



Figure 6. Polar plots of tropospheric NO₂ VCD for the (a) NIER/BYI, (b) Yonsei/SEO, (c) HUFs/Yongin, (d) KMA/AMY, (e) GIST/Gwangju, and (f) PNU/Busan sites, along with wind conditions during the MAPS-Seoul campaign (Unit: DU).

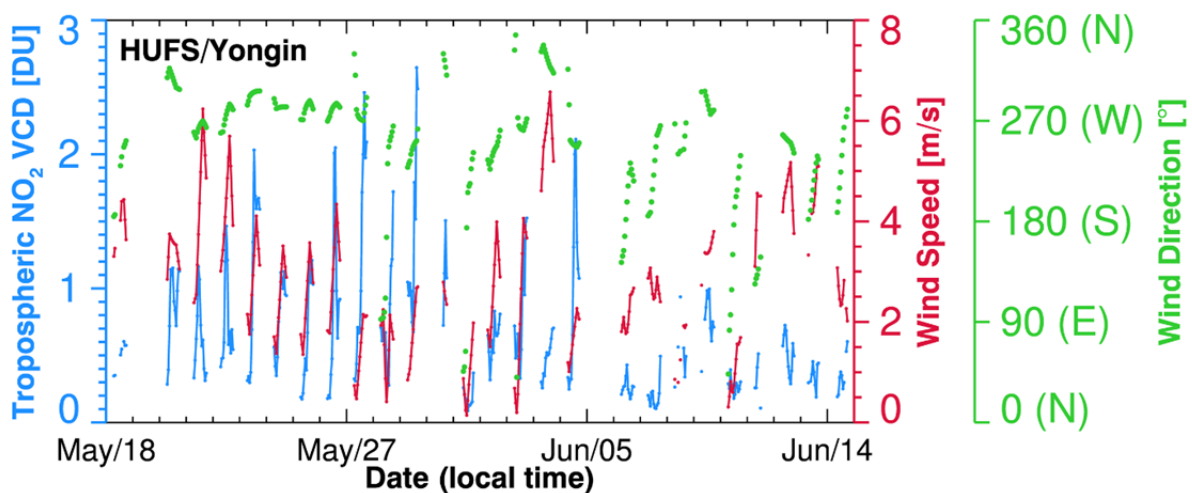


Figure 7. Time series of tropospheric NO₂ VCD, wind speed, and wind direction at the HUFS/Yongin site.

ACCEPTED MANUSCRIPT

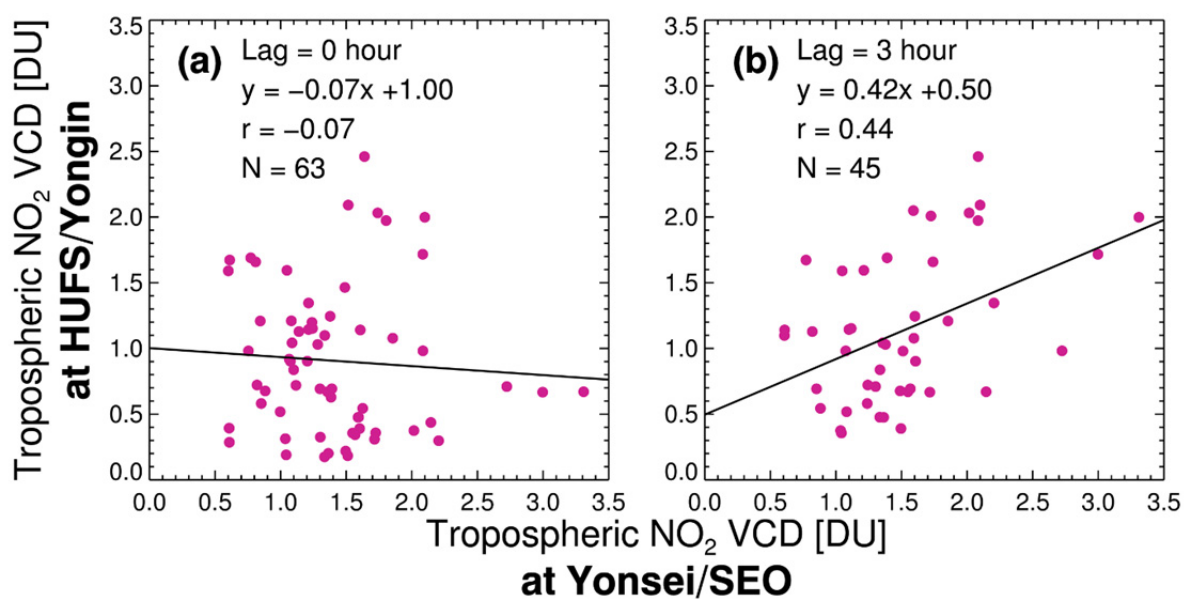


Figure 8. Scatter plots of tropospheric NO₂ VCDs between the Yonsei/SEO and HUFY/Yongin sites (a) without consideration of time lag, and (b) with a time lag of 3 hours under northwesterly wind conditions at the HUFY/Yongin site.

