf., Munich*, Vol. 6, pp. 275-280.
- Chyu, M.-C., Zeng, X., Ayub, Z.H. (1995).** Nozzle-Sprayed Flow Rate Distribution on a Horizontal Tube Bundle, *ASHRAE Trans.*, Vol. 101, Part 2, Paper 3919.
- Colburn, A.P. (1934).** Notes on the Calculation of Condensation where a Portion of the Condensate Layer is in Turbulent Motion, *Trans. AIChE*, Vol. 30, pp. 187-193.
- Collier, J.G. (1982).** Heat Transfer in the Postburnout Region and during Quenching and Reflooding, in *Handbook of Multiphase Flows*, G. Hetsroni, ed., Hemisphere, New York, Section 6.5, pp. 6-142 to 6-188.
- Collier, J.G. and Thome, J.R. (1994).** *Convective Boiling and Condensation*, 3rd Edition, Oxford University Press, Oxford.

- Collier, J. G. and Thome, J. R. (1996).** *Convective Boiling and Condensation*, 3rd Edition, Oxford University Press, Oxford (paperback edition).
- Consolini, L., Robinson, D. and Thome, J.R. (2006).** Void Fraction and Two-Phase Pressure Drops for Evaporating Flow over Horizontal Tube Bundles, *Heat Transfer Eng.*, Vol. 27(2) or Vol. 27(3), in press.
- Cooper, M.G. (1984).** Heat Flow Rates in Saturated Nucleate Pool Boiling – A Wide Ranging Examination using Reduced Properties, *Advances in Heat Transfer*, Eds. Hartnett and Irvine, Academic Press, Princeton, Vol. 16, pp. 157-239.
- Cooper, M.K. (1984a).** Saturated Nucleate Pool Boiling: A Simple Correlation, 1st U.K. National Heat Transfer Conference, Vol. 2, pp. 785-793.
- Cooper, M.K. (1984b).** *Advances in Heat Transfer*, Academic Press, Orlando, Vol. 16, pp. 157-139.
- Cornwell, K., Duffin, N.W. and Schuller, R.B. (1980).** An experimental study of the effects of fluid flow on boiling within a kettle reboiler tube bundle, ASME Paper No. 80-HT-45.
- Czik, A.M., O'Neill, P.S. and Gottmann, C.F. (1981).** Nucleate Boiling from Porous Metal Films: Effect of Primary Variables, *Advances in Enhanced Heat Transfer*, ASME, New York, HTD Vol. 18, pp. 109-122.
- Danilova, G.N., Burkin, V.G. and Dyundin, V.A. (1976).** Heat Transfer in Spray-Type Refrigerator Evaporators, *Heat Transfer-Soviet Research*, Vol. 8, No. 6, pp. 105-113.
- Diehl, J.E. (1957).** Calculate Condenser Pressure Drop, *Hydrocarbon Processing*, Vol. 36, No. 10, pp. 147-153.
- Diehl, J.E. and Unruh, C.H. (1958).** Two-phase pressure drop in horizontal crossflow through tube banks, ASME Paper No. 58-HT-20.
- Dittus, E.J. and Boelter, L.M.K. (1930).** *Publications on Engineering*, Univ. California, Berkeley, Vol. 2, pp. 443.
- Dobson, M.K. and Chato, J.C. (1998).** Condensation in Smooth Horizontal Tubes, *J. Heat Transfer*, Vol. 120, No. 1, pp. 193-213.
- Donevski, B., Plocek, M., Kulesz, J. and Sasic, M. (1990).** Analysis of Tubeside Laminar and Turbulent Flow Heat Transfer with Twisted Tape Inserts, *Heat Transfer Enhancement and Energy Conservation*, Hemisphere Publishing Corp., New York, pp. 175-185.
- Dougall, R.S. and Rohsenow, W.M. (1963).** Film Boiling on the Inside of Vertical Tubes with Upward Flow of the Fluid at Low Vapor Qualities, Mech. Engng. Dept., Engineering Project Laboratory, MIT Report No. 9079-26, September.
- Drew, T.B. (1954).** See McAdams, W.H., *Heat Transmission*, 3rd Edition, McGraw-Hill, New York.
- Drizius, M.R.M., Shkema, R.K. and Shlanciauskas, A.A. (1980).** Heat Transfer in a Twisted Stream of Water in a Tube, *International Chemical Engineering*, Vol. 20, pp. 486-489.
- Du, D., Xin, M.D. and Huang, S.M. (1995).** Experiment for Condensing Heat Transfer Performance in Horizontal Three Dimensional Inner Microfin Tubes, *Two-Phase Flow Modelling and Experimentation 1995*, Rome, Vol. 1, pp. 235-241.
- Dukler, A.E. (1960).** Fluid Mechanics and Heat Transfer in Vertical Falling Film Systems, *Chem. Eng. Prog. Symp. Ser.*, Vol. 56, No. 30, pp. 1-10.
- Dunn, B. (1996).** Heat Transfer Characteristics of Alternate Refrigerants Volume 2: Condensation inside Tube, EPRI TR-106016-V2 Report, University of Illinois at Urbana-Champaign, January.
- Ebisu, T. and Torikoshi, K. (1998).** Experimental Study on Evaporation and Condensation Heat Transfer Enhancement for R-407C Using Herringbone Heat Transfer Tube, *ASHRAE Trans.*, Vol. 104, Part 2, Paper TO-98-16-2.
- Eckels, S.J., Doerr, T.M. and Pate, M.B. (1994).** In-Tube Heat Transfer and Pressure Drop of R-134a and Ester Lubricant Mixtures in a Smooth Tube and a Micro-Fin Tube: Part I-Evaporation, *ASHRAE Trans.*, Vol. 100, Part 2, pp. 265-282.
- Eckels, S.J. and Pate, M.B. (1991a).** Evaporation and Condensation of HFC-134a and CFC-12 in a Smooth Tube and a Micro-Fin tube, *ASHRAE Trans.*, Vol. 97, Part 2, pp. 71-81.

- Eckels, S.J. and Pate, M.B. (1991b). An Experimental Comparison of Evaporation and Condensation Heat Transfer Coefficients for HFC-134a and CFC-12, *Int. J. Refrig.*, Vol. 14, No. 3, pp. 70-77.
- Eckels, S.J., Pate, M.B. and Bemisderfer, C.H. (1992). Evaporation Heat Transfer Coefficients for R-22 in Micro-Fin Tubes of Different Configurations, *Enhanced Heat Transfer*, ASME HTD Vol. 202, pp. 117-125.
- El Hajal, J., Thome, J.R. and Cavallini, A. (2003). Condensation in Horizontal Tubes, Part 1: Two-Phase Flow Pattern Map, *Int. J. Heat Mass Transfer*, Vol. 46, pp. 3349-3363.
- Fair, J.R. (1960). What You Need to Know to Design Thermosyphon Reboilers, *Petroleum Refiner*, Vol. 39, No. 2, pp. 105.
- Fair, J.R. and Klip, A. (1983). Thermal Design of Reboilers, *Chem. Engng. Prog.*, Vol. 79, No. 8, pp. 86-96.
- Feenstra, P.A., Weaver, D.S. and Judd, R.L. (2000). An Improved Void Fraction Model for Two-Phase Cross-Flow in Horizontal Tube Bundles, *Int. J. of Multiphase Flow*, Vol. 26, pp. 1851-1883.
- Fletcher, L.S., Sernas, V. and Galowin, L.S. (1974). Evaporation from Thin Water Films on Horizontal Tubes, *Industrial Engineering Chemistry-Process Design and Development*, Vol. 13, No. 3, pp. 265-269.
- Forster, H.K. and Zuber, N. (1955). Dynamics of Vapor Bubble Growth and Boiling Heat Transfer, *AIChE J.*, Vol. 1, pp. 531-535.
- Friedel, L. (1979). Improved Friction Pressure Drop Correlations for Horizontal and Vertical Two-Phase Pipe Flow, European Two-Phase Flow Group Meeting, Ispra, Italy, June, Paper E2.
- Fujii, T., Koyama, S., Inoue, N., Kuwahara, K. and Hirakuni, M. (1993). An Experimental Study of Evaporation Heat Transfer of Refrigerant HCFC22 inside an Internally Grooved Horizontal Tube, *Trans. of JSME*, Vol. 59, No. 562, pp. 2035-2042.
- Fujii, T., Vehara, H., and Kurata, C. (1972). Laminar Filmwise Condensation of Flowing Vapor on a Horizontal Cylinder, *Int. J. Heat Mass Transfer*, Vol. 15, pp. 235-246.
- Fujita, Y. and Tsutsui, M. (1996). Experimental and Analytical Study of Evaporation Heat Transfer in Falling Films on Horizontal Tubes, *Proc. 10th International Heat Transfer Conference*, Brighton, Vol. 6, pp. 175-180.
