

مقرر الكيمياء العامة

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Part (1) Inorganic Chemistry

- 1- Spectra and atomic structure.
- 2- Four quantum numbers and Pauli's exclusion principle.
- 3- Formation theory and properties of ionic compounds.
- 4- Lewis structures and the resonance in the chemical species.
- 5- Atomic Properties Periodicity of elements.

Part (2): Physical Chemistry

- (1) Properties of gases, characteristics of gas, gas pressure, and gas laws (Boyle's law - Charles's law).
- (2) Gas laws (Boyle's law, Charles's law, and Avogadro's law) and deriving the ideal gas equation from the empirical gas laws.
- (3) Dalton's law of partial pressure of gas mixtures, Graham's law for diffusion, and application of the ideal gas equation.
- (4) Deviation from ideal behavior, the van der Waals equation, and compressibility factor Z.
- (5) Phase changes, types of phase changes, chemical changes, and physical changes.