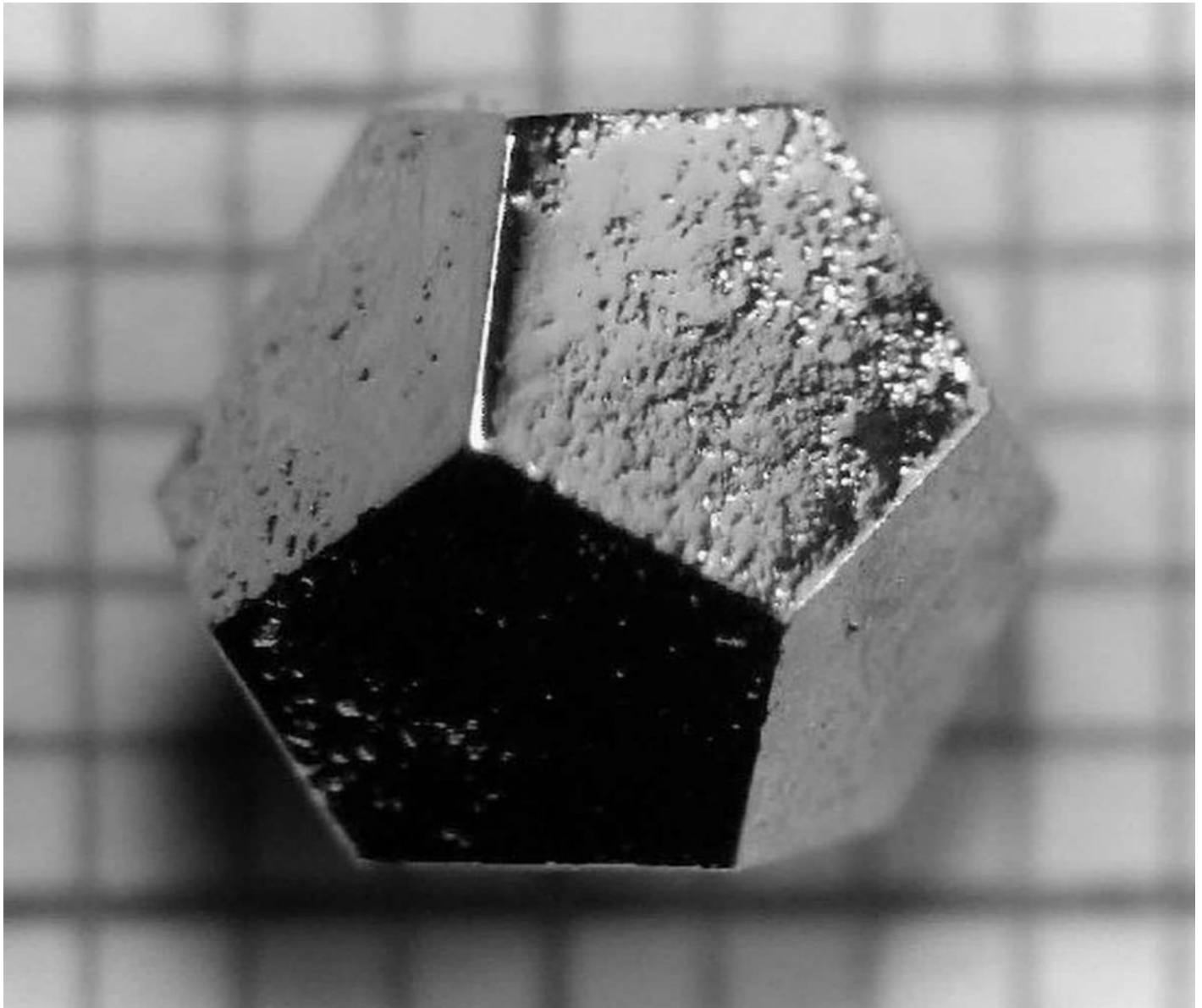


What are Quasicrystals?

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About Quasicrystal:

- Quasicrystal, also called **quasi-periodic crystal**, matter formed atomically in a manner somewhere between the **amorphous solids** of glasses and the precise pattern of crystals.
- In quasicrystals, the atoms are arranged in a **pattern that repeats itself at irregular**, yet predictable, intervals.
- The American-Israeli **scientist Dan Shechtman** discovered quasicrystals in the lab in 1982.
- The first natural quasicrystal found was as microscopic grains in a fragment of the Khatyrka meteorite lying in the **Koryak mountains of Russia**.

- The second time scientists found natural quasicrystals in the remains of the **Trinity test of the Manhattan Project**.
- Recently in the **Sand Hills dunes** in northern Nebraska, where scientists found silicate glass which is a **dodecagonal quasicrystal**, rare even for quasicrystals.

Applications of Quasicrystals

- They are used in **surgical instruments, LED lights and nonstick frying pans**.
- They have poor heat conductivity, which makes them good insulators.

Q1) What is the structure of an amorphous solid?

Amorphous solids resemble liquids in that they do not have an ordered structure, an orderly arrangement of atoms or ions in a three-dimensional structure.

Source: [The third source of natural quasicrystals preserves their reputation for violent origins](#)

Source: <https://vajiramandravi.com/current-affairs/what-are-quasicrystals/>

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