

Underwater Fireworks Demonstration Worksheet

Discussion Questions

1. Describe what happened in this demonstration.

2. Write two balanced chemical equations showing:
 - a. The generation of acetylene (C_2H_2) from calcium carbide and water

 - b. The generation of chlorine from sodium hypochlorite and hydrochloric acid

3. Acetylene is a hydrocarbon containing double and triple bonds between carbon atoms. Chlorine is a halogen with seven electrons in its outer energy level. Explain why chlorine reacts with acetylene the way it does.

4. Define activation energy.