

## Common Cations and Anions

### Brown, Lemay and Burston 12<sup>th</sup> Ed.

**TABLE 2.4 • Common Cations\***

Charge	Formula	Name	Formula	Name
1+	H <sup>+</sup>	hydrogen ion	NH <sub>4</sub> <sup>+</sup>	<b>ammonium ion</b>
	Li <sup>+</sup>	lithium ion	Cu <sup>+</sup>	copper(I) or cuprous ion
	Na <sup>+</sup>	<b>sodium ion</b>		
	K <sup>+</sup>	<b>potassium ion</b>		
	Cs <sup>+</sup>	cesium ion		
	Ag <sup>+</sup>	<b>silver ion</b>		
2+	Mg <sup>2+</sup>	<b>magnesium ion</b>	Co <sup>2+</sup>	cobalt(II) or cobaltous ion
	Ca <sup>2+</sup>	<b>calcium ion</b>	Cu <sup>2+</sup>	<b>copper(II)</b> or cupric ion
	Sr <sup>2+</sup>	strontium ion	Fe <sup>2+</sup>	<b>iron(II)</b> or ferrous ion
	Ba <sup>2+</sup>	barium ion	Mn <sup>2+</sup>	manganese(II) or manganous ion
	Zn <sup>2+</sup>	<b>zinc ion</b>	Hg <sub>2</sub> <sup>2+</sup>	mercury(I) or mercurous ion
	Cd <sup>2+</sup>	cadmium ion	Hg <sup>2+</sup>	<b>mercury(II)</b> or mercuric ion
			Ni <sup>2+</sup>	nickel(II) or nickelous ion
			Pb <sup>2+</sup>	<b>lead(II)</b> or plumbous ion
		Sn <sup>2+</sup>	tin(II) or stannous ion	
3+	Al <sup>3+</sup>	<b>aluminum ion</b>	Cr <sup>3+</sup>	chromium(III) or chromic ion
			Fe <sup>3+</sup>	<b>iron(III)</b> or ferric ion

\*The ions we use most often in this course are in boldface. Learn them first.

**TABLE 2.5 • Common Anions\***

Charge	Formula	Name	Formula	Name
1-	H <sup>-</sup>	hydride ion	CH <sub>3</sub> COO <sup>-</sup>	<b>acetate ion</b>
			(or C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup> )	
	F <sup>-</sup>	<b>fluoride ion</b>	ClO <sub>3</sub> <sup>-</sup>	chlorate ion
	Cl <sup>-</sup>	<b>chloride ion</b>	ClO <sub>4</sub> <sup>-</sup>	<b>perchlorate ion</b>
	Br <sup>-</sup>	<b>bromide ion</b>	NO <sub>3</sub> <sup>-</sup>	<b>nitrate ion</b>
	I <sup>-</sup>	<b>iodide ion</b>	MnO <sub>4</sub> <sup>-</sup>	permanganate ion
	CN <sup>-</sup>	cyanide ion		
	OH <sup>-</sup>	<b>hydroxide ion</b>		
2-	O <sup>2-</sup>	<b>oxide ion</b>	CO <sub>3</sub> <sup>2-</sup>	<b>carbonate ion</b>
	O <sub>2</sub> <sup>2-</sup>	peroxide ion	CrO <sub>4</sub> <sup>2-</sup>	chromate ion
	S <sup>2-</sup>	<b>sulfide ion</b>	Cr <sub>2</sub> O <sub>7</sub> <sup>2-</sup>	dichromate ion
			SO <sub>4</sub> <sup>2-</sup>	<b>sulfate ion</b>
3-	N <sup>3-</sup>	nitride ion	PO <sub>4</sub> <sup>3-</sup>	<b>phosphate ion</b>

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