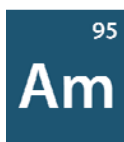


Isotopes of Americium

Isotope	Atomic Mass	Half-life	Mode of Decay	Nuclear Spin	Nuclear Magnetic Moment
Am-237	237.0503	1.22 hours	EC to Pu-237; α to Np-233	5/2	No data available
Am-238	238.05198	1.63 hours	EC to Pu-238; α to Np-234	1	No data available
Am-239	239.05302	11.9 hours	EC to Pu-239; α to Np-235	5/2	No data available
Am-240	240.05529	2.12 days	EC to Pu-240; α to Np-236	3	No data available
Am-241	241.05682	432.2 years	α to Np-237; SF	5/2	1.61
Am-242	242.05654	16.02 hours	EC to Pu-242; β^- to Cm-242	1	0.388
Am-243	243.061375	7370 years	α to Np-239; S F	5/2	1.61
Am-244	244.06428	10.1 hours	β^- to Cm-244	1	No data available
Am-245	245.06644	2.05 hours	β^- to Cm-245	5/2	No data available



Americium was discovered in 1944 by Glenn T. Seaborg, Ralph A. James, Leon O. Morgan and Albert Ghiorso. It was identified as the result of successive neutron capture reactions by plutonium isotopes in a nuclear reactor in Berkeley, California, USA. It is a radioactive rare earth metal which must be handled with care to avoid contact, since it is a heavy emitter (α activity of americium-241 is about three times that of radium). Americium is available to qualified users in the UK and in the USA.

Americium is the only synthetic element to have found its way into the household, where one common type of smoke detector uses Americium-241 in the form of americium dioxide as its source of ionizing radiation. Americium appears to be more malleable than uranium or neptunium; it tarnishes slowly in dry air at room temperature.

Properties of Americium

Name	Americium
Symbol	Am
Atomic number	95
Atomic weight	[243]
Standard state	Solid at 298 °K
CAS Registry ID	7440-35-9
Group in periodic table	N/A
Group name	Actinoids
Period in periodic table	7 (Actinoid)
Block in periodic table	f-block
Color	Silvery white
Classification	Metallic
Melting point	1449 °K [or 1176 °C or 2149 °F]
Boiling point	2880 °K [or 2607 °C or 4725 °F]
Density of solid	13.69 g/cm ³
Electron configuration	[Rn]5f ⁷ 7s ²