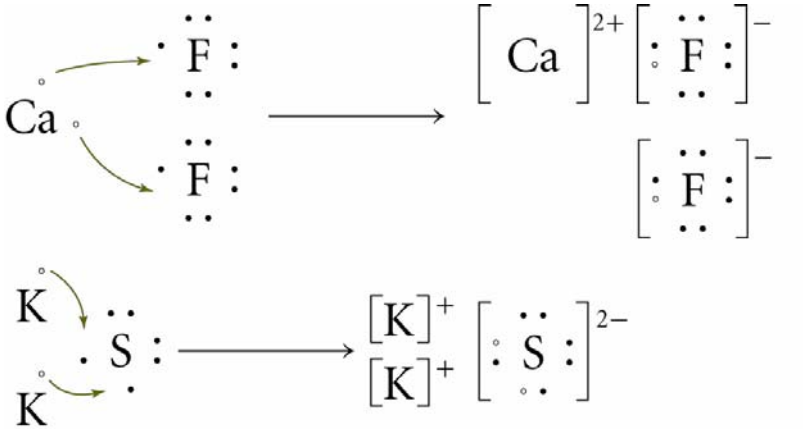
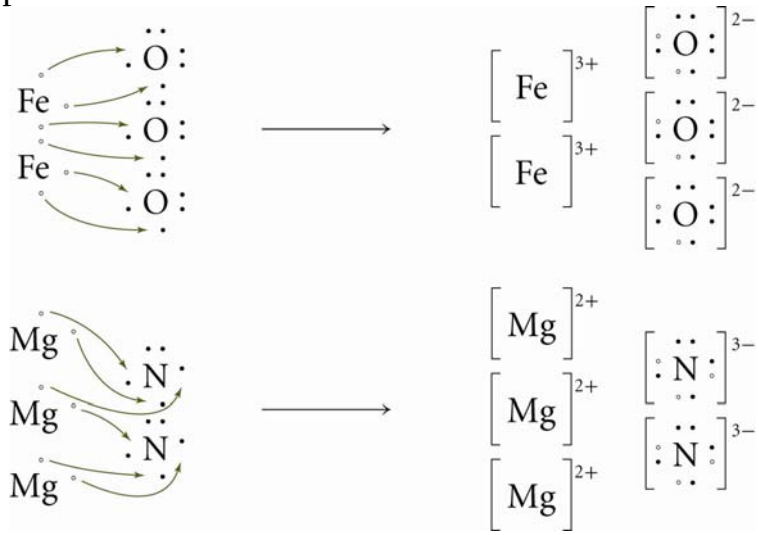
CHAPTER 1	Electron Dot Diagrams for the Formation of Multi Ion Ionic Compounds	BLM 1.1.1
OVERHEAD		



Calcium fluoride has a ratio of two fluoride ions to one calcium ion. Potassium sulfide has a ratio of two potassium ions to one sulfide ion.



In the formation of bonds between iron and oxygen and between magnesium and nitrogen, notice that the metal atoms donate six electrons and the non-metal atoms accept six electrons. The number of positive and negative charges are balanced.
In the figure shown, the compound iron(III) oxide is formed. As each iron atom loses three electrons to each oxygen atom, it becomes an iron(III) ion. Transition metals like iron can usually lose electrons from their valence shells in more than one way. If an iron atom loses two electrons to an oxygen atom, an iron(II) ion would be formed, and there would be a ratio of one iron(II) ion for every oxide ion.

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