- Ganic, E.N. and Rohsenow, W.M. (1977). Dispersed Flow Heat Transfer, *Int. J. Heat Mass Transfer*, Vol. 20, pp. 855-866.
- Ginoux, J.J. (1978). *Two-Phase Flows and Heat Transfer with Applications to Nuclear Reactor Design Problems*, Hemisphere, Washington.
- Gnielinski, V. (1976). *Int. Chem. Eng.*, Vol. 6, pp. 359-368.
- Gorenflo, D. (1993). Pool Boiling, VDI-Heat Atlas, VDI-Verlag, Düsseldorf (English version).
- Gorenflo, D. and Koster, R. (1997). Pool Boiling Heat Transfer from Horizontal Tubes to Mixtures, Convective Flow Boiling and Pool Boiling Conference, Irsee, Germany, May 18-23.
- Gambill, W.R. and Bundy, R.D. (1962). An Evaluation of the Present Status of Swirl Flow Heat Transfer, ASME Paper 62-HT-42, ASME, New York.
- Ghajar, A.J. and Madon, K.F. (1992). Pressure Drop Measurements in the Transition Region for a Circular Tube with Three Different Inlet Configurations, *Experimental Thermal and Fluid Science*, Vol. 5, pp. 129-135.
- Ghajar, A.J. and Tam, L.M. (1994). Heat Transfer Measurements and Correlations in the Transition Region for a Circular Tube with Three Different Inlet Configurations, *Experimental Thermal and Fluid Science*, Vol. 8, pp. 79-90.
- Ghajar, A.J. and Tam, L.M. (1995). Flow Regime Map for a Horizontal Pipe with Uniform Wall Heat Flux and Three Inlet Configurations, *Experimental Thermal and Fluid Science*, Vol. 10, pp. 287-297.
- Ghajar, A.J., Tam, L.M. and Tam, S.C. (2004). Improved Heat Transfer Correlation in the Transition Region for a Circular Tube with Three Inlet Configurations Using Artificial Neural Networks, *Heat Transfer Engineering*, Vol. 25, No. 2, pp. 30-40.

- Grant, I.D.R. (1973).** Two-Phase Flow and Pressure Drop on the Shell-Side of Shell-and-Tube Heat Exchangers, *Heat and Fluid Flow in Steam and Gas Turbine Plants*, Pub. No. 3, Inst. Mech. Engr., London, pp. 244-251.
- Grant, I.D.R. and Chisholm, D. (1979).** Two-Phase Flow on the Shell-Side of a Segmentally Baffled Shell-and-Tube Heat Exchanger, *J. Heat Transfer*, Vol. 101, pp. 38-42.
- Grant, I.D.R. and Murray (1972).** Pressure Drop on the Shell-Side of a Segmentally Baffled Shell-and-Tube Heat Exchanger with Vertical Two-Phase Flow, NEL Report, No. 500.
- Grant, I.D.R. and Murray (1974).** Pressure Drop on the Shell-Side of a Segmentally Baffled Shell-and-Tube Heat Exchanger with Horizontal Two-Phase Flow, NEL Report, No. 560.
- Gregorig, R. (1954).** Film Condensation on Finely Rippled Surface with Consideration of Surface Tension, *Z. Angew. Math. Phys.*, Vol. 5, pp. 36-49.
- Griffith, P. (1983).** Dropwise Condensation, *Heat Exchanger Design Handbook*, Vol. 2, Chapter 2.6.5, Hemisphere, Washington.
- Groeneveld, D.C. (1973).** Post-Dryout Heat Transfer at Reactor Operating Conditions, Report AECL-4513 (ANS topical meeting on Water Reactor Safety, Salt Lake City).
- Groeneveld, D.C. and Delorme, G.G.J. (1976).** Prediction of the Thermal Non-Equilibrium in the Post-Dryout Regime, *Nuclear Engineering and Design*, Vol. 36, pp. 17-26.
- Grönnerud, R. (1972).** Investigation in Liquid Holdup, Flow Resistance and Heat Transfer in Circular Type Evaporators, Part IV: Two-Phase Resistance in Boiling Refrigerants, *Bulletin de l'Inst. du Froid*, Annexe 1972-1.
- Gross, U. (1994).** Falling Film Evaporation Inside a Closed Thermosyphon, *Proc. 10th International Heat Transfer Conference*, Brighton, Vol. 7, pp. 443-448.
- Gungor, K.E. and Winterton, R.H.S. (1986).** A General Correlation for Flow Boiling in Tubes and Annuli, *Int. J. Heat Mass Transfer*, Vol. 29, pp. 351-358.
- Gungor, K.E. and Winterton, R.H.S. (1987).** Simplified General Correlation for Saturated Flow Boiling and Comparisons of Correlations with Data, *Chem. Eng. Res. Des.*, Vol. 65, pp. 148-156.
- Gupte, N. and Webb, R.L. (1995a).** Shell-Side Boiling in Flooded Refrigerant Evaporators Part I: Integral Finned Tubes, *HVAC&R Research*, ASHRAE, Vol. 1, Part 1, pp. 35-47.
- Gupte, N. and Webb, R.L. (1995b).** Shell-Side Boiling in Flooded Refrigerant Evaporators Part II: Enhanced Tubes, *HVAC&R Research*, ASHRAE, Vol. 1, Part 1, pp. 48-60.
- Hewitt, G.F. and Roberts, D.N. (1969).** Studies of Two-Phase Flow Patterns by Simultaneous X-ray and Flash Photography, AERE-M 2159, HMSO.
- Hewitt, N.J. and McMullan, J.T. (1995).** Refrigerant-Oil Solubility and Its Effect on System Performance, *Proc. 19th International Congress of Refrigeration*, The Hague, **IVa**, pp. 290-296.
- Hinton, D.L., Conklin, J.C. and Vineyard, E.A. (1992).** Evaporation Characteristics of R22 Flowing inside a Corrugated Tube, *Enhanced Heat Transfer*, ASME HTD Vol. 202, pp. 127-132.
- Honda, H., Fujii, T., Uchima, B., Nozu, S. and Nakata, H. (1989).** Condensation of Downflowing R-113 Vapour on Bundles of Horizontal Smooth Tubes, *Heat Transfer-Japanese Research*, Vol. 18, No. 6, pp. 31-52.
- Honda, H. and Nozu, S. (1986).** A Prediction Method for Heat Transfer during Film Condensation on Horizontal Low Integral-Fin Tubes, *J. Heat Transfer*, Vol. 108, pp. 218-225.
- Honda, H., Nozu, S. and Takeda, Y. (1987).** Flow Characteristics of Condensation on a Vertical Column of Horizontal Tubes, *Proc. 1987 ASME-JSME Thermal Engineering Joint Conference*, Honolulu, Vol. 1, pp. 517-524.
- Honda, Nozu, S. and Mitsumori, K. (1983).** Augmentation of Condensation on Horizontal Finned Tubes by Attaching a Porous Drainage Plate, *Proc. ASME-JSME Thermal Engng. Joint Conference*, Vol. 3, pp. 289-296.
- Hou, H., Holste, J.C., Gammon, B.E. and Marsh, K.N. (1992).** Experimental Densities for Compressed R134a, *Int. J. Refrig.*, Vol. 15, No. 6, pp. 365-371.
- Hu, X. and Jacobi, A.M. (1996a).** The Intertube Falling Film: Part 1-Flow Characteristics, Mode Transitions, and Hysteresis, *J. Heat Transfer*, Vol. 118, August, pp. 616-625.

- Hu, X. and Jacobi, A.M. (1996b).** The Intertube Falling Film: Part 2-Mode Effects on Sensible Heat Transfer to a Falling Liquid Film, *J. Heat Transfer*, Vol. 118, August, pp. 626-633.
- Hu, X. and Jacobi, A.M. (1998).** Departure-Site Spacing for Liquid Droplets and Jets Falling between Horizontal Circular Tubes, *Experimental Thermal and Fluid Science*, Vol. 16, pp. 322-331.
- Hughmark, G.A. (1962).** Hold-up in Gas Liquid Flow, *Chemical Engineering Progress*, Vol. 58, No. 4, pp. 62-65.
- Ibragimov, M.H., Nomofelov, E.V. and Subbotin, V.I. (1961).** Heat Transfer and Hydraulic Resistance with Swirl-Type Motion of Liquid in Pipes, *Teploenergetika*, Vol. 8, No. 7, pp. 57-60 (in Russian).
- Incropera, F.P. and DeWitt, D.P. (1981).** *Fundamentals of Heat Transfer*, Wiley, New York, 780.
- Ishii, M. (1975).** *Thermo-Fluid Dynamic Theory of Two-Phase Flow*, Chapters 9 and 10, Eyrolles, Paris, Scientific and Medical Publication of France, New York.
