

BRONX COMMUNITY COLLEGE LIBRARY
SUGGESTED FOR
CHM 17
FUNDAMENTALS OF GENERAL CHEMISTRY I

| <u>CODE NO.</u> | <u>TITLE</u> |
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| | <u>UNIT 1 – INTRODUCTION, MEASUREMENTS IN CHEMISTRY</u> |
| DVD719 | INTRODUCTION TO SCIENCE – 23 min, c1992 |
| DVD722 | CHEMISTRY – 32 min, c1994 |
| (ELECTRONIC RESERVE) | MASS AND VOLUME CONVERSIONS – c1975 |
| V1218.3 | MEASUREMENT: FOUNDATIONS OF CHEMISTRY (<i>The World of Chemistry</i>) – 30 min, c1990 |
| DVD723 | METRIC SYSTEM – 19 min, c1992-1994 |
| V3207.1 | INTRODUCTION TO MATTER, THE ELEMENTS, AND UNITS OF MEASURE (<i>Chemistry: Standard Deviants</i>) – 26 min, c2000 |
| | <u>UNIT 2 – BASIC CONCEPTS ABOUT MATTER</u> |
| V1218.5 | A MATTER OF STATE (<i>The World of Chemistry</i>) – 30 min, c1990 |
| (ELECTRONIC RESERVE) | CLASSIFICATION OF MATTER – c1972 |
| (ELECTRONIC RESERVE) | ELEMENTS, COMPOUNDS AND MIXTURES – c1972 |
| V768 | ELEMENTS, COMPOUNDS AND MIXTURES – 20 min, c1983 |
| V2661.1 | MATTER AND CHANGE – 28 min, c1997 |
| V2661.2 | PURE SUBSTANCE AND MIXTURES – 30 min, c1997 |
| V2661.3 | ATOMS, MOLECULES, AND CHEMICAL CHANGES – 30 min, c1997 |
| V1753 | MATTER – 20 min, c1992 |
| V3207.9 | GASES AND STATES OF MATTER (<i>Chemistry: Standard Deviants</i>) – 33 min, c2000 |
| | <u>UNIT 3 - ATOMIC STRUCTURE & THE PERIODIC TABLE</u> |
| DVD762 | WHAT IS AN ATOM? – 18 min, c1992 |
| DVD721 | ATOMS – 20 min, c1992 |
| V1218.6 | THE ATOM (<i>The World of Chemistry</i>) – 30 min, c1990 |
| V2584.16 | ATOMS (<i>Atomic Structure and Atomic Mass</i>) (<i>Conceptual Physics</i>) – 40 min, c1991 |
| V1694.1 | INTRODUCING THE PLAYERS (<i>Atom and the 3 Subatomic Particles</i>) (<i>Electron Arrangement and Bonding</i>) – 10 min, c1992 |
| V3207.6 | ATOMIC STRUCTURE (<i>Chemistry: Standard Deviants</i>) – 27 min, c2000 |
| V1694.3 | ELECTRON ARRANGEMENT (<i>Electrons in the Outer Orbital</i>) (<i>Electronic Arrangement and Bonding</i>) – 10 min, c1992 |
| V1218.7 | THE PERIODIC TABLE (<i>The World of Chemistry</i>) – 30 min, c1990 |
| DVD718 | THE PERIODIC TABLE, FORMULAS & REACTIONS – 21 min, c1992 |
| V861 | CHEMISTRY: PERIODIC & PERIODICITY TABLE – 24 min, c1983 |
| | <u>STRUCTURE OF THE ATOM (SERIES)</u> – 10 min each, c1992 |
| V2149.1 | THE EARLIEST MODELS |
| V2149.2 | SMALLER THAN THE SMALLEST |
| V2149.3 | THE RUTHERFORD MODEL |
| V2149.4 | THE BOHR MODEL |
| V2149.5 | SPECTRA |

V2149.6 THE WAVE-MECHANICAL MODEL

DVD305 BOHR'S MODEL OF THE ATOM -26min, c2006

UNIT 4 – CHEMICAL BONDING: THE IONIC BOND MODEL

V1218.8 CHEMICAL BONDS (*Ionic and Covalent Bonds*) (*The World of Chemistry*) - 30 min, c1990

V3207.7 CHEMICAL BONDING (*Chemistry: Standard Deviants*) – 18 min, c2000

V1694.4 HOW ATOMS BOND (*Covalent and Ionic Bonds*) (*Electron Arrangement and Bonding*) – 10 min, c1992

V2661.4 IONS – 30 min, c1997

UNIT 5 – CHEMICAL BONDING: THE COVALENT BOND MODEL

(*ELECTRONIC RESERVE*) NAMING OF COMPOUNDS – c1973

V1694.4 HOW ATOMS BOND (*Covalent and Ionic Bonds*) (*Electron Arrangement & Bonding*) – 10 min, c1992

V3207.8 MOLECULAR GEOMETRY AND BONDING THEORIES (*Chemistry: Standard Deviants*) – 18 min, c2000

V1694.6 MOLECULAR SUBSTANCE AND COVALENT CRYSTALS (*Diatomic and Polar Molecules*) (*Electron Arrangement and Bonding*) – 10 min, c1992

UNIT 6 –CHEMICAL CALCULATIONS, BALANCING CHEMICAL EQUATIONS, TYPES OF CHEMICAL REACTIONS, REDOX REACTIONS

V1692.6 THE MOLE (*The Mole Concept*) – 10 min, c1992

V3207.3 MOLES, PERCENT COMPOSITION, AND THE EMPIRICAL FORMULA (*Chemistry: Standard Deviants*) – 31 min, c2000

