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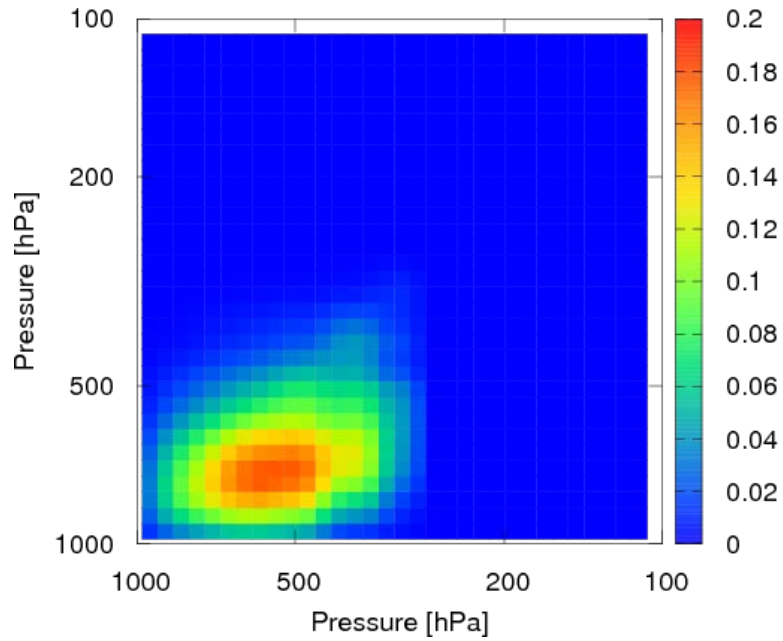
Supplement of

Atmospheric ammonia retrieval from the TANSO-FTS/GOSAT thermal infrared sounder

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5 **Figure S1.** An example of the averaging kernel matrix for the GOSAT TIR ammonia profile retrieval using the AFGL ammonia profile and mid-latitude summer atmosphere.

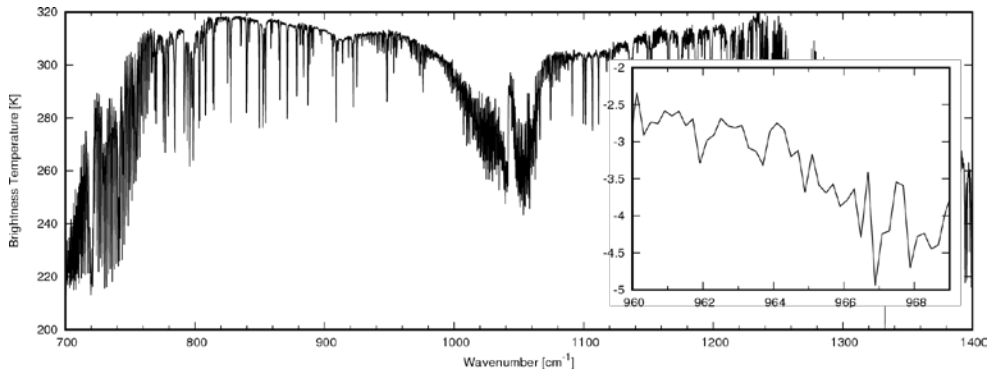


Figure S2. An example of a GOSAT TIR spectrum affected by dust aerosols at (0.86°E, 29.17°N) on 22 July 2010.

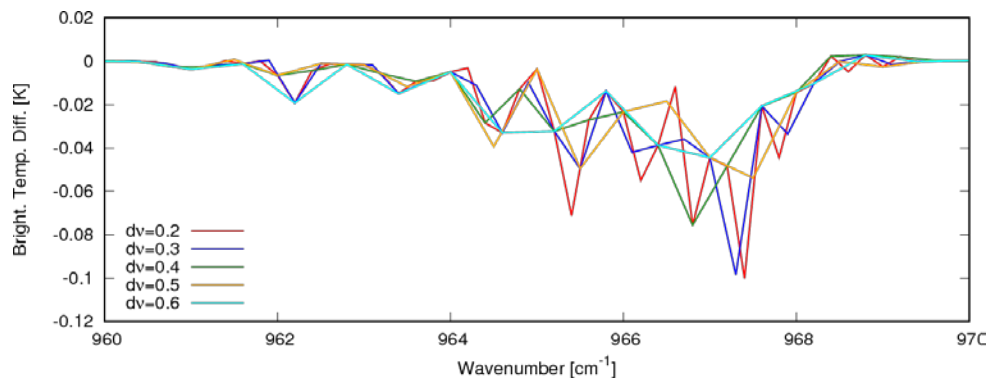


Figure S3. Brightness temperature differences between spectra simulated with and without including ammonia, using the GOSAT instrumental line shape function with spectral resolutions between 0.2 and 0.6 cm⁻¹ as indicated in the legend. These simulations used a mid-latitude summer profile for ammonia with a total column of 4.56×10^{15} molec/cm².