Atibium

Abstract

Atibium (atomic symbol At) is a synthetic element with a atomic number of 134 and is located in the transuranic stability band on the periodic table of the elements. Its most stable isotope is At-347, with a lifespan in excess of E13 years. It poses a thick electron shell and is capable of forming extremely strong bonds with other elements. This feature, combined with its immense mass, has made it fairly common as a doping agent in armors and high strength alloys. However, its high cost restricts it to military and high-end civilian use.

Detail

Atibium (atomic symbol At) is a element with a atomic number of 134, located in the transuranic stability band on the periodic table of the elements. Its most stable isotope is At-347, which has a lifespan in excess of E13 years. While it can be found in nature, it is at such low frequency that it is considered a truely synthetic element.

The element posses a thick, complex electron shell that enables it to form multiple, strong bonds with other atoms. This combined with its great mass and stability makes it an excellent doping agent in armors and high strength alloys. In general, the higher the concentration of atibium in a given material the stronger it will be. However, this increase in strength must be balanced by the substantial cost of the added atibium.

Atibium is produced through nuclear synthesis. The chain for this process is as follows:

Step	Input	Result
1	U-236 + C-13	Cf-249
2	Cf-249 + Si-29	Uub-278
3	Uub-278 + He-4	Uuq-282
4	Uuq-282 + Fe-58	Ts-340
5	Ts-340 + Be-7	At-347

Although the technology of the republic renders such nuclear synthesis fairly easy and quite reliable the additional process and specialized facilities required makes the element quite expensive (compared to other available materials). Because of this it is rarely used in civilian application.

Statistics for At

Symbol, number	At, 134
Element Category	Transuranic

Group, Period, Block	g14, 8, g
Standard Atomic Weight	347.00184 g*mol-1
Phase	Solid
Density	40.7 g*cm-3

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