

Neodymium

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Neodymium Latest News

India is planning to increase its neodymium production by nine times, reaching 500 tons by the end of FY27.

About Neodymium

- Neodymium is a chemical element with symbol Nd and **atomic number 60**.
- It **belongs to the lanthanides group**, part of the **rare earth elements**.
- It was discovered in Vienna in 1885 by **Karl Auer**.
- It is the second most abundant of the rare-earth elements (after cerium).
- **Source:** It is found in minerals that **include all lanthanide minerals**, such as monazite and bastnasite.
- Its deposits are mainly in Brazil, **China, USA, India, Sri Lanka and Australia**.

Properties of Neodymium

- It is a **ductile and malleable** silvery white metal.

- It **oxidizes readily in air** to form an oxide, Nd_2O_3 , which easily spalls, exposing the metal to further oxidation.
- The metal **must be stored sealed** in a **plastic covering** or kept in vacuum or in an inert atmosphere.
- It reacts **gradually with mineral acids**—except hydrofluoric acid (HF), in which it forms a protective layer of trifluoride, NdF_3 .

Applications of Neodymium

- It is a critical element in the global **rare-earth magnet industry**.
- It plays a key role in **electric vehicles, clean energy technologies, and defense systems**.
- It is suitable for use in optical devices and electrical applications.

Source: BS

Source: <https://vajiramandravi.com/current-affairs/neodymium/>

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