

Chem 103, Spring 2006
Prof. Sevian
Assignment 2

Homework Assignment

↪ Chapter 2: problems 3, 5, 9, 17, 23, 25, 29, 35, 39, 41, 43, 49, 53, 55, 57, 59, 61, 63, 69, 89

↪ Additional problem “Ionic bonding: true or false” on the next page

Answers to the red problems in the book are in the back of the book. Worked out solutions to all the problems are in the Student Solutions Manual, which you have access to if you purchased the bundle from the bookstore. Otherwise, you can use one of the paper copies of the Student Solutions Manual on reserve at Healey Library. Only the red problems are assigned. However, to study for exams I encourage you to try the other problems also.

Announcements

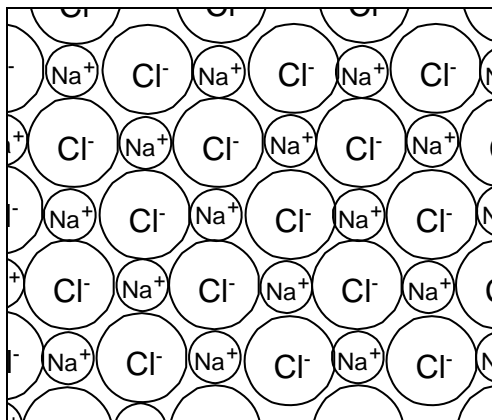
↪ Both laboratories and discussion sections began the week of January 30. Please see the course calendar in your syllabus and also posted on the course website. The syllabus also contains the policies about discussion attendance and lab attendance.

Chem 103

Homework 2 Additional Question

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.