1.78  \[ 2 \text{Mg} (s) + \text{O}_2(g) \rightarrow 2\text{MgO} (s) \]

1.90 (a) Copper (II) cyanide
(b) Copper (I) carbonate
(c) Copper (II) phosphate
(d) Copper (II) sulfate
(e) Copper (I) sulfate

You should understand where the (I) and (II) oxidation states come from!

1.92 Mg, Ca, and Ba are all Group 2:

- So we'd predict completely analogous reactions:

\[
\begin{align*}
3\text{Ca}(s) + \text{N}_2(g) \xrightarrow{\text{heat}} & \text{Ca}_3\text{N}_2(s) \\
3\text{Ba}(s) + \text{N}_2(g) \xrightarrow{\text{heat}} & \text{Ba}_3\text{N}_2(s)
\end{align*}
\]

1.110 (a) No carbon in compound (more or less).
(b) celestite: [Strontium sulfide]
     cinnabar: [Mercury (II) sulfide]
     corundum: [Aluminum oxide]
     cuprite: [Copper (I) oxide]
(b) fluorspar: [Calcium fluoride]
     pyrolusite: [Manganese (IV) oxide]
     willemite: [Barium carbonate]
     zircon: [Zirconium (IV) silicate]