

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910154773103321 |
| Autore | Tro Nivaldo J. |
| Titolo | Chemistry : structure and properties / / Nivaldo J. Tro |
| Pubbl/distr/stampa | Boston : , : Pearson, , [2015] ©2015 |
| ISBN | 1-292-06134-0 1-292-07073-0 |
| Edizione | [Global edition.] |
| Descrizione fisica | 1 online resource (1,148 pages) : illustrations, tables |
| Collana | Always Learning |
| Disciplina | 540.76 |
| Soggetti | Chemistry |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Includes index. |
| Nota di contenuto | Cover -- Title -- Copyright -- Contents -- Preface -- 1 Atoms -- 1.1 A Particulate View of the World: Structure Determines Properties -- 1.2 Classifying Matter: A Particulate View -- The States of Matter: Solid, Liquid, and Gas -- Elements, Compounds, and Mixtures -- 1.3 The Scientific Approach to Knowledge -- The Importance of Measurement in Science -- Creativity and Subjectivity in Science -- 1.4 Early Ideas about the Building Blocks of Matter -- 1.5 Modern Atomic Theory and the Laws That Led to It -- The Law of Conservation of Mass -- The Law of Definite Proportions -- The Law of Multiple Proportions -- John Dalton and the Atomic Theory -- 1.6 The Discovery of the Electron -- Cathode Rays -- Millikan's Oil Drop Experiment: The Charge of the Electron -- 1.7 The Structure of the Atom -- 1.8 Subatomic Particles: Protons, Neutrons, and Electrons -- Elements: Defined by Their Numbers of Protons -- Isotopes: When the Number of Neutrons Varies -- Ions: Losing and Gaining Electrons -- 1.9 Atomic Mass: The Average Mass of an Element's Atoms -- Mass Spectrometry: Measuring the Mass of Atoms and Molecules -- 1.10 The Origins of Atoms and Elements -- REVIEW -- Self-Assessment Quiz -- Key Learning Outcomes -- Key Terms -- Key Concepts -- Key Equations and Relationships -- EXERCISES -- Review Questions -- Problems by Topic -- Cumulative Problems -- Challenge Problems -- Conceptual Problems -- Answers to Conceptual Connections -- 2 Measurement, Problem Solving, and |

the Mole Concept -- 2.1 The Metric Mix-up: A 125 Million Unit Error -- 2.2 The Reliability of a Measurement -- Reporting Measurements to Reflect Certainty -- Precision and Accuracy -- 2.3 Density -- 2.4 Energy and Its Units -- The Nature of Energy -- Energy Units -- Quantifying Changes in Energy -- 2.5 Converting between Units -- 2.6 Problem-Solving Strategies -- Units Raised to a Power. Order-of-Magnitude Estimations -- 2.7 Solving Problems Involving Equations -- 2.8 Atoms and the Mole: How Many Particles? -- The Mole: A Chemist's "Dozen" -- Converting between Number of Moles and Number of Atoms -- Converting between Mass and Amount (Number of Moles) -- REVIEW -- Self-Assessment Quiz -- Key Learning Outcomes -- Key Terms -- Key Concepts -- Key Equations and Relationships -- EXERCISES -- Review Questions -- Problems by Topic -- Cumulative Problems -- Challenge Problems -- Conceptual Problems -- Answers to Conceptual Connections -- 3 The Quantum-Mechanical Model of the Atom -- 3.1 Schrodinger's Cat -- 3.2 The Nature of Light -- The Wave Nature of Light -- The Electromagnetic Spectrum -- Interference and Diffraction -- The Particle Nature of Light -- 3.3 Atomic Spectroscopy and the Bohr Model -- Atomic Spectra -- The Bohr Model -- Atomic Spectroscopy and the Identification of Elements -- 3.4 The Wave Nature of Matter: The de Broglie Wavelength, the Uncertainty Principle, and Indeterminacy -- The de Broglie Wavelength -- The Uncertainty Principle -- Indeterminacy and Probability Distribution Maps -- 3.5 Quantum Mechanics and the Atom -- Solutions to the Schrodinger Equation for the Hydrogen Atom -- Atomic Spectroscopy Explained -- 3.6 The Shapes of Atomic Orbitals -- s Orbitals ($l = 0$) -- p Orbitals ($l = 1$) -- d Orbitals ($l = 2$) -- f Orbitals ($l = 3$) -- The Phase of Orbitals -- The Shape of Atoms -- REVIEW -- Self-Assessment Quiz -- Key Learning Outcomes -- Key Terms -- Key Concepts -- Key Equations and Relationships -- EXERCISES -- Review Questions -- Problems by Topic -- Cumulative Problems -- Challenge Problems -- Conceptual Problems -- Answers to Conceptual Connections -- 4 Periodic Properties of the Elements -- 4.1 Aluminum: Low-Density Atoms Result in Low-Density Metal. 4.2 Finding Patterns: The Periodic Law and the Periodic Table -- 4.3 Electron Configurations: How Electrons Occupy Orbitals -- Electron Spin and the Pauli Exclusion Principle -- Sublevel Energy Splitting in Multi-electron Atoms -- Electron Configurations for Multi-electron Atoms -- 4.4 Electron Configurations, Valence Electrons, and the Periodic Table -- Orbital Blocks in the Periodic Table -- Writing an Electron Configuration for an Element from Its Position in the Periodic Table -- The Transition and Inner Transition Elements -- 4.5 How the Electron Configuration of an Element Relates to Its Properties -- Metals and Nonmetals -- Families of Elements -- The Formation of Ions -- 4.6 Periodic Trends in the Size of Atoms and Effective Nuclear Charge -- Effective Nuclear Charge -- Atomic Radii and the Transition Elements -- 4.7 Ions: Electron Configurations, Magnetic Properties, Ionic Radii, and Ionization Energy -- Electron Configurations and Magnetic Properties of Ions -- Ionic Radii -- Ionization Energy -- Trends in First Ionization Energy -- Exceptions to Trends in First Ionization Energy -- Trends in Second and Successive Ionization Energies -- 4.8 Electron Affinities and Metallic Character -- Electron Affinity -- Metallic Character -- REVIEW -- Self-Assessment Quiz -- Key Learning Outcomes -- Key Terms -- Key Concepts -- Key Equations and Relationships -- EXERCISES -- Review Questions -- Problems by Topic -- Cumulative Problems -- Challenge Problems -- Conceptual Problems -- Answers to Conceptual Connections -- 5 Molecules and Compounds -- 5.1 Hydrogen, Oxygen, and Water -- 5.2 Types of

