Supporting information

Chemical Transformation of Methanesulfonic Acid and Sodium Methanesulfonate through Heterogeneous OH Oxidation

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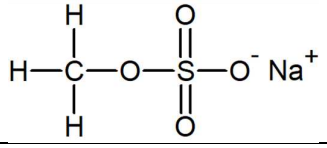
Table S1. Chemical structure of sodium methyl sulfate

Chemical	Sodium Methyl Sulfate
Structural formula	
Molecular formula	CH_3SO_4Na
Molecular weight (g mol^{-1})	134.0867

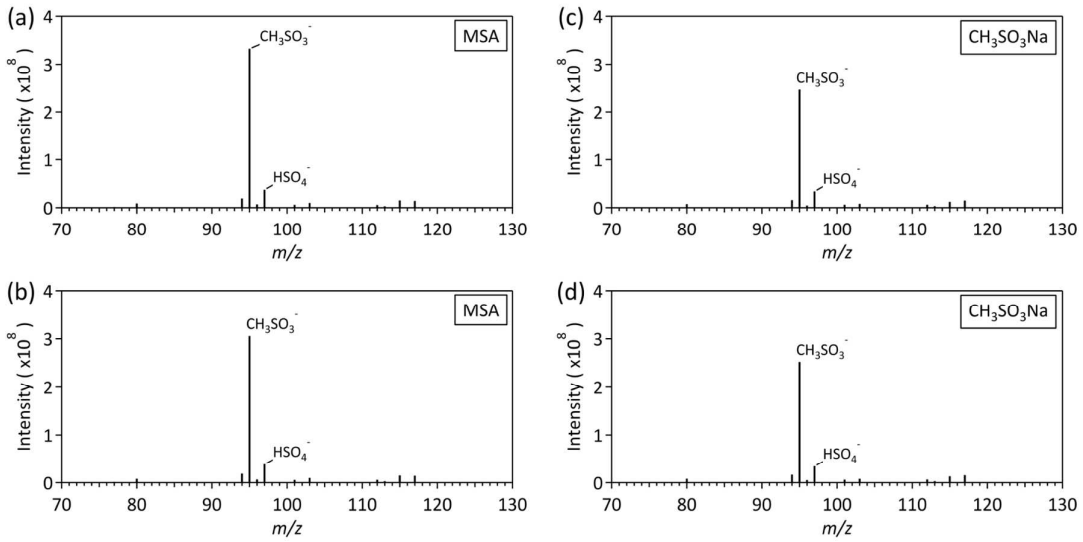


Figure S1. DART-aerosol mass spectra of MSA (left panel): (a) presence of UV light and absence of ozone; (b) absence of UV light and presence of ozone; and CH_3SO_3Na (right panel): (c) presence of UV light and absence of ozone; (d) absence of UV light and presence of ozone.

