

Supporting Information for “Meridional variations of C₂H₂ in Jupiter’s stratosphere from Juno UVS observations”

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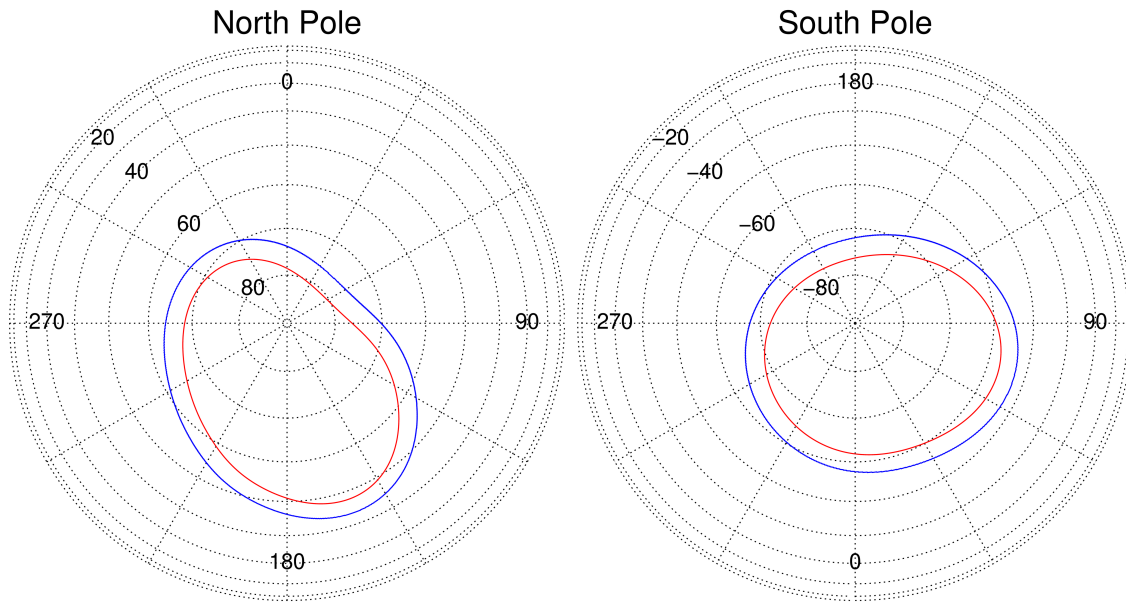


Figure S1. Maps showing the auroral regions excluded from the latitudinal spectra. The red ovals are the Io footprint reference ovals and the blue ovals are 5000 km poleward of the red ovals. All latitudes and longitudes within the blue ovals are considered part of the auroral region and are excluded from the spectra.

