

Chemistry Test #4 Key Words and Concepts

Key Words:

pressure	wavelength
volume	frequency
temperature	full spectrum
standard temperature and pressure (STP)	emission spectrum
molar volume	Pauli exclusion principle
electron	Hund's rule
proton	aufbau principle
neutron	energy level
nucleus	orbital

Key Concepts:

Be able to do gas law calculations using the following gas laws: Ideal, Dalton's, Avogadro's and Graham's

Be able to do calculations involving stoichiometry and gas laws

Be able to calculate percent error

Be able to explain the atomic theories, experiments, and/or conclusions of Democritus, Dalton, Thomson, Millikan, Rutherford, and Bohr in respect to the atom

Be able to explain how each of the various models of the atom were or were not supported by evidence

Be able to describe all of the relationships between wavelength, frequency, and energy of a wave

*Be able to do wave calculations using $c = \lambda\nu$ and $E = h\nu$

Be able to explain how flame tests can be used to identify elements

Be able to explain what causes the various colors of the emission spectrum for an element

Be able to use the Bohr model of hydrogen atom reference table sheet to determine which electron transitions correspond to each color of light emitted

Be able to describe the modern model of the atom

Be able to write and interpret long-hand and short-hand electron configurations

Be able to write and interpret orbital diagrams

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