- Ishii, M., Chawla, T.C. and Zuber, N. (1976).** Constitutive Equation for Vapor Drift Velocity in Two-Phase Annular Flow, *AIChE J.*, Vol. 22, No. 2, pp. 283-289.
- Ishii, M. (1977).** One Dimensional Drift-Flux Model and Constitutive Equations for Relative Motion between Phases in Various Two-Phase Flow Regimes, Argonne National Laboratory, Report ANL-77-47, October, Argonne, IL.
- Ishihara, K. Palen, J. W. and Taborek, J. (1980).** Critical Review of Correlations for Predicting Two-Phase Pressure Drop across Tube Banks, *Heat Transfer Engineering*, Vol. 1, pp. 23-32.
- Jaster, H. and Kosky, P.G. (1976).** Condensation Heat Transfer in a Mixed Flow Regime, *Int. J. Heat Mass Transfer*, Vol. 19, pp. 95-99.
- Jensen, M.K. (1988).** Boiling on the Shellside of Horizontal Tube Bundles, *Two-Phase Flow Heat Exchangers*, Kluwer, Dordrecht, The Netherlands, pp. 707-746.
- Jensen, M.K. and Bensler, H.P. (1986).** Saturated Forced-Convective Boiling Heat Transfer with Twisted-Tape Inserts, *J. Heat Transfer*, Vol. 108, pp. 93-99.
- Jung, D. S., McLinden M., Radermacher R., Didion D. (1989).** A Study of Flow Boiling Heat Transfer with Refrigerant Mixtures, *Int. J. Heat Mass Transfer*, Vol. 32, No. 9, pp. 1751-1764.
- Kabelac, S. and de Buhr, H.J. (2001).** Flow Boiling of Ammonia in a Plain and a Low Finned Horizontal Tube, *Int. J. Refrig.*, Vol. 24, pp. 41-50.
- Kandlikar, S.G. (1990).** A General Correlation of Saturated Two-Phase Flow Boiling Heat Transfer inside Horizontal and Vertical Tubes, *J. Heat Transfer*, Vol. 112, pp. 219-228.
- Kandlikar, S.G. (1991).** A Model for Predicting the Two-Phase Flow Boiling Heat Transfer Boiling Heat Transfer Coefficient in Augmented Tubes and Compact Evaporator Geometries, *J. Heat Transfer*, Vol. 113, pp. 966-972.
- Kandlikar, S.G. and Raykoff, T. (1997).** Predicting Flow Boiling Heat Transfer of Refrigerants in Microfin Tubes, *J. Enhanced Heat Transfer*, Vol. 4, No. 4, pp. 257-268.
- Kattan, N., Thome, J.R. and Favrat, D. (1995a).** R-502 and Two Near Azeotropic Alternatives Part II: Two-Phase Flow Patterns, *ASHRAE Trans.*, Vol. 101, Part 1, paper CH-95-14-3.
- Kattan, N., Thome, J.R. and Favrat, D. (1995b).** Int. Congress of Refrigeration, *The Hague*, Vol. 4.
- Kattan, N., Thome, J.R. and Favrat, D. (1998a).** Flow Boiling in Horizontal Tubes. Part 1: Development of a Diabatic Two-Phase Flow Pattern Map, *J. Heat Transfer*, Vol. 120, No. 1, pp. 140-147.
- Kattan, N., Thome, J.R. and Favrat, D. (1998b).** Flow Boiling in Horizontal Tubes. Part 2: New Heat Transfer Data for Five Refrigerants, *J. Heat Transfer*, Vol. 120, No. 1, pp. 148-155.
- Kattan, N., Thome, J.R. and Favrat, D. (1998c).** Flow Boiling in Horizontal Tubes. Part 3: Development of a New Heat Transfer Model Based on Flow Patterns, *J. Heat Transfer*, Vol. 120, No. 1, pp. 156-165.
- Katto, Y. and Ohno, H. (1984).** An Improved Version of the Generalized Correlation of Critical Heat Flux for the Forced Convective Boiling in Uniformly Heated Vertical Channels, *Int. J. Heat Mass Transfer*, Vol. 27, pp. 1641-1648.

- Kaul, M.P., Kedzierski, M.A. and Didion, D. (1996).** Horizontal Flow Boiling of Alternative Refrigerants within a Fluid Heated Micro-Fin Tube, in *Process, Enhanced, and Multiphase Heat Transfer, Afestschrift for A.E. Bergles*, Begell House, New York, pp. 167-173.
- Kedzierski, M.A. (1995).** Calorimetric and Visual Measurements of R123 Pool Boiling on Four Enhanced Surfaces, National Institute of Standards and Technology, Gaithersburg, MD, Report NISTIR 5732.
- Kedzierski, M.A. and Goncalves, J.M. (1997).** Horizontal Convective Condensation of Alternative Refrigerants within a Micro-Fin Tube, National Institute of Standards and Technology, Gaithersburg, MD, Report NISTIR 6095.
- Kedzierski, M.A. and Kim, M.S. (1997).** Convective Boiling and Condensation Heat Transfer with a Twisted-Tape Insert for R12, R22, R152a, R134a, R290, R32/R134a, R32/R152a, R290/R134a, R134a/R600a, *Thermal Science & Engineering*, Vol. 6, No. 1, pp. 113-122.
- Kedzierski, M.A. and Kim, M.S. (1998).** Convective Boiling and Condensation Heat Transfer with a Twisted-Tape Insert for R12, R22, R152a, R134a, R290, R32/R134a, R32/R152a, R290/R134a, R134a/R600a, National Institute of Standards and Technology, Gaithersburg, MD, Report NISTIR 5905.
- Kern, D.Q. (1950).** *Process Heat Transfer*, McGraw-Hill, New York.
- Kern, D.Q. (1958).** Mathematical Development of Loading in Horizontal Condensers, *AIChE J.*, Vol. 4, No. 2, pp. 157-160.
- Kidd, G.J. (1969).** Heat Transfer and Pressure Drop for Nitrogen Flowing in Tubes Containing Twisted Tapes, *AIChE Journal*, Vol. 15, pp. 581-585.
- Kido, O., Taniguchi, M., Taira, T. and Uehara, H. (1995).** Evaporation Heat Transfer of HCFC22 inside an Internally Grooved Horizontal Tube, *ASME/JSME Thermal Engineering Joint Conference*, Maui, March 19-24, Vol. 2, pp. 323-330.
- Klimenko, V.V. (1988).** A Generalized Correlation for Two-Phase Forced Flow Heat Transfer, *Int. J. Heat Mass Transfer*, Vol. 31, No. 3, pp. 541-552.
- Kondo, M. and Nakajima, K.I. (1980).** Experimental Investigation of Air-Water Two-Phase Upflow Across Horizontal Tube Bundles (Part I: Flow Pattern and Void Fraction), *Bulletin of the JSME*, Vol. 23, No. 177, pp. 385-393.
- Koyama, S., Miyara, A., Takamatsu, H. and Fujii, T. (1990).** Condensation Heat Transfer of Binary Refrigerant Mixtures of R22 and R114 inside a Horizontal Tube with Internal Spiral Grooves, *Int. J. Refrig.*, Vol. 13, No. 7, pp. 256-263.
- Koyama, S., Yu, J., Momoki, S., Fujii, T. and Honda, H. (1996).** Forced Convective Flow Boiling Heat Transfer of Pure Refrigerants inside a Horizontal Microfin Tube, *Convective Flow Boiling*, Eds. J.C. Chen et al., Taylor & Francis, pp. 137-142.
- Kuo, C.S. and Wang, C.C. (1996a).** Horizontal Flow Boiling of R22 and R407C in a 9.52 mm Micro-Fin Tube, *Applied Thermal Engineering*, Vol. 16, Nos. 8/9, pp. 719-731.
- Kuo, C.S. and Wang, C.C. (1996b).** In-tube Evaporation HFC-22 in a 9.52 mm Micro-Fin/Smooth Tube, *Int. J. Heat Mass Transfer*, Vol. 39, No. 12, pp. 2559-2569.
- Kuo, C.S., Wang, C.C., Cheng, W.Y. and D.C. Lu, D.C. (1995).** Evaporation of R-22 in a 7-mm Microfin Tube, *ASHRAE Trans.*, Vol. 101, Part 2, pp. 1055-1061.
- Kutateladze, S.S. (1948).** On the Transition to Film Boiling under Natural Convection, *Kotloturbostroenie*, No. 3, pp. 10 and 152-158.
- Kutateladze, S.S. (1961).** Boiling Heat Transfer, *Int. J. Heat Mass Transfer*, Vol. 4, pp. 3-45.
- Kutateladze, S.S. (1963).** *Fundamentals of Heat Transfer*, Academic Press, New York.
