

Abstract Submitted
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Cavity Enhanced Absorption Spectroscopy using a Prism Cavity and Supercontinuum Source¹ KEVIN K. LEHMANN, PAUL S. JOHNSTON, University of Virginia — The multiplex advantage of current cavity enhanced spectrometers is limited by the limited high reflectivity bandwidth of the dielectric mirrors used to construct the high finesse cavity. We report on our development of a spectrometer that uses Brewster's angle retroreflectors that is excited with supercontinuum radiation generated by a 1.06 μm pumped photonic crystal fiber, which covers the 500-1800 nm spectral range. Recent progress will be discussed including modeling of the prism cavity losses, alternative prism materials for use in the UV and mid-IR, and a new higher power source pumped by a mode-locked laser.

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Kevin Lehmann
University of Virginia

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