Abstract Submitted
for the FWS17 Meeting of
The American Physical Society

Guiding High-Energy, Pulsed-Laser Light through Hollow-Core Optical Fibers WILLIAM MIXTER, JASON MICKEL, JOSEPH PECHKIS, ANNA PETROVA-MAYOR, HYEWON PECHKIS, Department of Physics, California State University, Chico — We report on studies of guiding high-energy, pulsed-laser light through hollow-core optical fibers. The 1064 nm, 9 ns, laser pulses generated from a pulsed Nd:YAG laser (operating at 10 Hz and capable of pulse energies up to 450 mJ) are coupled into a 750-μm-core-diameter fiber. In particular, we characterize the guiding properties of both AgI-coated and uncoated fibers in terms of their efficiency and induced polarization effects as functions of input coupling and bend radius.

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Date submitted: 29 Sep 2017 Electronic form version 1.4