Chemical Bonds -- 5.3 Representing Compounds: Chemical Formulas and Molecular Models -- Types of Chemical Formulas -- Molecular Models -- 5.4 The Lewis Model: Representing Valence Electrons with Dots -- 5.5 Ionic Bonding: The Lewis Model and Lattice Energies. Ionic Bonding and Electron Transfer -- Lattice Energy: The Rest of the Story -- Ionic Bonding: Models and Reality -- 5.6 Ionic Compounds: Formulas and Names -- Writing Formulas for Ionic Compounds -- Naming Ionic Compounds -- Naming Binary Ionic Compounds Containing a Metal That Forms Only One Type of Cation -- Naming Binary Ionic Compounds Containing a Metal That Forms More than One Kind of Cation -- Naming Ionic Compounds Containing Polyatomic Ions -- Hydrated Ionic Compounds -- 5.7 Covalent Bonding: Simple Lewis Structures -- Single Covalent Bonds -- Double and Triple Covalent Bonds -- Covalent Bonding: Models and Reality -- 5.8 Molecular Compounds: Formulas and Names -- 5.9 Formula Mass and the Mole Concept for Compounds -- Molar Mass of a Compound -- Using Molar Mass to Count Molecules by Weighing -- 5.10 Composition of Compounds -- Mass Percent Composition as a Conversion Factor -- Conversion Factors from Chemical Formulas -- 5.11 Determining a Chemical Formula from Experimental Data -- Calculating Molecular Formulas for Compounds -- Combustion Analysis -- 5.12 Organic Compounds -- REVIEW -- Self-Assessment Quiz -- Key Learning Outcomes -- Key Terms -- Key Concepts -- Key Equations and Relationships -- EXERCISES -- Review Questions -- Problems by Topic -- Cumulative Problems -- Challenge Problems -- Conceptual Problems -- Answers to Conceptual Connections -- 6 Chemical Bonding I: Drawing Lewis Structures and Determining Molecular Shapes -- 6.1 Morphine: A Molecular Imposter -- 6.2 Electronegativity and Bond Polarity -- Electronegativity -- Bond Polarity, Dipole Moment, and Percent Ionic Character -- 6.3 Writing Lewis Structures for Molecular Compounds and Polyatomic Ions -- Writing Lewis Structures for Molecular Compounds -- Writing Lewis Structures for Polyatomic Ions -- 6.4 Resonance and Formal Charge -- Resonance -- Formal Charge. 6.5 Exceptions to the Octet Rule: Odd-Electron Species, Incomplete Octets, and Expanded Octets -- Odd-Electron Species -- Incomplete Octets -- Expanded Octets -- 6.6 Bond Energies and Bond Lengths -- Bond Energy -- Bond Length -- 6.7 VSEPR Theory: The Five Basic Shapes -- Two Electron Groups: Linear Geometry -- Three Electron Groups: Trigonal Planar Geometry -- Four Electron Groups: Tetrahedral Geometry -- Five Electron Groups: Trigonal Bipyramidal Geometry -- Six Electron Groups: Octahedral Geometry -- 6.8 VSEPR Theory: The Effect of Lone Pairs -- Four Electron Groups with Lone Pairs -- Five Electron Groups with Lone Pairs -- Six Electron Groups with Lone Pairs -- 6.9 VSEPR Theory: Predicting Molecular Geometries -- Representing Molecular Geometries on Paper -- Predicting the Shapes of Larger Molecules -- 6.10 Molecular Shape and Polarity -- Vector Addition -- REVIEW -- Self-Assessment Quiz -- Key Learning Outcomes -- Key Terms -- Key Concepts -- Key Equations and Relationships -- EXERCISES -- Review Questions -- Problems by Topic -- Cumulative Problems -- Challenge Problems -- Conceptual Problems -- Answers to Conceptual Connections -- 7 Chemical Bonding II: Valence Bond Theory and Molecular Orbital Theory -- 7.1 Oxygen: A Magnetic Liquid -- 7.2 Valence Bond Theory: Orbital Overlap as a Chemical Bond -- 7.3 Valence Bond Theory: Hybridization of Atomic Orbitals -- sp^3 Hybridization -- sp^2 Hybridization and Double Bonds -- sp Hybridization and Triple Bonds -- sp^3d and sp^3d^2 Hybridization -- Writing Hybridization and Bonding Schemes -- 7.4 Molecular Orbital Theory: Electron Delocalization -- Linear Combination of Atomic

