

Common grass could become source of green energy, say scientists

Researchers discover significant amounts of hydrogen can be unlocked from everyday garden grass

England's green and pleasant land could soon become a major source of clean energy, thanks to research published late last week by a team of British scientists.

The researchers have discovered that significant amounts of hydrogen can be unlocked from fescue grass - common garden grass - using sunlight and a cheap catalyst.

Hydrogen has the potential to become a key fuel in the world's low-carbon future, as it does not release any greenhouse gases when burnt. However, scientists have struggled to find cheap and efficient methods of unlocking the fuel from its main sources such as water and hydrocarbons.

However, hydrogen can also be created by converting cellulose - the world's most abundant polymer - using a process called photocatalysis.

The team of scientists experimented with combining sunlight and different catalysts - a substance which speeds up a chemical reaction - to perform the conversion, and discovered hydrogen can be easily unlocked from cellulose using the cheap catalyst nickel.

The research was conducted by a team of UK scientists, including researchers from Cardiff University's Cardiff Catalysis Institute and Queen's University in Belfast.

"Up until recently, the production of hydrogen from cellulose by means of photocatalysis has not been extensively studied," said Cardiff University's Professor Michael Bowker in a statement. "Our results show that significant amounts of hydrogen can be produced using this method with the help of a bit of sunlight and a cheap catalyst."