Launch Lab  Observe Colorful Clues

Procedure

WARNING: Strontium chloride is an irritant. Copper(II) sulfate is toxic and an irritant. Dispose of solutions properly. Use caution when working with open flames and hot paper clips.

Read and complete the lab safety form and follow the procedure below.
1. Wearing gloves and using tongs, hold a clean paper clip in the hottest part of the flame of a gas burner for 45 seconds.
2. Dip the hot paper clip into a beaker of a solution of copper(II) sulfate.
3. Repeat step 1 with the dipped paper clip and observe any color change.
4. Repeat all three steps using solutions of strontium chloride and sodium chloride with clean tongs and new paper clips.

Think Critically
5. Is chlorine or strontium responsible for strontium chloride's color? Explain.

6. Make a plan to determine whether copper or sulfate was responsible for the color in step 2.