



About the cover: *Advanced Photonics* Volume 2, Issue 6

The image on the cover for *Advanced Photonics* Volume 2 Issue 6 illustrates the concept of optical encoding with microdroplets controlled by energy transfer at the biointerface.

The figure shows a dynamic evolution of energy transfer when biomolecules bind on the droplet interface. The microdroplet serves as the active optical resonator, while the biomolecules serve as the gain material. The radiative energy from a single microdroplet is transferred to binding biomolecules, converting dynamic biological information into more than trillions of distinctive photonic barcodes.

The image is based on original research presented by Yunke Zhou, Zhiyi Yuan, Xuerui Gong, Muhammad D. Birowosuto, Cuong H. Dang, and Yu-Cheng Chen in their paper “Dynamic photonic barcodes for molecular detection based on cavity-enhanced energy transfer,” *Adv. Photon.* 2(6), 066002, doi: [10.1117/1.AP.2.6.066002](https://doi.org/10.1117/1.AP.2.6.066002). The research results pave a new road for photonic encryption and biosensing, illuminating a beacon for real-time intermolecular interaction.