1. Record Nr. UNINA9910480221203321 The handbook of infrared and raman characteristic frequencies of **Titolo** organic molecules [[electronic resource] /] / Daimay Lin-Vien ... [et al.] Pubbl/distr/stampa Boston,: Academic Press, c1991 **ISBN** 0-08-057116-6 Descrizione fisica 1 online resource (522 p.) Altri autori (Persone) Lin-VienDaimay Disciplina 547.308583 Soggetti Organic compounds - Spectra Molecular spectroscopy Infrared spectroscopy Raman spectroscopy Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Front Cover: The Handbook of Infrared and Raman Characteristic Frequencies of Organic Molecules; Copyright Page; Dedication; Puddle; Table of Contents; Preface; Acknowledgment; Chapter 1. Introduction; 1-1. Principles and Selection Rules; 1-2. Characteristic Frequencies; 1-3. The Need to Re-examine the IR and Raman Characteristic Frequencies: References: Chapter 2. Alkanes: 2-1. Acvclic Alkanes: 2-2. Cycloalkanes; References; Chapter 3. Halocompounds; 3-1. Monohaloalkanes; 3-2. Effect of Other Substituents; 3-3. Dihalogenated and Polyhalogenated Alkanes; 3-4. Cycloalkyl Halides 3-5. Halogenated Alkenes and Ethynes 3-6. Fluorocompounds; 3-7. Aryl Halides; References; Chapter 4. Alcohols and Phenols; 4-1. Introduction; 4-2. O-H Stretching; 4-3. O-H Bending; 4-4. Skeletal Vibrations; References; Chapter 5. Ethers and Peroxides; 5-1. Introduction; 5-2. Aliphatic Ethers; 5-3. Acetals; 5-4. Vinyl Ethers; 5-5. Aromatic Ethers; 5-6. Epoxy Compounds; 5-7. Peroxides; 5-8. CH Vibrations in O-CH3 and O-CH2 Groups; References; Chapter 6. Alkenes; 6-1. Alkyl-Substituted Ethylenes; 6-2. C=C Stretching; 6-3.

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Sommario/riassunto

This necessary desk reference for every practicing spectroscopist represents the first definitive book written specifically to integrate knowledge about group frequencies in infrared as well as Raman spectra. In the spirit of previous classics developed by Bellamy and others, this volume has expanded its scope and updated its coverage. In addition to detailing characteristic group frequencies of compounds from a comprehensive assortment of categories, the book includes a collection of spectra and a literature search conducted to verify existing correlations and to determine ways to enhance cor