

1. Record Nr.	UNINA9910555110603321
Autore	Dahoo Pierre Richard
Titolo	Infrared spectroscopy of symmetric and spherical top molecules for space observation 2 / / Pierre Richard Dahoo, Azzedine Lakhli
Pubbl/distr/stampa	London, England ; ; Hoboken, New Jersey : , : ISTE : , : Wiley, , [2021] ©2021
ISBN	1-119-86597-2 1-119-86598-0 1-119-86596-4
Descrizione fisica	1 online resource (320 pages)
Collana	Infrared spectroscopy set ; ; Volume 4
Disciplina	539.6
Soggetti	Molecular spectroscopy Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover -- Half-Title Page -- Title Page -- Copyright Page -- Contents -- Foreword -- Preface -- 1 IR Spectra in Space Observation -- 1.1. Introduction -- 1.2. Fourier transform spectroscopy -- 1.2.1. Principle of IR spectrum acquisition by interferometry -- 1.2.2. Design and operation of a long path difference interferometer -- 1.2.3. FTIR absorption spectroscopy in matrices -- 1.2.4. LIF and DR IR-IR spectroscopies in matrices -- 1.3. Resonant cavity laser absorption spectroscopy -- 1.3.1. Intracavity laser absorption spectroscopy (ICLAS) -- 1.3.2. Cavity ring-down spectroscopy (CRDS) -- 1.3.3. Frequency comb spectroscopy (FCS) -- 1.4. Spectroscopy for space observation -- 1.4.1. Spectroscopic ellipsometry for space observation -- 1.4.2. Space-borne spectroscopy -- 1.4.3. LIDAR spectroscopy for space observation -- 1.5. Conclusion -- 1.6. Appendices -- 1.6.1. Appendix 1: Measurement distortion and data processing -- 2 Interactions Between a Molecule and Its Solid Environment -- 2.1. Introduction -- 2.2. Active molecule - solid environment system -- 2.2.1. Binary interaction energy -- 2.2.2. Dispersion-repulsion contribution -- 2.2.3. Electrostatic contribution -- 2.2.4. Induction contribution -- 2.3. Two-center expansion of the term -- 2.4. Conclusion -- 2.5. Appendices --

