COVALENT BONDING

1. Explain the difference between valence electrons and the valency of an element.
2. Complete the table below by filling in the number of valence electrons for each of the elements shown:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Element | Group Number | Number of Valence Electrons | Valency | Number of electrons needed to fill the valence shell. |
| He |  |  |  |  |
| Li |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| F |  |  |  |  |
| Ne |  |  |  |  |
| Na |  |  |  |  |
| Al |  |  |  |  |
| P |  |  |  |  |
| S |  |  |  |  |
| Ca |  |  |  |  |
| Kr |  |  |  |  |

1. On the back of this page draw simple diagrams to show how electrons are arranged in the covalent molecules below:
   1. H2S
   2. Cl2
   3. NH2
   4. CO