

# Mixed Bonding and Naming

## Mixed Nomenclature Practice

PERIODIC TABLE OF THE ELEMENTS

Legend

- Atomic Number
- Element Symbol
- Element Name
- Average Atomic Mass

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Polyatomic Ions	
NH <sub>4</sub> <sup>+</sup>	ammonium
C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup>	acetate
ClO <sub>3</sub> <sup>-</sup>	chlorate
CO <sub>3</sub> <sup>-2</sup>	carbonate
MnO <sub>4</sub> <sup>-</sup>	permanganate
NO <sub>3</sub> <sup>-</sup>	nitrate
OH <sup>-</sup>	hydroxide
SO <sub>4</sub> <sup>-2</sup>	sulfate
PO <sub>4</sub> <sup>-3</sup>	phosphate

Compound	Is the first element a metal or nonmetal?	Ionic OR Covalent	Name
NaF			
CO <sub>2</sub>			
BaCl <sub>2</sub>			
Mg(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>			
Sr(ClO <sub>3</sub> ) <sub>2</sub>			
CCl <sub>4</sub>			
SiS			
Ga <sub>2</sub> S <sub>3</sub>			
Na <sub>3</sub> PO <sub>4</sub>			
N <sub>2</sub> O <sub>4</sub>			

In an ionic bond, electrons are \_\_\_\_\_.

- The first element in an ionic bond will always be a \_\_\_\_\_ and you \_\_\_\_\_ see prefixes in the chemical name.

In a covalent bond, electrons are \_\_\_\_\_.

- The first element in a covalent bond will always be a \_\_\_\_\_ and you \_\_\_\_\_ see prefixes in the chemical name.

# Mixed Bonding and Naming

**PERIODIC TABLE OF THE ELEMENTS**

<p style="text-align: center;">Legend</p> <p>Atomic Number    <span style="border: 1px solid black; padding: 2px;">1</span>    Element Symbol</p> <p>Element Name    <span style="border: 1px solid black; padding: 2px;">H</span>    Average Atomic Mass</p>																																
+1	+2													+3	+4	-3	-2	-1	0													
1 <b>H</b> Hydrogen 1.01																	2 <b>He</b> Helium 4.00															
3 <b>Li</b> Lithium 6.94	4 <b>Be</b> Beryllium 9.01																	5 <b>B</b> Boron 10.81	6 <b>C</b> Carbon 12.01	7 <b>N</b> Nitrogen 14.01	8 <b>O</b> Oxygen 16.00	9 <b>F</b> Fluorine 18.99	10 <b>Ne</b> Neon 20.18									
11 <b>Na</b> Sodium 22.99	12 <b>Mg</b> Magnesium 24.31																	13 <b>Al</b> Aluminum 26.98	14 <b>Si</b> Silicon 28.09	15 <b>P</b> Phosphorus 30.97	16 <b>S</b> Sulfur 32.06	17 <b>Cl</b> Chlorine 35.45	18 <b>Ar</b> Argon 39.95									
19 <b>K</b> Potassium 39.10	20 <b>Ca</b> Calcium 40.08	21 <b>Sc</b> Scandium 44.96	22 <b>Ti</b> Titanium 47.87	23 <b>V</b> Vanadium 50.94	24 <b>Cr</b> Chromium 52.00	25 <b>Mn</b> Manganese 54.94	26 <b>Fe</b> Iron 55.85	27 <b>Co</b> Cobalt 58.93	28 <b>Ni</b> Nickel 58.69	29 <b>Cu</b> Copper 63.55	30 <b>Zn</b> Zinc 65.38	31 <b>Ga</b> Gallium 69.72	32 <b>Ge</b> Germanium 72.63	33 <b>As</b> Arsenic 74.92	34 <b>Se</b> Selenium 78.96	35 <b>Br</b> Bromine 79.90	36 <b>Kr</b> Krypton 83.80															
37 <b>Rb</b> Rubidium 85.47	38 <b>Sr</b> Strontium 87.62	39 <b>Y</b> Yttrium 88.91	40 <b>Zr</b> Zirconium 91.22	41 <b>Nb</b> Niobium 92.91	42 <b>Mo</b> Molybdenum 95.95	43 <b>Tc</b> Technetium 98.91	44 <b>Ru</b> Ruthenium 101.07	45 <b>Rh</b> Rhodium 102.91	46 <b>Pd</b> Palladium 106.42	47 <b>Ag</b> Silver 107.87	48 <b>Cd</b> Cadmium 112.41	49 <b>In</b> Indium 114.82	50 <b>Sn</b> Tin 118.71	51 <b>Sb</b> Antimony 121.76	52 <b>Te</b> Tellurium 127.60	53 <b>I</b> Iodine 126.91	54 <b>Xe</b> Xenon 131.29															
55 <b>Cs</b> Cesium 132.91	56 <b>Ba</b> Barium 137.33																	61 <b>La</b> Lanthanum 138.91	62 <b>Ce</b> Cerium 140.12	63 <b>Pr</b> Praseodymium 140.91	64 <b>Nd</b> Neodymium 144.24	65 <b>Pm</b> Promethium 144.91	66 <b>Sm</b> Samarium 150.36	67 <b>Eu</b> Europium 151.96	68 <b>Gd</b> Gadolinium 157.25	69 <b>Tb</b> Terbium 158.93	70 <b>Dy</b> Dysprosium 162.50	71 <b>Ho</b> Holmium 164.93	72 <b>Er</b> Erbium 167.26	73 <b>Tm</b> Thulium 168.93	74 <b>Yb</b> Ytterbium 173.05	75 <b>Lu</b> Lutetium 174.97
87 <b>Fr</b> Francium (223)	88 <b>Ra</b> Radium (226)																	89 <b>Ac</b> Actinium (227)	90 <b>Th</b> Thorium (232)	91 <b>Pa</b> Protactinium (231)	92 <b>U</b> Uranium (238)	93 <b>Np</b> Neptunium (237)	94 <b>Pu</b> Plutonium (244)	95 <b>Am</b> Americium (243)	96 <b>Cm</b> Curium (247)	97 <b>Bk</b> Berkelium (247)	98 <b>Cf</b> Californium (251)	99 <b>Es</b> Einsteinium (252)	100 <b>Fm</b> Fermium (257)	101 <b>Md</b> Mendelevium (258)	102 <b>No</b> Nobelium (259)	103 <b>Lr</b> Lawrencium (262)

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NH <sub>4</sub> <sup>+</sup>	ammonium
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ClO <sub>3</sub> <sup>-</sup>	chlorate
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OH <sup>-</sup>	hydroxide
SO <sub>4</sub> <sup>-2</sup>	sulfate
PO <sub>4</sub> <sup>-3</sup>	phosphate

Compound	Ionic OR Covalent	Formula
Calcium Bromide		
Beryllium Carbonate		
Barium Phosphide		
Silicon Tetrafluoride		
Dihydrogen Monoxide		
Aluminum Nitrate		
Sulfur dichloride		
Beryllium Hydroxide		