Aubrite Meteorite

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Scientists confirmed that **an asteroid** which exploded over Germany recently is a **rare space rock** type **‘aubrite’** and can aid in studying the **origins of Earth.**

[Ref- WION]

About Aubrite Meteorites:

- Aubrites are a type of **achondritic stony meteorite**, which do not contain chondrules (small spherical grains of mineral) commonly found in other types of meteorites.
    - A **meteorite** is a solid piece of debris from an object, such as a comet, asteroid, or meteoroid, that falls on the surface of Earth.
- They are primarily composed of the **orthopyroxene enstatite** and belong to an asteroid family believed to represent just **1% of known meteorites.**
- They likely came from the inner side of the **asteroid belt** between **Mars and Jupiter.**
    - **Asteroids** are rocky, airless remnants from the early formation of the solar system.
- **Main belt asteroids** like 2024 BX1 were formed at around the same time as the solar system planets, about 4.5 billion years ago.
- This originates from the **material surrounding the infant sun** that was not consumed by formation of the planets.
- Such objects are **unaffected by geological processes**, so they are crucial for studying the origin of inner solar system planets **Mercury, Venus, Mars, and Earth.**
- These meteorites have **properties** very **similar** to those of the Earth, such as water ratio and the ratio of other chemicals.
- Only 11 instances of **aubrite meteorite falls** had been found on Earth.

