

Topic Page: [Krypton](#)

Definition: **krypton** from *Dictionary of Energy*

Chemistry. a gaseous element that has the symbol Kr, the atomic number 36, an atomic weight of 83.80, a melting point of -156.6°C , and a boiling point of -152.9°C ; a colorless and odorless noble gas used in lasers and fluorescent lamps. The earth's atmosphere is about one-millionth part krypton.

Summary Article: **krypton**

From *The Columbia Encyclopedia*

(krĭp'tŏn) [Gr.,=hidden], gaseous chemical element; symbol Kr; at. no. 36; at. wt. 83.798; m.p. -156.6 degrees Celsius; b.p. -152.3 degrees Celsius; density 3.73 grams per liter at STP; valence usually 0. Krypton is a colorless, odorless, tasteless gas. It is one of the so-called inert gases found in Group 18 of the periodic table. It is a rare gas present in air at a concentration of about one part per million. Naturally occurring krypton is a mixture of six stable isotopes. It is produced commercially by fractional distillation of liquid air. Krypton is used to fill electric lamp bulbs and various electronic devices. Fluorescent lamps are filled with a mixture of krypton and argon. Krypton is also used in tungsten-filament photographic projection lamps and in very high-powered electric arc lights used at airports. A mixture of stable and unstable isotopes of krypton is produced by slow neutron fission of uranium in nuclear reactors. Krypton-85 (half-life about 10 years) is the most stable of the 17 radioactive isotopes known; it makes up about 5% by volume of the krypton produced in the nuclear reactor. It is used to detect leaks in sealed containers, to excite phosphors in light sources with no external source of energy, and in medicine to detect abnormal heart openings. Although krypton does not generally form chemical compounds in the normal sense, gram quantities of krypton difluoride have been prepared and several other compounds have been reported. Krypton has characteristic green and orange lines in its spectrum. In 1960 the meter was defined by international agreement as exactly 1,650,763.73 times the wavelength (in a vacuum) of the orange-red line in the emission spectrum of krypton-86 (see weights and measures). Krypton was discovered in 1898 by William Ramsay and W. M. Travers in residue from the evaporation of a sample of liquid air from which oxygen and nitrogen had been removed.

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Krypton. (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/krypton>



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