

REFERENCES

- Abdel-Moneim, S. A. (1989). "Heat transfer to air in turbulent pipe flow with suspended solid powder," Msc. Thesis, Faculty of Eng., Cairo university.
- Aroonrat, K. and Wongwises, S. (2010). "Evaporation heat transfer and friction characteristics of R-134a flowing downward in a vertical corrugated tube," *Experimental Thermal and Fluid Science*, In Press, Corrected Proof, Available online 8 August.
- Barba, A., Rainieri, S. and Spiga, M. (2002) "Heat transfer enhancement in a corrugated tube," *Int. Comm. Heat Mass Transfer*, Vol. 29, pp. 313-322.
- Bharadwaj, P., Khondge A.D., and Date A.W. (2009). "Heat transfer and pressure drop in a spirally grooved tube with twisted tape insert," *International journal of heat and mass transfer*, Vol. 52, pp. 1938-1944.
- Bilen, K., Cetin, M., Gul, H. and Balta, T. (2009). "The investigation of groove geometry effect on heat transfer for internally grooved tubes," *Applied Thermal Engineering*, Vol. 29, pp. 753-761.
- Chang, S. W., Lees, A. W., Chou, T. C. (2009). "Heat transfer and pressure drop in furrowed channels with transverse and skewed sinusoidal wavy walls," *International Journal of Heat and Mass Transfer*, Vol. 52, pp. 4592–4603.
- Dong, Y., Huixiong, L. and Tingkuan, C. (2001). "Pressure drop, heat transfer and performance of single-phase turbulent flow in spirally corrugated tubes," *Experimental Thermal and Fluid Science*, Vol. 24, pp. 131-138.

Eiamsa-ard, S. and Promvonge, P. (2009). "Thermal characteristics of turbulent rib-grooved channel flows," *International Communications in Heat and Mass Transfer*, Vol. 36, pp. 705-711.

Elshafei, E. A. M., Awad, M. M., El-Negiry, E. and Ali, A. G. (2010). "Heat transfer and pressure drop in corrugated channels," *Energy*, Vol. 35, pp. 101–110.

Fabbri, G. and Rossi, R. (2005). "Analysis of the heat transfer in the entrance region of optimised corrugated wall channel," *International Communications in Heat and Mass Transfer*, Vol. 32, pp. 902–912.

Gao, X. and Sundén, B. (2004). "PIV measurement of the flow field in rectangular ducts with 60° parallel, crossed and V-shaped ribs," *Experimental Thermal and Fluid Science*, Vol. 28, pp. 639-653.

Goto, M., Inoue, N. and Yonemoto, R. (2003). "Condensation heat transfer of R410A inside internally grooved horizontal tubes," *International Journal of Refrigeration*, Vol. 26, pp. 410-416.

Hamza, A. H. and Hanaoka, Y. (2002). "Experimental study on laminar flow forced-convection in a channel with upper V-corrugated plate heated by radiation," *International Journal of Heat and Mass Transfer*, Vol. 45 pp. 2107–2117.

Hansa, V. S., Sainib, R. P. and Sainic, J.S. (2010). "Heat transfer and friction factor correlations for a solar air heater duct roughened artificially with multiple v-ribs," *Solar Energy*, Vol. 84, pp. 898-911.

Hasan, M. M. A. and Miyara, A. (2007). "Friction factor correlation and pressure loss of single-phase flow inside herringbone microfin tubes," *International Journal of Refrigeration*, Vol. 30, pp. 1187-1194.

Islamoglu, Y. (2008). "Effect of rounding of protruding edge on convection heat transfer in a converging–diverging channel,"

International Communications in Heat and Mass Transfer, Vol. 35, pp. 643–647.

Islamoglu, Y. and Parmaksizoglu, C. (2004). "Numerical investigation of convective heat transfer and pressure drop in a corrugated heat exchanger channel," Applied Thermal Engineering, Vol. 24, pp. 141–147.

Jaurkera, A. R., Sainib, J. S. and Gandhib, B. K. (2006). "Heat transfer and friction characteristics of rectangular solar air heater duct using rib-grooved artificial roughness," Solar Energy, Vol. 80, pp. 895-907.

Kamalia, R. and Bineshb, A. R. (2008). "The importance of rib shape effects on the local heat transfer and flow friction characteristics of square ducts with ribbed internal surfaces," International Communications in Heat and Mass Transfer, Vol. 35, pp. 1032-1040.

