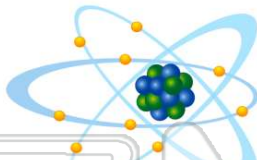




Name _____ Class _____ Date _____

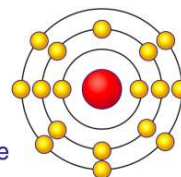
- 1 Atoms of the same element that have different numbers of neutrons are classified as

A charged atoms
B charged nuclei
C isomers
D isotopes



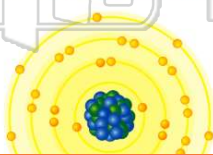
- 2 Compared to the radius of a chlorine atom, the radius of a chloride ion is

A larger because chlorine loses an electron
B larger because chlorine gains an electron
C smaller because chlorine loses an electron
D smaller because chlorine gains an electron



- 3 Which of the following atoms has the greatest tendency to attract electrons?

A barium
B beryllium
C boron
D bromine



- 4 The change that is undergone by an atom of an element made radioactive by bombardment with high-energy protons is called

A natural transmutation
B artificial transmutation

5



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7

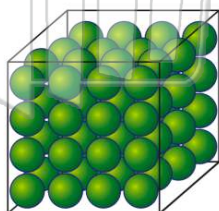
C protons and electrons
D protons and neutrons

B 8
C 3
D 4

S
Sulfur

- 9 Which element is a solid at STP?

A H₂
B I₂
C N₂
D O₂



- 10 What occurs when an atom of chlorine forms a chloride ion?

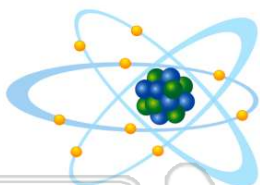
A The chlorine atom gains an electron, and its radius becomes smaller.
B The chlorine atom gains an electron, and its radius becomes larger.
C The chlorine atom loses an electron, and its radius becomes smaller.
D The chlorine atom loses an electron, and its radius becomes larger.



ANSWER KEY

Atoms of the same element that have different numbers of neutrons are classified as

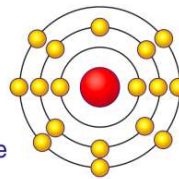
- A charged atoms
- B charged nuclei
- C isomers
- D isotopes



(d)

Compared to the radius of a chlorine atom, the radius of a chloride ion is

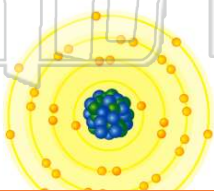
- A larger because chlorine loses an electron
- B larger because chlorine gains an electron
- C smaller because chlorine loses an electron
- D smaller because chlorine gains an electron



(b)

Which of the following atoms has the greatest tendency to attract electrons?

- A barium
- B beryllium
- C boron
- D bromine



(d)

The change that is undergone by an atom of an element made radioactive by bombardment with high-energy protons is called

- A natural transmutation
- B artificial transmutation
- C natural decay

(b)



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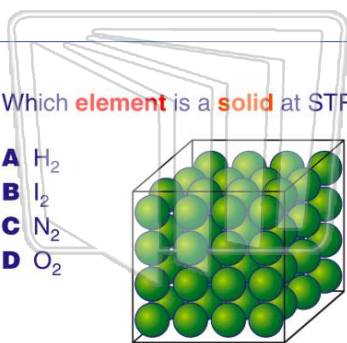
D protons and neutrons

- C 3
- D 4

Sulfur

Which element is a solid at STP?

- A H₂
- B I₂
- C N₂
- D O₂



(b)

What occurs when an atom of chlorine forms a chloride ion?

- A The chlorine atom gains an electron, and its radius becomes smaller.
- B The chlorine atom gains an electron, and its radius becomes larger.
- C The chlorine atom loses an electron, and its radius becomes smaller.
- D The chlorine atom loses an electron, and its radius becomes larger.

(b)