



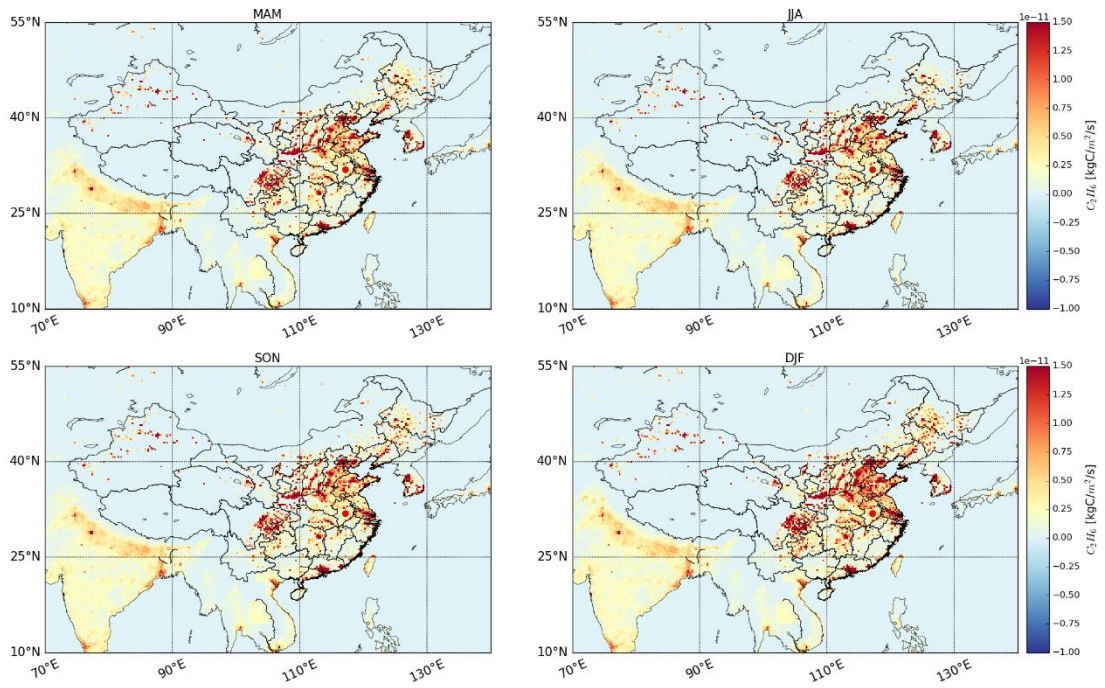
*Supplement of*

## **The reduction in C<sub>2</sub>H<sub>6</sub> from 2015 to 2020 over Hefei, eastern China, points to air quality improvement in China**

