

Abstract Submitted
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Nanophotonic Circuit Elements ARIC SANDERS, NIST/Yale, NORMAN SANFORD, JOHN SCHLAGER, NIST, ERIC DUFRESNE, MARK REED, Yale — In order to realize nanoscale photonic circuits, sub-diffractive light guides, switches, and other active elements must be first realized. We have demonstrated that silver nanowires can act as plasmonic fibers, redirecting and distributing light at the nanoscale. In addition, silver nanowires can act as sensitive switches based on the strong polarization dependence of the plasmon polariton modes carried on their surface. Finally, the role of gallium nitride nanowires as active optical elements is presented.

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