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Insulation; Problems; Chapter 11 Mass Transfer (Gases and Water Vapor); Non-Dimensional Groups; Measurements of Mass Transfer; Ventilation; Mass Transfer through Pores; Coats and Clothing; Problems; Chapter 12 Mass Transfer (Particles); Steady Motion; Non-Steady Motion; Particle Deposition; Problems; Chapter 13 Steady State Heat Balance (i) Water Surfaces, Soil, and Vegetation; Heat Balance Equation

Heat Balance of Thermometers Heat Balance of Surfaces; Developments from the Penman Equation; Problems; Chapter 14 Steady State Heat Balance (ii) Animals; Heat Balance Components; The Thermo-Neutral Diagram; Specification of the Environment; Case Studies; Sheep; Problems; Chapter 15 Transient Heat Balance; Time Constant; General Cases; Heat Flow in Soil; Problems; Chapter 16 Micrometeorology (i) Turbulent Transfer, Profiles, and Fluxes; Turbulent Transfer; Flux-Gradient Methods; Methods for Indirect Measurements of Flux above Canopies; Relative Merits of Methods of Flux Measurement Turbulent Transfer in Canopies Density Corrections to Flux Measurements; Problems; Chapter 17 Micrometeorology (ii) Interpretation of Measurements; Resistance Analogues; Case Studies; Transport within Canopies; Problems; References; Bibliography; Appendix A; Solutions to Selected Problems; Index; A; B; C; D; E; F; G; H; I; K; L; M; N; O; P; Q; R; S; T; U; V; W; Z

Sommario/riassunto

Environmental Physics concerns the description and analysis of physical processes that establish the conditions in which all species of life survive and reproduce. The subject involves a synthesis of mathematical relations that describe the physical nature of the environment and the many biological responses that environments evoke. Environmental Physics provides a basis for understanding the complex responses of plants and animals to environmental change. International concern with climate change has made both politicians and the general public much more aware of the impac
