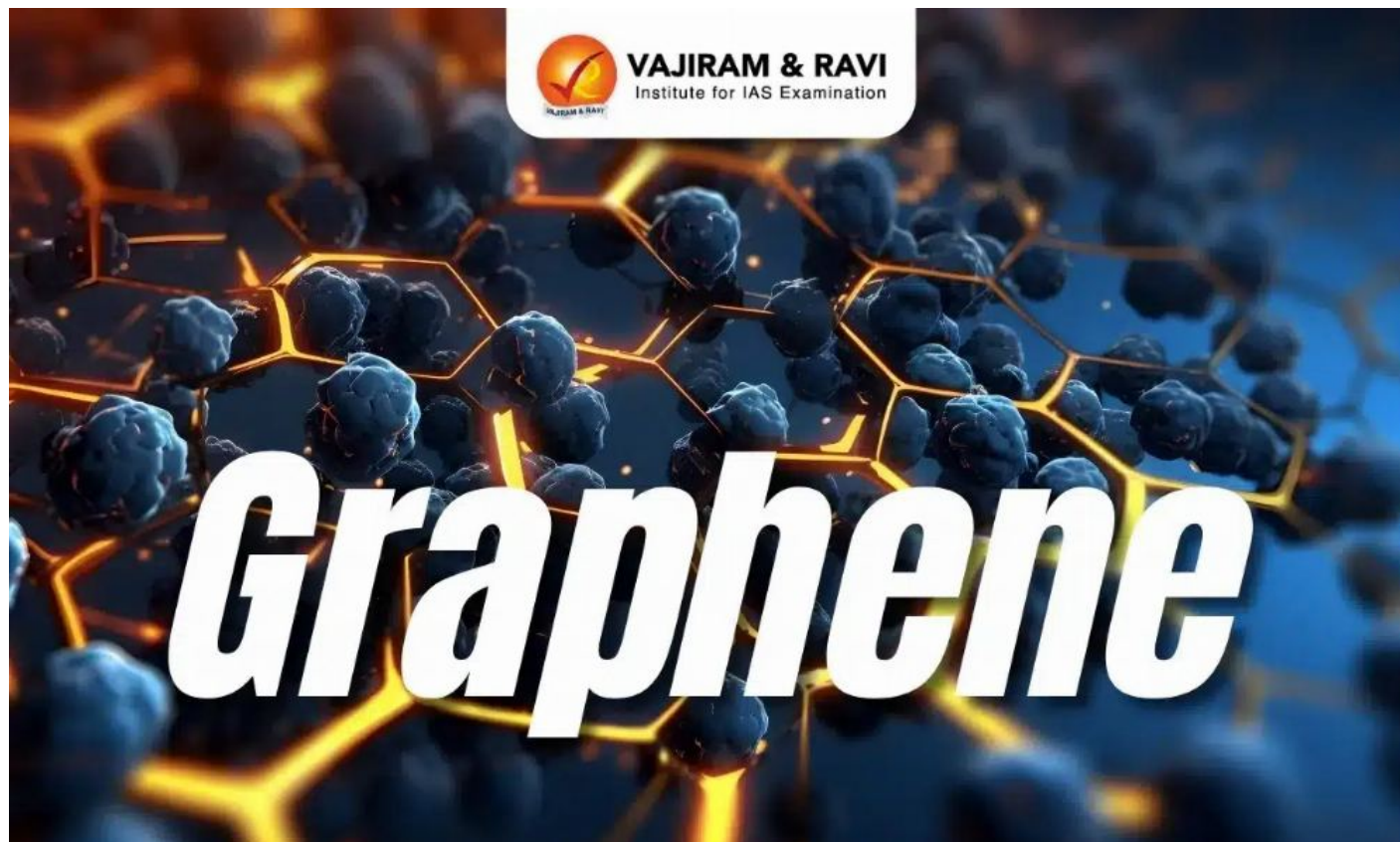


Graphene

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Graphene Latest News

Recently, researchers developed a flexible graphene-based capacitive sensor fabricated on a paper substrate using pencil-drawn interdigitated electrodes (IDEs).

About Graphene

- It is an **allotrope of carbon**, along with diamond and graphite.
- It is a **two-dimensional material** consisting of a single layer of carbon atoms arranged in a **honeycomb structure**.
- The stacked form of **graphene is graphite**.
- Graphene was first isolated in 2004. Since then, graphene has found hundreds of innovative applications, from **sensors and electronics to energy storage and healthcare**.

Properties of Graphene

- **Thickness:** Graphene is the **world's thinnest material** – it is only one atom thick, one million times thinner than a human hair.
- **Strength:** It is 200 times stronger than steel but six times lighter.
- **Flexibility:** It is extremely flexible and stretchable.
- **Conductivity:** It is an excellent electrical and thermal conductor.
- **Transparency:** It is almost perfectly transparent since it only absorbs 2% of light.
- It is impermeable **to gases, even those as light as hydrogen or helium.**

Source: PIB

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

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