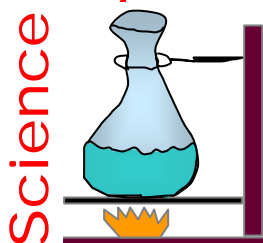


CHEMISTRY

Projects



Electrolysis of Water

Purpose:

To study the electrolysis of water.

Materials:

Electrolysis apparatus, Source of current, Electrodes, Two test tubes, two rubber stoppers, wooden splints, Ruler, 1M Na_2SO_4

Procedure:

1. Fill a 400-mL beaker with approx. 200 mL of distilled water.
2. Add 2-3 mL of Na_2SO_4 to the water.
3. Set up the electrolysis apparatus.
4. Fill each of the test tubes with some of the water to be electrolyzed.
5. Invert the test tubes, placing them over the electrodes, being careful not to lose any water.
6. Turn on the DC power source and begin the electrolysis. Allow the electrolysis to continue until one of the test tubes is filled with hydrogen gas.
7. Shut off the power supply and stopper the test tubes. Remove them from the water.
8. Insert a lighted wooden splint into the test tube with hydrogen gas. Observe what happens to the flame.
9. Ignite a wooden splint, then blow it out. It should now be glowing.
10. Place this glowing splint into the test tube with oxygen gas. Observe what happens to the splint.

Data & Observations

1. Height of gas in the oxygen tube:
2. Height of gas in the hydrogen tube:

Questions:

1. What happened to the flame in the hydrogen test tube?
2. What happened to the flame in the oxygen test tube?