

Drying '84

Ed. A. S. Mujumdar

This book continues a series begun with 'Drying '80' and 'Drying '82'. Primarily, it collects papers given at the International Drying Symposium, the most recent of which was held in Kyoto. This volume contains 58 papers drawn from 18 different countries. Particularly striking is the large number (20) from Eastern European countries.

The collection of papers gives a good overview of current research activity within the field of drying. Indeed, the symposia, of which the editor is organiser, and this series have both served to focus the presentation and publication of drying research to such an extent that this series contains far more on drying than any journal or group of journals.

The papers cover a wide breadth of theory and applications. Most theoretical studies deal with drying rates, while applications range across a wide variety of commodity, ceramic, agricultural, and synthetic products. Many different types of dryers are considered, with most emphasis being on fluid-bed, spouted-bed, and through-circulation dryers. The papers appear to have been collected non-selectively.

Due to the complex coupling of heat and mass transfer, internal and external resistances, and complex moisture-equilibrium behaviour, drying has always

attracted a high percentage of papers built around mathematical modelling. This volume is no exception—including even a paper with a nomenclature section that extends over two full pages! Despite the wealth of modelling activities, one is continually struck by the gulf which remains between these studies and useful applications. One reason for this is the complexity of the modelling results. Another is the continuing scarcity of tabulations and of predictive and correlative methods for physical properties. Innovations in drying have been more in the field of equipment than in new physical insights into what is actually occurring mechanistically. Equipment developments seem still to make little or no use of theoretical models and the results computed from them.

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Forthcoming articles

Natural convection in an inclined enclosure containing internal energy sources and cooled from below
S. Acharya

Heat transfer in tube assemblies under conditions of laminar axial, transverse and inclined flow
K. A. Antonopoulos

Fully computerized evaluation of interferograms from fluid flow investigations
Y. Arzoan and G. Ben-Dor

Turbulence enhancement of stagnation point heat transfer on a body of revolution
G. K. Hargrave, M. Fairweather and J. K. Kilham

Computer simulation of the trajectories of large water jets
A. P. Hatton, C. M. Leech and M. J. Osborne

Investigation of the performance of conical entrance orifice plates at low Reynolds numbers
Y. S. Ho

Local Nusselt number and temperature field in turbulent flow through a heated square sectioned U-bend
R. W. Johnson and B. E. Launder

Freezing around a finite heat sink immersed in an infinite phase change medium
P. V. Padmanabhan and M. V. Krishnamurthy

Effect of frequency of air flow on the performance of the Wells turbine
S. Raghunathan and O. O. Ombaka

Secondary loss generation by gas turbine support struts
P. E. Roach and H. T. Turner

Fundamental sloshing frequencies of stratified two-fluid systems in closed prismatic tanks
Y. L. Sinai

Prediction of turbulent source flow between stationary and rotating discs
C. R. Truman and D. F. Jankowski

Calculation of the reflected wave from a pipe with a nozzle end by the Lax-Wendroff method
M. D. Warren

The correlation of engineering data reconsidered
D. Wilkie

These articles, listed in alphabetical order of first-named author, will appear in forthcoming issues of the *International Journal of Heat and Fluid Flow*.