

**Key Properties**

Atomic Mass	87.62
Category	Alkaline Earth Metals
State at 20°C	solid
Melting Point	777°C
Boiling Point	1377°C
Density	2.64
Electron Config	[Kr] 5s2
Electronegativity	0.95
Year Discovered	1790
Discovered By	Adair Crawford

Did You Know?

- 1 The brilliant, intense red color of fireworks, flares, and emergency signals is produced by burning strontium compounds.
- 2 The radioactive isotope strontium-90 is a dangerous component of nuclear fallout because the body can absorb it into bones, mistaking it for calcium.
- 3 Strontium was discovered in minerals mined from a village in Scotland called Strontian, which is how the element got its name.
- 4 Some \
- 5 Certain types of toothpaste for sensitive teeth contain strontium chloride to help block the tiny tubes in the dentin.

APPEARANCE

Strontium is a soft, silvery-yellowish, reactive metal.

SUPERHERO PERSONA

"The Red Rocket, the hero who paints the night sky with a brilliant red glare."

EVERYDAY CONNECTION

Strontium is found in the bright red color in fireworks and emergency flares.

POP CULTURE

Strontium-90 is a major radioactive isotope featured in post-apocalyptic fiction as a component of nuclear fallout.

Strontium: The Fiery Red and Radioactive Metal

Strontium is a soft, silvery metal that reacts quickly with air and water. It's most famous for producing the brilliant red color in fireworks and flares.

Why Is Strontium Useful?

Strontium's uses range from dazzling displays to high-tech applications:

Pyrotechnics: Strontium salts are the reason fireworks and flares burn a bright crimson red.

Glow-in-the-Dark Materials: Modern glow-in-the-dark paints and toys often use strontium aluminate, which absorbs light and glows for hours.

Electronics & Alloys: Strontium is used in making ferrite magnets, refining zinc, and even in toothpaste for sensitive teeth (using strontium chloride hexahydrate).

Radioactive Applications: The isotope strontium-90, a by-product of nuclear reactors, is a strong beta emitter. It's been used to power remote navigation buoys, weather stations, and space vehicles through tiny nuclear batteries. It's also used in measuring thickness and removing static charges.

Biological Role & Natural Abundance

Strontium has no biological role in humans and is generally non-toxic. However, since it behaves like calcium, the body can absorb it into bones and teeth. This makes radioactive strontium-90 from nuclear fallout especially dangerous, as it can build up in bones and increase the risk of cancer.

Strontium is mainly found in the minerals celestite and strontianite, with China as the leading producer. Pure strontium metal is obtained by electrolyzing molten strontium chloride.

History of Discovery

1791 – Identification: Scottish doctor Adair Crawford analyzed a mineral from a lead mine in Strontian, Scotland, and named it strontia. Later, Thomas Charles Hope proved it was a new element and noted its ability to turn flames red.

1808 – Isolation: The pure metal was first isolated by Sir Humphry Davy using electrolysis, the same method he used to isolate sodium and potassium.