V1692.4 AVOGADRO'S HYPOTHESIS (*The Mole Concept*) – 10 min, c1992

V1218.11 THE MOLE (*Avogadro's Law*) (*The World of Chemistry*) – 30 min, c1990

(*ELECTRONIC RESERVE*) INTRODUCTION TO BALANCING EQUATIONS – c1973

V3207.2 CHEMICAL EQUATIONS AND ATOMIC AND MOLECULAR MASS (*Chemistry: Standard Deviants*) – 20 min, c2000

UNIT 7(A) – GASEOUS STATE

V3207.9 GASES AND STATES OF MATTER (*Chemistry: Standard Deviants*) -33 min, c2000

V1692.3 COMBINING GAS VOLUMES (*The Mole Concept*) – 10 min, c1992

V1692.2 GAS VOLUMES (*The Mole Concept*) – 10 min, c1992

V2584.20 GASES (*Boyle's Law*) (*Conceptual Physics*) – 40 min, c1991

UNIT 7(A) – GASEOUS STATE

V1693.2 DYNAMIC EQUILIBRIUM (*Collision Model, Kinetic Molecular Theory*) (*Chemical Equilibrium*) – 10 min, c1992

UNIT 7(B) - LIQUIDS, SOLIDS

- V1218.5 **A MATTER OF STATE** (*The World of Chemistry*) – 30 min, c1990
V1218.13 **THE DRIVING FORCES** (*Endothermic and Exothermic Reactions*) (*The World of Chemistry*) – 30 min, c1990
V1693.1 **UNSTEADY STEADINESS** (*Endothermic and Exothermic Reactions*) (*Chemical Equilibrium*) – 10 min, c1992
V2584.18 **LIQUIDS** (*Density, Pressure*) (*Conceptual Physics*) – 40 min, c1991

UNIT 8 – SOLUTIONS

- V1525 **THE PLASMA MEMBRANE** (*Diffusion and Osmosis*) – 15 min, c1988
V769 **CHEMISTRY, SOLUTIONS (IONIC AND MOLECULAR)** – 23 min, c1983
V3207.10 **PROPERTIES OF SOLUTIONS** (*Chemistry: Standard Deviants*) – 28 min, c2000

UNIT 9 – REACTION RATES, EQUILIBRIUM

- V859 **CHEMISTRY: REACTION RATES AND EQUILIBRIUM** – 21 min, c1983
(Also available DVD722)
V1218.14 **MOLECULES IN ACTION** (*Molecules during Chemical Reactions*) (*The World of Chemistry*) – 30 min, c1990

CHEMICAL EQUILIBRIUM (SERIES) – 10 min each, c1992

- V1693.1 **UNSTEADY STEADINESS** (*Endothermic and Exothermic Reactions*)
V1693.2 **DYNAMIC EQUILIBRIUM** (*Collision Model, Kinetic Molecular Theory*)
V1693.3 **REACTION KINETICS** (*Endothermic and Exothermic Reactions*)
V1693.4 **REACTION TENDENCIES** (*Le Chatelier's Principle*)
V1693.5 **THE EQUILIBRIUM CONSTANT**
V1693.6 **THE HABER PROCESS** (*Fritz Haber*)

UNIT 10 – ACIDS, BASES AND SALTS

- V1218.16 **THE PROTON IN CHEMISTRY** (*Importance of Acids and Bases*) (*The World of Chemistry*) – 30 min, c1990
V860 **CHEMISTRY: ACIDS, BASES AND SALTS** – 19 min, c1983
(Also available DVD720)
V3132.1 **UPS AND DOWN OF pH** (*Acid Base Balance*) – 16 min, c1999
V1789 **ACID-BASE INDICATORS** – 19 min, c1989
V2661.6 **ACIDS, BASES, AND NEUTRALIZATION** – 30 min, c1997

UNIT 11 – NUCLEAR CHEMISTRY

- DVD763 **RADIATION** – 38 min, c1994
V2150.1 **WAVE-PARTICLE DUALITY: THE PARTICLE MODEL** – 10 min, c1992
V1218.10 **SIGNALS FROM WITHIN** (*The World of Chemistry*) – 30 min, c1990
V2584.33 **RADIOACTIVITY** (*Alpha, Beta and Gamma Radiation*) (*Conceptual Physics*) – 40 min, c1991

CHEMISTRY: THE STANDARD DEVIANTS (SERIES) – c2000

- V3207.1** **INTRODUCTION TO MATTER, THE ELEMENTS, AND UNITS OF MEASURE – 26 min**
- V3207.2** **CHEMICAL EQUATIONS AND ATOMIC AND MOLECULAR MASS – 20 min**
- V3207.3** **MOLES, PERCENT COMPOSITION, AND THE EMPIRICAL FORMULA – 31 min**
- V3207.4** **SOLUTION STOICHIOMETRY – 33 min**
- V3207.5** **THERMOCHEMISTRY – 17 min**
- V3207.6** **ATOMIC STRUCTURE – 27 min**
- V3207.7** **CHEMICAL BONDING – 18 min**
- V3207.8** **MOLECULAR GEOMETRY AND BONDING THEORIES – 18 min**
- V3207.9** **GASES AND STATES OF MATTER – 33 min**
- V3207.10** **PROPERTIES OF SOLUTIONS – 28 min**