DESCRIPTION

A bestselling classic reference, now expanded and updated to cover the latest instrumentation, methods, and applications

The Second Edition of Fourier Transform Infrared Spectrometry brings this core reference up to date on the uses of FT-IR spectrometers today. The book starts with an in-depth description of the theory and current instrumentation of FT-IR spectrometry, with full chapters devoted to signal-to-noise ratio and photometric accuracy. Many diverse types of sampling techniques and data processing routines, most of which can be performed on even the less expensive instruments, are then described. Extensively updated, the Second Edition:

* Discusses improvements in optical components

* Features a full chapter on FT Raman Spectrometry
Contains new chapters that focus on different ways of measuring spectra by FT-IR spectrometry, including fourteen chapters on such techniques as microspectroscopy, internal and external reflection, and emission and photoacoustic spectrometry.

* Includes a new chapter introducing the theory of vibrational spectrometry

* Organizes material according to sampling techniques

Designed to help practitioners using FT-IR capitalize on the plethora of techniques for modern FT-IR spectrometry and plan their experimental procedures correctly, this is a practical, hands-on reference for chemists and analysts. It's also a great resource for students who need to understand the theory, instrumentation, and applications of FT-IR.

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**ABOUT THE AUTHOR**

Peter R. Griffiths, PhD, is a Professor of Chemistry at the University of Idaho. He has published over 250 papers on various aspects of vibrational spectroscopy; most of his research is oriented towards solving problems by infrared and Raman spectroscopy. He has also edited eight books on this subject. He teaches several courses on aspects of infrared spectroscopy with Dr. de Haseth, and is the director of the workshops that are held every summer at Bowdoin College. He has won numerous awards including the SSP Award and the Bomem-Michelson Award.

James A. de Haseth, PhD, is a Professor of Chemistry at the University of Georgia. He has worked with FT-IR spectrometers for over thirty years and has published and lectured extensively on their operation and performance.

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**NEW TO EDITION**

* Discusses improvements in optical components that have taken place over the last two decades

* Devotes a full chapter to FT Raman Spectrometry
• Contains new chapters which focus on different ways of measuring spectra by FT-IR Spectrometry, e.g., specular reflection or emission spectrometry, making it easier for the reader to locate a specific topic

• Includes a new chapter introducing the theory of vibrational spectrometry at a very fundamental level

• Organizes material according to sampling techniques

SERIES

Chemical Analysis: A Series of Monographs on Analytical Chemistry and Its Applications

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