

Name _____

Per: _____

Just for fun flame test Lab



Every atom consists of a nucleus with tiny electrons whizzing round it. The further away from the nucleus they are, the more energy the electrons have. If a metal atom is heated, the electrons get enough energy to jump higher away from the nucleus. When they fall back closer to the nucleus, they give off this extra energy as light.

Different metals produce different coloured light. If we look at the colour of the light made when a solution of metal is heated in a flame, we can tell which metal is there.

This is a quick lab to help you identify certain metals ions with certain flame colors. Please test all the ions and 3 unknowns. **The unknowns may contain more than one chemical.**

Metals	Flame color	
Barium (Ba) (demo: not in unknowns)		
Calcium (Ca)		
Potassium (K)		
Sodium (Na)		
Strontium (Sr)		
Copper (Cu)		
Lithium (Li)		Identify Metal(s) present in unknown
Unknown 1 (one element)		
Unknown 2 (two elements)		
Unknown 3 (two elements)		

↑ Hint: each element was only used once!