New technology gives a glimpse of solar fuel generation in action
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"Our design can mimic how a catalyst behaves in a full device, thanks to a fast-flow design that constantly replenishes the liquid at the interface," said lead author Walter Drisdell, a Berkeley Lab chemist. "And the cell shape allows X-ray beams to graze over the surface, showing us the chemistry at the interface specifically."

The cell is expected to help scientists engineer and test new catalyst materials, which can be used in next-generation solar fuel devices that split water to produce hydrogen gas and convert carbon dioxide emissions into fuels like ethanol.

"We intend to make the cell available to users at the DOE's Stanford Synchrotron Radiation Lightsource (SSRL) facility so the entire science community can benefit from it," said Drisdell. SSRL is a DOE Office of Science user facility.


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