Orbitals (LCAO) -- Second-Period Homonuclear Diatomic Molecules --
Second-Period Heteronuclear Diatomic Molecules -- 7.5 Molecular
Orbital Theory: Polyatomic Molecules -- 7.6 Bonding in Metals and
Semiconductors.
Bonding in Metals: The Electron Sea Model.

Sommario/riassunto

For two-semester general chemistry courses Bestselling author Niva Tro has always believed "the behavior of matter is determined by the properties of molecules and atoms" to be the most important discovery in scientific knowledge. This idea is the entire factor for his seminal new text-Chemistry: Structure and Properties. Dr. Tro emphasizes the relationship between structure and properties, establishes a unique approach to teaching chemistry by presenting atomic and bonding theories early in the text, and stresses key themes throughout. The book is organized to present chemistry as a logical, cohesive story from the microscopic to the macroscopic, so students can fully grasp the theories and framework behind the chemical facts. Every topic has been carefully crafted to convey to students that the relationship between structure and properties is the thread that weaves all of chemistry together. While developed independently of other Tro texts, Chemistry: Structure and Properties incorporates the author's vivid writing style, chemical rigor, dynamic multi-level images, and tested features. His consistent conceptual focus and step-by-step problem-solving framework encourages students to think through processes rather than simply memorize content. This program presents a better teaching and learning experience-for you and your students. Developed with a central theme and by a teaching community: As part of a community that teaches with the understanding that matter is composed of particles and the structure of those particles determines the properties of matter, Dr. Tro took great lengths in the text to ensure that everything from organization, art, and pedagogy reinforce this theme. The result of this emphasis is that the topic order has been constructed to make key connections earlier, stronger, and more often than the traditional approach.

Linking conceptual understanding with problem-solving skills: Throughout each chapter, numerous Conceptual Connections encourage comprehension of the most complex concepts while a consistent step-by-step framework in the worked examples allows students to think logically through the problem-solving process. Visualizing and understanding chemistry: Revolutionary multipart images illustrate and reinforce the theme of the text and allow students to see and experience the molecules responsible for the structures and properties of matter.

| | |
|-------------------------|--|
| 2. Record Nr. | UNINA9910416516303321 |
| Autore | Alexandre Stéphanie |
| Titolo | Accueillir des publics migrants et immigrés. Interculturalité en bibliothèque / / Lucie Daudin |
| Pubbl/distr/stampa | Villeurbanne, : Presses de l'enssib, 2019 |
| ISBN | 2-37546-094-4 2-37546-012-X |
| Descrizione fisica | 1 online resource (180 p.) |
| Altri autori (Persone) | ChambonFabrice DaudinLucie FilhonAlexandra FrocautBénédicte GiulianiMarion HarzouneMustapha LaurentCoralie MortainLola PerolClémentine PeugeotJulie ProdonMonica RothbergAriella SciulloCatherine Di SimonPatrick SzejnmanNoémie WeberRaoul |
| Soggetti | Information Science & Library Science accueil bibliothèque étudiants fonds spécialisés immigration médiations interculturalité |
| Lingua di pubblicazione | Francese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |

Immigrés de plus ou moins longue date, migrants ou encore étudiants étrangers : les publics des bibliothèques d'aujourd'hui sont, à l'image de notre société, multiculturels. Dispositifs et médiations spécifiques, posture professionnelle, partenariats, formation, littératures de l'exil... Quel accompagnement proposer en matière linguistique à ces publics et, plus globalement, comment appuyer un parcours d'intégration ? Comment donner à voir et à vivre la diversité culturelle de notre société ? Cet ouvrage collectif décrypte le contexte migratoire, propose des pistes de réflexion-action et donne des éléments de réponse pratiques pour tous les professionnels du champ social et culturel.