- Kutateladze, S.S. (1982).** Semi-Empirical Theory of Film Condensation of Pure Vapors, *Int. J. Heat Mass Transfer*, Vol. 25, pp. 653-660.
- Labuntsov, D.A. (1957).** Heat Transfer in Film Condensation of Steam on a Vertical Surface and Horizontal Tubes, *Teploenergetika*, Vol. 4, No. 7, pp. 72-80.
- Lahey, R.T., Jr. (1974).** Two-Phase Flow in Boiling Water Nuclear Reactors, *NEDO* 13388.

- Lallemand, M., Branesco, C. and P. Haberschill, P. (2001).** Local Heat Transfer Coefficients during Boiling of R22 and R407C in Horizontal Smooth and Microfin Tubes, *Int. J. Refrig.*, Vol. 24, pp. 57-72 [in French].
- Lan, J., Disimile, P.J. and Weisman, J. (1997a).** Two-Phase Flow Patterns and Boiling Heat Transfer in Tubes Containing Helical Wire Inserts - Part I - Flow Patterns and Boiling Heat Transfer Coefficients, *J. Enhanced Heat Transfer*, Vol. 4, No. 4, pp. 269-282.
- Lan, J., Disimile, P.J. and Weisman, J. (1997b).** Two-Phase Flow Patterns and Boiling Heat Transfer in Tubes Containing Helical Wire Inserts - Part II - Critical Heat Flux Studies, *J. Enhanced Heat Transfer*, Vol. 4, No. 4, pp. 283-296.
- Lee, J. (1964).** Turbulent Film Condensation, *AIChE J.*, Vol. 10, pp. 540-544.
- Leong, L.S. and Cornwell, K. (1979).** Heat transfer coefficients in a reboiler tube bundle, *The Chemical Engineer*, No. 343, pp. 219-221.
- Levi, S. (1967).** Forced Convection Subcooled Boiling Prediction of Vapor Volumetric Fraction, *Int. J. Heat Mass Transfer*, Vol. 10, pp. 951-965.
- Li, H.M., Ye, K.S., Tan, Y.K. and Den, S.J. (1982).** Investigation of Tube-Side Flow Visualization, Friction Factors and Heat Transfer Characteristics of Helical-Ridging Tubes, *Proc. 7th International Heat Transfer Conference*, Munich, Vol. 3, pp. 75-80.
- Lienhard, J.H. and Dhir, V.K. (1973).** Extended Hydrodynamic Theory of the Peak and Minimum Pool Boiling Heat Fluxes, NASA CR-2270, July.
- Lienhard, J.H. and Wong, P.T.Y. (1964).** The Dominant Useable Wavelength and Minimum Heat Flux during Film Boiling on a Horizontal Cylinder, *J. Heat Transfer*, Vol. 86, pp. 220-226.
- Liley, P.E. and Gambill, W.R. (1973).** Physical and Chemical Data, in *Chemical Engineering Handbook*, 5th ed. (Perry and Chilton), McGraw-Hill, New York, Chapter 3, pg. 3-226 to 3-250.
- Lockhart, R. W. and Martinelli, R. C. (1949).** Proposed Correlation Data for Isothermal Two-Phase Two-Component Flow in Pipes, *Chem. Eng. Progr.*, Vol. 45, pp. 39-45.
- Lopina, R.F. and Bergles, A.E. (1969).** Heat Transfer and Pressure Drop in a Tape Generated Swirl Flow of Single-Phase Water, *J. Heat Transfer*, Vol. 91, pp. 434-442.
- Lorenz, J.J. and Yung, D. (1978).** Combined Boiling and Evaporation of Liquid Films on Horizontal Tubes, *Proc. of 5th OTEC Conference*, Vol. 3, pp. 46-70.
- Lorenz, J.J. and Yung, D. (1979).** A Note on Boiling and Evaporation of Liquid Films on Horizontal Tubes, *J. Heat Transfer*, Vol. 101, pp. 178-180.
- MacBain, S.M. and Bergles, A.E. (1996).** Heat Transfer and Pressure Drop Characteristics of Forced Convective Evaporation in Deep Spirally Fluted Tubing, *Convective Flow Boiling*, Eds. J.C. Chen et al., Taylor & Francis, pp. 143-148.
- MacBain, S.M., Bergles, A.E. and Raina, S. (1997).** Heat Transfer and Pressure Drop Characteristics of Flow Boiling in a Horizontal Deep Spirally Fluted Tube, *HVAC&R Research*, Vol. 3, No. 1, pp. 65-80.
- Malnes, D. (1966).** Slip Ratios and Friction Factors in the Bubble Flow Regime in Vertical Tubes, *KR*, pp. 110.
- Manglik, R.M. and Bergles, A.E. (1992).** Heat Transfer and Pressure Drop Correlations for Twisted-Tape Inserts in Isothermal Tubes: Part II – Transition and Turbulent Flows, *Enhanced Heat Transfer*, HTD Vol. 202, ASME, pp. 99-106.
- Manwell, S.P. and Bergles, A.E. (1990).** Gas-Liquid Flow Patterns in Refrigerant-Oil Mixtures, *ASHRAE Trans.*, Vol. 96, Part 2, Paper SL-90-1-4.
- Marto, P.J. (1986).** Recent Progress in Enhancing Film Condensation Heat Transfer on Horizontal Tubes, *Heat Transfer Engineering*, Vol. 7, pp. 53-63.
- Mayinger, F. and Langer, H. (1978).** Post-Dryout Heat Transfer, *Proc. 6th International Heat Transfer Conference*, Toronto, Vol. 6, pp. 181-198.
- McAdams, W.M. (1954).** *Heat Transmission*, 3rd Edition, McGraw-Hill, New York.

- McNaught, J.M. (1982).** Two-Phase Forced Convection Heat-Transfer during Condensation on Horizontal Tube Bundles, *Proc. 7th International Heat Transfer Conference*, Munich, Vol. 5, pp. 125-131.
- Mehta, M.H. and Rao, R. (1988).** Analysis and Correlation of Turbulent Flow Heat Transfer and Friction Coefficients in Spirally Corrugated Tubes for Steam Condenser Application, *Proc. of the 1988 National Heat Transfer Conference*, HTD-Vol. 96, ASME, Vol. 3, pp. 307-312.
- Memory, S.B., Akacasayer, N., Eraydin, H. and Marto, P.J. (1995).** Nucleate Pool Boiling of R-114 and R-114-Oil Mixtures from Smooth and Enhanced Surface II. Tube Bundles, *Int. J. Heat Mass Transfer*, Vol. 38, pp. 1363-1376.
- Memory, S.B., Bertsch, G. and Marto, P.J. (1993).** Pool Boiling of HCFC-124-Oil Mixtures from Smooth and Enhanced Surfaces, *Heat Transfer with Alternative Refrigerants*, ASME HTD-Vol. 243, pp. 9-18.
- Memory, S.B., Sugiyama, D.C. and Marto, P.J. (1995).** Nucleate Pool Boiling of R-114 and R-114-Oil Mixtures from Smooth and Enhanced Surface I. Single Tubes, *Int. J. Heat Mass Transfer*, Vol. 38, pp. 1347-1361.
- Meyer, J.J. and Saiz Jabardo, J.M. (1994).** An Ultrasonic Device for Measuring the Oil Concentration in Flowing Liquid Refrigerant, *Int. J. Refrig.*, Vol. 17, No. 7, pp. 481-486.
- Mills, A.F. and Chung, D.K. (1973).** Heat Transfer across Turbulent Falling Films, *Int. J. Heat Mass Transfer*, Vol. 16, pp. 694-696.
- Minkowycz, W.J. and Sparrow, E.M. (1966).** Condensation Heat Transfer in the Presence of Non-Condensables, Interfacial Resistance, Superheating, Variable Properties and Diffusion, *Int. J. Heat Mass Transfer*, Vol. 9, pp. 1125-1144.
- Mitrovic, J. (1986).** Influence of Tube Spacing and Flow Rate on Heat Transfer from a Horizontal Tube to a Falling Liquid Film, *Proc. 8th International Heat Transfer Conference*, San Francisco, Vol. 4, pp. 1949-1956.
- Moeykens, S.A., Huebsch, W.W. and Pate, M.B. (1995a).** Heat Transfer of R-134a in Single-Tube Spray Evaporation including Lubrificant Effects and Enhanced Surface Results, *ASHRAE Trans.*, Vol. 101, Part 1, pp. 111-123.
- Moeykens, S.A., Newton, B.J. and Pate, M.B. (1995b).** Effects of Surface Enhancement, Film-Feed Supply Rate, and Bundle Geometry on Spray Evaporation Heat Transfer Performance, *ASHRAE Trans.*, Vol. 101, Part 2, pp. 408-419.
