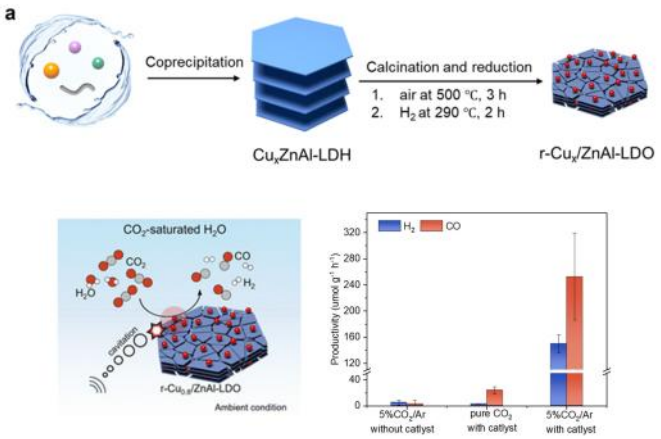
PROJECT NUMBER

23460

Catalysed sonochemical production of syngas

Oxford scientists have developed a novel metallic copper nanoparticle catalyst for syngas production at room temperature using sonochemical activation.

Applications: Syngas, Sonochemistry, Ultrasound, Catalysts, Layered Double Hydroxides



Features	Benefits
Sonocatalytic reduction of carbon dioxide in water	Room temperature production of syngas (CO/H2) using water as source of H2
Reactions under ambient conditions	Uses accessible and economically viable layered double oxide catalyst
Green/environmental production route to syngas	Produces both CO & H2 in situ
	Produces CO with over 85% selectivity
	Lower costs due to lower thermal requirements

Features	Benefits
	Use case for currently employed carbon dioxide sequestration techniques that capture CO2 in water
	Low energy requirements of sonochemical reactor enables greener/renewable power sources

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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