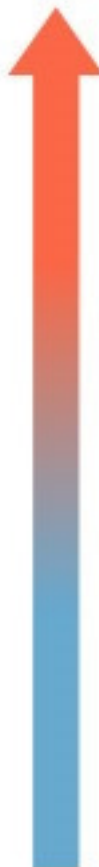


A Partial Activity Series of the Elements

Oxidation Reaction	
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> <p>Strongly reducing</p>  <p>Weakly reducing</p> </div> </div>	$\text{Li} \rightarrow \text{Li}^+ + \text{e}^-$ $\text{K} \rightarrow \text{K}^+ + \text{e}^-$ $\text{Ba} \rightarrow \text{Ba}^{2+} + 2 \text{e}^-$ $\text{Ca} \rightarrow \text{Ca}^{2+} + 2 \text{e}^-$ $\text{Na} \rightarrow \text{Na}^+ + \text{e}^-$
	These elements react rapidly with aqueous H^+ ions (acid) or with liquid H_2O to release H_2 gas.
	$\text{Mg} \rightarrow \text{Mg}^{2+} + 2 \text{e}^-$ $\text{Al} \rightarrow \text{Al}^{3+} + 3 \text{e}^-$ $\text{Mn} \rightarrow \text{Mn}^{2+} + 2 \text{e}^-$ $\text{Zn} \rightarrow \text{Zn}^{2+} + 2 \text{e}^-$ $\text{Cr} \rightarrow \text{Cr}^{3+} + 3 \text{e}^-$ $\text{Fe} \rightarrow \text{Fe}^{2+} + 2 \text{e}^-$
	These elements react with aqueous H^+ ions or with steam to release H_2 gas.
	$\text{Co} \rightarrow \text{Co}^{2+} + 2 \text{e}^-$ $\text{Ni} \rightarrow \text{Ni}^{2+} + 2 \text{e}^-$ $\text{Sn} \rightarrow \text{Sn}^{2+} + 2 \text{e}^-$
	These elements react with aqueous H^+ ions to release H_2 gas.
	$\text{H}_2 \rightarrow 2 \text{H}^+ + 2 \text{e}^-$
	$\text{Cu} \rightarrow \text{Cu}^{2+} + 2 \text{e}^-$ $\text{Ag} \rightarrow \text{Ag}^+ + \text{e}^-$ $\text{Hg} \rightarrow \text{Hg}^{2+} + 2 \text{e}^-$ $\text{Pt} \rightarrow \text{Pt}^{2+} + 2 \text{e}^-$ $\text{Au} \rightarrow \text{Au}^{3+} + 3 \text{e}^-$
	These elements do not react with aqueous H^+ ions to release H_2 .