2.5.1. Appendix 1: Multipole moments and dipole polarizability of a molecule with respect to its fixed reference frame (G,X,Y,Z) -- 2.5.2. Appendix 2: Elements of the rotational matrix -- 2.5.3. Appendix 3: Clebsch-Gordan coefficients -- 3 Nanocage of Rare Gas Matrix -- 3.1. Introduction -- 3.2. Rare gases in solid state -- 3.3. Molecule inclusion and deformation of the doped crystal inclusion -- 3.3.1. Molecule -- 3.3.2. Deformation of the doped crystal -- 3.3.3. NH₃ in an argon matrix -- 3.3.4. Renormalization of the system's Hamiltonian. 3.4. Motions of NH₃ trapped in an argon matrix -- 3.4.1. Vibration-inversion mode ν_2 -- 3.4.2. Orientational motion -- 3.4.3. Translational motion -- 3.4.4. Orientational motion-heat bath coupling -- 3.5. Infrared spectra -- 3.5.1. Infrared absorption coefficient -- 3.5.2. Bar spectrum -- 3.5.3. Spectral profile -- 3.6. Appendices -- 3.6.1. Appendix 1: Normal modes of vibrations of a Bravais lattice with face centered cubic (fcc) symmetry -- 3.6.2. Appendix 2: Adjustment of the weakly perturbed rotational potential energy on the basis of the rotation matrix elements -- 3.6.3. Appendix 3: Expansion coefficients of the coupling between the orientation of the molecule and lattice vibrations (phonons) -- 4 Nanocages of Hydrate Clathrates -- 4.1. Introduction -- 4.2. The extended substitution model -- 4.3. Clathrate structures -- 4.4. Inclusion of a CH₄ or NH₃ molecule in a clathrate nanocage model -- 4.4.1. Inclusion -- 4.4.2. Interaction potential energy - equilibrium configuration -- 4.5. System Hamiltonian and separation of movements -- 4.6. Translational motion -- 4.6.1. CH₄ - nanocages of the sl structure -- 4.6.2. NH₃ - nanocages of the sl structure -- 4.7. Vibrational motions -- 4.7.1. CH₄ - nanocages of the sl structure -- 4.7.2. NH₃ - nanocages of the sl structure -- 4.8. Orientational motion -- 4.8.1. CH₄ - nanocages of the sl structure -- 4.8.2. NH₃ - nanocages of the sl structure -- 4.9. Bar spectra -- 4.9.1. Far infrared -- 4.9.2. Near infrared -- 4.10. Appendices -- 4.10.1. Appendix 1: Expressions of the orientational transition elements in the harmonic librators approximation -- 4.10.2. Appendix 2: Dipole moment as a function of dimensionless normal coordinates -- 5 Fullerene Nanocage -- 5.1. Introduction -- 5.2. Ammonia molecule trapped in a fullerene C₆₀ nanocage -- 5.2.1. Structure of the fullerene C₆₀ nanocage. 5.2.2. Inclusion of NH₃ in a fullerene C₆₀ nanocage -- 5.2.3. Interaction potential energy - equilibrium configuration -- 5.3. Potential energy surfaces - inertial model -- 5.3.1. Orientation-translational motion -- 5.3.2. Translational motion -- 5.3.3. Vibration-inversion-translational motion -- 5.3.4. Kinetic Lagrangian -- 5.4. Quantum treatment -- 5.4.1. Vibrational modes - frequency shifts -- 5.4.2. Vibration-inversion mode -- 5.4.3. Orientational motions -- 5.5. Bar spectra -- 5.5.1. Far infrared and microwaves -- 5.5.2. Near infrared -- 5.6. Appendices -- 5.6.1. Appendix 1: FORTRAN program -- 5.6.2. Appendix 2: Expressions of the components of the dipole moment vector and its derivatives with respect to the normal vibrational coordinates -- 6 Adsorption on a Graphite Substrate -- 6.1. Introduction -- 6.2. "NH₃ molecule-substrate" system interaction energy -- 6.2.1. Description of the system -- 6.3. Equilibrium configuration and potential energy surfaces -- 6.3.1. Adsorption energy -- 6.4. Hamiltonian of the system -- 6.4.1. Separation of movements -- 6.4.2. Renormalized Hamiltonians -- 6.4.3. Translational motions -- 6.4.4. Vibrational motions -- 6.4.5. Orientational motion -- 6.4.6. Orientational motion - heat bath dynamic coupling -- 6.5. Infrared spectra of the NH₃ molecule adsorbed on the graphite substrate -- 6.5.1. Far-infrared spectrum -- 6.5.2. Near-infrared spectrum -- 6.6. Conclusion -- 6.7. Appendices

-- 6.7.1. Appendix 1: FORTRAN program -- 6.7.2. Appendix 2: Expressions of the molecule orientation - heat bath phonons coupling terms -- 6.7.3. Appendix 3: Expressions of the components of the dipole moment vector and its derivatives with respect to the normal vibration coordinates -- References -- Index -- Other titles from iSTE in Waves -- EULA.

2. Record Nr.	UNISA996391395803316
Autore	Crompe John
Titolo	Collections out of S. Augustine [[electronic resource]] : and some few other Latine writers upon the first part of the Apostles Creed. By John Crompe, Master of Arts of C.C.C. in Cambridge, and vicar of Thornham in Kent. First preached in his Parish Church; and now enlarged (as here followes) for more publike use
Pubbl/distr/stampa	London, : Printed by John Haviland for William Lee, and are to be sold at his shop, neere the Miter Taverne in Fleet-street, 1638
Descrizione fisica	[4], 50 p
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Last leaf blank?. Reproduction of the original in the British Library.
Sommario/riassunto	eebo-0018

3. Record Nr.	UNINA990005639110403321
Autore	Suzuki, Takasi
Titolo	Takasi Suzuki, Masaki Suematsu, Masaki Yamaguchi.L'exposition des trois peintres japonais organisée par la Galerie "La Salita"
Pubbl/distr/stampa	[Tokio], : [La Galerie], [197?]
Descrizione fisica	6 p. : ill. ; 33 cm
Altri autori (Persone)	Yamaguchi, Masaki Suematsu, Masaki
Locazione	FLFBC
Collocazione	OPUSC. 24 (17)
Lingua di pubblicazione	Molteplice
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Testo di Michel Tapié