



New Nanocomposite for Cleaning Organic Waste

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Recently, a **new metal oxide nanocomposite** has been developed by researchers at the **Institute of Advanced Study in Science and Technology (IASST)** that can be used as **sustainable technologies** for cleaning up the environment.

- These new composites use **photocatalysis** for the decomposition of pollutants.
- **Photocatalysts** are materials that **change the rate** of a chemical reaction on exposure to light.
 - In the presence of light, they generate electron-hole pairs that degrade pollutants into harmless by-products.
- **Metal oxide photocatalysis** (eg. Titanium Dioxide, Zinc Oxide, And Tungsten Trioxide), due to its high surface area and stability, offers a sustainable solution for removing **organic pollutants** from water bodies.
- These new photocatalytic metal oxides can be used for the degradation of organic pollutants in the **dyes** and **pharmaceutical** sectors.
- The **nanocomposite** (a combination of two or more materials, of which at least one is a nanomaterial) can be used in **catalysis, energy storage, sensors, optoelectronics, biomedical fields, coatings,** and **renewable energy** production.
- **Institute of Advanced Study in Science and Technology (IASST)**, located in Guwahati, is an autonomous institution of the **Department of Science and Technology (DST)**.

Read more: [Ratification of 7 Persistent Organic Pollutants, Role of Nanomaterials in Solving Environmental Issues](#)

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