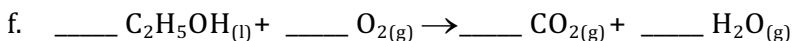
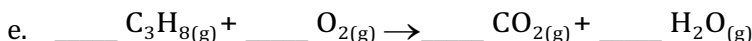
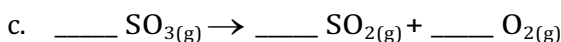
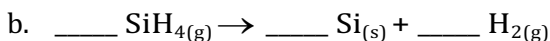
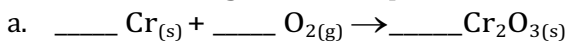


Topic 5: Writing and Balancing Chemical Equations

1. Balance the following chemical equations:



2. Write a balanced chemical equation for each of the following reaction descriptions:

a. When solid calcium carbonate is heated, solid calcium oxide and gaseous carbon dioxide are formed.

b. Aluminum metal reacts with oxygen to form solid aluminum oxide.

c. When solid mercury(II) sulfide is heated with oxygen, liquid mercury metal and gaseous sulfur dioxide are produced.

d. When aqueous solutions of aluminum sulfate and barium chloride are mixed, solid barium sulfate and aqueous aluminum chloride are formed.

e. Solid sodium bicarbonate reacts with hydrochloric acid to produce sodium chloride, water, and carbon dioxide gas.

f. Gaseous ammonia and oxygen react to produce nitrogen monoxide gas and water