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Nota di contenuto	Front Cover; Drying Principles and Practice; Copyright Page; Table of Contents; Major Topics; Preface; Acknowledgment; Notation; Approximate Values of Some Common Properties; Chapter 1. Introduction; Drying Methods; Moisture Content and Humidity; Mass Balances over Dryers; Enthalpy; Energy Balances over Dryers; Direct- fired Dryers; Humidity and Enthalpy Charts; References; Chapter 2. Moisture-Solid Relationships; Vapour Pressure; Hygroscopicity; Moisture Isotherm; Equilibrium Data; Enthalpy of Bound Moisture; Capillary-porous Materials; Side Effects of Drying; References Chapter 3. Transport Phenomena Potentials for Transfer; Transfer Fluxes; Transfer in a Porous Body; Conductivities; Transfer in a Mobile Medium; References; Chapter 4. Heat Transfer; Steady Conduction in Simple Bodies; Steady Conduction in Porous Bodies; Transient Conduction; Conduction Over Heated, Rotating Cylinders; Convection; Forced Convection to a Flat Plate; Convection to Bluff Bodies; Free Convection; Radiation; Gas radiation; Direct Electrical Heating; Microwave heating; References; Chapter 5. Migration of Moisture in Solids; Isothermal Diffusion; Isothermal Effusion Isothermal Capillary Flow Moisture Movement Near Dryness; Moisture Movement under Drying Conditions; Multicomponent Movement; References; Chapter 6. Evaporation and Humidification; Evaporation from a Plane Porous Body; Evaporation of Droplets; Humidification

Processes; References; Chapter 7. Drying under Constant External Conditions; Drying of an Idealized Porous Body; Typical Drying Curves; Extrapolation and Interpolation of Data; Estimation of Drying Rates; References; Chapter 8. Batch Drying; Simple Batch Schedules; Complex Drying Schedules; Other Batch Processes; References
Chapter 9. Continuous Drying Drying in Mixed Systems; Single-stage Unmixed Dryers; Use of characteristic drying curve/adiabatic working; Multistaged Dryers; Intermittent Drying; References; Chapter 10. Less-common Drying Methods; Superheated steam; Solvent Drying; Freeze-drying; Pressure-cycling Methods; Other Methods; References; Chapter 11. Measurement and Control; Moisture-content Determination; Humidity Determination; Moisture-control Systems; References; Chapter 12. Engineering; Classification of Dryers; Selection of Dryers; Direct or indirect heating; Vacuum or atmospheric operation
Drying equipment Specification sheets; Process Design; Other Design; Heating systems; Drying Costs; Conclusion; References; CONVERSION FACTORS FOR SOME COMMON UNITS INTO S.I. UNITS; APPENDIX; AUTHOR INDEX; SUBJECT INDEX

Sommario/riassunto

Drying
