

1. Record Nr.	UNINA9910142647203321
Autore	Long D. A (Derek Albert)
Titolo	The Raman effect : a unified treatment of the theory of Raman scattering by molecules / / Derek A. Long [[electronic resource]]
Pubbl/distr/stampa	Chichester ; ; New York, : Wiley, c2002
ISBN	0-470-84576-7 9786610554560 1-280-55456-8
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xxiv, 597 p. ) : ill. (some col.) ;
Disciplina	535.8/46
Soggetti	Raman spectroscopy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (p. 579-584) and index.
Nota di contenuto	; pt. 1. Theory. ; 1. Survey of Light-scattering Phenomena. ; 2. Introduction to Theoretical Treatments of Incoherent Light Scattering. ; 3. Classical Theory of Rayleigh and Raman Scattering. ; 4. Quantum Mechanical Theory of Rayleigh and Raman Scattering. ; 5. Vibrational Raman Scattering. ; 6. Rotational and Vibration-Rotation Raman Scattering. ; 7. Vibrational Resonance Raman Scattering. ; 8. Rotational and Vibration-Rotation Resonance Raman Scattering. ; 9. Normal and Resonance Electronic and Vibronic Raman Scattering. ; 10. Rayleigh and Raman Scattering by Chiral Systems -- ; pt. 2. Appendices -- ; A1. The Right-handed Cartesian Axis System and Related Coordinate Systems -- ; A2. The Summation Convention -- ; A3. Direction Cosines.
Sommario/riassunto	Presents a unified theoretical treatment, which is complete and rigorous but nonetheless readable. The theoretical treatment requires a variety of mathematical and physical tools. To keep the main text uncluttered, these tools are developed in comprehensive Appendices to which cross-references are made in the main text. These Appendices also ensure that the main text is useful to readers with a wide variety of scientific backgrounds and experience. These include not only spectroscopists, but also chemists, physicists, biochemists and analytical chemists. The presentation is such that postgraduate and postdoctoral students as well as more established research workers will find it valuable. About the AuthorThe author was formerly Professor of

Structural Chemistry and Director of the Molecular Spectroscopy unit in the University of Bradford. He is distinguished for his original scientific work in a number of areas of Raman spectroscopy. His book, 'Raman Spectroscopy', published in 1978 and long out of print, was highly successful. He has been co-editor of many books including the Specialist Reports on Molecular Spectroscopy, published by the Royal Society of Chemistry; he retired as Editor-in-Chief of the Journal of Raman Spectroscopy in December 1999..

2. Record Nr.	UNINA9910965425403321
Autore	Diekmann O
Titolo	Mathematical tools for understanding infectious diseases dynamics // Odo Diekmann, Hans Heesterbeek, and Tom Britton
Pubbl/distr/stampa	Princeton, : Princeton University Press, 2012
ISBN	9786613891204 9781283578752 1283578751 9781400845620 1400845629
Edizione	[Course Book]
Descrizione fisica	1 online resource (517 p.)
Collana	Princeton series in theoretical and computational biology
Classificazione	SCI008000MAT003000MED022090
Altri autori (Persone)	HeesterbeekHans <1960-> BrittonTom
Disciplina	614.4
Soggetti	Epidemiology - Mathematical models Communicable diseases - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- Preface -- Part I. The bare bones: Basic issues in the simplest context -- Part II. Structured populations -- Part III. Case studies on inference -- Part IV. Elaborations -- Bibliography -- Index
Sommario/riassunto	Mathematical modeling is critical to our understanding of how infectious diseases spread at the individual and population levels. This book gives readers the necessary skills to correctly formulate and

analyze mathematical models in infectious disease epidemiology, and is the first treatment of the subject to integrate deterministic and stochastic models and methods. *Mathematical Tools for Understanding Infectious Disease Dynamics* fully explains how to translate biological assumptions into mathematics to construct useful and consistent models, and how to use the biological interpretation and mathematical reasoning to analyze these models. It shows how to relate models to data through statistical inference, and how to gain important insights into infectious disease dynamics by translating mathematical results back to biology. This comprehensive and accessible book also features numerous detailed exercises throughout; full elaborations to all exercises are provided. Covers the latest research in mathematical modeling of infectious disease epidemiology Integrates deterministic and stochastic approaches Teaches skills in model construction, analysis, inference, and interpretation Features numerous exercises and their detailed elaborations Motivated by real-world applications throughout

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