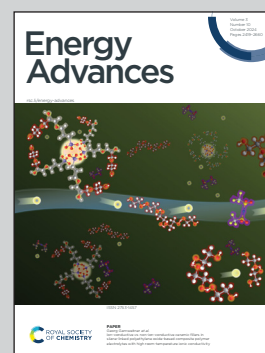


Showcasing research from Professor Michael J. Aziz's laboratory, Harvard John A. Paulson School of Engineering and Applied Sciences, Harvard University, Cambridge, Massachusetts, USA.

Quantitative local state of charge mapping by *operando* electrochemical fluorescence microscopy in porous electrodes

This image offers a peek inside an operating porous electrode, where electrolyte flows from top to bottom, and the redox-active organic species light up as they are charged along fibres. By coupling confocal fluorescence microscopy with *in situ* electrochemistry and rigorously calibrating the brightness, the state of charge and multi-species concentration fields are mapped with micron-scale resolution at video frame rates. This technique provides insights into the transport and chemical mechanisms in electrochemical flow devices.

As featured in:



See Shmuel M. Rubinstein,
Michael J. Aziz *et al.*,
Energy Adv., 2024, **3**, 2468.