

Extreme Helium Star

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Extreme Helium Star Latest News

Researchers have uncovered a cosmic twist in a star named A980 that belongs to a rare class called Extreme Helium (EHe) stars, carrying a surprisingly high amount of germanium—a metallic element never before observed in this type of star.

About Extreme Helium Star

- It is a **low-mass supergiant** that is almost devoid of hydrogen.
- These rare and enigmatic stars seem to **consist primarily of helium**, rather than the ubiquitous hydrogen that makes up the bulk of typical stars such as the sun.
- EHe stars are thought to originate from the merger of a carbon-oxygen white dwarf with a less massive helium white dwarf.
- There are **21 of them detected** so far in our galaxy.
- These have **effective temperatures** in the **range of 8000-35000 K**.

- The first extreme-helium star, HD 124448, was discovered at McDonald Observatory in Austin **in 1942** by Daniel M. Popper of the University of Chicago.

Key Facts about Germanium

- It is a chemical element between silicon and tin in Group 14 (IVa) of the periodic table.
- It has the chemical symbol Ge and the **atomic number 32**.
- It is a **silvery-gray metalloid**, intermediate in properties between the metals and the nonmetals.
- It has a **diamondlike crystalline structure**, and it is similar in chemical and physical properties to silicon.
- Germanium is **stable in air** and **water** and is unaffected by alkalis and acids, except nitric acid.

Major Producers of Germanium

- The major worldwide **producer of germanium is China**, responsible for around 60% of total production.
- The remaining production of germanium comes from Canada, Finland, Russia, and the United States.

Source: **PIB**

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