Karmarea, S. V. and Tikekarb, A. N. (2007). "Heat transfer and friction factor correlation for artificially roughened duct with metal grit ribs," International Journal of Heat and Mass Transfer Vol. 50, pp. 4342-4351.

Karmarea, S. V. and Tikekarb, A. N. (2010). "Analysis of fluid flow and heat transfer in a rib grit roughened surface solar air heater using CFD," Solar Energy, Vol. 84, pp. 409-417.

Kiml, R., Magda, A., Mochizuki, S. and Murata, A. (2004). "A. Rib-induced secondary flow effects on local circumferential heat transfer distribution inside a circular rib-roughened tube," International Journal of Heat and Mass Transfer, Vol. 47, pp. 1403–1410.

Kumar, A., Bhagoriaa, J. L. and Sarviyaa, R. M. (2009). "Heat transfer and friction correlations for artificially roughened solar air heater duct with discrete W-shaped ribs," Energy Conversion and Management, Vol. 50, pp. 2106-2117.

Laohalertdech, S. and Wongwises, S. (2010a). "An experimental study into the evaporation heat transfer and flow characteristics of R-134a

refrigerant flowing through corrugated tubes," International Journal of Refrigeration, Article in Press.

Laohalertdecha, S. and Wongwises, S. (2010b). "The effects of corrugation pitch on the condensation heat transfer coefficient and pressure drop of R-134a inside horizontal corrugated tube," International Journal of Heat and Mass Transfer, Vol. 53, pp. 2924-2931.

Leea, D. H., Rheeb, D., Kima, K. M., Choa, H. H and Moonc, H. K. (2009). "Detailed measurement of heat/mass transfer with continuous and multiple V-shaped ribs in rectangular channel," Energy, Vol. 34, pp. 1770-1778.

Lia, X., Meng, J. and Guoa, Z. (2009). "Turbulent flow and heat transfer in discrete double inclined ribs tube," International Journal of Heat and Mass Transfer, Vol. 52, pp. 962-970.

Lin, J. H., Huang, C. Y. and Su, C. C. (2007). "Dimensional analysis for the heat transfer characteristics in the corrugated channels of plate heat exchangers," International Communications in Heat and Mass Transfer, Vol. 34, pp. 304–312.

Lua, B. and Jiang, P. (2006). "Experimental and numerical investigation of convection heat transfer in a rectangular channel with angled ribs," Experimental Thermal and Fluid Science, Vol. 30, pp. 513-521.

Naphon, P., Nuchjapo, M. and Kurujareon, J. (2006). "Tube side heat transfer coefficient and friction factor characteristics of horizontal tubes with helical rib," Energy Conversion and Management, Vol. 47, pp. 3031-3044.

Naphon, P. (2007). "Heat transfer characteristics and pressure drop in channel with V corrugated upper and lower plates," Energy Conversion and Management, Vol. 48, pp. 1516–1524.

Naphon, P. (2008). "Effect of corrugated plates in an in-phase arrangement on the heat transfer and flow developments," *International Journal of Heat and Mass Transfer*, Vol. 51, pp. 3963–3971.

Naphon, P., Kornkumjayrit, K. (2008). "Numerical analysis on the fluid flow and heat transfer in the channel with V-shaped wavy lower plate," *International Communications in Heat and Mass Transfer*, Vol. 35, pp. 839–843.

Naphon, P. (2009). "Effect of wavy plate geometry configurations on the temperature and flow distributions," *International Communications in Heat and Mass Transfer*, Vol. 36, pp. 942–946.

Onbasioglu, S., U. and Onba, H. (2004). "On enhancement of heat transfer with ribs," *Applied Thermal Engineering*, Vol. 24, pp. 43-57.

Oviedo-Tolentino, F., Romero-Méndez, R. , Abel Hernandez-Guerrero, A., Giron-Palomares, B. (2009). "Use of diverging or converging arrangement of plates for the control of chaotic mixing in symmetric sinusoidal plate channels," *Experimental Thermal and Fluid Science*, Vol. 33, pp. 208–214.

