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Titolo	Ideas of quantum chemistry // by Lucjan Piela, Department of Chemistry, University of Warsaw, Warsaw, Poland
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ISBN	0-444-59457-4
Edizione	[Second edition.]
Descrizione fisica	1 online resource (xxxv, 1037 pages) : illustrations (some color)
Collana	Gale eBooks
Disciplina	541.28
Soggetti	Quantum chemistry
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 indexes.
Nota di contenuto	<p>Tree; Tree Text; Half Title; Title Page; Copyright; Dedication; Contents; Sources of Photographs and Figures; Introduction; 1 The Magic of Quantum Mechanics; 1.1 History of a Revolution; 1.2 Postulates of Quantum Mechanics; 1.3 The Heisenberg Uncertainty Principle; 1.4 The Copenhagen Interpretation of the World; 1.5 Disproving the Heisenberg Principle-Einstein-Podolsky-Rosen's Recipe; 1.6 Schrodinger's Cat; 1.7 Bilocation; 1.8 The Magic of Erasing the Past; 1.9 A Test for a Common Sense: The Bell Inequality; 1.10 Photons Violate the Bell Inequality; 1.11 Teleportation; 1.12 Quantum Computing</p> <p>Additional Literature2 The Schrodinger Equation; 2.1 Symmetry of the Hamiltonian and Its Consequences; 2.1.1 The Non-Relativistic Hamiltonian and Conservation Laws; 2.1.2 Invariance with Respect to Translation; 2.1.3 Invariance with Respect to Rotation; 2.1.4 Invariance with Respect to Permutation of Identical Particles (Fermions and Bosons); 2.1.5 Invariance of the Total Charge; 2.1.6 Fundamental and Less Fundamental Invariances; 2.1.7 Invariance with Respect to Inversion-Parity; 2.1.8 Invariance with Respect to Charge Conjugation 2.1.9 Invariance with Respect to the Symmetry of the Nuclear Framework2.1.10 Conservation of Total Spin; 2.1.11 Indices of Spectroscopic States; 2.2 Schrodinger Equation for Stationary States; 2.2.1 Wave Functions of Class Q; 2.2.2 Boundary Conditions; 2.2.2.1 Mathematical and Physical Solutions; 2.3 The Time-Dependent Schrodinger Equation; 2.3.1 Evolution in Time; 2.3.2 Time Dependence of Mechanical Quantities; 2.3.3 Energy Is Conserved; 2.3.4 Symmetry Is</p>

Conserved; 2.3.5 Meditations at a Spring; 2.3.6 Linearity; 2.4 Evolution After Switching a Perturbation  
 2.4.1 The Two-State Model-Time-Independent Perturbation 2.4.2 Two States-Degeneracy; 2.4.3 The Two-State Model - An Oscillating Perturbation; 2.4.4 Two States-Resonance Case; 2.4.5 Short-Time Perturbation-The First-Order Approach; 2.4.6 Time-Independent Perturbation and the Fermi Golden Rule; 2.4.7 The Most Important Case: Periodic Perturbation; Additional Literature; 3 Beyond the Schrodinger Equation; 3.1 A Glimpse of Classical Relativity Theory; 3.1.1 The Vanishing of Apparent Forces; 3.1.2 The Galilean Transformation; 3.1.3 The Michelson-Morley Experiment 3.1.4 The Galilean Transformation Crashes 3.1.5 The Lorentz Transformation; 3.1.6 New Law of Adding Velocities; 3.1.7 The Minkowski Space-Time Continuum; 3.1.8 How Do We Get  $E=mc^2$ ?; 3.2 Toward Relativistic Quantum Mechanics; 3.3 The Dirac Equation; 3.3.1 The Dirac Electronic Sea and the Day of Glory; 3.3.2 The Dirac Equations for Electrons and Positrons; 3.3.3 Spinors and Bispinors; 3.3.4 What Next?; 3.3.5 Large and Small Components of the Bispinor; 3.3.6 How to avoid Drowning in the Dirac Sea; 3.3.7 From Dirac to Schrodinger-How Is the Non-Relativistic Hamiltonian Derived? 3.3.8 How Does the Spin Appear?

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## Sommario/riassunto

Ideas of Quantum Chemistry shows how quantum mechanics is applied to chemistry to give it a theoretical foundation. From the Schroedinger equation to electronic and nuclear motion to intermolecular interactions, this book covers the primary quantum underpinnings of chemical systems. The structure of the book (a TREE-form) emphasizes the logical relationships among various topics, facts and methods. It shows the reader which parts of the text are needed for understanding specific aspects of the subject matter. Interspersed throughout the text are short biographies of key scientists an

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2. Record Nr.	UNINA9910819887503321
Autore	Mann Michael E. <1965->
Titolo	The madhouse effect [[electronic resource] ] : how climate change denial is threatening our planet, destroying our politics, and driving us crazy / / Michael E. Mann and Tom Toles
Pubbl/distr/stampa	New York, [New York] : , : Columbia University Press, , 2016 ©2016
ISBN	9780231541817 0-231-54181-3
Descrizione fisica	1 online resource (148 pages) : illustrations
Disciplina	363.738/74
Soggetti	Climatic changes Global warming Climatic changes - Psychological aspects Global warming - Psychological aspects Denial (Psychology) Climate Change Global Warming
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Frontmatter -- Contents -- Preface: Why We Wrote This Book -- Acknowledgments -- 1. Science: How It Works -- 2. Climate Change: The Basics -- 3. Why Should I Give a Damn? -- 4. The Stages of Denial -- 5. The War on Climate Science -- 6. Hypocrisy-Thy Name Is Climate Change Denial -- 7. Geoengineering, or "What Could Possibly Go Wrong?" -- 8. A Path Forward -- Notes -- Index
Sommario/riassunto	The award-winning climate scientist Michael E. Mann and the Pulitzer Prize-winning political cartoonist Tom Toles have been on the front lines of the fight against climate denialism for most of their careers. They have witnessed the manipulation of the media by business and political interests and the unconscionable play to partisanship on issues that affect the well-being of billions. The lessons they have learned have been invaluable, inspiring this brilliant, colorful escape

hatch from the madhouse of the climate wars. The Madhouse Effect portrays the intellectual pretzels into which denialists must twist logic to explain away the clear evidence that human activity has changed Earth's climate. Toles's cartoons collapse counter-scientific strategies into their biased components, helping readers see how to best strike at these fallacies. Mann's expert skills at science communication aim to restore sanity to a debate that continues to rage against widely acknowledged scientific consensus. The synergy of these two climate science crusaders enlivens the gloom and doom of so many climate-themed books-and may even convert die-hard doubters to the side of sound science.

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