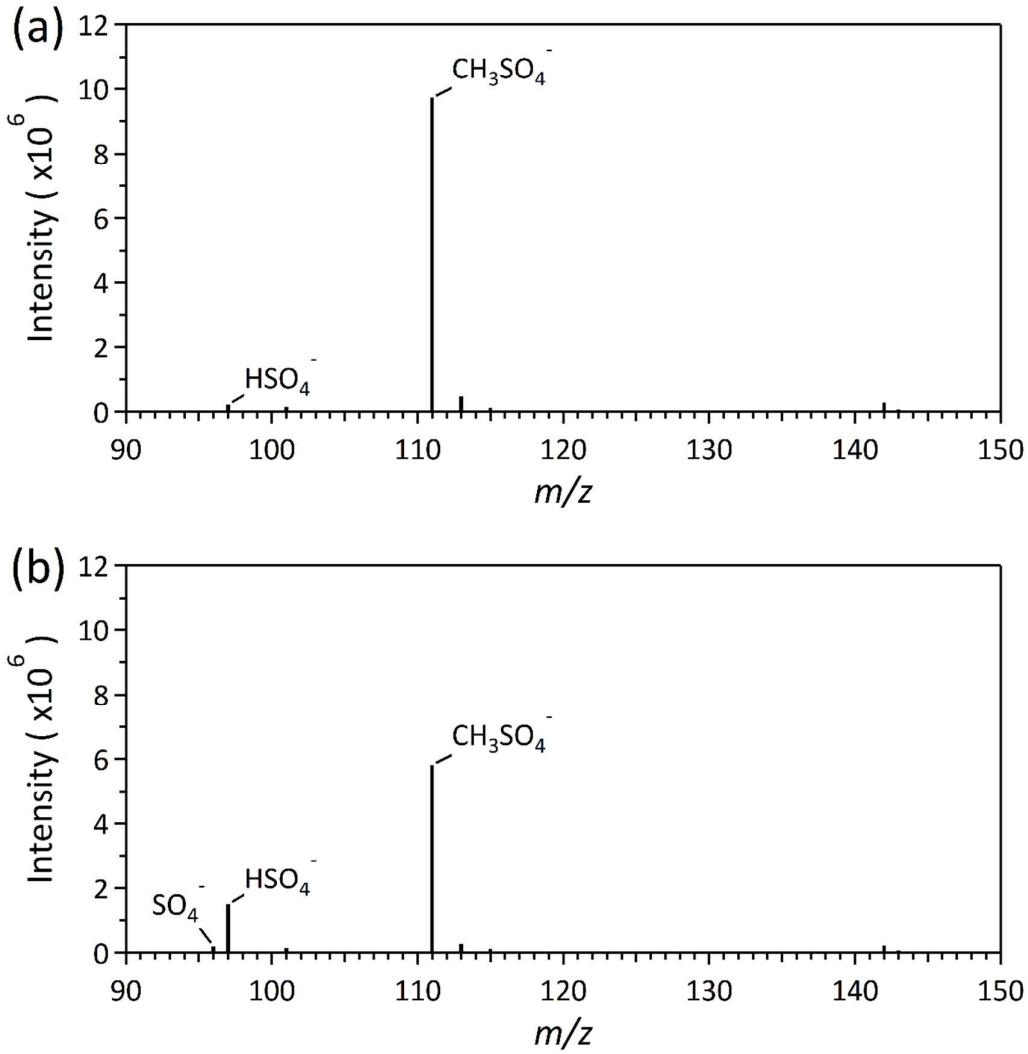
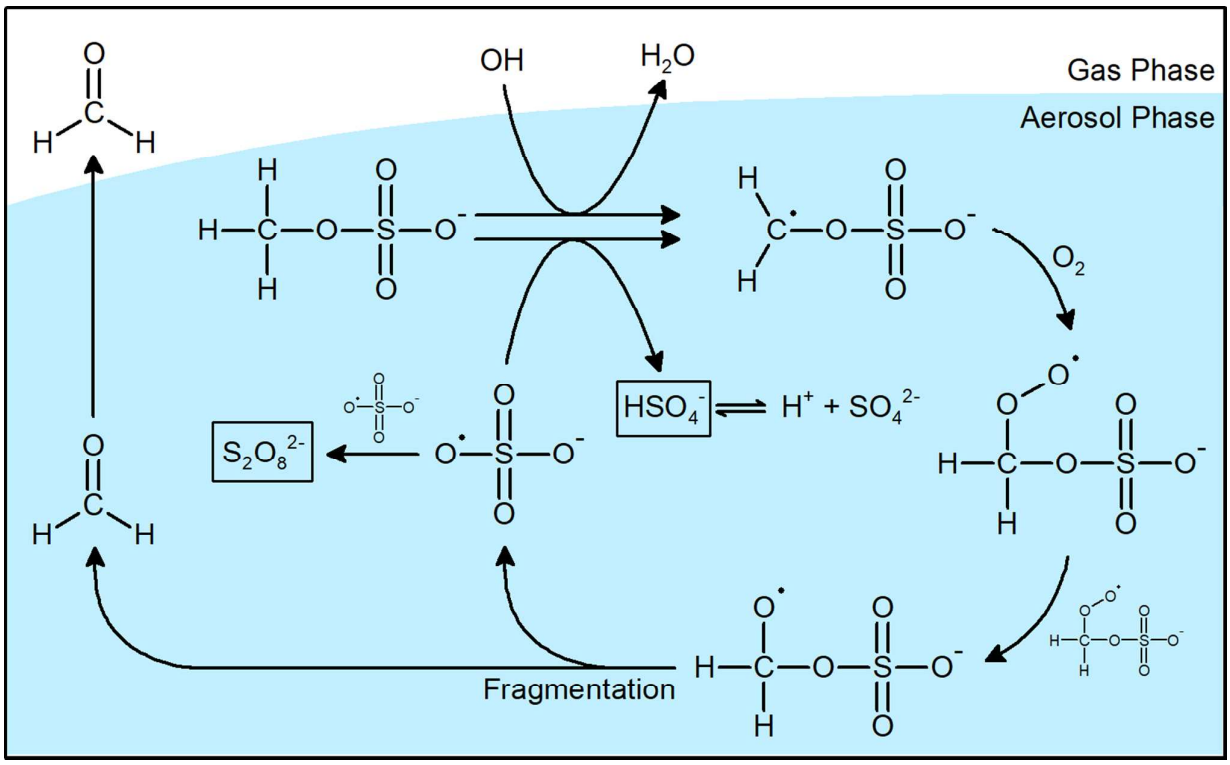


Figure S2. DART-Aerosol mass spectra of sodium methyl sulfate before (a) and after (b) oxidation (reproduced from *Kwong et al.,2018*).



Scheme S1. Proposed reaction mechanism for heterogeneous OH oxidation of sodium methyl sulfate.

Reference

Kwong, K. C.; Chim, M. M.; Davies, J. F.; Wilson, K. R.; Chan, M. N. Importance of Sulfate Radical Anion Formation and Chemistry in Heterogeneous OH Oxidation of Sodium Methyl Sulfate, the Smallest Organosulfate. *Atmos. Chem. Phys.*, **2018**, 18, 2809−2820.