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| **Properties** | **Ionic bond** | **Covalent bond** |
| **Ionisation energy** | The lower the value of ionization potential of the element, the higher the cation formation. Likewise, higher ionization energy leads to anion formation. Hence, if the difference in ionization potential between the two atoms is more, ionic compounds are formed. | Atoms with higher ionization potential are unable to lose their valence electrons and hence prefer to form covalent bonds by sharing of electrons. |
| **Electron affinity** | Atoms with very low electron affinity form ionic bond with the atoms of higher electron affinity. | The formation of a covalent bond is favoured when the combining atoms have almost equal electron affinity. |
| **Electronegativity** | The greater is the difference in electronegativities between the two combining atoms, the greater are the chances of transfer of electrons from one atom to another. Hence greater electronegativity difference between the two combining atoms leads to the formation of an ionic bond. | If the electronegativities of the combining atoms do not differ much, then the bond formed between them is likely to be covalent. |