



Key Properties

Atomic Mass	[278]
Category	unknown-properties
State at 20°C	solid
Melting Point	null
Boiling Point	null
Density	37.4*
Electron Config	[Rn] 5f146d77s2
Electronegativity	null
Year Discovered	1982
Discovered By	GSI Helmholtz Centre for Heavy Ion Research

Did You Know?

- 1 It is named in honor of Lise Meitner, the Austrian-Swedish physicist who was a pioneer in nuclear physics and a co-discoverer of nuclear fission.
- 2 The naming of the element after Meitner was seen as a long-overdue honor for a brilliant scientist who was overlooked for the Nobel Prize for the discovery of fission.
- 3 It was created by bombarding a bismuth-209 target with iron-58 ions. The first synthesis produced only a single atom.
- 4 It is a member of Group 9 and is expected to be a very dense, solid metal at room temperature.
- 5 Its most stable isotope has a half-life of about 7.6 seconds.

APPEARANCE

Meitnerium is a synthetic, highly radioactive element.

SUPERHERO PERSONA

"The Fissionary, a hero named to honor the brilliant female physicist who co-discovered nuclear fission but was overlooked for a Nobel Prize."

EVERYDAY CONNECTION

Meitnerium has no everyday connection, used only in research.

POP CULTURE

Meitnerium's naming corrected a historical injustice to physicist Lise Meitner.

Meitnerium: The Elusive, Superheavy Element

Meitnerium is a man-made, highly radioactive metal. Only a few atoms have ever been created, and the longest-lived isotope survives for just 8 seconds before decaying. Because of this, it has no practical uses—its importance lies in scientific research. The element is named after physicist Lise Meitner, who helped discover nuclear fission.

A Man-Made Element

Meitnerium doesn't exist in nature—it can only be made in laboratories. To create it, scientists used a heavy ion accelerator to smash iron ions into bismuth atoms. In 1982, this process (a type of "cold fusion") produced a single atom of meitnerium-266.

History of Discovery

First Synthesis (1982): A German research team at GSI Darmstadt, led by Peter Armbruster and Gottfried Münzenberg, worked for an entire week before finally detecting one atom of meitnerium.

Official Recognition (1997): The International Union of Pure and Applied Chemistry (IUPAC) confirmed the discovery and named the element meitnerium in honor of Lise Meitner.

Biological Role

Meitnerium has no role in living things. In fact, it would be dangerous due to its extreme radioactivity—but since it decays almost instantly, it never gets the chance to interact with biology.