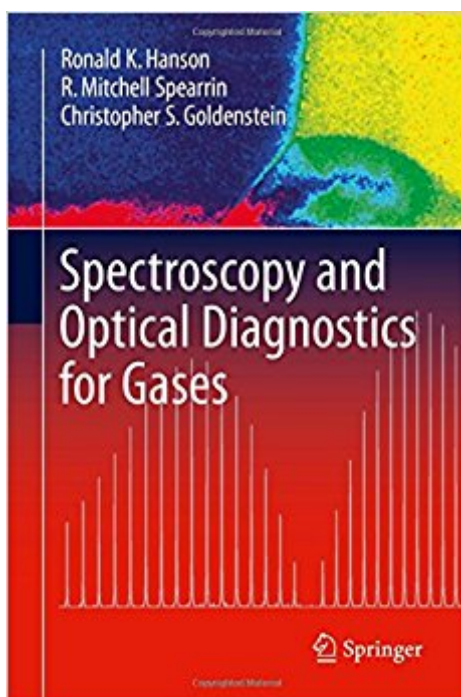


The book was found

Spectroscopy And Optical Diagnostics For Gases



Synopsis

This text provides an introduction to the science that governs the interaction of light and matter (in the gas phase). It provides readers with the basic knowledge to exploit the light-matter interaction to develop quantitative tools for gas analysis (i.e. optical diagnostics) and understand and interpret the results of spectroscopic measurements. The authors pair the basics of gas-phase spectroscopy with coverage of key optical diagnostic techniques utilized by practicing engineers and scientists to measure fundamental flow-field properties. The text is organized to cover three sub-topics of gas-phase spectroscopy: (1) spectral line positions, (2) spectral line strengths, and (3) spectral lineshapes by way of absorption, emission, and scattering interactions. The latter part of the book describes optical measurement techniques and equipment. Key subspecialties include laser induced fluorescence, tunable laser absorption spectroscopy, and wavelength modulation spectroscopy. It is ideal for students and practitioners across a range of applied sciences including mechanical, aerospace, chemical, and materials engineering.

Book Information

Hardcover: 279 pages

Publisher: Springer; 1st ed. 2016 edition (October 27, 2015)

Language: English

ISBN-10: 3319232517

ISBN-13: 978-3319232515

Product Dimensions: 6.3 x 0.9 x 9.4 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,644,733 in Books (See Top 100 in Books) #47 in Books > Engineering & Transportation > Engineering > Aerospace > Gas Dynamics #157 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Testing #2475 in Books > Textbooks > Engineering > Mechanical Engineering

[Download to continue reading...](#)

Spectroscopy and Optical Diagnostics for Gases Electromagnetic and Optical Pulse Propagation 1: Spectral Representations in Temporally Dispersive Media (Springer Series in Optical Sciences) (v. 1) Interferogram Analysis For Optical Testing, Second Edition (Optical Science and Engineering) Resolution Enhancement Techniques in Optical Lithography (SPIE Tutorial Texts in Optical Engineering Vol. TT47) Quantum Chemistry and Spectroscopy (3rd Edition) An Introduction to

Laser Spectroscopy: Second Edition Molecular Diagnostics: Fundamentals, Methods and Clinical Applications Aligner Orthodontics: Diagnostics, Biomechanics, Planning and Treatment Chinese Medicine Study Guide: Diagnostics (The Chinese Medicine Study Guide Series) Strategic Pricing for Medical Technologies: A Practical Guide to Pricing Medical Devices & Diagnostics What Is the World Made Of?: All About Solids, Liquids, and Gases (Let's-Read-and-Find-Out Science 2) What Is the World Made Of? All About Solids, Liquids, and Gases (Let's-Read-and-Find-Out Science, Stage 2) Solids, Liquids, And Gases (Rookie Read-About Science) Change It!: Solids Liquids Gases and You (Primary Physical Science) Joe-Joe the Wizard Brews Up Solids, Liquids, and Gases (In the Science Lab) Clathrate Hydrates of Natural Gases, Second Edition, Revised and Expanded (Chemical Industries) Thermodynamics and the Kinetic Theory of Gases: Volume 3 of Pauli Lectures on Physics (Dover Books on Physics) Kinetic Theory of Gases (Dover Books on Chemistry) An Introduction to the Kinetic Theory of Gases. Handbook of Compressed Gases

[Dmca](#)