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gas radiation; 5.2 Important properties for study of gas radiation; 5.3 Equation of transfer or Radiative transfer equation (RTE); 5.4 Solution for the straight path; 5.5 Heat fluxes; PROBLEMS; 6 Introduction to atmospheric radiation; 6.1 Introduction; 6.2 Electromagnetic spectrum; 6.3 Black body radiation; 6.4 Radiative transfer equation for a plane parallel atmosphere
6.5 Radiative transfer equation (RTE} for an absorbing and emitting atmosphere6.6 Infrared remote sensing; PROBLEMS; 7 Inverse problems in radiation; 7.1 Introduction; 7.2 Least squares minimization for parameter estimation; 7.3 The Bayesian method for inverse problems; PROBLEMS; Bibliography; Index

Sommario/riassunto

Essentials of Radiation Heat Transfer is a textbook presenting the essential, fundamental information required to gain an understanding of radiation heat transfer and equips the reader with enough knowledge to be able to tackle more challenging problems. All concepts are reinforced by carefully chosen and fully worked examples, and exercise problems are provided at the end of every chapter. In a significant departure from other books on this subject, this book completely dispenses with the network method to solve problems of radiation heat transfer in surfaces. It instead prese