

Class X

STUDENT WORKSHEET

COVALENT BONDS AND IONIC BONDS

Group :

Member :

Class :

Learning objectives

1. Explain the meaning of ionic bond and example.
2. Explain the meaning of covalent bond and give an example.

Instruction

1. Read and understand the LKPD carefully, then look for information from various sources.
2. Fill in the blanks, mark which ones are appropriate and answer the questions in this LKPD correctly.
3. If something is not clear, ask the teacher.
4. The time allotted 45 minutes to do it.

1. preliminary

The facts show that, apart from the noble gases, almost all elements that exist in nature exist as compounds, meaning that these elements are bound to other elements and do not stand alone. Why is that so? Is it related to the arrangement of the valence electrons?

The noble gas group elements in the periodic table of elements are stable and unreactive elements, so they are found in nature as free elements. The electron configurations of the unreactive noble gases help explain how the atoms of the reactive elements interact with one another. Electron configurations such as noble gases can be achieved by an element by transferring electrons from atoms .

Ionic bond is a bond that is formed due to attraction between ions that have different charges. A covalent bond is a bond formed as a result of the interaction between two atoms or elements that share their electron pairs.

A. Activity 1

1. Complete the following table!

Ionic Bonds	Covalent Bond
KCl HI HClO₄ HNO₃ NH₄OH Na₂SO₄ MgCl₂ NH₄Cl NaBr H₂SO₄ Fe(SO₄)₃ H₂CO₃ CaCl₂ HBr Ba(NO₃)₂	

2. Find matching pairs by drawing a line!

Single covalent bond	SO ₃
Double covalent bond	H ₂ O
Coordination covalent bond	CO ₂