

Abstract Submitted  
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**Spectroscopic study of the 7p J=1/2 and 7p J=3/2 states in neutral cesium-133**<sup>1</sup> WILL WILLIAMS, Smith College, MARIA-TERESA HERD, Mount Holyoke College, BRUCE HAWKINS, Smith College — Doppler free spectroscopy was performed on the 7p J=1/2 and 7p J=3/2 states in neutral cesium-133 using a frequency doubled titanium sapphire laser stabilized to a temperature stabilized ultra-low expansion optical cavity. The absolute frequencies for the centers of gravity of the two states were measured representing an improvement of a factor of 650 and 500 over previously reported measurements, respectively.[1] The magnetic dipole and electric quadrupole constants were also measured and found to be consistent with previously published values. [1] H. Kleiman, J. Opt. Soc. Am. **52**, 441 (1962)

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