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2 **Supplementary Information**

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4 **PM_{2.5} Source Apportionment Using Organic Marker-based CMB**
5 **Modeling: Influence of Inorganic Markers and Sensitivity to Source**
6 **Profiles**

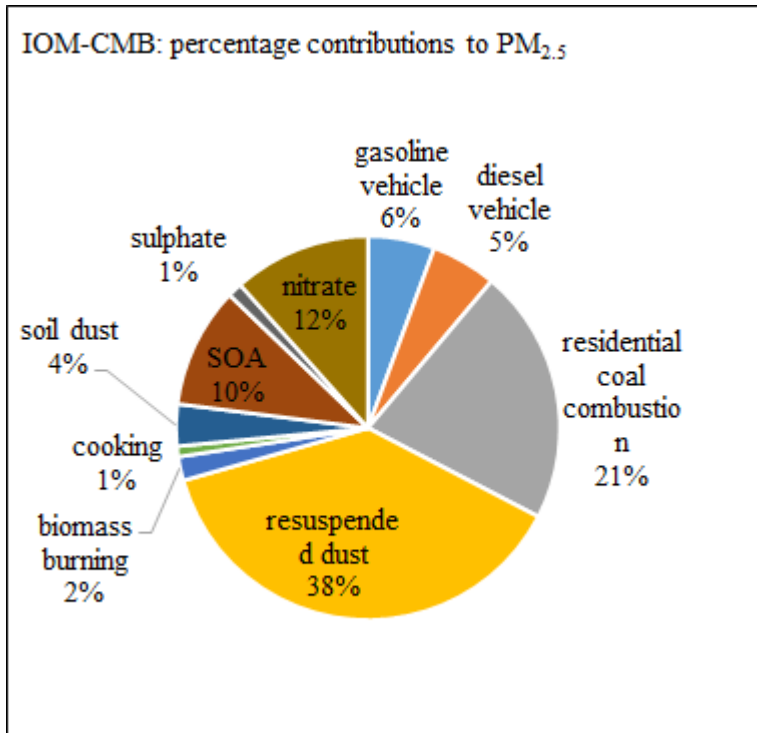
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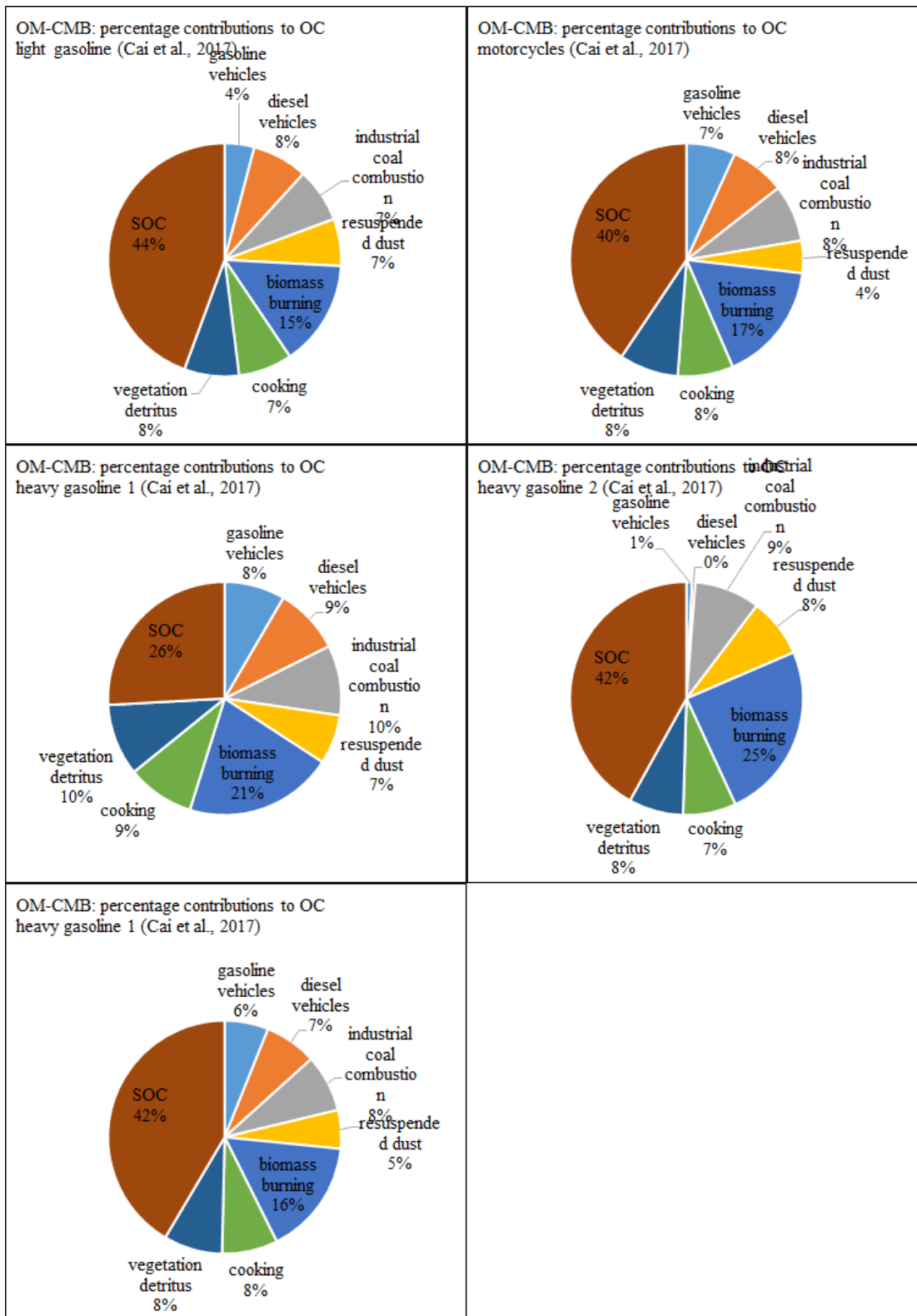
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Figure S1. The result of the IOM-CMB which used the source profile for residential coal combustion instead of industrial coal combustion.



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Figure S2. The results of the OM-CMB which used the source profiles for gasoline vehicles measured by Cai et al. (2017).

21 **Table S1.** Average source contributions ($\mu\text{g m}^{-3}$) to OC and $\text{PM}_{2.5}$ estimated by the OM-CMB, and
 22 the conversion ratios from OC to $\text{PM}_{2.5}$.
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| | OC | OC/ $\text{PM}_{2.5}$ | | $\text{PM}_{2.5}$ |
|----------------------------|-----|-----------------------|----------------------------|-------------------|
| gasoline vehicles | 1.1 | 0.30 | gasoline vehicles | 3.6 |
| diesel vehicles | 1.3 | 0.15 | diesel vehicles | 9.0 |
| industrial coal combustion | 1.2 | 0.09 | industrial coal combustion | 13.3 |
| resuspended dust | 1.1 | 0.11 | resuspended dust | 10.4 |
| biomass burning | 2.3 | 0.49 | biomass burning | 4.8 |
| cooking | 0.8 | 0.34 | cooking | 2.2 |
| vegetation detritus | 1.0 | 0.32 | vegetation detritus | 3.1 |
| SOC | 4.6 | 0.56 | SOA | 8.2 |
| | | | sulphate | 8.6 |
| | | | nitrate | 17.4 |

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