Rate coefficients for the reaction of $O(^1D)$ with the atmospherically long-lived greenhouse gases NF_3, SF_5CF_3, CHF_3, C_2F_6, c-C_4F_8, *n*-C_5F_{12}, and *n*-C_6F_{14}

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Supplementary Material

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Table S1. Infrared regions used in the data analysis of the $O(^1D)$ + Compound reactive rate coefficient relative rate experiments and for quantifying the NF_3 and SF_5CF_3 concentrations in the competitive rate pulsed laser photolysis-laser induced fluorescence experiments

Compound	Integration Range (cm^{-1})
NF_3	840–960
CF_3Cl	1070–1150, 1180–1220
N_2O	2100–2270, 3400–3500
CFC–114	800–860, 1090–1220
CFC–114a	1070–1340
CHF_3	1100–1200
SF_5CF_3	840–930, 1220–1280
C_2F_6	1090–1130, 1200–1280
c-C_4F_8	930–990, 1270–1360
n-C_5F_{12}	1180–1420
n-C_6F_{14}	1084–1370

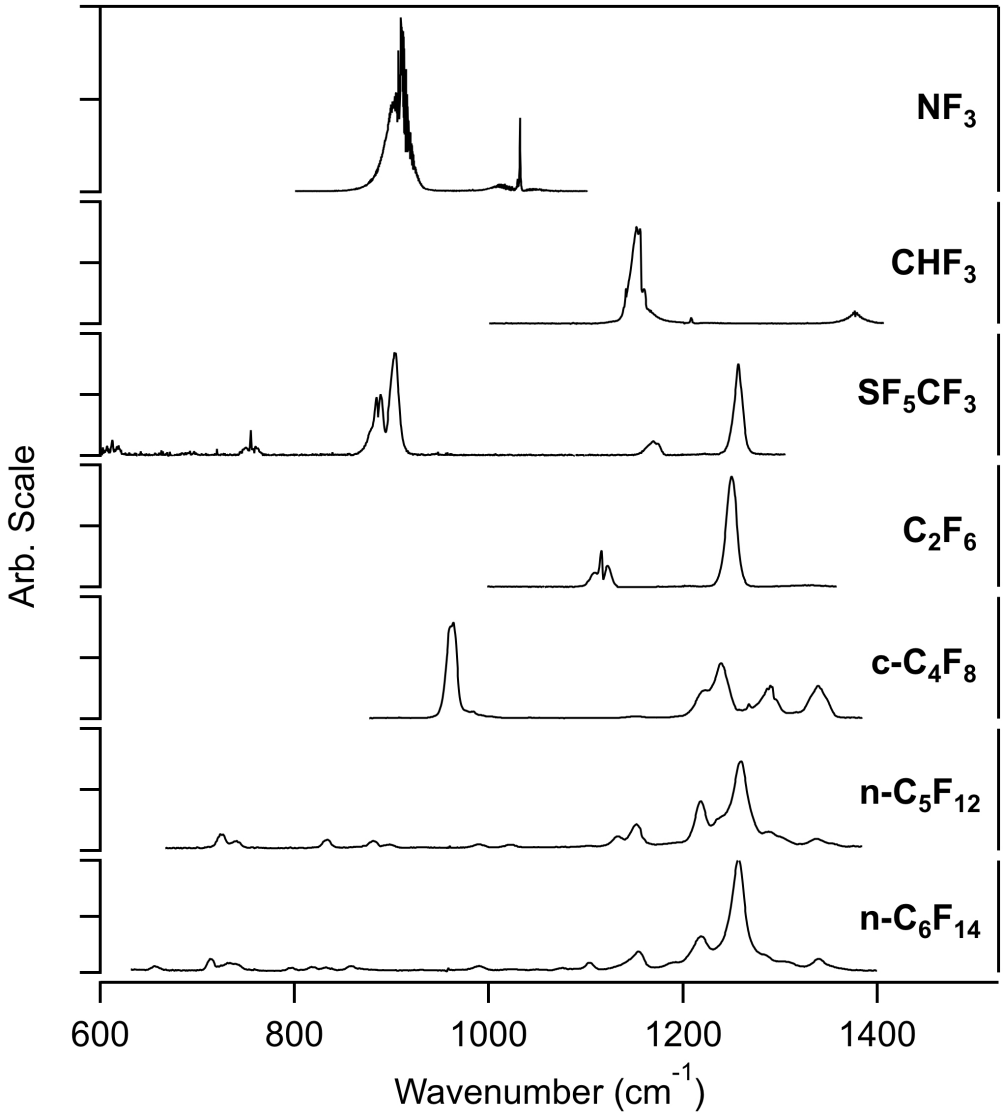

Fig. S1. Infrared absorption spectra measured using Fourier transform spectroscopy at 296 K with a resolution of 0.5 or 1 cm^{-1}. The total pressure was 180 to 600 Torr with a He bath gas (see text).

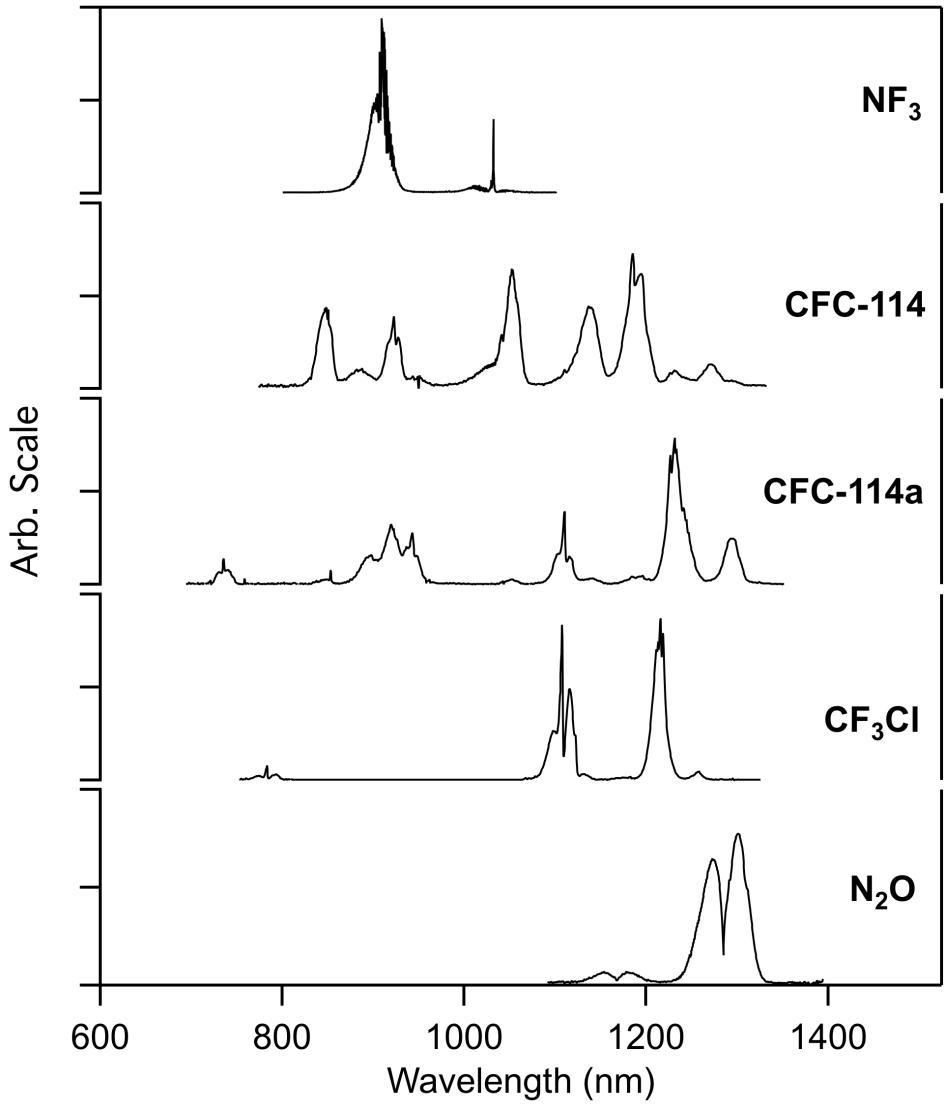

Fig. S2. Infrared absorption spectra measured using Fourier transform spectroscopy at 296 K with a resolution of 0.5 or 1 cm^{-1}. The total pressure was 180 to 600 Torr with a He bath gas (see text).

