

Colorful Electrolysis Worksheet

Discussion Questions

1. Draw a diagram of the set-up for this demonstration.
2. Describe the color changes that occurred.
3. When an electrical current is passed through a solution containing an electrolyte, water molecules are broken down into hydrogen and oxygen. Write a chemical equation for each of independent half-reactions that occurred.
 - a. At the cathode: water breaks down into elemental hydrogen
 - b. At the anode: water breaks down into elemental oxygen
4. In which of the two reactions did oxidation occur? In which did reduction occur? Explain.
5. Which reaction caused the solution around it to become more acidic? Which caused the solution around it to become more basic?