

Crystals show promise for hydrogen storage

Slide by Neil Goalby. Available from rsc.li/4hBXhc8

Hydrogen is a clean fuel that contains more energy content than petrol per gram. However, transporting it is difficult and it takes up a large volume. Researchers are developing materials that can adsorb large amounts of hydrogen in smaller spaces.

Researchers have developed one new, lightweight, supramolecular material that adsorbs high volumes of hydrogen. The material's structure comprises a network of organic molecules that are arranged in a honeycomb structure. It could be used in a new class of energy storage system.



© Mark Williamson/Science Photo Library

Kennedy Space Center currently stores hydrogen in huge round vessels

Questions

1. Give one reason why hydrogen is a clean fuel.
2. Give one problem with using hydrogen as a fuel.
3. Describe how the new material could help with using hydrogen as a fuel.