

Abstract Submitted
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Rubidium Spectroscopy with an External Cavity Diode Laser¹

CHARITY BURGESS, R. SETH SMITH, Francis Marion University — A home-built external cavity diode laser (ECDL) was used to provide a very narrow range of laser wavelengths near 780 nm in order to study the structure of rubidium (Rb). The absorption spectrum of Rb was measured. This spectrum was subject to Doppler-broadening of the spectral lines. A technique known as Saturated Absorption Spectroscopy was employed to eliminate the effects of Doppler-broadening and to obtain a high resolution spectrum for Rubidium. The setup, operation, and performance of this system will be described.

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