

## Supplementary Materials for

### **Abrupt recent trend changes in atmospheric nitrogen dioxide over the Middle East**

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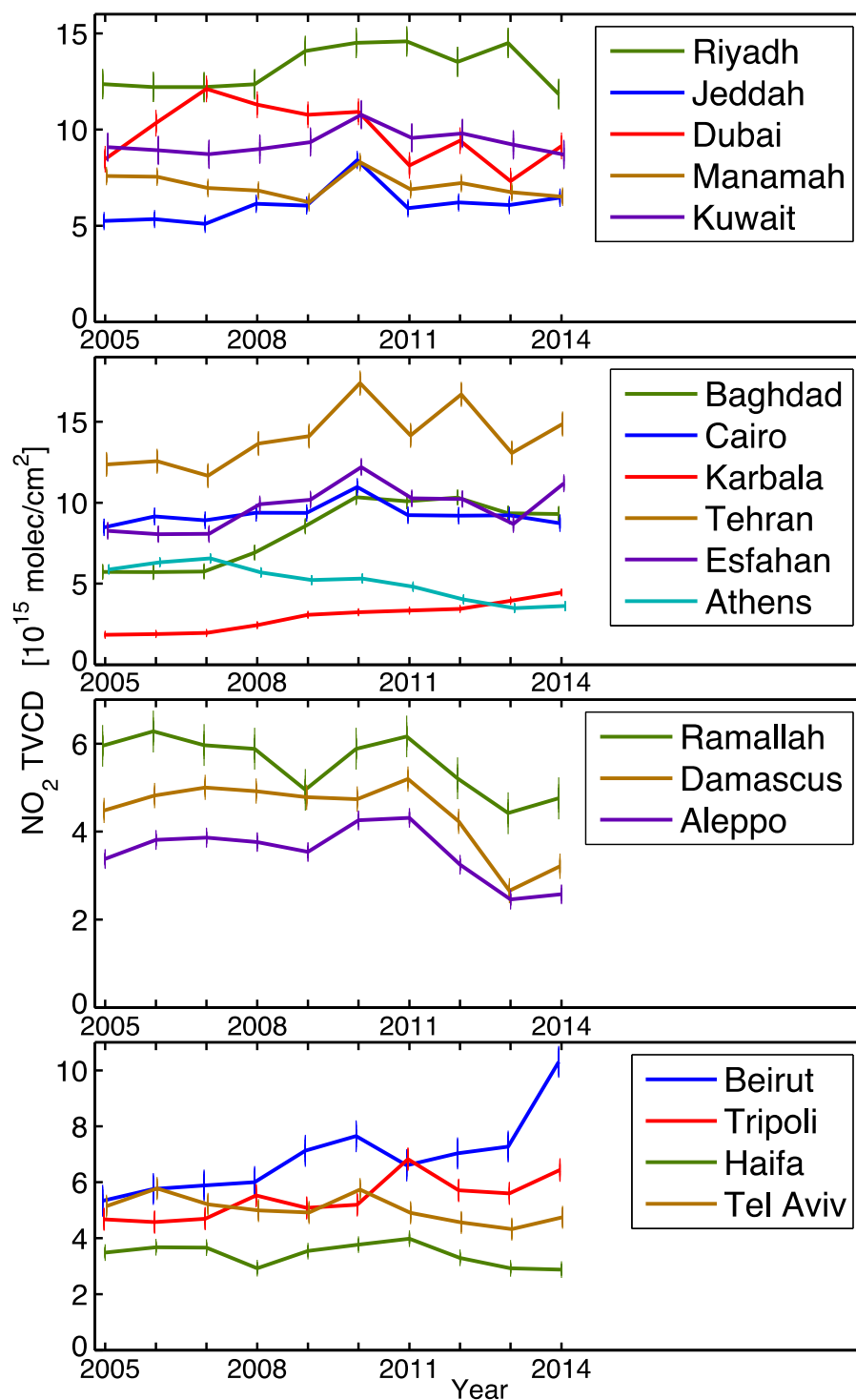
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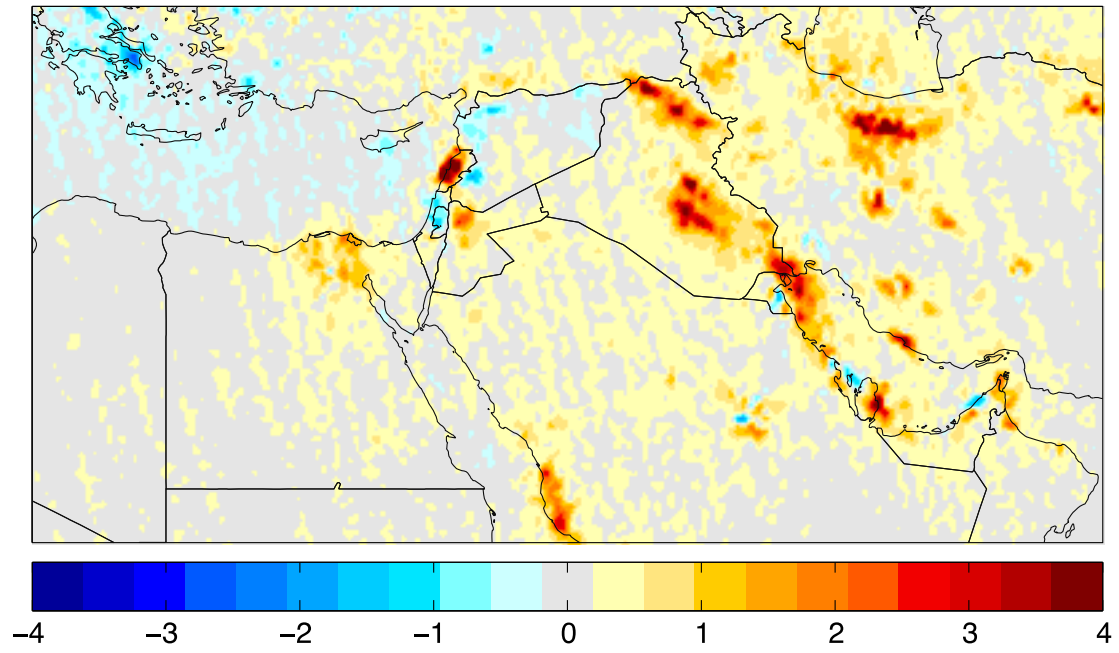
Fig. S1. NO<sub>2</sub> column densities over 18 cities in the Middle East.

Fig. S2. Tropospheric NO<sub>2</sub> column density changes in 10<sup>15</sup> molecules/cm<sup>2</sup> between 2005 and 2014.

## Supplementary Materials



**Fig. S1.**  $\text{NO}_2$  column densities over 18 cities in the Middle East. Annual mean  $\text{NO}_2$  during 2005 – 2014, indicating  $\text{NO}_x$  emission trend changes around 2010. The surface area considered is  $30 \times 30 \text{ km}^2$  (cf.  $100 \times 100 \text{ km}^2$  in Fig. 2). Vertical bars represent the standard error of the mean.



**Fig. S2.** Tropospheric NO<sub>2</sub> column density changes in 10<sup>15</sup> molecules/cm<sup>2</sup> between 2005 and 2014.