

Noteset 2D (Part 1)

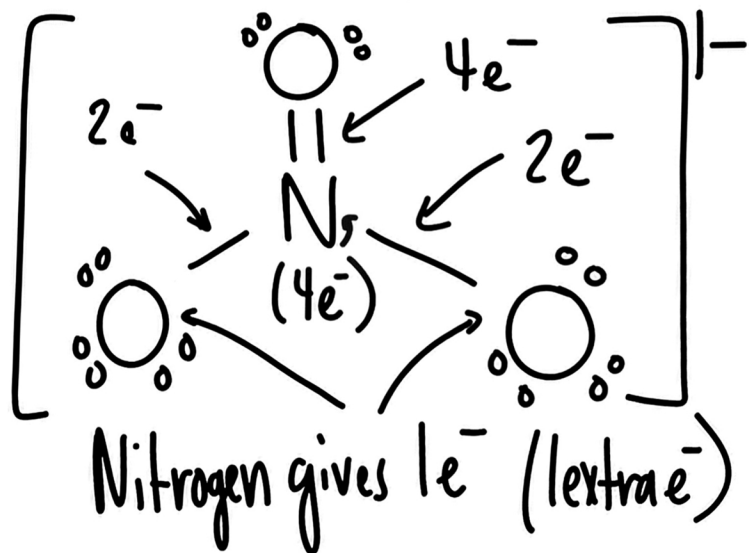
Introduction to Polyatomic Ions

Polyatomic Ions

A group of atoms
(mostly nonmetals)
bonded together with
1-3 additional val^{e-}
to produce a "multiatom" ion

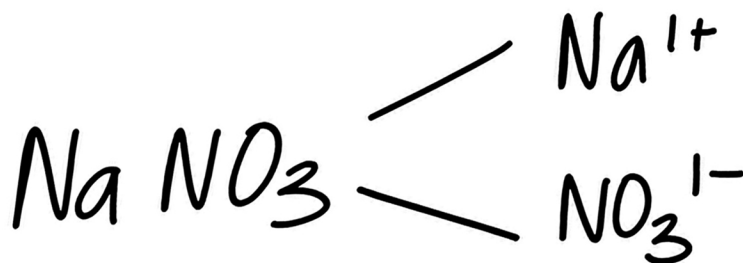
Nitrate Ion (NO_3^{1-})

1 N and 3 O (w/ 1 extra val. e^-)



Polyatomic Ion Examples

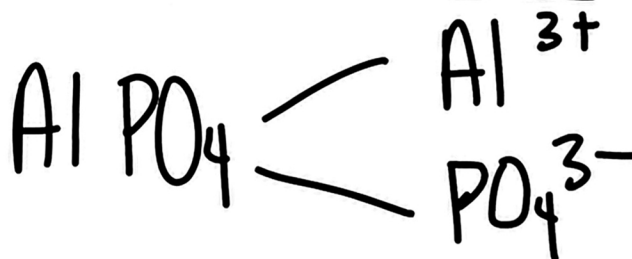
Nitrate: NO_3^{1-}



Sulfate: SO_4^{2-}



Phosphate: PO_4^{3-}



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Polyatomic Ion Formulas

(IA) Na	NO_3^{1-}	Al (3A)	NO_3^{1-}
+1	-1	+3	-1
+1	-1	+3	-1
Na(NO₃)		Al(NO₃)	
Na_x(NO₃)_x	NaNO_3	<u>$\text{Al}(\text{NO}_3)_3$</u>	

Polyatomic Ion Formulas

Zr^{1+}	SO_4^{2-}	Cu^{3+}	SO_4^{2-}
+1	-2	+3	-2
+1	-2	+3	-2
Zr(SO₄)		Cu(SO₄)	
Zr₂(SO₄)_x	Zr_2SO_4	$\text{Cu}_2(\text{SO}_4)_3$	