

Abstract Submitted
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Two-photon spectroscopy of the $2s3d\ ^1D_2$ level of neutral beryllium-9¹ ERYN COOK, LUCY LIN, ESTHER KERNS, CHELSEA PEREZ, WILL WILLIAMS, Smith College — We report on resonantly-enhanced two-photon spectroscopy in neutral beryllium-9. We monitor absorption on the $2s2p\ ^1P_1 - 2s3d\ ^1D_2$ transition while probing the intermediate $2s^2\ ^1S_0 - 2s2p\ ^1P_1$ transition in co- and counter-propagating geometries. Both lasers are stabilized to an ultra-low expansion cavity using a triple-frequency-modulation offset-sideband technique to allow calibrated dual-frequency scans. The measurement offers potential improved determination of the absolute frequencies of both the $2s2p\ ^1P_1$ and $2s3d\ ^1D_2$ states.

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