

Supplementary information

Increase in Surface Ozone over Beijing-Tianjin-Hebei and the surrounding areas of China inferred from satellite retrievals, 2005-2018

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Fig. S4. The OMI retrieved SOC of Miyun site in Beijing, 2005-2007.

Table S1. The cities in the study area

Province (City)	City name	Abbreviation
Beijing	Beijing	BJ
Tianjin	Tianjin	TJ
Hebei	Shijiazhuang	SJZ
	Tangshan	TS
	Langfang	LF
	Baoding	BD
	Cangzhou	CZ
	Hengshui	HS
	Xingtai	XT
	Handan	HD
Shanxi	Taiyuan	TY
	Yangquan	YQ
	Changzhi	CZHI
	Jincheng	JC
Shandong	Jinan	JNAN
	Zibo	ZB
	Jining	JN
	Dezhou	DZ
	Liaocheng	LC
	Binzhou	BZ
	Heze	HZ
Henan	Zhengzhou	ZZ
	Kaifeng	KF
	Anyang	AY
	Hebi	HB
	Xinxiang	XX
	Jiaozuo	JZ
	Puyang	PY

Table S2. Linear regression results for interpolated training set and urban/suburban sites data

Data set	Linear regression equation	Slope		Intercept		R ²	MPAE
		standard error	95% confidence interval	standard error	95% confidence interval		
interpolated data and urban sites	$y=0.97x+3.45$	0.005	(0.96, 0.98)	0.52	(2.43, 4.47)	0.97	6%
interpolated data and suburban sites	$y=0.88x+0.64$	0.01	(0.86, 0.90)	1.32	(-1.95, 3.22)	0.90	10%

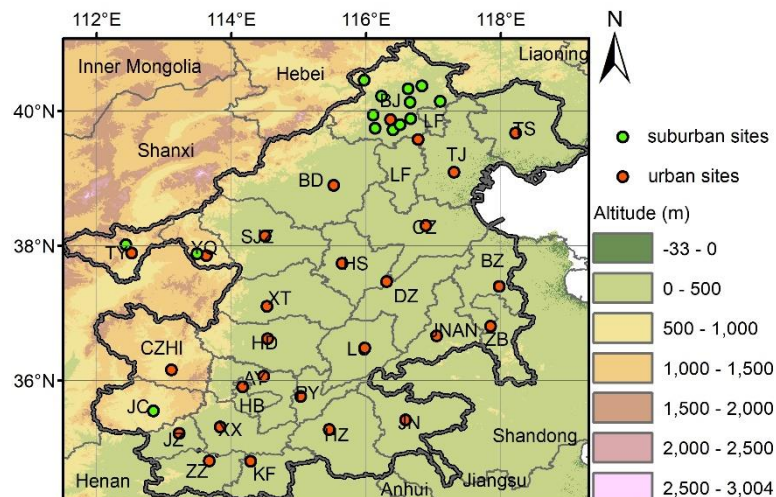


Fig. S1. The locations of the urban and suburban sites.

