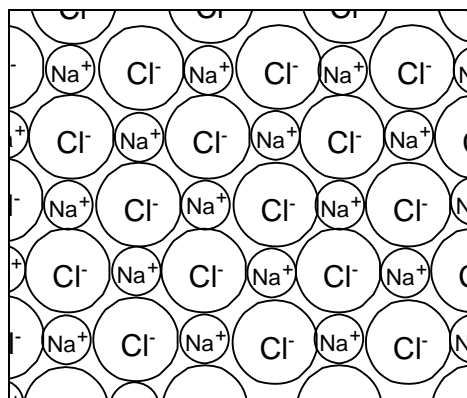


Chem 115

Assignment 2 Additional Problem

Ionic bonding – true or false?

The statements below refer to the diagram of the structure of sodium chloride. The diagram shows part of a slice through the three-dimensional crystal structure. For each statement, decide whether it is true or false. If the statement is false, correct the statement so that it is true.



1. A positive ion will be attracted to any negative ion.
2. A sodium ion is only bonded to the chloride ion it donated its electron to.
3. A sodium atom can only form one ionic bond, because it only has one electron in its outer shell to donate.
4. The reason a bond is formed between chloride ions and sodium ions is because an electron has been transferred between them.
5. In the diagram each molecule of sodium chloride contains one sodium ion and one chloride ion.
6. An ionic bond is the attraction between a positive ion and a negative ion.
7. A positive ion can be bonded to any neighbouring negative ions, if it is close enough.
8. The reason a bond is formed between chloride ions and sodium ions is because they have opposite charges.
9. An ionic bond is when one atom donates an electron to another atom, so that they both have full outer shells of electrons.
10. There are no molecules shown in the diagram.