Ozceyhan, V., Gunes, S., Buyukalaca, O. and Altuntop, N. (2008). "Heat transfer enhancement in a tube using circular cross sectional rings separated from wall," *Applied Energy*, Vol. 85, pp. 988-1001.

Patanker (1980). *Numerical heat transfer and fluid flow*, Suhas V. Patankar.

Pethkool, S., Eiamsa-ard, S., Kwankaomeng, S. and Promvonge, P. (2010). "Turbulent heat transfer enhancement in a heat exchanger using helically corrugated tube," *International Communications in Heat and Mass Transfer*, Article in Press.

Promvonge, P. and Thianponga, C. (2008). "Thermal performance assessment of turbulent channel flows over different shaped ribs,"

International Communications in Heat and Mass Transfer, Vol. 35, pp. 1327-1334.

Rainieri, S. and Pagliarini, G. (2002), "Convective heat transfer to temperature dependent property fluids in the entry region of corrugated tubes," International Journal of Heat and Mass Transfer, Vol. 45, pp. 4525–4536.

Rozzi, S., Massini, R., Paciello, G., Pagliarini, G., Rainieri, S. and Trifirò, A. (2007). "Heat treatment of fluid foods in a shell and tube heat exchanger: Comparison between smooth and helically corrugated wall tubes," Journal of Food Engineering, Vol. 79, pp. 249-254.

Saha, S. K. (2010). "Thermal and friction characteristics of laminar flow through rectangular and square ducts with transverse ribs and wire coil inserts," Experimental Thermal and Fluid Science, Vol. 34, pp.63-72.

Sahua, M. M. and Bhagoria, J. L. (2005). "Augmentation of heat transfer coefficient by using 90° broken transverse ribs on absorber plate of solar air heater," Renewable Energy, Vol. 30, pp. 2057-2073.

San, J. and Huanga, W. (2006). "Heat transfer enhancement of transverse ribs in circular tubes with consideration of entrance effect," International Journal of Heat and Mass Transfer, Vol. 49, pp. 2965-2971.

Songa, W. M., Menga, J. A. and Li, Z. X. (2010). "Numerical study of air-side performance of a finned flat tube heat exchanger with crossed discrete double inclined ribs," Applied Thermal Engineering, Vol. 30, pp. 1797-1804.

SriHarshaa, V., Prabhu, S. V. and Vedulaa, R. P. (2009). "Influence of rib height on the local heat transfer distribution and pressure drop in a square channel with 90° continuous and 60° V-broken ribs," Applied Thermal Engineering, Vol. 29, pp. 2444-2459.

Tanda, G. (2004). "Heat transfer in rectangular channels with transverse and V-shaped broken ribs," *International Journal of Heat and Mass Transfer*, Vol. 47, pp. 229-243.

Thianpong, C., Chompookhama, T., Skullonga, S. and Promvongea, P. (2009). "Thermal characterization of turbulent flow in a channel with isosceles triangular ribs," *International Communications in Heat and Mass Transfer*, Vol. 36, pp. 712-717.

Vicente, P. G., García, A. and Viedma, A. (2004). "Experimental investigation on heat transfer and frictional characteristics of spirally corrugated tubes in turbulent flow at different Prandtl numbers," *International Journal of Heat and Mass Transfer*, Vol. 47, pp. 671-681.

Wang, C. C. and Chen, C. K. (2002). "Forced convection in a wavy-wall channel," *International Journal of Heat and Mass Transfer*, Vol. 45, pp. 2587-2595.

Yang, L. C., Asako, Y., Yamaguchi, Y. and Faghri, M. (1997). "Numerical prediction of transitional characteristics of flow and heat transfer in a corrugated duct," *Journal of heat transfer*, Vol. 119, pp. 62-69.

Zachár, A. (2010). "Analysis of coiled-tube heat exchangers to improve heat transfer rate with spirally corrugated wall," *International Journal of Heat and Mass Transfer*, Vol. 53, pp. 3928-3939.

Zimparov, V. (2002). "Enhancement of heat transfer by a combination of a single-start spirally corrugated tubes with a twisted tape," *Experimental Thermal and Fluid Science*, Vol. 25, pp. 535-546.

Zimparov, V. (2004). "Prediction of friction factors and heat transfer coefficients for turbulent flow in corrugated tubes combined with twisted tape inserts," *International Journal of Heat and Mass Transfer*, Vol. 47, pp. 589-599.