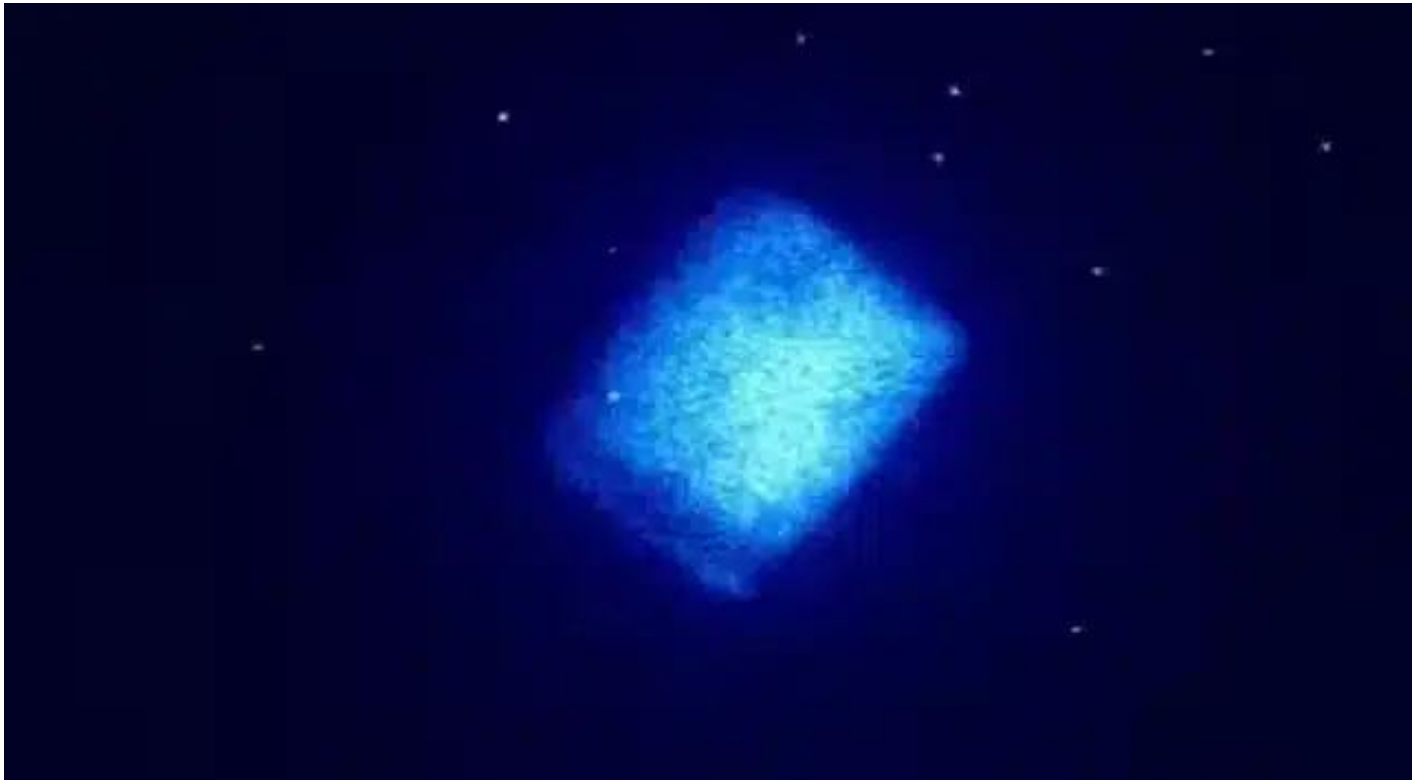


Diamond Battery

December 11, 2024 • vajiramandravi.com



About Diamond Battery:

- It uses **carbon-14**, a radioactive isotope of carbon, which has a half-life of 5,700.
 - Carbon-14 was chosen because it emits a short-range radiation, which is quickly absorbed by any solid material.
 - The carbon-14 battery sits in a case of diamond which provides it with strength and resilience.
 - It is safely held within a diamond – the hardest substance known to humankind.
 - It functions similarly to solar panels but instead of using light particles, **it captures fast-moving electrons from within the diamond structure.**
- **Applications**
 - It can prove **particularly helpful in healthcare** where it can be used to **power pacemakers, hearing aids, and ocular devices.** Patients won't need to replace batteries as the diamond battery can last for years.
 - The battery could also be used in **extreme environments** – both in space and on earth – where it is not practical to replace conventional batteries.
 - They can also prove to be of great **help in space missions** without worrying about the power to replace or charge the power source of spacecrafts.

Q1: What is a pacemaker?

It is a small device used to treat some arrhythmias. During an arrhythmia, the heart can beat too fast, too slow, or with an irregular rhythm. Pacemakers send electrical pulses to help your heart beat at a normal rate and rhythm.

News: World's first diamond battery can power devices for thousands of years

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

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