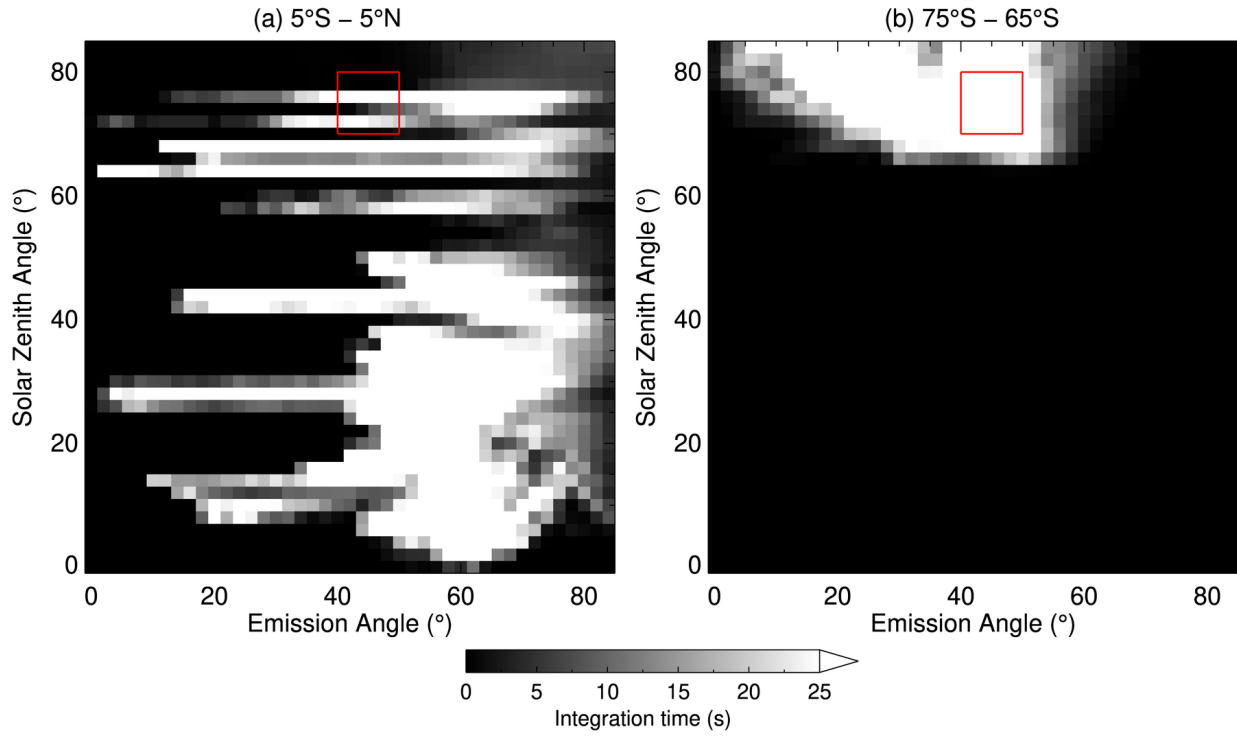


Figure S2. Histograms showing the emission angle and solar zenith angle coverage for two latitude bins, centered at 0° and 70°S. The red squares show the region of geometry space that was used to produce the final spectra for each latitude.

Latitude Bin	Mean Latitude	Mean Solar Zenith Angle (°)	Mean Emission Angle (°)	Integration Time (s)
70°N–80°N	72.6°N	78.0	45.6	90
65°N–75°N	69.1°N	77.6	45.7	220
60°N–70°N	64.3°N	76.6	46.0	370
55°N–65°N	59.9°N	76.3	46.0	460
50°N–60°N	56.1°N	76.2	46.2	340
45°N–55°N	50.8°N	75.1	45.6	180
40°N–50°N	44.6°N	73.9	44.2	160
35°N–45°N	39.4°N	73.9	44.6	220
30°N–40°N	34.9°N	73.5	44.6	280
25°N–35°N	29.3°N	73.3	44.7	410
20°N–30°N	24.8°N	73.3	44.9	520
15°N–25°N	19.7°N	73.5	44.9	560
10°N–20°N	15.2°N	74.3	45.0	580
5°N–15°N	10.5°N	75.1	45.1	460
0°–10°N	5.4°N	75.3	45.2	330
5°S–5°N	0.7°S	74.7	45.3	380
10°S–0°	5.0°S	74.1	45.0	480
15°S–5°S	9.7°S	74.1	45.1	460
20°S–10°S	14.8°S	74.1	45.6	390
25°S–15°S	19.7°S	74.7	45.4	310
30°S–20°S	25.2°S	75.1	45.1	280
35°S–25°S	30.9°S	75.3	45.9	410
40°S–30°S	36.8°S	75.8	46.5	1170
45°S–35°S	41.0°S	75.5	45.7	2650
50°S–40°S	44.9°S	75.1	44.7	3390
56°S–45°S	49.6°S	74.7	44.2	2960
60°S–50°S	54.2°S	74.4	44.5	2140
65°S–55°S	60.1°S	74.6	45.3	1710
70°S–60°S	65.3°S	74.9	45.4	1970
75°S–65°S	68.3°S	74.8	44.9	1410
80°S–70°S	71.0°S	74.7	44.2	340

Table S1. The mean latitude, solar zenith angle, emission angle and integration time for the representative spectra from each latitude bin.