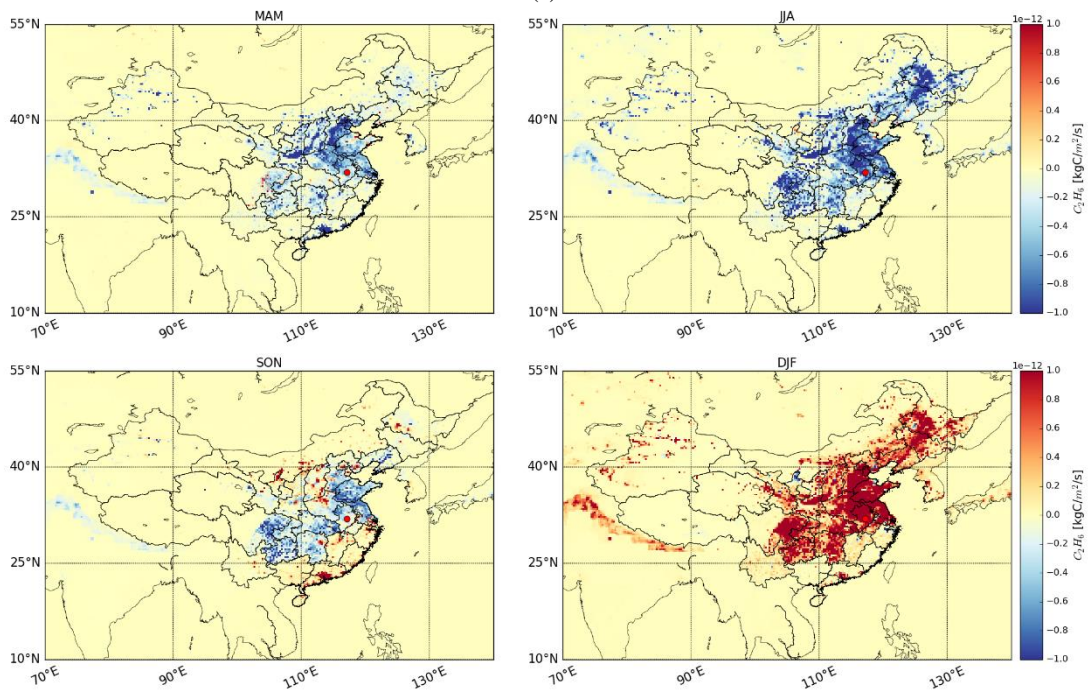
**Youwen Sun et al.**

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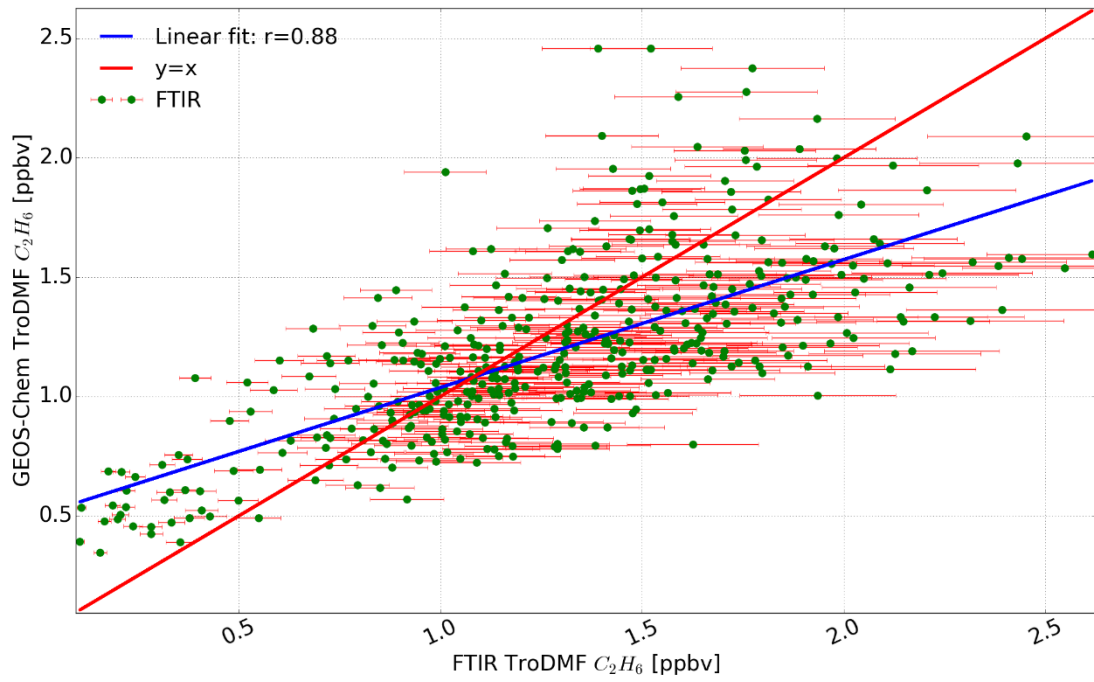


