

COMBUSTION LAB

Research Question: What will happen when the metal combusts?

Introduction:

Metal will combust when it is heated. This lab will safely conduct combustion with a small amount of iron filling.

Procedures:

Put the oil lamp on top of the aluminum foil. The oil lamp should be filled with ethanol and lit with a match. Hold the iron fillings in the flame without any fallout. Refrain from looking directly into the flame. Write down the before and after of what you can observe in the fillings. When you are finished, cover the flame with metal to extinguish it.

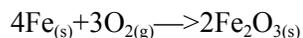
Results:

The burned fillings have changed to a darker, dull color.

Conclusion:

Metal combusting is a chemical reaction. The new substance is rust. That is why some of the iron fillings darkened/dulled.

The chemical equation for this:



Combustion reactions require oxygen because fire needs it so that it can burn. Oxygen fuels fire.

This results in a metal oxide having been created.

Vocabulary:

- Combustion Reaction—*a reaction that involved the burning of a reactant with oxygen as the other reactant to provide fuel for fire*
- Metal—*an element to the right of the staircase on the periodic table having specific properties such as being shiny and malleable as well as conductive of heat and electricity.*
- Homonuclear Diatomic—*specific elements that exist in the molecular state as two atoms bonded rather than a single atom*