

Combustion Experiments

Combustion was arguably the first chemical reaction controlled by humans. Studying how materials changed on heating or burning was a crucial part of early chemistry.

The observation that some materials lost weight after heating, whereas others gained weight, was a conundrum for early chemists. Precise measurements of these phenomena led to the discovery of gases, and laid the foundation of our current understanding of the elements.



Above: Smelting metals from ores was one of the earliest uses of combustion to control chemical reactions.

Right: Burning sulfur. Sulfur gains weight on combustion due to oxidation, and early attempts to explain this were that it contained atoms of negative mass that were driven off by heating!

