

**Airborne lidar measurements of atmospheric pressure made using the oxygen A-band**

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We report on airborne measurements of atmospheric pressure using a fiber-laser based lidar operating in the oxygen A-band near 765 nm and the integrated path differential absorption measurement technique. Our lidar uses fiber optic technology and non-linear optics to generate tunable laser radiation at 765 nm, which overlaps an absorption line pair in the Oxygen A-band. We use a pulsed time resolved technique, which rapidly steps the laser wavelength across the absorption line pair, a 20 cm telescope and photon counting detector to measure Oxygen concentrations.

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Abstract of paper to given at the SPIE Conference