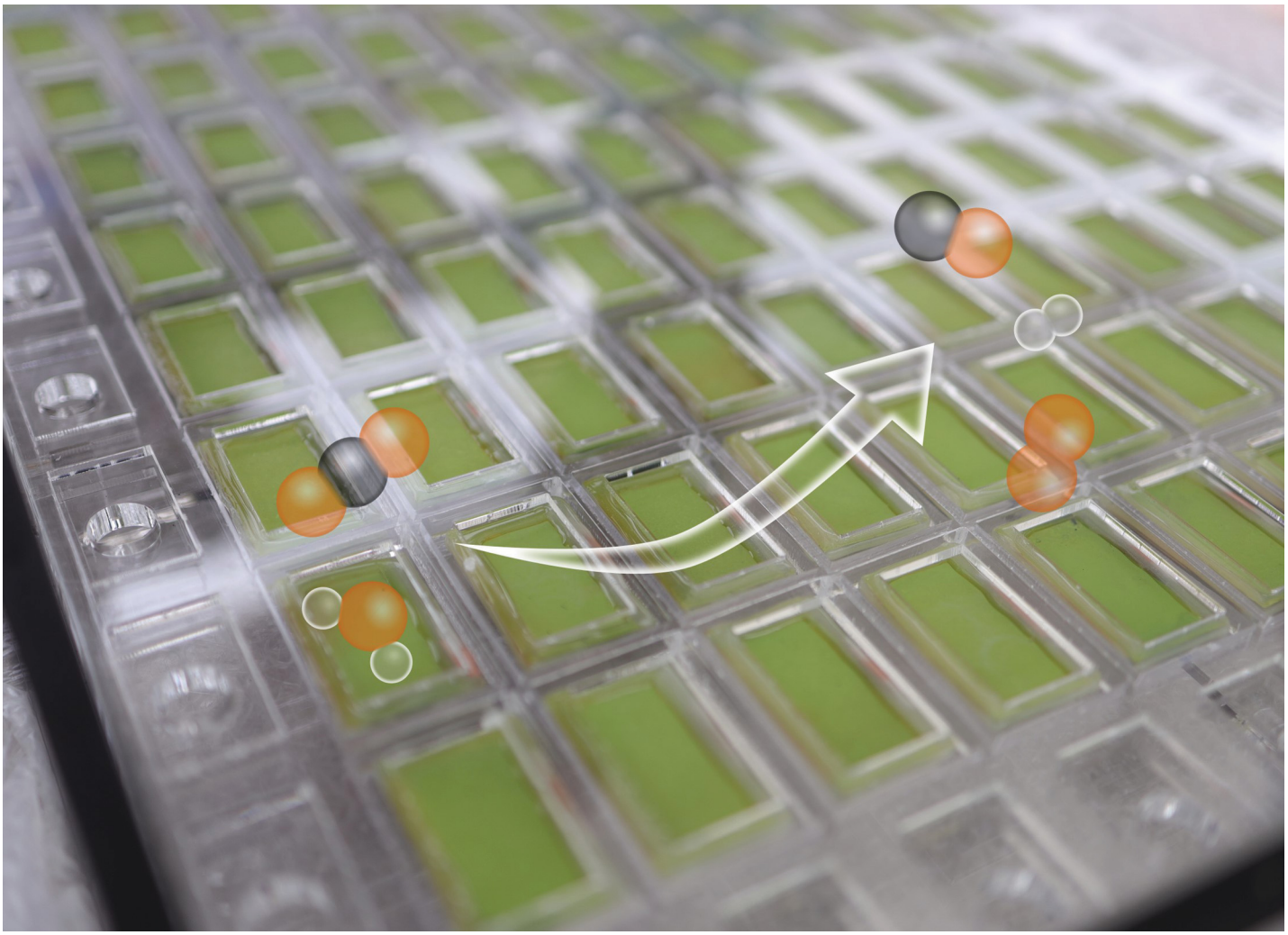

Showcasing research from Professor Reisner and Stranks' laboratories, University of Cambridge, UK.

Modular perovskite-$BiVO_4$ artificial leaves towards syngas synthesis on a m^2 scale

An artificial tree consisting of a 10 × 10 array of 10 cm^2 artificial leaves within a custom-built solar reactor has been demonstrated for CO_2-to-syngas conversion in the final of the EIC Horizon Prize. The photoelectrochemical leaves were fabricated employing fully evaporated perovskite solar cells, enabling modularity of this technology. Extensive outdoor tests included a thunderstorm, revealing key insights into practical operation that are not encountered during standardised laboratory experiments. This work thus provides a valuable resource for upscaling and real-world deployment of emerging artificial photosynthesis technologies.

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As featured in:

See Samuel D. Stranks, Erwin Reisner *et al.*, *Energy Environ. Sci.*, 2025, **18**, 3623.

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