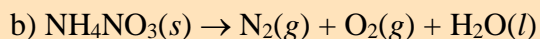
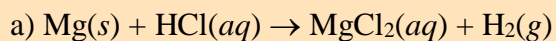


Writing and Classifying Chemical Reactions

1. Balance each of the following chemical equations:



2. Write balanced chemical equations for the following chemical reactions:

a) the reaction between sodium and nitrogen gas (N_2) to form sodium nitride.

b) the reaction between oxygen gas and nitrogen oxide gas to form nitrogen dioxide gas.

c) the reaction for the combustion of ethane gas, C_2H_6 .

d) a molecular equation for the reaction between aqueous solutions of aluminum chloride and sodium carbonate.

3. For the reactions in Questions 1 and 2 above, classify *each* one as one of the following types: double displacement, single replacement, combustion, synthesis, or decomposition.

4. Which of the reactions above are oxidation-reduction reactions?

Which of the reactions above are precipitation reactions?

Which of the reactions above are acid-base reactions?