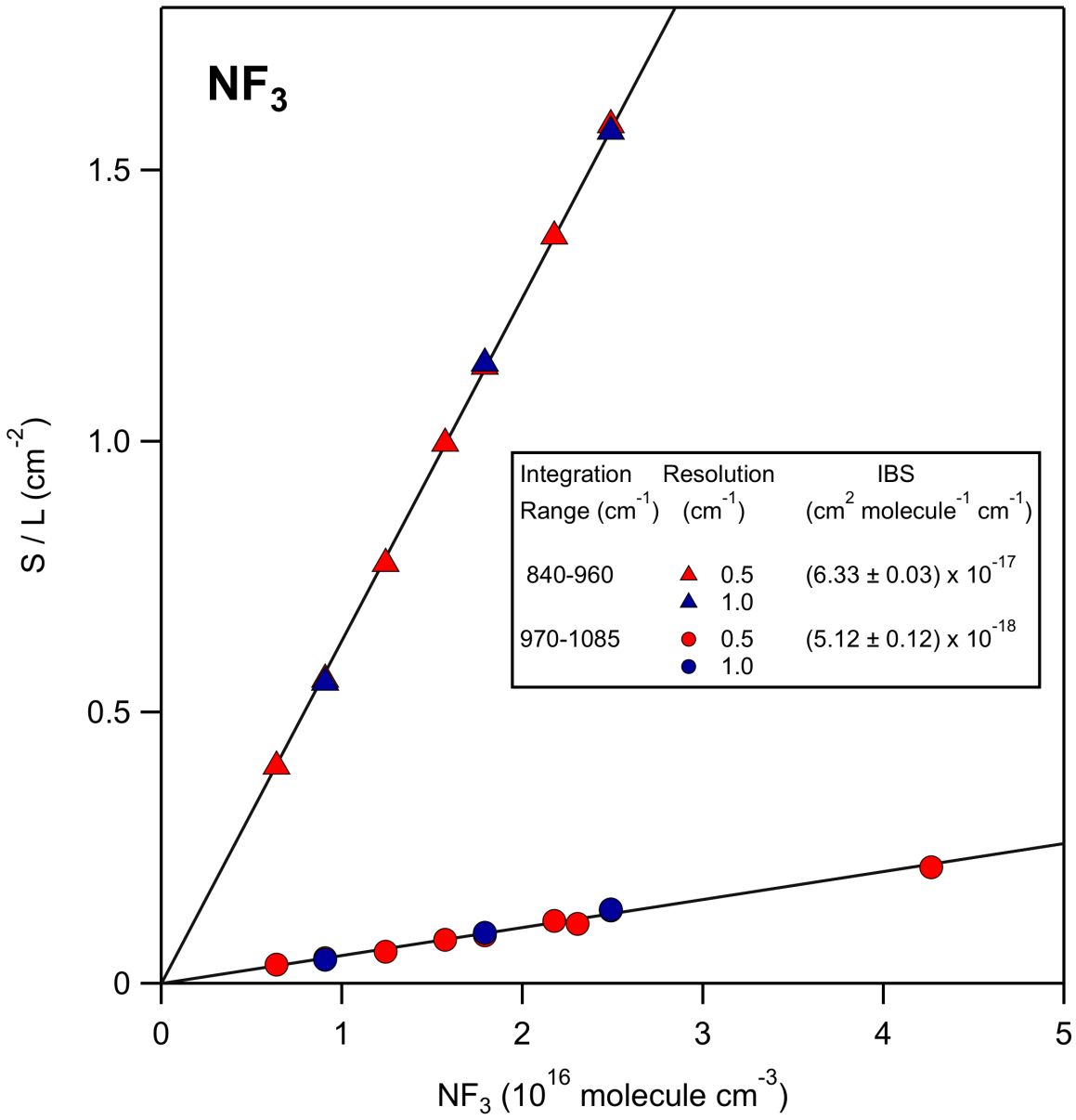

Fig. S3. Integrated band strength determination at 298 K for NF_3