- Moeykens, S.A. and Pate, M.B. (1994).** Spray Evaporation Heat Transfer of R-134a on Plain Tubes, *ASHRAE Trans.*, Vol. 100, Part 2, pp. 173-184.
- Moeykens, S.A. and Pate, M.B. (1995).** The Effects of Nozzle Height and Orifice Size on Spray Evaporation Heat Transfer Performance for a Low-Finned, Triangular-Pitch Tube Bundle with R-134a, *ASHRAE Trans.*, Vol. 101, Part 2, pp. 420-433.
- Moeykens, S.A. and Pate, M.B. (1996).** Effect of Lubricant on Spray Evaporation Heat Transfer Performance of R-134a and R-22 in Tube Bundles, *ASHRAE Trans.*, Vol. 102, Part 1, pp. 410-426.
- Moeykens, S.A., Kelly, J.E. and Pate, M.B. (1996).** Spray Evaporation Heat Transfer Performance of R-123 in Tube Bundles, *ASHRAE Trans.*, Vol. 102, Part 2, pp. 259-272.
- Moller, C., Spindler, K. and Hahne, E. (1993).** Wärmeübergangsmessungen beim Sieden von R134a/Ol Gemischen am Rohr und Draht, *DKV-Tagungsbericht*, Vol. 20, paper 21.
- Mori, H., Yoshida, S., Ohishi, K., Kokimoto, Y. (2000).** Dryout Quality and Post-dryout Heat Transfer Coefficient in Horizontal Evaporator Tubes, *Proc of 3rd European Thermal Sciences Conference*, pp. 839-844.
- Mostinski, I.L. (1963).** Application of the Rule of Corresponding States for Calculation of Heat Transfer and Critical Heat Flux, *Teploenergetika*, Vol. 4, pp. 66.
- Müller-Steinhagen, H. and Heck, K. (1986).** A simple Friction Pressure Drop Correlation for Two-Phase Flow in Pipes, *Chem. Eng. Processing*, Vol. 20, pp 297-308.

- Muzzio, A., Niro, A. and Arosio, S. (1998). Heat Transfer and Pressure Drop during Evaporation and Condensation of R22 inside 9.52-mm O.D. Microfin Tubes of Different Geometries, *J. Enhanced Heat Transfer*, Vol. 5, No. 1, pp. 39-52.
- Nakajima, K. (1978). Boiling heat transfer outside horizontal multitube bundles, *Heat Transfer-Jap. Res.*, Vol. 7(1), pp. 1-24.
- Nakayama, W., Daikoku, T., Kuwara, H. and Nakajima, T. (1979). Dynamic Model of Enhanced Boiling Heat Transfer on Porous Surfaces, *Advances in Enhanced Heat Transfer*, ASME, New York, pp. 31-43.
- Nakayama, W., Daikoku, T. and Nakajima, T. (1982). Enhancement of Boiling and Evaporation on Structured Surfaces with Gravity Driven Film Flow of R-11, *Proc. 7th International Heat Transfer Conference*, Vol. 4, pp. 409-414.
- Nidegger, E., Thome, J.R. and Favrat, D. (1997). Flow Boiling and Pressure Drop Measurements for R-134a/Oil Mixtures Part 1: Evaporation in a Microfin Tube, *HVAC&R Research*, Vol. 3, No. 1, pp. 38-53.
- Nukiyama, S. (1934). The Maximum and Minimum Values of Heat Q Transmitted from Metal to Boiling Water under Atmospheric Pressure, *J. Jap. Soc. Mech. Eng.*, Vol. 37, pp. 367-374 (in Japanese) (trans. in *Int. J. Heat Mass Transfer*, Vol. 9, pp. 1419-1433 (1966)).
- Nunner, W. (1956). Heat Transfer and Pressure Drop in Rough Tubes, *VDI-Forschungsheft 455*, Series B, Vol. 22, A.E.R.E. Library Translation 786.
- Nusselt, W. (1916). Die Oberflächenkondensation des Wasserdampfes, *Zeitschr. Ver. Deutch. Ing.*, Vol. 60, pp. 541-546 and pp. 569-575.
- Oh, S.Y. and Bergles, A.E. (1998). Experimental Study on the Effects of the Spiral Angle on Evaporative Heat Transfer Enhancement in Microfin Tubes, *ASHRAE Trans.*, Vol. 104, Part 2, Paper TO-98-19-1.
- Ould Didi, M. B., Kattan, N. and Thome, J. R. (2002). Prediction of Two-Phase Pressure Gradients of Refrigerants in Horizontal Tubes, *Int. J. Refrigeration*, Vol. 25, No. 7, pp. 935-947.
- Owens, W.L. (1978). Correlation of Thin Film Evaporation Heat Transfer Coefficients for Horizontal Tubes, ASME Paper 78-WA/HI-67.
- Palen, J.W., Breber, G. and Taborek, K. (1979). Prediction of Flow Regimes in Horizontal Tube-Side Condensation, *Heat Transfer Engineering*, Vol. 1, No. 2, pp. 47-57.
- Palm, B.E. (1995). Pool Boiling of R22 and R134a on Enhanced Surfaces, *Proc. 19th International Congress of Refrigeration*, The Hague, Vol. 4a, pp. 465-471.
- Parken, W.H., Fletcher, L.S., Sernas, V. and Han, J.C. (1990). Heat Transfer Through Falling Film Evaporation and Boiling on Horizontal Tubes, *J. Heat Transfer*, Vol. 112, pp. 744-750.
- Petukhov, B.S. (1970). Heat Transfer and Friction in Turbulent Pipe Flow with Variable Physical Properties, *Advances in Heat Transfer*, Academic Press, New York, Vol. 6, pp. 503-564.
- Prausnitz, J.M. (1969). *Molecular Thermodynamics of Fluid-Phase Equilibria*, Prentice-Hall, Englewood Cliffs, NJ.
- Rabas, T.J. and Arman, B. (1992). The Influence of the Prandtl Number on the Thermal Performance of Tubes with the Separation and Reattachment Mechanism, *Enhanced Heat Transfer*, HTD Vol. 202, ASME, pp. 77-87.
- Ravigururajan, T.S. and Bergles, A.E. (1985). General Correlations for Pressure Drop and Heat Transfer for Single-Phase Turbulent Flow in Internally Ribbed Tubes, *Augmentation of Heat Transfer in Energy Systems*, ASME HTD Vol. 52, pp. 9-20.
- Rewert, L.E., Huber, J.B. and Pate, M.B. (1996a). The Effect of R-123 Condensate Inundation and Vapor Shear on Enhanced Tube Geometries, *ASHRAE Trans.*, Vol. 102, Part 2, pp. 273-284.
- Rewert, L.E., Huber, J.B. and Pate, M.B. (1996b). The Effect of R-134a Condensate Inundation on Enhanced Tube Geometries, *ASHRAE Trans.*, Vol. 102, Part 2, pp. 285-296.
- Rifert, V.G., Putilin, Ju.V. and Podberezny, V.L. (1992). Evaporation Heat Transfer in Liquid Films Flowing Down the Horizontal Smooth and Longitudinally-Profiled Tubes, *Heat Transfer: 3rd UK*

- National Conference incorporating 1st European Conference of Thermal Sciences*, Taylor&Francis, Vol. 2, pp. 1283-1289.
- Robinson, D. and Thome, J.R. (2003a).** Local Bundle Boiling Heat Transfer Coefficients on a Plain Tube Bundle, *HVAC&R Research*, ASHRAE, in press.
- Robinson, D. and Thome, J.R. (2003b).** Boiling of R-134a, R-410A and R-507A on an Enhanced Tube Bundle, *HVAC&R Research*, ASHRAE, in review.
- Rohsenow, W.M. (1956).** Heat Transfer and Temperature Distribution in Laminar Film Condensation, *Trans. ASME*, Vol. 79, pp. 1645-1648.
- Rohsenow, W.M. (1962).** A Method of Correlating Heat Transfer Data for Surface Boiling of Liquids, *Trans. ASME (later J. Heat Transfer)*, Vol. 74, pp. 969-975.
- Rohsenow, W.M., Webber, J.H. and Ling, A.T. (1956).** Effect of Vapor Velocity on Laminar and Turbulent Film Condensation, *Trans. ASME*, Vol. 78, pp. 1637-1643.
- Roques, J.F. (2004).** Falling film evaporation on a single tube and on a tube bundle, Ph.D. thesis, Swiss Federal Institute of Technology Lausanne (EPFL), CH-1015 Lausanne, Switzerland (2004).
- Roques, J.F., Dupont, V. and Thome, J.R. (2002).** Falling Film Transitions on Plain and Enhanced Tubes, *J. Heat Transfer*, Vol. 124, June, pp. 491-499.
