

Elements and Periodic Table Review

Atomic Theory

Which scientist believed the atom was a solid, uniform sphere?

- a) Dalton
- b) Thomson
- c) Rutherford
- d) Bohr

Atomic Theory

J.J. Thomson's experiments led to the discovery of which subatomic particle?

- a) Protons
- b) Neutron
- c) Electron
- d) Neutrino

Atomic Theory

J.J. Thomson's experiment primarily used a _____ ray tube to observe charged particles

Atomic Theory

Ernest Rutherford used the emission of what type of particles in his famous experiment?

- a) Alpha
- b) Beta
- c) Electrons
- d) Protons

Atomic Theory

In his famous experiment, Ernest Rutherford directed alpha particles toward a foil made of _____.

Atomic Theory

Rutherford's atomic model proposed that most of an atom is made of _____ (2 words).

Atomic Theory

Under the Bohr model, electrons occupy different _____
_____ (two words)

Atoms and ions

Give the number of protons, neutrons and electrons for an atom of oxygen

Atoms and ions

Give the number of protons, neutrons and electrons for an atom of phosphorous

Atoms and ions

Give the number of protons, neutrons and electrons for an ion of aluminum

Atoms and ions

Give the number of protons, neutrons and electrons for an ion of iron (II)

Atoms and ions

Give the number of protons, neutrons and electrons for an ion of arsenide

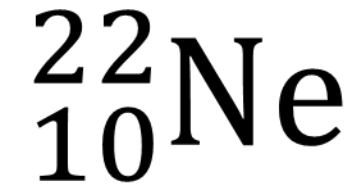
Isotopes

Two isotopes of the same element have the same number of protons, but different numbers of what subatomic particle?

Isotopes

-

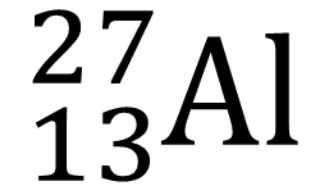
How many neutrons would you find in an atom of:



Isotopes

-

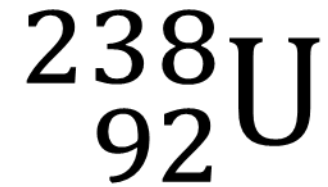
How many neutrons would you find in an atom of:



Isotopes

-

How many neutrons would you find in an atom of:



Isotopes

An isotope has a mass number of 35. It has 18 neutrons.
Give the name of the isotope and use isotope notation to represent it.

Isotopes

An isotope has a mass number of 37. It has 22 neutrons.
Give the name of the isotope and use isotope notation to represent it.

Isotopes

An isotope has a mass number of 48. It has 28 neutrons.
Give the name of the isotope and use isotope notation to represent it.

Isotopes

How many electron energy levels do we need for an atom of sodium?

Draw the electron energy level diagram for a sodium atom.

Electron energy levels

How many electron energy levels do we need for an atom of sodium?

Draw the electron energy level diagram for a sodium atom.

Electron energy levels

Draw the electron energy level diagram for a chloride ion

Electron energy levels

Electron energy level diagrams for ions have the same configuration as which atoms?

- a) Alkali metals
- b) Alkaline earth metals
- c) Halogens
- d) Noble gases

Mixtures

Matter is classified into two groups: mixtures and
_____ (two words)

Mixtures

A solution is an example of what type of mixture?

Mixtures

Mixtures with have distinct components are called _____