# The variations of VOCs based on the policy change of Omicron in polluted winter in traffic-hub city, China

Bowen Zhang[1, 3], Dong Zhang[2, 3], Zhe Dong[2, 3], Xinshuai Song[1, 3], Ruiqin Zhang[1, 3], Xiao Li[1, 3,*]

[1]School of Ecology and Environment, Zhengzhou University, Zhengzhou 450001, China

[2]College of Chemistry, Zhengzhou University, Zhengzhou 450001, China

[3]Institute of Environmental Sciences, Zhengzhou University, Zhengzhou 450001, China

**Fig. S1. Trend of Omicron infection in China from 9 Dec. 2022 to 1 Jan. 2023**

**Fig. S2. $Q_{true}/Q_{exp}$, $Q_{Robust}/Q_{exp}$ for different quantitative factors**

**Table S1 Top 10 VOC species of SOAFP in Case 1**

**Table S2 Top 10 VOC species of SOAFP in Case 3**

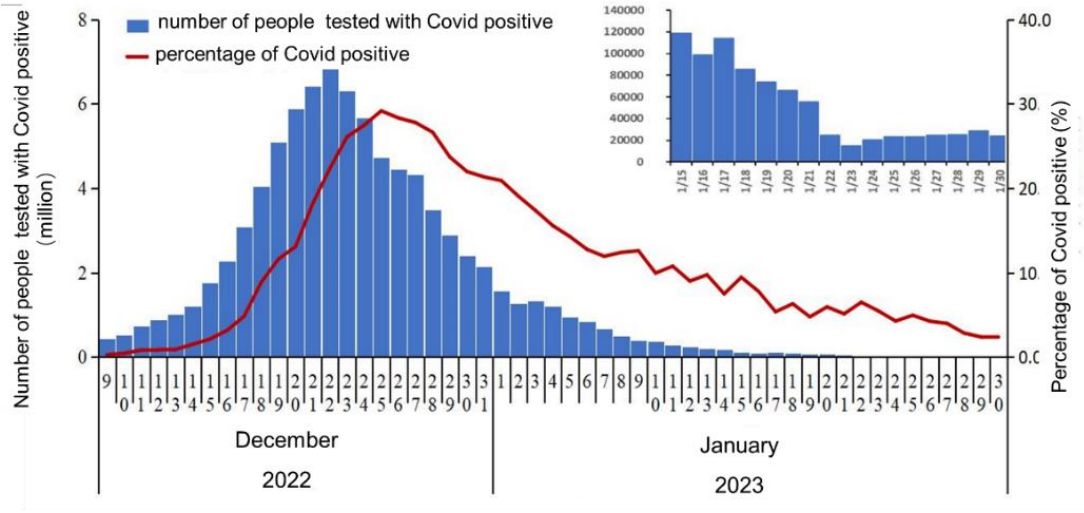


**Fig. S1 Trend of Omicron infection in China from 9 Dec. 2022 to 1 Jan. 2023 (CCDCP, 2023)**

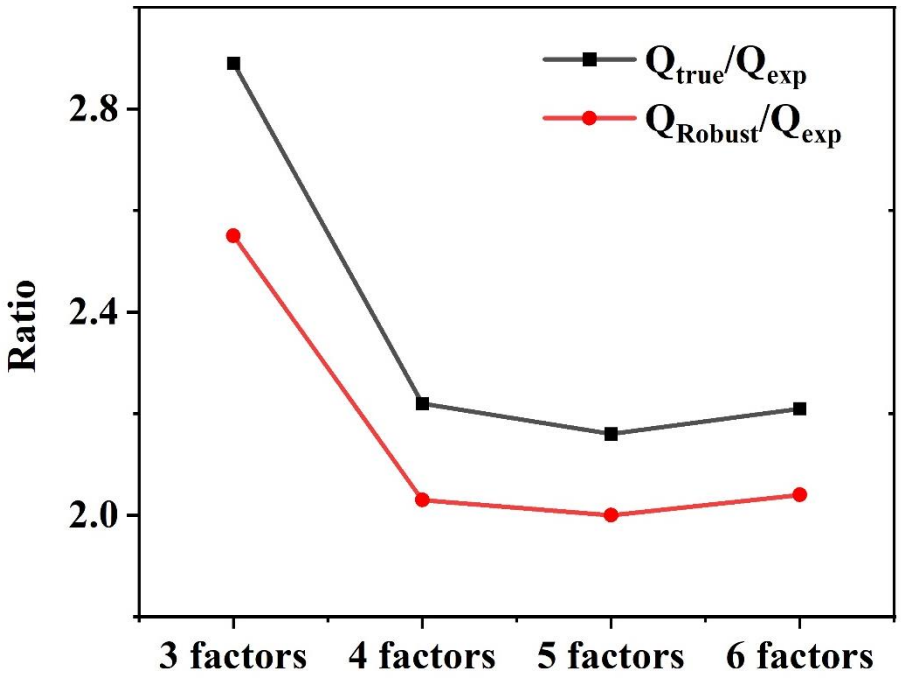


**Fig. S2. $Q_{true}/Q_{exp}$, $Q_{Robust}/Q_{exp}$ for different quantitative factors**

**Table S1 Top 10 VOC species of SOAFP in Case 1**

| Material | SOAFP/μg/m$^3$ | percentage of measured VOCs /% |
|---|---|---|
| toluene | 34.6 | 51.7 |
| m/p-Xylene | 9.8 | 14.6 |
| benzene | 8.5 | 12.7 |
| o-xylene | 4.3 | 6.4 |
| ethylbenzene | 4.3 | 6.4 |
| m-Ethyltoluene | 1.4 | 2.1 |
| 1,2,4-Trimethylbenzene | 1.1 | 1.6 |
| 1,3,5-Trimethylbenzene | 0.7 | 1.0 |
| o-Ethyltoluene | 0.5 | 0.7 |
| 1,2,3-Trimethylbenzene | 0.5 | 0.7 |
| The total of top 10 species | 65.7 | 97.9 |

**Table S2 Top 10 VOC specie of SOAFP in Case 3**

| Material | SOAFP/μg/m$^3$ | percentage of measured VOCs /% |
|---|---|---|
| toluene | 49.4 | 45.2 |
| m/p-Xylene | 19.4 | 17.8 |
| benzene | 13.4 | 12.3 |
| ethylbenzene | 7.5 | 6.9 |
| o-xylene | 7.5 | 6.9 |
| 1,3,5-Trimethylbenzene | 2.2 | 2.0 |
| m-Ethyltoluene | 1.9 | 1.7 |
| 1,2,4-Trimethylbenzene | 1.5 | 1.4 |
| o-Ethyltoluene | 1.2 | 1.1 |
| 1,2,3-Trimethylbenzene | 1.1 | 1.0 |
| The total of top 10 species | 105.1 | 96.3 |

## Reference

CCDCP, Chinese Center for Disease Control and Prevention https://www.chinacdc.cn/jkzt/crb/zl/szkb_11803/jszl_13141/202302/t20230201_263576.html (Accessed at 18 Nov. 2023)