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Titolo	Electronic Structure of Quantum Confined Atoms and Molecules // edited by K.D. Sen
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ISBN	3-319-09982-5
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (260 p.)
Disciplina	530.12 54 541.2 620.5
Soggetti	Chemistry, Physical and theoretical Quantum physics Nanotechnology Theoretical and Computational Chemistry Quantum Physics Nanotechnology and Microengineering
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.
Nota di contenuto	Effects in the Hydrogen Atom Confined by Dihedral Angles -- Symmetry reduction and energy levels splitting of the one-electron atom in an impenetrable cavity -- The Confined Hydrogen Atom Revisited -- Quantum Confinement studies on two electron systems -- Study of Confined Quantum Systems using Variational Methods: A Review -- Photoionization and resonances in confined atoms -- Spatial and shell confinement of one electron atomic and molecular systems: structure and electric dipole polarizability -- Study of Quantum Confinement of H <sub>2</sub> <sup>+</sup> ion with Monte Carlo Approach. Respective Role of the Electron and Nuclei Confinement -- Variational study of one and two-electron diatomic molecules confined by hard and soft prolate spheroidal cavities -- DFT chemical predictors for confined atoms.
Sommario/riassunto	The present volume is a collection of review articles highlighting the fundamental advances made in the area of spatially confined simple

atoms and molecules with focus on their electronic structure. The contributed chapters are conjoined together to provide a standard reference book in this rapidly growing area of interdisciplinary research spanning chemistry, physics, computational quantum chemistry and material science.

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