

This is BCE#5.

I recommend you print out this page and bring it to class. [Click here](#) to show a set of five BCE5 student responses randomly selected from all of the student responses thus far in a new window.

john , here are your responses to the BCE and the Expert's response.

1. Complete the following table: (Note: you will be expected to answer the questions included in this table after memorizing Tables 3.2 (page 97), 3.3 (page 98), 3.4 (page 98) and 3.5 (page 99). When you write a formula enter the subscript as the number, use the '^' to precede a charge. For example formula for sulfate, SO_4^{2-} , would be entered the SO_4^{2-} .)

Ion #	Formula	Name
1	NO_3^-	nitrate ion nitrate ion
2	OH^- OH^-	hydroxide ion
3	Mg^{2+}	magnesium ion magnesium ion
4	Cl^-	chloride ion chloride ion
5	$Cr_2O_7^{2-}$ $Cr_2O_7^{2-}$	dichromate ion
6	NH_4^+ NH_4^+	ammonium ion

80% 4% nitrogen oxide
2% nitrous oxide

86% 2% hydrogen H₂
1% OH²⁻
1% OH³⁻

92%
8% spellings

58%
39% chlorine (ion)

66%
2% Cr₂O₇
4% Cr₂
6% CNA

78%
7% NH⁴⁺

7 || Na⁺ ||

58% sodium ion
36% sodium

2. Ionic compounds are composed of ions. We have mentioned cations (ions with a positive charge) and anions (ions with a negative charge). The formula for an ion compound is determined by determining the number of cations and anions needed to balance the positive and negative charges for the ions. For example a compound containing potassium ion (K^+) and bromide ion (Br^-) would have the formula, KBr . While a compound containing aluminum ion (Al^{3+}) and sulfate ion (SO_4^{2-}) would have the formula, $Al_2(SO_4)_3$.

a) what is the formula of a compound formed using ion #7 and ion #1.

$NaNO_3$ 68% $NaNO_3$ 49% Na_3NO 3% $NaNO_3$ or $Na^+NO_3^-$
 $NaNO_3$ 64% $Na(NO_3)$ 1% Na_2NO_3
 2% $NaNO_3$

b) what is the formula of a compound formed using ion #3 and ion #2.

$Mg(OH)_2$ 49% $Mg(OH)_2$ 13% $MgOH_2$ 3% Mg_2OH
 $Mg(OH)_2$ 4% $MgOH_2$ 2% $Mg^{2+}(OH)_2$
 6% $MgOH$ or $MgOH^+$

c) what is the formula of a compound formed using ion #6 and ion #5.

$(NH_4)_2Cr_2O_7$ 41% $(NH_4)_2Cr_2O_7$
 $(NH_4)_2Cr_2O_7$

d) what is the formula of a compound formed using ion #3 and ion #4.

$MgCl_2$ 59% $MgCl_2$ 10% $MgCl$
 $MgCl_2$ 64% $Mg(Cl)_2$ 2% $MgCl^{2-}$

3. Name each of the compounds in Q2.

a) sodium nitrate sodium nitrate 75%

b) magnesium hydroxide magnesium hydroxide 73%

1% magnesium(II) hydroxide
 2% magnesium dihydroxide
 3% magnesium oxide

c) ammonium dichromate ammonium dichromate 61%

d) magnesium chloride magnesium chloride 78%

4. Is there anything about the questions that you feel you do not understand? List your concerns/questions.

nothing

5. If there is one question you would like to have answered in lecture, what would that question be?

nothing