

NOUN Exams Past Questions

Question

The Most significant improvement of mendeleev periodic table came through the discovery of

Answer

Atomic Number

Question

The law of octaves was rejected for one the following reasons

Answer

mystical connection between music and chemistry

Question

When two hydrogen atoms combine to form a molecule the two nuclei can spin in the same or opposite direction this phenomena is known as

Answer

Spin isomerism

Question

What type of hydride is this said to be LiH

Answer

Ionic hydride

Question

One of the following is a disadvantage of hydrogen

Answer

Hydrogen is a secondary source of energy

Question

Why is water a liquid and hydrogen sulphide a gas at room temeperature

Answer

Electronegativity of the oxygen atom which polarizes the hydrogen atoms forming stronger hydrogen bonds causing higher boiling points

Question

Hydrogen bond formed between two atoms of the same or different molecule is called

Answer

Intermolecular hydrogen bonding

Question

Complete the following reaction $\text{CO} + \text{H}_2\text{O} \rightarrow$

Answer

$\text{CO}_2 + \text{H}_2$

Question

As the principal quantum number increases, the outer electrons get farther away from the nucleus and the atomic radii _____

Answer

Increases

Question

The distance between the nucleus of an ion and the point up to which the nucleus has influence on the electron cloud is called

Answer

Ionic radius

Question

One half of the distance between the nuclei of two adjacent metal atoms in the close packed crystal lattice is called

Answer

Crystal or Metallic radius

Question

Half the distance between the nuclei of two atoms belonging to two adjacent molecules in a crystal lattice is called

Answer

Van der Waals radius

Question

One half of the distance between the nuclei of two like atoms bonded together by a single covalent bond is called

Answer

Covalent radius

Question

Why do alkali metals not occur as free elements in nature?

Answer

Because they are highly reactive elements

Question

What principles or rules are violated in the following electronic configuration $(1s^2 2p_x^2)$?

Answer

Aufbau principle

Question

What principles or rules are violated in the following electronic configuration $(1s^2 2s^2 2p_x^2 2p_y^1)$?

Answer

Hund's rule

Question

What principles or rules are violated in the following electronic configuration $(1s^2 2s^3)$?

Answer

Pauli's Exclusion principle

Question

What is the electronic configuration of elements with atomic number 29?

Answer

$([Ar] 3d^{10} 4s^1)$

Question

What is the electronic configuration of elements with atomic number 24?

Answer

$([Ar] 3d^5 4s^1)$

Question

The electron affinity decreases down the group why?

Answer

down the group the size of the atom increases and effective nuclear charge remains almost steady

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