

Emission Spectroscopy Demonstration Worksheet

Discussion Questions

1. Name the metal ion present in each Petri dish and the flame color it produced.

Petri Dish 1 –

Petri Dish 2 –

Petri Dish 3 –

Petri Dish 4 –

Petri Dish 5 –

2. When an element is placed in a burning solution, the element's electrons absorb energy and move to an "excited" energy state, different from its normal ground state. Explain how this leads to colored light.
3. What is the name for the spectrum of specific wavelengths produced by exciting an element?
4. Why is this spectrum different for every element?