

Maiken H. Mikkelsen

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Short Biography:

Maiken H. Mikkelsen is the James N. and Elizabeth H. Barton Associate Professor of Electrical and Computer Engineering at Duke University and the director of a MURI Center on Meta-imaging. Her research explores nanophotonics and new quantum materials to enable transformative breakthroughs for optoelectronics, quantum science, the environment, and human health.

Mikkelsen received her B.S. in Physics from the University of Copenhagen, Denmark in 2004, and her Ph.D. in Physics from the University of California, Santa Barbara in 2009 on solid-state qubits for quantum information science. Training in nanophotonics and metamaterials followed as a postdoc at the University of California, Berkeley, before Mikkelsen joined Duke University in 2012 as an assistant professor. Mikkelsen is best known for extreme radiative decay engineering with nanogap cavities (Nature Photonics 2014), ultrafast thermal photodetectors with on-chip spectral filters enabled by metasurfaces (Nature Materials 2020), and more recently the demonstration of an ultrabright and fast single photon source in the telecom band using cavity-coupled colloidal quantum dots.

Her awards include the Maria Goeppert Mayer Award from the American Physical Society (APS), the NSF CAREER award, the Moore Inventor Fellow award from the Gordon and Betty Moore Foundation, the American Chemical Society (ACS) Photonics Young Investigator Award and young investigator program (YIP) awards from the Office of Naval Research, the Army Research Office and the Air Force Office of Scientific Research. She has published articles in journals including Science, Nature Photonics, Nature Materials and Nature Nanotechnology and has presented more than 130 invited talks at international conferences and universities.

