

Bohrium (Bh)

Element 107 | Transition metal - superheavy | Period 7 | d-block

Atomic number	107
Atomic mass	[270]
Electron configuration	[Rn] 5f ¹⁴ 6d ⁵ 7s ²
Reference isotope	272Bh
Density	Unknown
Melting point	Unknown
Boiling point	Unknown
Structure	Bulk crystal structure unknown

Big idea

Bohrium has experimentally observed nuclear identity and some atom-scale chemical evidence, but no measured bulk density, melting point or crystal lattice. Group-7 expectations are not a license to invent a material.

Five things to remember

- Atomic number 107 means every bohrium nucleus has 107 protons.
- The ground-state/reference electron configuration is [Rn] 5f¹⁴ 6d⁵ 7s².
- The representative teaching isotope is 272Bh.
- Bohrium has experimentally observed nuclear identity and some atom-scale chemical evidence, but no measured bulk density, melting point or crystal lattice. Group-7 expectations are not a license to invent a material.
- Material structure status: Bulk crystal structure unknown.

Structure, evidence and real-world context

No defensible macroscopic crystal lattice is displayed for Bohrium. Nuclear/atomic evidence and theory are kept separate from unmeasured bulk material properties.

Evidence boundary

Atomic identity and source-reviewed reference values are separated from predictions. Search demand shapes headings and FAQs but never overrides scientific evidence; unknown bulk structure/density/phase values remain visibly unknown.

Where is it used?

Scientific research only - Research-only context; no operational production or handling guidance.

Atom-scale transactinide chemistry and nuclear-decay studies - Research-only context; no operational production or handling guidance.

Discovery and history

1981 - A GSI team led by Peter Armbruster and Gottfried Münzenberg produced bohrium; it is named for Niels Bohr.

Naming / context - The element name and discovery story are part of the historical record; search-led questions are answered without turning history into scientific evidence for bulk properties.

Today - Current use is described at the level supported by the element's availability and evidence, with research-only elements kept research-only.

Safety / interpretation

This page is educational and non-operational. It provides no radioactive-material production, separation, source-preparation, handling or access instructions.

Search-led questions and review

The questions below reflect genuine learner/search intent. Answers remain source- and evidence-led.

What is bohrium?

Bohrium is chemical element 107, symbol Bh, classified here as transition metal - superheavy.

What is the atomic number of bohrium?

The atomic number is 107, meaning every bohrium nucleus has 107 protons.

What is the symbol for bohrium?

The chemical symbol is Bh.

What is bohrium used for?

Bohrium has no commercial use; it exists only for scientific research.

Who discovered bohrium?

A team at GSI in Darmstadt produced convincing evidence for element 107 in 1981.

What does bohrium look like?

No macroscopic sample has been observed. Calling it a shiny bulk metal would go beyond the evidence, so the Structure viewer remains evidence-only.

Quick review

What is Bohrium's atomic number?

Answer: 107

Atomic number 107 defines Bohrium by its proton count.

Which statement best describes the material evidence for Bohrium?

Answer: Bulk crystal structure unknown

The Structure view follows measured/reviewed evidence; unknown bulk structures remain unknown.

What is the safest rule for Bohrium uses?

Answer: Distinguish the element from its isotopes, compounds and engineered materials

Elemental, isotope-specific and compound properties must not be conflated.

Sources

Royal Society of Chemistry - Bohrium: <https://periodic-table.rsc.org/element/107/>

NIST - Atomic Weights and Isotopic Compositions: https://physics.nist.gov/cgi-bin/Compositions/stand_alone.pl

IUPAC - Periodic Table of Elements: <https://iupac.org/what-we-do/periodic-table-of-elements/>