

## Supplemental Materials

### Supplemental Figure



**Fig. S1** (A) The exposure chamber; (B) The exposure process

### Supplemental Table

**Table S1.** Typical quantity-size distribution of PM<sub>2.5</sub>

Sampling location	Particle size of PM <sub>2.5</sub> (nm)	15	30	70	120	200	320	500	800	1700	2400
Wujinglu Tunnel	Mass percentage of PM <sub>2.5</sub> (%)	0.01	0.26	2.37	4.64	10.19	20.02	27.37	13.75	14.63	6.76
Teda Street	Mass percentage of PM <sub>2.5</sub> (%)	0.02	0.12	0.42	1.62	5.85	13.88	18.79	23.84	20.22	15.24

### Supplemental Text

**Text S1** Calculation of the dose.

$$E = C \times B \times t$$

E: Inhalation exposure of pollutant,  $\mu\text{g}$ ;

C: The concentration of pollutant,  $\mu\text{g}/\text{m}^3$ ;

B: respiratory rate,  $\text{m}^3/\text{d}$ . For human beings, the value equals to  $10.8 \text{ m}^3/\text{d}$ ;

t: exposure time, d.