Abstract Submitted
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Improved Measurement of the 1s2s $^1\mathbf{S}_0$ – 1s2p $^3\mathbf{P}_1$ Interval in Helium-like Silicon[1] EDMUND MYERS, THOMAS DEVORE, Florida State University, DAVID CROSBY, Oxford University — Using co-linear fast-beam laser spectroscopy with co- and counter-propagating beams we have measured the 1s2s $^1S_0$ – 1s2p $^3P_1$ intercombination interval in Si^{12+} with the result 7230.585(6) cm^{-1}. The experiment made use of a dual-wavelength, high-finesse, power build-up cavity excited by single-frequency lasers at 1319 nm and 1450 nm. The result is a factor of 30 more precise than previous work and will provide a precision test of relativistic atomic theory.

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