- Roques, J.F. and Thome, J.R. (2001).** Flow Patterns and Phenomena for Falling Films on Plain and Enhanced Tube Arrays, *Proc. of Int. Conference on Compact Heat Exchangers for the Process Industries*, Davos, Switzerland, July 1-6.
- Roques, J.F. and Thome, J.R. (2002).** Falling Film Transitions between Droplets, Column and Sheet Flow Modes on a Vertical Array of Horizontal 19 fpi and 40 fpi Low Finned Tubes, *Proc. 1st Int. Conf. On Heat Transfer, Fluid Mechanics and Thermodynamics*, HEFAT 2002, Skukuza, South Africa, Vol. 1, pp. 523-528.
- Rose, J.W. (1994).** An Approximate Equation for the Vapour-Side Heat-Transfer Coefficient for Condensation on Low-Finned Tubes, *Int. J. Heat Mass Transfer*, Vol. 107, pp. 361-365.
- Rouhani, Z. (1969).** AB Atomenergi, Sweden, Internal Report, AE-RTV 841.
- Rouhani, Z. and Axelsson, E. (1970).** Calculation of Volume Void Fraction in the Subcooled and Quality Region, *Int. J. Heat Mass Transfer*, Vol. 13, pp. 383-393.
- Rudy, T.M. and Webb, R.L. (1985).** An Analytical Model to Predict Condensate Retention on Horizontal Integral-Fin Tubes, *J. Heat Transfer*, Vol. 107, pp. 361-368.
- Salehi, M., Ohadi, M.M. and Dessiatoun, S. (1998).** The Applicability of the EHD Technique for Convective Boiling of Refrigerant Blends - Experiments with R-404A, *ASHRAE Trans.*, Vol. 102, Part 1, pp. 839-844.
- Schlager, L.M., Bergles, A.E. and Pate, M.B. (1987).** A Survey of Refrigerant Heat Transfer and Pressure Drop Emphasizing Oil Effects and In-Tube Augmentation, *ASHRAE Trans.*, Vol. 93, Part 1, pp. 392-416.
- Schlager, L.M., Pate, M.B., and Bergles, A.E. (1990).** Evaporation and Condensation Heat Transfer and Pressure Drop in Horizontal, 12.7-mm Microfin Tubes with Refrigerant 22, *J. Heat Transfer*, Vol. 112, pp. 1041-1047.
- Schrage, D.S., Hsu, J.-T. and Jensen, M.K. (1988).** Two-Phase Pressure Drop in Vertical Crossflow across a Horizontal Tube Bundle, *AIChE J.*, Vol. 34, No. 1, pp. 107-115.
- Seban, R. (1954).** Remarks on Film Condensation with Turbulent Flow, *Trans. ASME*, Vol. 76, pp. 299-303.
- Sethumadhavan, R. and Rao, R. (1986).** Turbulent Flow Friction and Heat Transfer Characteristics of Single- and Multi-Start Spirally Enhanced Tubes, *J. Heat Transfer*, Vol. 108, pp. 55-61.
- Seymour, E.V. (1966).** Fluid Flow Through Tubes Containing Twisted Tapes, *The Engineer*, Vol. 222, pp. 634-642.
- Shah, M.M. (1979).** A General Correlation for Heat Transfer during Film Condensation inside of Pipes, *Int. J. Heat Mass Transfer*, Vol. 22, pp. 547-556.
- Shah, M. M. (1982).** Chart Correlation for Saturated Boiling Heat Transfer: Equations and Further Study, *ASHRAE Trans.*, Vol. 88, Part 1, pp. 185-196.

- Shah, R.K., Zhou, S.Q. and Tagavi, K.A. (1999).** The Role of Surface Tension in Film Condensation in Extended Surface Passages, *Enhanced Heat Transfer*, Vol. 6, pp. 179-216.
- Shatto, D.P. and Peterson, G.P. (1996).** A Review of Flow Boiling Heat Transfer with Twisted Tape Inserts, *J. Enhanced Heat Transfer*, Vol. 3, No. 4, pp. 233-257.
- Shizuya, M., Itoh, M. and Hijakata, K. (1995).** Condensation of Nonazeotropic Binary Refrigerant Mixtures including R22 as a More Volatile Component inside a Horizontal Tube, *J. Heat Transfer*, Vol. 117, No. 5, pp. 538-543.
- Sieder, E.N. and Tate, G.E. (1936).** *Ind. Eng. Chem.*, Vol. 28, pp. 1429.
- Silver, L. (1947).** Gas Cooling with Aqueous Condensation, *Trans. Inst. Chem. Eng.*, Vol. 25, pp. 30-42.
- Singh, A., Ohadi, M.M. and Dessiatoun, S. (1996).** Flow Boiling Heat Transfer Coefficients of R-134a in a Microfin Tube, *J. Heat Transfer*, Vol. 118, pp. 497-499.
- Smit, F.J., Thome, J.R. and Meyer, J. (2001).** Heat Transfer Coefficients during Condensation of the Zeotropic Refrigerant Mixture R-22/R-142b, *J. Heat Transfer*, Vol. 124.
- Smith, B.D., Block, B., and Hickman, C.D. (1963).** Distillation, *Chemical Engineers' Handbook*, McGraw-Hill, New York, pg. 13-4 to 13-14.
- Smith, S.L. (1969).** Void Fractions in Two-Phase Flow. A Correlation Based on an Equal Velocity Head Model, *Proc. Inst. Mech. Engng.*, Vol. 184, No. 36, pp. 647-664.
- Smithberg, E. and Landis, F. (1964).** Friction and Forced Convection Heat Transfer Characteristics in Tubes with Twisted Tape Swirl Generators, *J. Heat Transfer*, Vol. 86, pp. 39-49.
- Soliman, H.M. (1982).** On the Annular-to-Wavy Flow Pattern Transition during Condensation inside Horizontal Tubes, *The Canadian Journal of Chemical Engineering*, Vol. 60, pp. 475-481.
- Sparrow, E.M. and Gregg, J.L. (1959).** A Boundary-Layer Treatment of Laminar Film Condensation, *J. Heat Transfer*, Series C, Vol. 81, pp. 13.
- Sparrow, E.M., Minkowycz, W.J. and Saddy, M. (1967).** Forced Convection Condensation in the Presence of Non-Condensables and Interfacial Resistance, *Int. J. Heat Mass Transfer*, Vol. 10, pp. 1829-1845.
- Steiner, D. (1993).** *VDI-Wärmeatlas (VDI Heat Atlas)*, Verein Deutscher Ingenieure, VDI-Gesellschaft Verfahrenstechnik und Chemieingenieurwesen (GCV), Düsseldorf, Chapter Hbb.
- Steiner, D. and Taborek, J. (1992).** Flow Boiling Heat Transfer in Vertical Tubes Correlated by an Asymptotic Model, *Heat Transfer Engng.*, Vol. 13, No. 2, pp. 43-69.
- Stephan, K. and Abdelsalam, M. (1980).** Heat Transfer Correlations for Natural Convection Boiling, *Int. J. Heat Mass Transfer*, Vol. 23, pp. 73-87.
- Stephan, K. and Körner, M. (1969).** Calculation of Heat Transfer in Evaporating Binary Liquid Mixtures, *Chemie-Ingenieur Technik*, Vol. 41, No. 7, pp. 409-417.
- Sundaresan, S.G., Pate, M.B., Doerr, T.M. and Ray, D.T. (1996).** A Comparison of the Effects of POE and Mineral Oil Lubricants on the In-Tube Evaporation of R-22, R-407C and R-410A, *Proc. 1996 International Refrigeration Conference at Purdue*, West Lafayette, IN, July 23-26, pp. 187-192.
- Suzuki, S., Fujisawa, Y., Nakarazawa, S. and Matsuoka, M. (1993).** Measuring Method of Oil Circulating Ratio using Light Absorption, *ASHRAE Trans.*, Vol. 99, Part 1, pp. 413-421.
- Taborek, J. (1983).** Shell-and-Tube Heat Exchangers: Single-Phase Flow, *Heat Exchanger Design Handbook*, Chapter 3.3, Hemisphere, New York.
- Taitel, Y. (1990).** Flow pattern transition in two-phase flow, *Proc. 9th International Heat Transfer Conference*, Jerusalem, Vol. 1, pp. 237-254.
- Taitel, Y. and Dukler, A.E. (1976).** A model for predicting flow regime transitions in horizontal and near horizontal gas-liquid flow, *AIChE J.*, Vol. 22, pp. 47-55.
- Takaishi, Y. and Oguchi, K. (1987).** Measurements of Vapor Pressures of R22/Oil Solutions, *18th International Congress of Refrigeration*, Vienna, B, pp. 217-222.
- Tam, L.M. and Ghajar, A.J. (1997).** Effect of Inlet Geometry and Heating on the Fully Developed Friction Factor in the Transition Region of a Horizontal Tube, *Experimental Thermal and Fluid Science*, Vol. 15, pp. 52-64.

