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Surface plasmon polariton bound state and negative index imaging at the dielectric edge IGOR SMOLYANINOV, BAE Systems, YU-JU HUNG, EHREN HWANG, CHRISTOPHER DAVIS, University of Maryland — Negative refraction of surface plasmon polaritons at the dielectric edge has been studied using near-field and far-field optical microscopy techniques. Edge plasmon polariton state has been observed. Magnified negative index imaging has been demonstrated using a far-field optical microscope. Good agreement between theoretically calculated and experimentally measured images has been demonstrated.

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