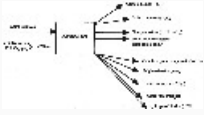


Topic Page: [Combustion](#)

Definition: **combustion** from *Philip's Encyclopedia*

Burning, usually in oxygen. The combustion of fuels is used to produce heat and light. An example is a fire. Industrial techniques harness the energy produced using combustion chambers and furnaces.



Summary Article: **combustion**
From *The Columbia Encyclopedia*

Image from: [Possible pollutants emitted from a... in Dictionary of Environmental Science and Technology](#)

rapid chemical reaction of two or more substances with a characteristic liberation of heat and light; it is commonly called burning. The burning of a fuel (e.g., wood, coal, oil, or natural gas) in air is a familiar example of combustion. Combustion need not involve oxygen; e.g., hydrogen burns in chlorine to form hydrogen chloride with the liberation of heat and light characteristic of combustion. Combustion reactions involve oxidation and reduction. Before a substance will burn, it must be heated to its ignition point, or kindling

temperature. Pure substances have characteristic ignition points. Although the ignition point of a substance is essentially constant, the time needed for burning to begin depends on such factors as the form of the substance and the amount of oxygen in the air. A finely divided substance is more readily ignited than a massive one; e.g., sawdust ignites more rapidly than does a log. The vapors of a volatile fuel such as gasoline are more readily ignited than is the fuel itself. The rate of combustion is also affected by these factors, particularly by the amount of oxygen in the air. The nature of combustion was not always clearly understood. The ancient Greeks believed fire to be a basic element of the universe. It was not until 1774 that the French chemist A. L. Lavoisier performed experiments that led to the modern understanding of the nature of combustion. See spontaneous combustion; heat of combustion.

See Hilado, C. J. , *Smoke and Products of Combustion* (1973);
Gardiner, W. C. , ed., *Combustion Chemistry* (1984);
Williams, F. A. , *Combustion Theory* (2d ed. 1985).

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Combustion. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from <https://search.credoreference.com/content/topic/combustion>



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