

Abstract Submitted  
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**Generation of 480nm cw light for Rydberg excitation of Rb<sup>1</sup>** J. SEDLACEK, A. SCHWETTMANN, J.P. SHAFFER — Our setup for generating tunable 480 nm light for Rydberg excitation is detailed. A laser diode is tuned to 960nm in an external cavity. The light from the diode laser is amplified through a tapered amplifier. It is then frequency doubled using a single pass PPLN crystal. We use a programmed FPGA to lock the diode to a Fabry-Perot cavity. The result is narrow linewidth cw light with sufficient intensity for Rb Rydberg atom excitation and Rydberg atom EIT experiments.

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Jonathon Sedlacek  
University of Oklahoma

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