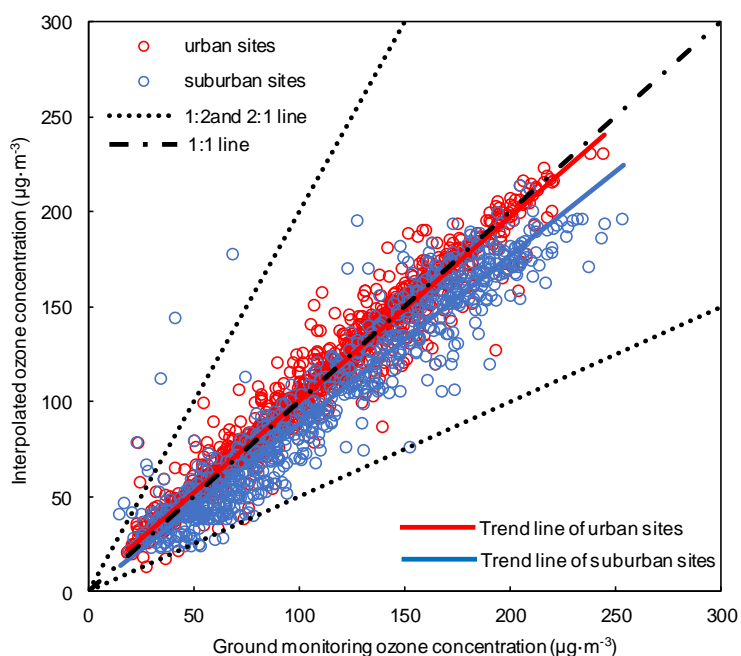


Fig. S2. Scatter plots for verifying the interpolation of the ground monitoring data. The red and blue solid lines are the results of the linear regression for interpolated training set and urban/suburban sites data, respectively. The short black dash-dot line is the result of 1:1 fitting through 0. The black dot lines indicate \pm factor 1:2 and 2:1.

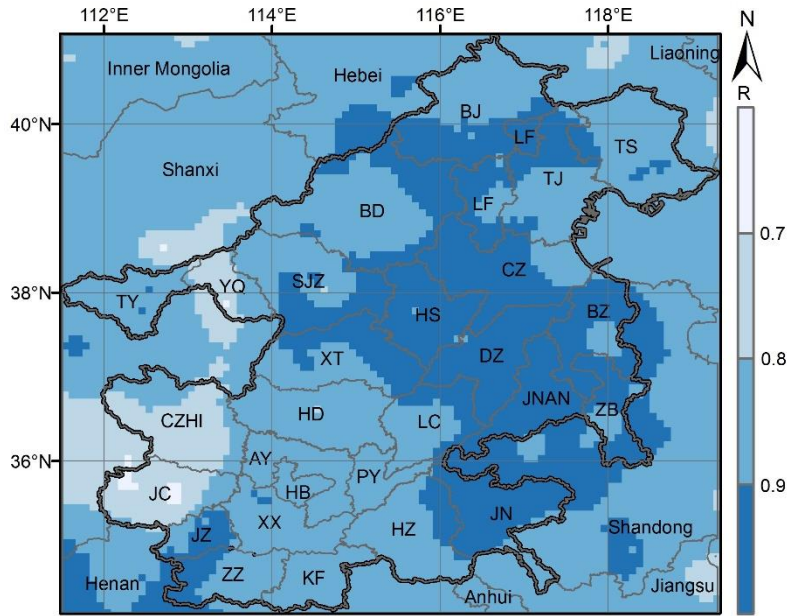


Fig. S3. Spatial correlation between the lowest layer of OMO3PR and the ground monitoring data.

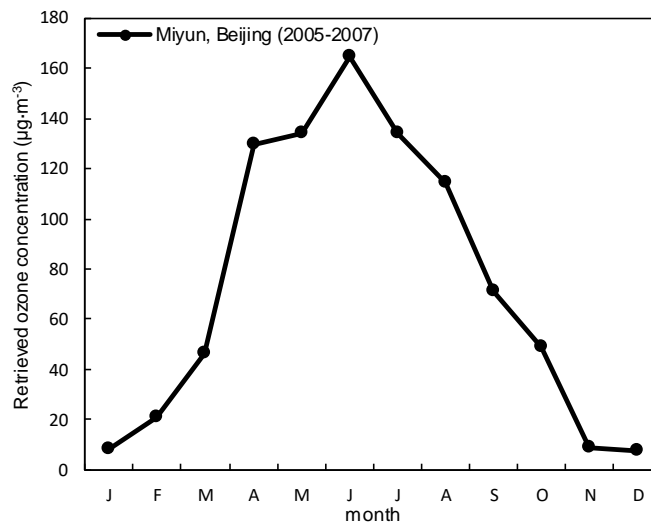


Fig. S4. The OMI retrieved SOC of Miyun site in Beijing, 2005-2007.