

NAME: _____

Polyatomic Compounds (Gr. 9 Pg. 164)

What is the chemical composition of limestone?

What is the composition of the carbonate ion (CO_3^{2-})?

Why are compounds containing polyatomic ions not considered binary compounds?

How are compounds containing polyatomic ions named?

Can you identify one positively charged polyatomic ion mentioned in the text?

Polyatomic Ions (On the Periodic Table)

What is the composition (what atoms and how many) of ammonium? Draw the Bohr Diagram.

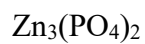
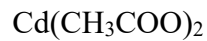
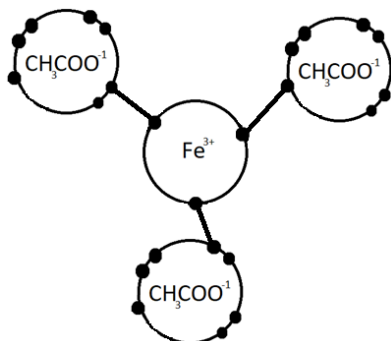
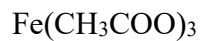
What is the composition (what atoms and how many) of dichromate? Draw the Bohr Diagram.

What is the composition (what atoms and how many) of phosphate? Draw the Bohr Diagram.

What is the composition (what atoms and how many) of thiocyanate? Draw the Bohr Diagram.

BOHR DIAGRAMS OF IONIC COMPOUNDS

Draw the Bohr Diagrams and show how the elements are connected to each other.



IONIC COMPOUNDS WITH POLYATOMIC IONS

Compound Formula	Cation (Positive Ion) Bohr Diagram	Cation Name	Anion Name	Anion (Negative Ion) Bohr Diagram	Compound Name
Na_2CO_3					
Na_3PO_4					
KOH					
$\text{Ca}_3(\text{PO}_4)_2$					
$\text{Al}_2(\text{SO}_4)_3$					

Which is always written first in an ionic compound – the cation (+) or the anion (-)?

Do the names of the polyatomic ions change?

Describe how polyatomic ionic compounds are named in your own words?

IONIC COMPOUNDS WITH POLYATOMIC IONS

Compound Name	Cation (Positive Ion)	Cation Name	Anion Name	Anion (Negative Ion)	Compound Formula
ammonium carbonate	NH_4^{1+}	ammonium	carbonate	CO_3^{-2}	$(\text{NH}_4)_2(\text{CO}_3)_1$
sodium borate					
potassium sulfite					
scandium thiosulfate					
aluminum sulfite					

What is common for all the cation ionic charges?

What is common for all the anion charges?

When are brackets needed in the compound formula?