

# NTU scientists develop material that uses less energy to treat water

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SINGAPORE: Scientists at Nanyang Technological University (NTU) have developed a material that promises to cut by up to half the amount of energy used to purify wastewater and reduce costs by 30 per cent.

The material, Multi—use Titanium Dioxide, is cheap and abundant.

It has been scientifically proven to speed up a chemical reaction (photocatalysis) that turns waste water into hydrogen and oxygen under sunlight while still producing clean water.

Besides desalinating water, it can also be used to help recover energy from desalination waste brine, as well as double the lifespan of lithium ion batteries.

"We are excited because we can store the energy from the sun and you can use it day and night. And

the same time, you produce clean water," said Associate Professor Darren Sun who helped to develop the material.

The team of scientists behind the breakthrough has set up a company and is looking to commercialise the material.