Title	Simple Modeling of Thin Paddy Layer for Catalytic Infrared Drying
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Citation	Proceedings: Abstract Summary, International Conference on Agricultural, Food and Biological Engineering & Post Harvest/Production Technology, Sofitel Raja Orchid Hotel, Khon Kaen, Thailand, 21-24 January 2007. 204 p.
Keywords	Paddy; Infrared drying; Moisture ratio

Abstract

A laboratory catalytic infrared (CIR) dryer was developed and thin layer drying of paddy was carried out at infrared peak wavelength levels of 2.47, 2.58 and 2.70 microns, paddy initial moisture content levels of 0.22, 0.26, 0.32 and 0.37 (dry basis). The drying occurred during the falling rate of drying period. Drying rate increased with decrease in infrared peak wavelength at each initial moisture content level. The experimental drying data were applied to available thin layer models: Newton, Page, modified Page, Henderson, Logarithmic, and Wang and Singh. The parameters were evaluated by regression analysis. Goodness of fit of the experimental data by these models was based on comparing the values of average percentage of error (%E), root mean square deviation (RMSD) and Chi-square (x^2) between the observed and predicted moisture ratios. The result showed that the Page and modified Page models were statistically similar. However, the modified Page model was most adequate in describing thin layer for catalytic infrared drying of paddy.