Neal-Ideal Optical Metamaterial Absorbers with Super-Octave Bandwidth

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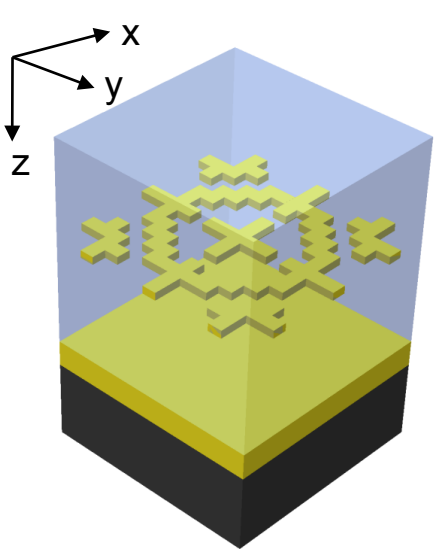

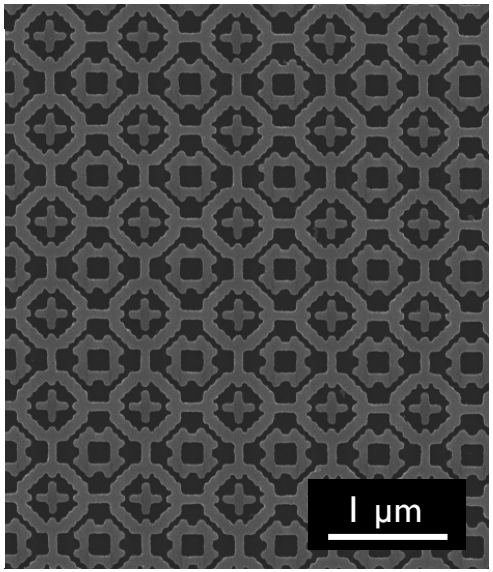

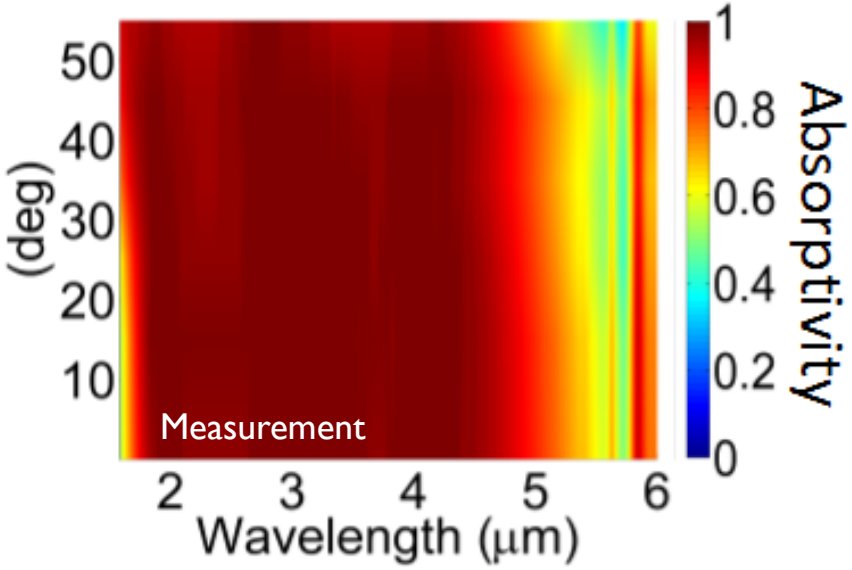

MRSEC researchers have recently designed and demonstrated a broadband, polarization-insensitive metamaterial with greater than 98% measured average absorptivity that is maintained over a wide ±45° field-of-view for mid-infrared wavelengths between 1.77 and 4.81 μm. This work represents a significant step toward realizing practical optical metamaterial absorbers that provide near-perfect broadband absorption over a specified super-octave bandwidth.

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