- Tam, L.M. and Ghajar, A.J. (1998).** The Unusual Behavior of Local Heat Transfer Coefficient in a Circular Tube with a Bell-Mouth Inlet, *Experimental Thermal and Fluid Science*, Vol. 16, pp. 187-194.
- Tandon, T.N., Varma, H.K. and Gupta, C.P. (1985).** A Void Fraction Model for Annular Two-Phase Flow, *Int. J. Heat Mass Transfer*, Vol. 28, pp. 191-198.
- Tang (1997).** Empirical Study of New Refrigerant Flow Condensation inside Horizontal Smooth and Micro-Fin Tubes, Ph.D. Thesis, University of Maryland.
- Thom, J.R.S. (1964).** Prediction of Pressure Drop during Forced Circulation Boiling of Water, *Int. J. Heat Mass Transfer*, Vol. 7, pp. 709-724.
- Thome, J.R. (1983).** Prediction of Binary Mixture Boiling Heat Transfer Coefficients Using Only Phase Equilibrium Data, *Int. J. Heat Mass Transfer*, Vol. 26, pp. 965-974.
- Thome, J.R. (1987).** Enhanced Boiling of Mixtures, *Chem. Eng. Science*, Vol. 42, pp. 1909-1917.
- Thome, J.R. (1989).** Prediction of the Mixture Effect on Boiling in Vertical Thermosyphon Reboilers, *Heat Transfer Engineering*, Vol. 12, No. 2, pp. 29-38; originally presented at the HTFS Meeting at Heriot-Watt University in 1985.
- Thome, J.R. (1990).** *Enhanced Boiling Heat Transfer*, Hemisphere (Taylor&Francis), Washington.
- Thome, J.R. (1991).** *Enhanced Heat Transfer Software Program*, John Thome Inc., Ionia, MI, USA. [licensed and available through HTRI].
- Thome, J.R. (1992).** Thermodynamic and Transport Properties of Lubricating Oils, Swiss Federal Institute of Technology, Lausanne, LENI Report (December 21).
- Thome, J.R. (1993).** Thermodynamic and Transport Properties of Refrigerant and Lubricating Oil Mixtures, Swiss Federal Institute of Technology, Lausanne, LENI Report (Jan. 28).
- Thome, J.R. (1994a).** High Performance Augmentations for Refrigeration System Evaporators and Condensers, *J. Enhanced Heat Transfer*, Vol. 1, No. 3, pp. 275-286.
- Thome, J.R. (1994b).** Two-Phase Heat Transfer to New Refrigerants, Special Keynote Lecture, *Proc. of 10th International Heat Transfer Conference*, Brighton, Vol. 1, pp. 19-41.
- Thome, J.R. (1995).** Comprehensive Thermodynamic Approach to Modelling Refrigerant-Oil Mixtures, *HVAC&R Research*, ASHRAE, **1**(2), pp. 110-126.
- Thome, J.R. (1996).** Boiling of New Refrigerants: A State-of-the-Art Review, *Int. J. Refrig.*, Vol. 19, No. 7, pp. 435-457.
- Thome, J.R. (1997a).** Boiling of New Refrigerants: A State-of-the-Art Review, *Int. J. Refrig.*, Vol. 19, No. 7, pp. 435-457.
- Thome, J.R. (1997b).** Heat Transfer and Pressure Drop in the Dryout Region of Intube Evaporation with Refrigerant/Lubricant Mixtures, ASHRAE Final Report of Project 800-RP, February.
- Thome, J.R. (1998).** Condensation, Boiling and Evaporation of Fluorocarbon and Other Refrigerants: A State-of-the-Art Review, ARI Technical Report, Air-Conditioning and Refrigeration Institute, Arlington, VA 22203-1627.
- Thome, J.R. (1999).** Falling Film Evaporation: State-of-the-Art Review of Recent Work, *Journal of Enhanced Heat Transfer*, Vol. 6, No. 2, pp. 263-277.
- Thome, J.R., Kattan, N. and Favrat, D. (1997).** Evaporation in Microfin Tubes: a Generalized Prediction Model, Convective Flow and Pool Boiling Conference, Irsee, Germany, May 18-23, Paper VII-4.
- Thome, J.R. and Shock, R.A.W. (1984).** Boiling of Multicomponent Liquid Mixtures, *Advances in Heat Transfer*, Eds. Hartnett and Irvine, Academic Press, Princeton, Vol. 16, pp. 59-156.
- Thonon, B., Roser, R. and Mercier, P. (1997).** Pool Boiling of Propane and Pentane on a Bundle of Low-Finned Tubes, Convective Boiling Conference, Kloster Irsee, Germany, May 18-23.
- Thors, P. and Bogart, J.E. (1994).** In-Tube Evaporation of HCFC-22 with Enhanced Tubes, *J. Enhanced Heat Transfer*, Vol. 1, No. 4, pp. 365-377.
- Thorsen, R.S. and Landis, F. (1968).** Friction and Heat Transfer Characteristics in Turbulent Swirl Flow Subjected to Large Transverse Temperature Gradients, *J. Heat Transfer*, Vol. 90, pp. 87-98.

- Tinker, T. (1951).** Shell Side Characteristics of Shell and Tube Heat Exchangers, *General Discussion on Heat Transfer*, Institution of Mechanical Engineers, London, pp. 97-116.
- Torikoshi, K. and Ebisu, T. (1994).** In-Tube Heat Transfer Characteristics of Refrigerant Mixtures of HFC-32/134a and HFC-32/125/134a, *Proc. 1994 International Refrigeration Conference at Purdue*, July 19-22, West Lafayette, IN, pp. 293-298.
- Torikoshi, K., Kawabata, K. and Ebisu, T. (1992).** Heat Transfer and Pressure Drop Characteristics of HFC-134a in a Horizontal Heat Transfer Tube, *Proc. 1992 International Refrigeration Conf. at Purdue*, West Lafayette, Vol. 1, pp. 167-176.
- Tribbe, C. and Müller-Steinhagen, H. M. (2000).** An Evaluation of the Performance of Phenomenological Models for Predicting Pressure Gradient during Gas-Liquid Flow in Horizontal Pipelines, *Int. J. of Multiphase Flow*, Vol. 26, pp. 1019-1036.
- Uchida, M., Itoh, M., Shikazono, N. and Kudoh, M. (1996).** Experimental Study on the Heat Transfer Performance of a Zeotropic Refrigerant Mixture in Horizontal Tubes, *Proc. 1996 International Refrigeration Conference at Purdue*, July 23-26, West Lafayette, IN, pp. 133-138.
- Ursenbacher, T., Wojtan, L., Thome, J.R. (2004).** Dynamic Void Fractions in Stratified Types of Flow, Part I: New Optical Measurement Technique. *Int. J. Multiphase Flow*, Vol. 31, in press.
- Vachon, R.I., Nix, G.H. and Tangor, G.E. (1967).** Evaluation of Constants for the Rohsenow Pool Boiling Correlation, U.S. National Heat Transfer Conference, Paper 67-HT-33.
- van Stralen, S. and Cole, R. (1979).** *Boiling Phenomena*, Hemisphere, Washington.
- Wang, C.C., Kuo, S.S., Chang, Y.J. and Lu, D.C. (1996).** Two-Phase Flow Heat Transfer and Friction Characteristics of R-22 and R-407C, *ASHRAE Trans.*, Vol. 102, Part 1, pp. 830-838.
- Warriarachchi, A.S., Marto, P.J. and Reilly, J.T. (1986).** The Effect of Oil Contamination on Nucleate Pool-Boiling of R-114 from a Porous Coated Surface, *ASHRAE Trans.*, Vol. 92, Part 2, pp. 525-538.
- Watanabe, K., Taira, T. and Mori, Y. (1983).** Heat Transfer Augmentation in Tubular Flow by Twisted Tapes at High Temperatures and Optimum Performance, *Heat Transfer-Japanese Research*, Vol. 12, No. 3, pp. 1-31.
- Wattelet, J.P., Chato, J.C., Souza, A.L. and Christoffersen, B.R. (1994).** Evaporation Characteristics of R-12, R-134a and MP-39 at Low Fluxes, *ASHRAE Trans.*, Vol. 100, Part 1, paper NO-94-2-1.
- Webb, R.L. (1994).** *Principles of Enhanced Heat Transfer*, Wiley, New York.
- Webb, R.L., Chien, L.H., McQuade, W.F. and Imadojema, H.E. (1995).** Pool Boiling of Oil-Refrigerant Mixtures on Enhanced Tubes, *Proc. ASME/JSME Thermal Engineering Joint Conference*, Maui, Vol. 2, pp. 247-255.
