View hints View feedback

Play All

QUESTION 3

Fill in the blank with the best term from the Word Bank.

Word Bank			
mono-ionic	metallic	binary ionic	simple ionic

Ionic compounds that contain only two different elements are called binary ionic ✓ compounds.

QUESTION 5

Drag and drop the best term to complete the sentence.

In an ionic compound, the correct ratio of ions ✓ of each element gives an overall charge of zero.

charge of atoms | number of atoms | number of electrons

QUESTION 7

Select the best answer from the drop-down menu to complete the sentence.

Each unit of aluminum chloride ($AlCl_3$) has 1 aluminum cation (Al^{3+}) and 3 chloride anions (Cl^-).

The overall charge for the ionic compound is 0 ✓ .

QUESTION 9

Select the best answer.

Ionic compounds formed when metals bond with oxygen are called _____.

- peroxides
- hydroxides

https://t.me/+CbbW8n6Up6U5OGE8

https://t.me/+CbbW8n6Up6U5OGE8

- oxyacids
- oxides ✓

QUESTION 11

Select the best answer from the drop-down menu to complete the sentence.

A chemical bond in which the oppositely charged ions are held together by attractive electrostatic forces is known as an [ionic bond ✓] .

QUESTION 13

Select the best answer.

The ionic compound copper(I) sulfide (Cu_2S) is made of two copper ions (Cu^+) ions and one sulfur (S^{2-}) ions.

Select the option that shows how to calculate the overall ionic charge of the ionic compound.

- $2(1-)+(1+)=1-$
- $(1-)+(1+)=0$
- $(1-)+(2+)=1+$
- $2(1+)+(2-)=0$ ✓

QUESTION 15

Drag and drop the best answers to complete the chemical equation.

The reaction below shows the formation of magnesium chloride.

[Mg ✓]

$+ Cl_2$

$\rightarrow Mg^{2+} +$

$2Cl^-$ ✓

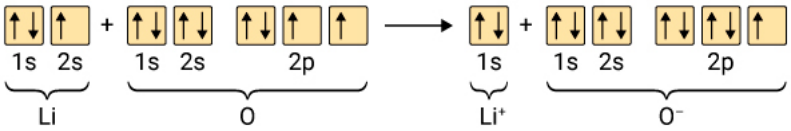
+ energy

Cl^{2-} Mg^- Cl^- ^2Mg

QUESTION 17

Select the best answer.

The orbital notation for the compound lithium oxide (Li_2O) is shown:



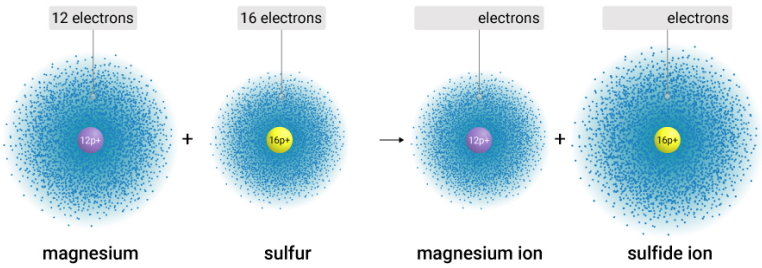
Identify the error in the orbital notation for lithium oxide.

- ○ Lithium does not have an octet, so this ionic compound cannot be formed.
- ○ Lithium does not have an octet, so 3 more Li^+ ions are needed.
- ○ Oxygen does not have an octet, so a second O^- ion is needed.
- ◉ Oxygen does not have an octet, so a second Li^+ ion is needed. ✓

QUESTION 19

Drag and drop the numbers to complete the image.

Magnesium and sulfur form an ionic compound, magnesium sulfide. Determine the number of electrons of each ion formed.



10 ✓

15 17 13 14 11

https://t.me/+CbbW8n6Up6U5OGE8

https://t.me/+CbbW8n6Up6U5OGE8

QUESTION 20

Select the best answers.

Which statements correctly describe a binary ionic compound?

- [ ] The nonmetal must lose one or more electrons.
- [x] The overall charge of the ionic compound must be 0. ✓
- [ ] There are two atoms of the same element.
- [ ] The metal must gain one or more electrons.
- [x] The compound contains a metal and a nonmetal. ✓
- [ ] The charges must add up to a negative number for the ionic compound.

QUESTION 22

Select the best answer.

Each unit of calcium nitride (Ca_3N_2) has 3 calcium (Ca^{2+}) ions. How many nitrogen (N^{3-}) ions are in each unit of calcium nitride?

- ○ one
- ○ six
- ◉ two ✓
- ○ three

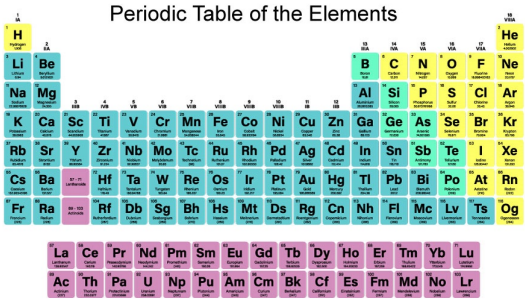
QUESTION 24

Drag and drop the correct numbers to complete the sentence.

The ionic compound, calcium chloride ($CaCl_2$) is formed when

2 ✓ chloride ions and 1 ✓ calcium ion are combined.

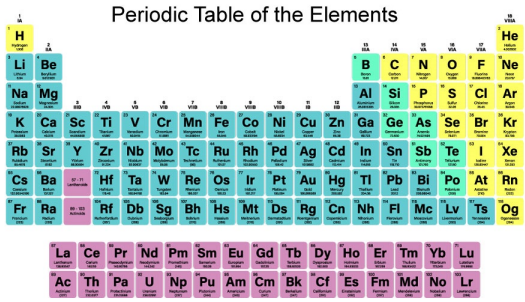
3 4



QUESTION 26

Select the correct option from the drop-down menu.

To form the ionic compound potassium bromide, KBr, the potassium atom transfers 1 electron to the bromine atom.



QUESTION 28

Select the best answer.

Select the correct electron-dot structure to complete the reaction.

$$Li\bullet + \bullet\ddot{F}: \longrightarrow$$

- $[Li]^+ + [\bullet\ddot{F}:]^-$
- $[Li]^+ + [F]^-$
- $[Li\bullet]^+ + [:\ddot{F}:]^-$
- ◉ $[Li]^+ + [:\ddot{F}:]^-$ ✓

https://t.me/+CbbW8n6Up6U5OGE8