

Comments from Award Recipient
Sensors and Materials (S&M) Young Researcher Paper Award 2024

Title

Laser-carbonized Electrodes on Implantable CMOS-based Imaging Device for Simultaneous Deep-brain Optical and Electrophysiological Measurements

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This research work is the culmination of our laboratory's efforts to integrate electrophysiological recording into our brain-implantable CMOS image sensors. By employing laser technology to produce the electrophysiology electrode, we streamlined the fabrication process and repurposed the existing polymer coating to serve as both waterproofing and the carbon source. Our promising results lay the groundwork for developing multi-electrode, multifunctional imaging devices as we continue to develop advanced sensors to probe the inner workings of the brain.

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