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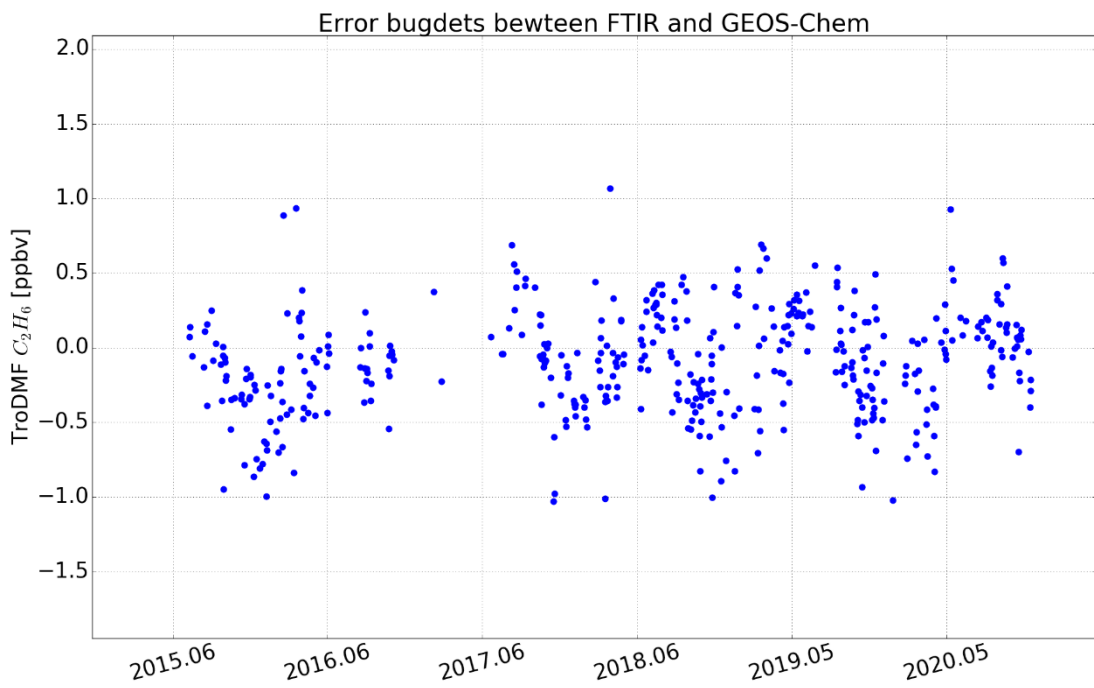
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5 **Fig. S1.** Seasonal  $C_2H_6$  emission distribution in 2019 ( $0.25^\circ \times 0.25^\circ$ ) from the Multi-resolution Emission Inventory  
 6 for China (MEIC) over China and surroundings. Units are in  $kgC/m^2/s$ . The observation site is marked with a red dot.  
 7 (a) Absolute seasonal  $C_2H_6$  emission; (b) Difference with respect to the annual mean value. The base map of all sub-  
 8 figures are created by the Basemap package of Python.  
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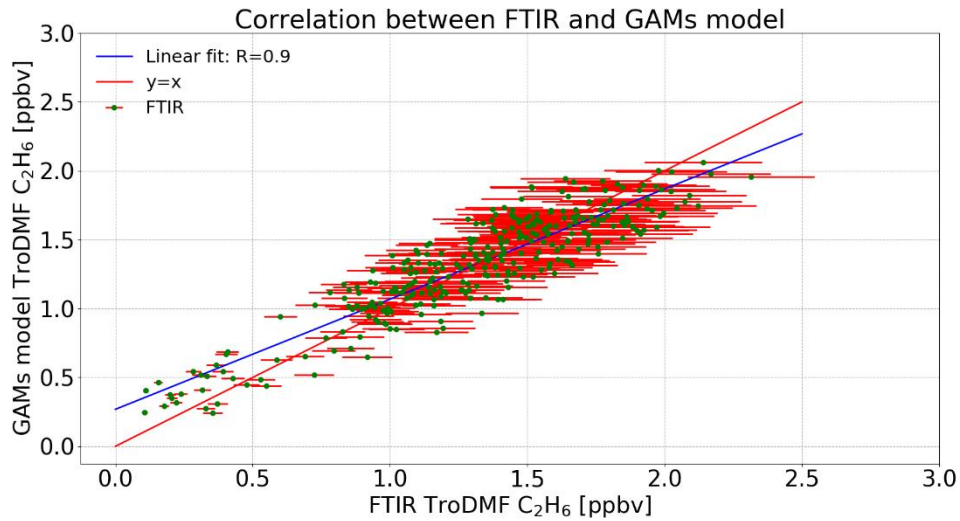
(a)



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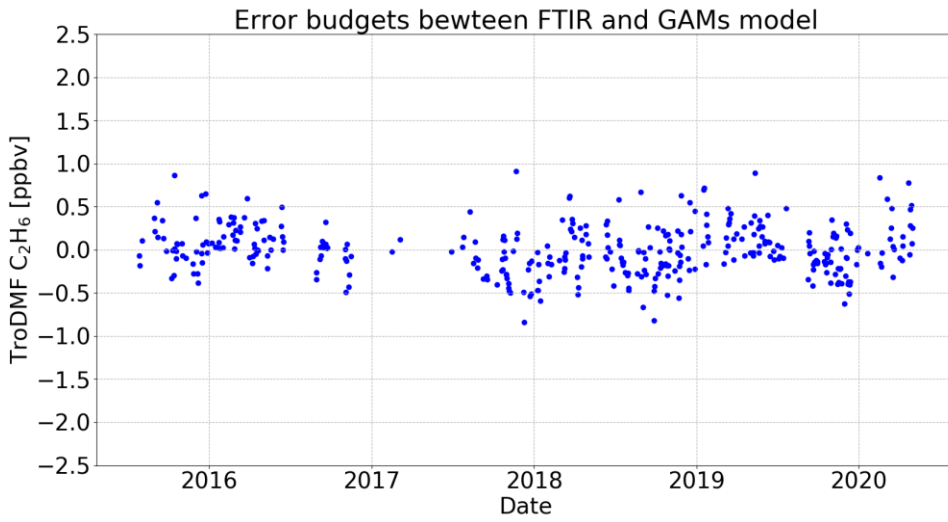
(b)

5 **Fig. S2.** (a) Correlation plots for the GEOS-Chem-to-FTIR data pairs from 2015 to 2020 over Hefei. (b) Time  
6 series of daily averaged differences between GEOS-Chem and FTIR (GEOS-Chem – FTIR).



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(a)



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(b)

5 **Fig. S3.** (a) Correlation plots for the GAMs-to-FTIR data pairs from 2015 to 2020 over Hefei. (b) Time series of  
6 daily averaged differences between GAMs and FTIR (GAMs - FTIR).