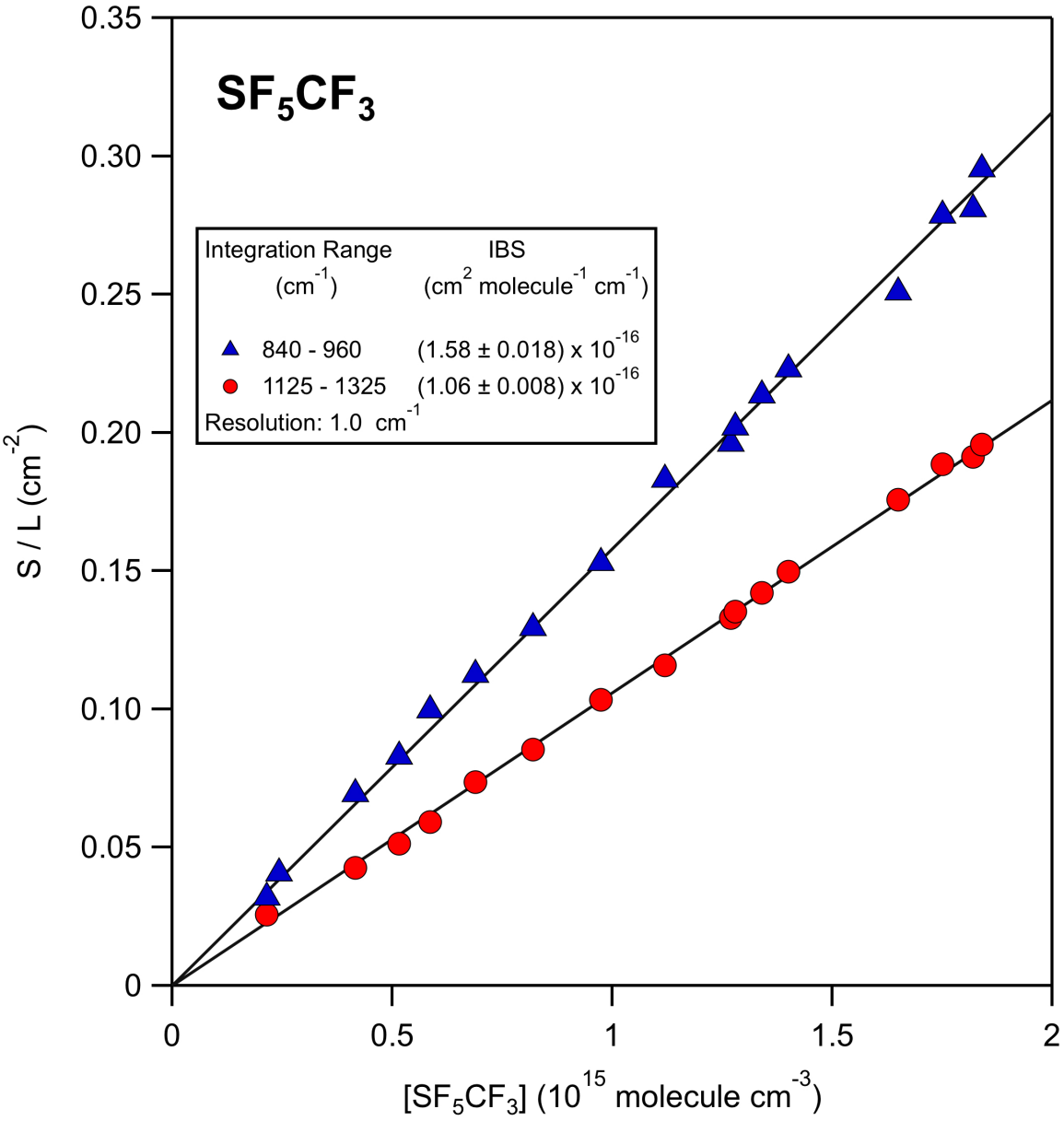

Fig. S4. Integrated band strength determination at 298 K for SF_5CF_3