

# NETL INNOVATION EFFICIENTLY CONVERTS CARBON DIOXIDE INTO ACETATE

*NETL researchers have developed a biocatalyst with 99% efficiency to convert carbon dioxide (CO<sub>2</sub>) into acetate for use in a variety of popular products.*



NETL researchers, left to right, Sam Flett, Djuna Gulliver and Dan Ross at work in their lab.

Biological conversion of CO<sub>2</sub> is an attractive option to reduce carbon emissions. Biocatalysts are natural substances that use enzymes from biological sources to improve the rate of chemical reactions.

- When NETL's innovative biocatalyst is applied to CO<sub>2</sub>, all the CO<sub>2</sub> is converted into acetate, a widely used chemical.
- The NETL biocatalyst technology requires little energy.
- The biocatalyst also has a unique adaptability to feedstocks and resistance to contamination challenges, making it a promising target for large-scale deployment.
- Adaptability to different feedstocks is key to converting CO<sub>2</sub> found in waste gas streams from ethanol plants, syngas production and blue hydrogen production.

## RESEARCH PRIORITY



CARBON CONVERSION

## PERFORMER



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