

## Elements and Ions

**MEMORIZE EVERYTHING ON THIS PAGE! MAKE FLASH CARDS TO HELP YOU! SPELLING COUNTS! NOTE: Ion charges for Main Group (A) elements can also be determined using the periodic table.**

<u>NAME</u>	<u>CHEMICAL SYMBOL</u>	<u>NAME</u>	<u>CHEMICAL SYMBOL</u>	<u>NAME</u>	<u>CHEMICAL SYMBOL</u>
Aluminum atom	Al	Iodine atom	I	Potassium atom	K
Aluminum ion	Al <sup>3+</sup>	Iodide ion	I <sup>1-</sup>	Potassium ion	K <sup>1+</sup>
		Iodine molecule	I <sub>2</sub>		
Barium atom	Ba			Silver atom	Ag
Barium ion	Ba <sup>2+</sup>	Iron atom	Fe	<i>Silver ion</i>	Ag <sup>1+</sup>
		Iron ions:			
Bromine atom	Br	<i>Iron(II)</i>	Fe <sup>2+</sup>	Sodium atom	Na
Bromide ion	Br <sup>1-</sup>	<i>Iron(III)</i>	Fe <sup>3+</sup>	Sodium ion	Na <sup>1+</sup>
Calcium atom	Ca	Lead atom	Pb	Strontium atom	Sr
Calcium ion	Ca <sup>2+</sup>	Lead ions:		Strontium ion	Sr <sup>2+</sup>
		<i>Lead(II)</i>	Pb <sup>2+</sup>		
Chlorine atom	Cl	<i>Lead(IV)</i>	Pb <sup>4+</sup>	Sulfur atom	S
Chloride ion	Cl <sup>1-</sup>			Sulfide ion	S <sup>2-</sup>
Chlorine molecule	Cl <sub>2</sub>	Magnesium atom	Mg	Sulfur molecule	S <sub>8</sub>
		Magnesium ion	Mg <sup>2+</sup>		
Chromium atom	Cr			Tin atom	Sn
		Nickel atom	Ni		
Copper atom	Cu	Nickel ions:		Tungsten atom	W
Copper ions:		<i>Nickel(II)</i>	Ni <sup>2+</sup>		
<i>Copper(I)</i>	Cu <sup>1+</sup>	<i>Nickel(III)</i>	Ni <sup>3+</sup>	Zinc atom	Zn
<i>Copper(II)</i>	Cu <sup>2+</sup>			<i>Zinc ion</i>	Zn <sup>2+</sup>
Fluorine atom	F	Nitrogen atom	N		
Fluoride ion	F <sup>1-</sup>	Nitride ion	N <sup>3-</sup>	Mercury atom	Hg
Fluorine molecule	F <sub>2</sub>	Nitrogen molecule	N <sub>2</sub>	Mercury ions:	
				<i>Mercury(I)</i>	Hg <sub>2</sub> <sup>2+</sup>
		Oxygen atom	O	<i>Mercury(II)</i>	Hg <sup>2+</sup>
Gold atom	Au	Oxide ion	O <sup>2-</sup>		
		Oxygen molecule	O <sub>2</sub>	Phosphorus atom	P
Hydrogen atom	H			Phosphorus molecule	P <sub>4</sub>
Hydrogen ion	H <sup>1+</sup>	Platinum atom	Pt		
<i>Hydride ion</i>	H <sup>1-</sup>				
Hydrogen molecule	H <sub>2</sub>				

### POLYATOMIC IONS

(1-) charge	(2-) charge	(3-) charge	(1+) charge
<i>Acetate ion C<sub>2</sub>H<sub>3</sub>O<sub>2</sub><sup>1-</sup></i>	<i>Carbonate ion CO<sub>3</sub><sup>2-</sup></i>	<i>Borate ion BO<sub>3</sub><sup>3-</sup></i>	<i>Ammonium ion NH<sub>4</sub><sup>1+</sup></i>
<i>Chlorate ion ClO<sub>3</sub><sup>1-</sup></i>	<i>Chromate ion CrO<sub>4</sub><sup>2-</sup></i>	<i>Phosphate ion PO<sub>4</sub><sup>3-</sup></i>	<i>Hydronium ion H<sub>3</sub>O<sup>1+</sup></i>
<i>Cyanide ion CN<sup>1-</sup></i>	<i>Sulfate ion SO<sub>4</sub><sup>2-</sup></i>		
<i>Hydroxide ion OH<sup>1-</sup></i>			
<i>Nitrate ion NO<sub>3</sub><sup>1-</sup></i>			
<i>Permanganate ion MnO<sub>4</sub><sup>1-</sup></i>			