

1. Record Nr.	UNINA9910450874903321
Autore	Iachello F
Titolo	Algebraic theory of molecules [[electronic resource] /] / F. Iachello, R.D. Levine
Pubbl/distr/stampa	New York, : Oxford University Press, 1995
ISBN	0-19-756041-5 1-280-76023-0 9786610760237 0-19-535973-9
Descrizione fisica	1 online resource (262 p.)
Collana	Topics in physical chemistry
Altri autori (Persone)	LevineRaphael D
Disciplina	539/.6
Soggetti	Molecular dynamics - Mathematics Molecular spectroscopy - Mathematics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Previously issued in print: 1995.
Nota di bibliografia	Includes bibliographical references (p. 221-237) and index.
Nota di contenuto	Contents; Introduction; Chapter 1 The Wave Mechanics of Diatomic Molecules; Chapter 2 Summary of Elements of Algebraic Theory; Chapter 3 Mechanics of Molecules; Chapter 4 Three-body Algebraic Theory; Chapter 5 Four-Body Algebraic Theory; Chapter 6 Many-Body Algebraic Theory; Chapter 7 Classical Limit and Coordinate Representation; Chapter 8 Prologue to the Future; APPENDIX A: Properties of Lie Algebras; APPENDIX B: Coupling of Algebras; APPENDIX C: Hamiltonian Parameters; References; Index
Sommario/riassunto	Presenting a fresh look at the mathematics of wave functions that provide the theoretical underpinnings for molecular spectroscopy, this book demonstrates the advantages of algebraic theory over the conventional geometric methods. This new approach has important implications for modern spectroscopy. Many examples are given to show comparisons of the two methods, and the relationship of the new method to current experiments.