ACCEPTED MANUSCRIPT

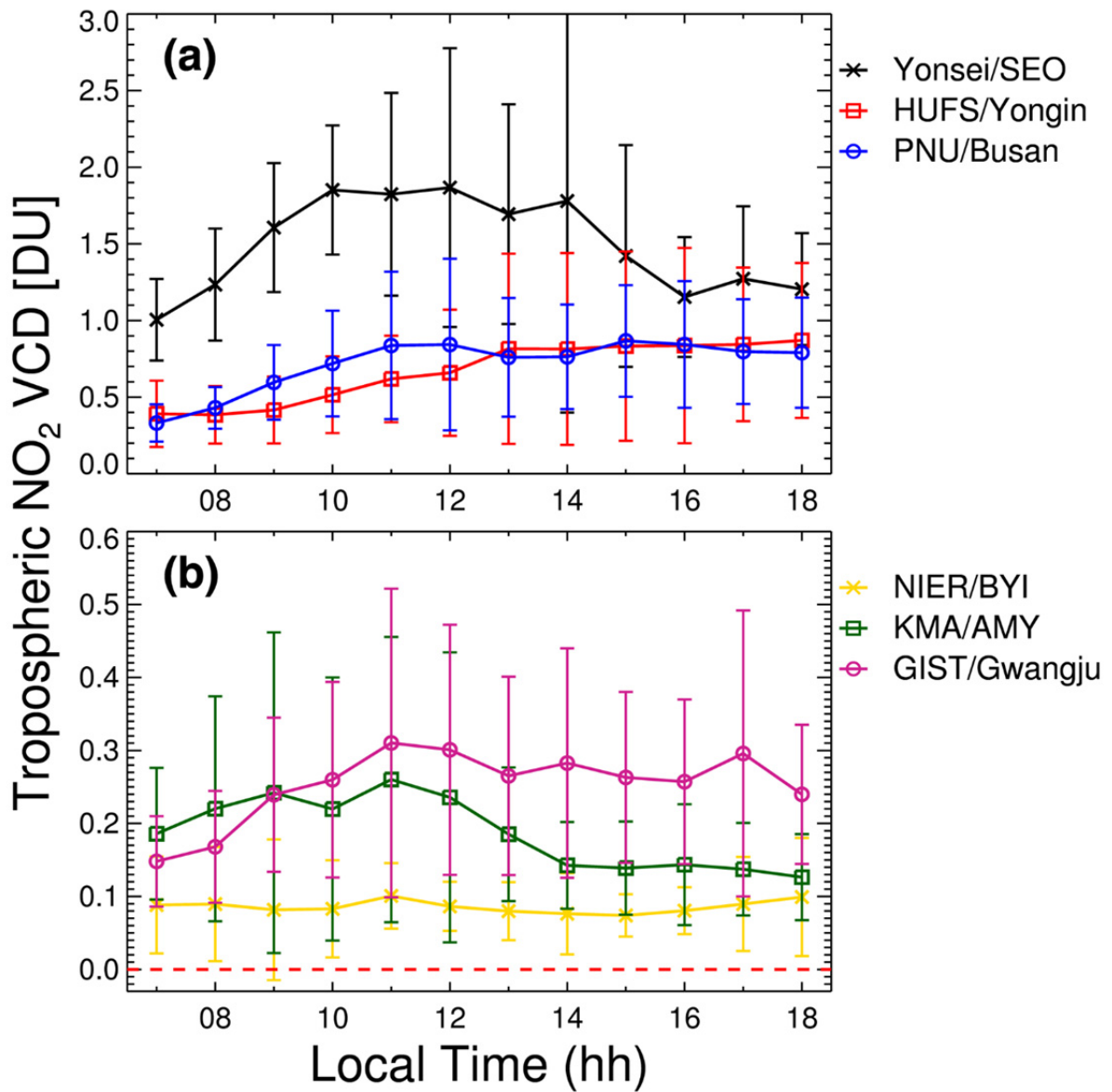


Figure 9. Diurnal variations in tropospheric NO₂ at (a) Yonsei/SEO, HUFY/Yongin, and PNU/Busan, and (b) GIST/Gwangju, NIER/BYI and KMA/AMY, based on hourly averaged data. The error bars represent the standard deviations; the red broken line in (b) indicates 0 DU.

Table 1. Location and altitude of each Pandora site during the MAPS-Seoul campaign.

Site	NIER /BYI	Yonsei /SEO	HUFS /Yongin	KMA /AMY	GIST /Gwangju	PNU /Busan
Longitude (°E)	124.631	126.934	127.265	126.330	126.843	129.083
Latitude (°N)	37.965	37.564	37.338	36.538	35.226	35.235
Altitude (m)	136	88	167	47	52	71

ACCEPTED MANUSCRIPT

Table 2. The statistics of tropospheric NO₂ VCD at each Pandora site during the MAPS-Seoul campaign. (Unit: DU).

Site	NIER /BYI	Yonsei /SEO	HUFS /Yongin	KMA /AMY	GIST /Gwangju	PNU /Busan
Average	0.09	1.49	0.67	0.18	0.26	0.72
Standard deviation	0.06	0.68	0.49	0.14	0.14	0.39
Maximum (Time)	0.45 (May 21 st , 09:00)	4.70 (May 28 th , 14:00)	2.65 (May 29 th , 15:00)	0.95 (May 28 th , 09:00)	1.02 (June 2 nd , 17:00)	2.04 (June 1 st , 11:00)
Minimum (Time)	-0.07 (June 2 nd , 14:00)	0.60 (May 20 th , 08:00)	0.09 (May 31 st , 13:00)	0.03 (June 5 st , 15:00)	0.07 (May 28 th , 07:00)	0.15 (June 12 th , 07:00)
Number of data points	251	88	272	211	238	256