



## **Solar FTIR column measurements and satellite validation at Darwin, Australia.**

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Vertical column measurements of CO<sub>2</sub> in the tropics are important for validation of satellites such as OCO and GOSAT, and because strong convection means that flux signals are only weakly seen in surface measurements. The importance of tropical column measurements to constraining regional flux estimates has been emphasized in modeling studies. Since August 2005, NIR solar absorption spectra have been collected at the TCCON site in Darwin, Australia (12.4S, 130.9E). This site will provide an important tropical validation site for the OCO and GOSAT satellites. Here we revisit the calibration of the solar column measurements with recent spectroscopic updates, and present CO<sub>2</sub> and CH<sub>4</sub> time series thus far. We also present a method of correcting for airmass dependences introduced by spectroscopic line parameter errors.