- Webb, R.L., Eckert, E.R.G. and Goldstein, R.J. (1971).** Heat Transfer and Friction in Tubes with Repeated-Rib Roughness, *Int. J. Heat Mass Transfer*, Vol. 14, pp. 601-617.
- Webb, R.L. and McQuade, W.F. (1993).** Pool Boiling of R-11 and R-123 Oil-Refrigerant Mixtures on Plain and Enhanced Tube Geometries, *ASHRAE Trans.*, Vol. 99, Part 1, pp. 1225-1236.
- Webb, R.L. and Pais, C (1992).** Nucleate Boiling Data for Five Refrigerants on Plain, Integral Fin, and Enhanced Tube Geometries, *Int. J. Heat Mass Transfer*, Vol. 35, No. 8 pp. 1893-1904.
- Webb, R.L., Rudy, T.M. and Kedzierski, M.A. (1985).** Prediction of Condensation on Horizontal Integral-Fin Tubes, *J. Heat Transfer*, Vol. 107, pp. 369-376.
- Wei, Y.H. and Jacobi, A.M. (2002).** Vapor-Shear, Geometric and Bundle-Depth Effects on the Intertube Falling-Film Modes, *Proc. 1st International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics*, HEFAT 2002, Skukuza, South Africa, Vol. 1, pp. 40-46.
- Whalley, P. (1980).** See Hewitt, G. F. (1983). Multiphase Flow and Pressure Drop, *Heat Exchanger Design Handbook*, Hemisphere, Washington, D. C., Vol. 2, pp. 2.3.2-11.
- Whalley, P.B., Azzopardi, B.J., Hewitt, G.F. and Owen, R.G. (1982).** A Physical Model of Two-Phase Flow with Thermodynamic and Hydrodynamic Non-Equilibrium, *Proc. of 7th International Heat Transfer Conf.*, Munich, Vol. 5, pp. 181-188.

- Withers, J.G. (1980a).** Tube-Side Heat Transfer and Pressure Drop for Tubes Having Helical Internal Ridging with Turbulent/Transitional Flow of Single-Phase Fluid, Part 1, Single-Helix Ridging, *Heat Transfer Engineering*, Vol. 2, No. 1, pp. 48-58.
- Withers, J.G. (1980b).** Tube-Side Heat Transfer and Pressure Drop for Tubes Having Helical Internal Ridging with Turbulent/Transitional Flow of Single-Phase Fluid, Part 2, Multiple-Helix Ridging, *Heat Transfer Engineering*, Vol. 2, No. 2, pp. 43-50.
- Withers, J. G. and Habdas, E. P. (1974).** Heat Transfer Characteristics of Helical-Corrugated Tubes for In-Tube Boiling of Refrigerant R-12, *AIChE Symp. Ser.*, Vol. 70., No. 138, pp. 98-106.
- Xin, M. and Chao, Y. (1985).** Analysis and Experiment of Boiling Heat Transfer on T-shaped finned surfaces, Paper read at 23rd National Heat Transfer Conference, Denver, August 4-7; refer to Thome (1990) for description of paper on pp. 172-169.
- Xu, G.P., Tou, K.W. and Tso, C.P. (1998).** Two-Phase Void Fraction and Pressure Drop in Horizontal Crossflow Across a Tube Bundle, *J. Fluids Engineering*, Vol. 120, pp. 140-145.
- Wallis, G.B. (1969).** *One Dimensional Two-Phase Flow*, McGraw-Hill, New York.
- Wojtan, L., Ursenbacher, T., and Thome, J.R. (2003).** Interfacial Measurements in Stratified Types of Flow. Part II: Measurements for R-22 and R-410A, *Int. J. Multiphase Flow*, Vol. 30, pp. 125-137.
- Wojtan, L., Ursenbacher, T., Thome, J.R. (2004).** Dynamic Void Fractions in Stratified Types of Flow, Part II: Measurements for R-22 and R-410a. *Int. J. Multiphase Flow*, Vol. 31, in press.
- Wojtan, L., Ursenbacher, T. and Thome, J.R. (2005a).** Investigation of Flow Boiling in Horizontal Tubes: Part I – A New Diabatic Two-Phase Flow Pattern Map, *Int. J. Heat Mass Transfer*, Vol. 48, pp.2955-2969.
- Wojtan, L., Ursenbacher, T. and Thome, J.R. (2005b).** Investigation of Flow Boiling in Horizontal Tubes: Part II – Development of a New Heat Transfer Model for Stratified-Wavy, Dryout and Mist Flow Regimes, *Int. J. Heat Mass Transfer*, Vol. 48, pp. 2970-2985.
- Yashar, D.A., Wilson, M.J., Kopke, H.R., Graham, D.M., Chato, J.C. and Newell, T.A. (2001).** An Investigation of Refrigerant Void Fraction in Horizontal, Microfin Tubes, *HVAC&R Research*, Vol. 7, No. 1, pp. 67-82.
- Yung, D., Lorenz, J.J. and Ganic, E.N. (1980).** Vapor/Liquid Interaction and Entrainment in Falling Film Evaporators, *J. Heat Transfer*, Vol. 102, No. 1, pp. 20-25.
- Zeng, X., Chyu, M.-C. and Ayub, Z.H. (1994).** Characteristic Study of Sprayed Fluid Flow in a Tube Bundle, *ASHRAE Trans.*, Vol. 100, Part 1, pp. 63-72.
- Zeng, X., Chyu, M.-C. and Ayub, Z.H. (1995).** Evaporation Heat Transfer Performance of Nozzle-Sprayed Ammonia on a Horizontal Tube, *ASHRAE Trans.*, Vol. 101, Part 1, pp. 136-149.
- Zeng, X., Chyu, M.-C. and Ayub, Z.H. (1997).** Performance of Nozzle-Sprayed Ammonia Evaporator with Square-Pitch Plain-Tube Bundle, *ASHRAE Trans.*, Vol. 103, Part 2, Paper 4059.
- Zeng, X., Chyu, M.-C. and Ayub, Z.H. (1998).** Ammonia Spray Evaporation Heat Transfer Performance of Single Low-Fin and Corrugated Tubes, *ASHRAE Trans.*, Vol. 104, Part 1, Paper SF-98-15-2 (4109).
- Zivi, S.M. (1964).** Estimation of Steady-State Steam Void-Fraction by Means of the Principle of Minimum Entropy Generation, *J. Heat Transfer*, Vol. 86, pp. 247-252.
- Zuber, N. (1959).** Hydrodynamic Aspects of Boiling Heat Transfer, AEC Report AECU-4439, Physics and Mathematics.
- Zuber, N. and Findlay, J. (1965).** Average Volumetric Concentration in Two-Phase Flow Systems, *J. Heat Transfer*, Vol. 87, pp. 453.
- Zuber, N., Staub, F.W., Bijwaard, G. and Kroeger, P.G. (1967).** Steady State and Transient Void Fraction in Two-Phase Flow Systems, GEAP Report 5417.
- Zürcher, O. (2000).** Contribution to the Heat Transfer Analysis of Substitute and Natural Refrigerants Evaporating in a Horizontal Plain Tube, Ph.D. thesis, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland.

- Zürcher, O. Thome, J.R. and Favrat, D. (1997a).** Flow Boiling and Pressure Drop Measurements for R-134a/Oil Mixtures Part 2: Evaporation in a Plain Tube, *HVAC&R Research*, Vol. 3, No. 1, pp. 54-64.
- Zürcher, O. Thome, J.R. and Favrat, D. (1997b).** Flow Boiling of Ammonia in Smooth and Enhanced Horizontal Tubes, *Compression Systems with Natural Working Fluids*, IEA Annex 22 Workshop, Gatlinburg, TN, USA, October 2-3.
- Zürcher, O. Thome, J.R. and Favrat, D. (1997c).** Prediction of Two-Phase Flow Patterns for Evaporation of Refrigerant R-407C inside Horizontal Tubes, Convective Flow and Pool Boiling Conference, Irsee, Germany, May 18-23, paper IX-1.
- Zürcher, O., Thome, J.R. and Favrat, D. (1998a).** Intube Flow Boiling of R-407C and R-407C/Oil Mixtures Part I: Microfin Tube, *HVAC&R Research*, Vol. 4, No. 4, pp. 347-372.
- Zürcher, O., Thome, J.R. and Favrat, D. (1998b).** Intube Flow Boiling of R-407C and R-407C/Oil Mixtures Part II: Plain Tube Results and Predictions, *HVAC&R Research*, Vol. 4, No. 4, pp. 373-399.
- Zürcher, O., Thome, J.R. and Favrat, D. (1999).** Evaporation of Ammonia in a Smooth Horizontal Tube: Heat Transfer Measurements and Predictions, *J. Heat Transfer*, Vol. 121, February, pp. 89-101.