

# Environmental Science: Atmospheres

rsc.li/esatmospheres

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

## IN THIS ISSUE

ISSN 2634-3606 CODEN ESANC9 4(11) 1197–1324 (2024)



### Cover

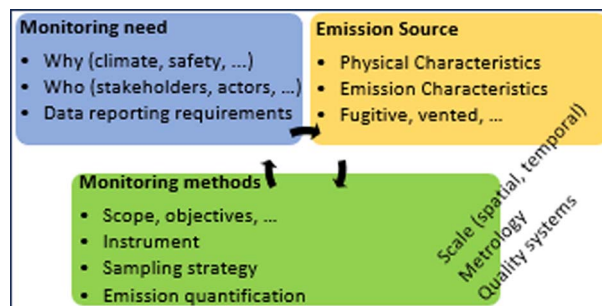
See Sabine Lühtrath et al.,  
pp. 1218–1228.  
Image reproduced by  
permission of Sabine  
Lühtrath from *Environ. Sci.:  
Atmos.*, 2024, 4, 1218.

## PERSPECTIVE

1203

### A framework for describing and classifying methane reporting requirements, emission sources, and monitoring methods

Andy Connor,\* Jacob T. Shaw, Nigel Yarrow, Neil Howes, Jon Helmore, Andrew Finlayson, Patrick Barker and Rod Robinson

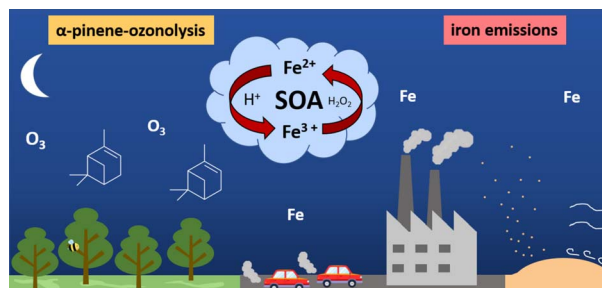


## PAPERS

1218

### Impact of atmospheric water-soluble iron on $\alpha$ -pinene-derived SOA formation and transformation in the presence of aqueous droplets

Sabine Lühtrath,\* Sven Klemer, Clément Dubois, Christian George and Andreas Held



# Advance your career in science

with professional recognition that showcases  
your **experience, expertise and dedication**

## Stand out from the crowd

Prove your commitment  
to attaining excellence in  
your field

## Gain the recognition you deserve

Achieve a professional  
qualification that inspires  
confidence and trust

## Unlock your career potential

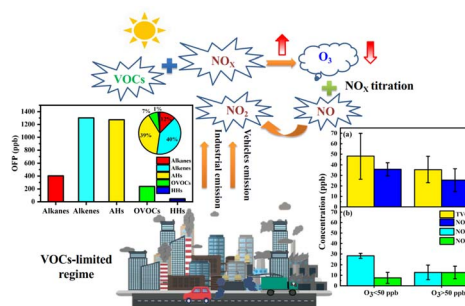
Apply for our professional  
registers (RSci, RSciTech)  
or chartered status  
(CChem, CSci, CEnv)

## Apply now

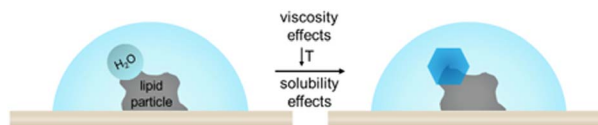
[rsc.li/professional-development](https://rsc.li/professional-development)



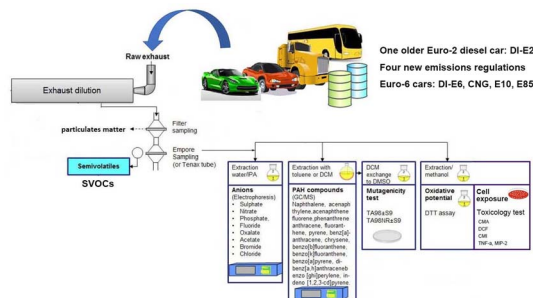
## Taicheng An,\* Jiajia Li, Qin hao Lin and Guiying Li



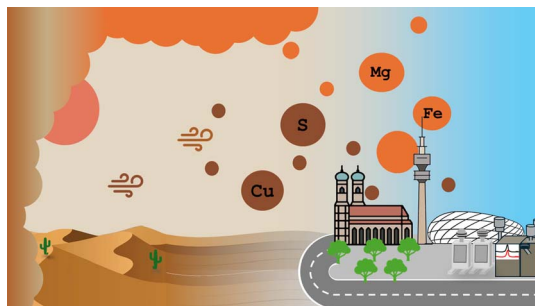
Lincoln Mehndiratta, Audrey E. Lyp, Jonathan H. Slade\*  
and Vicki H. Grassian\*



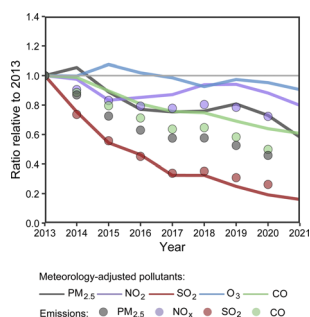
Mo Yang,\* Päivi Aakko-Saksa, Henri Hakkarainen,  
Topi Rönkkö, Päivi Koponen, Xiao-Wen Zeng,  
Guang-Hui Dong and Pasi I. Jalava



Sara Padoan,\* Alessandro Zappi, Jan Bendl,  
Tanja Herrmann, Ajit Mudan, Carsten Neukirchen,  
Erika Brattich, Laura Tositti and Thomas Adam\*



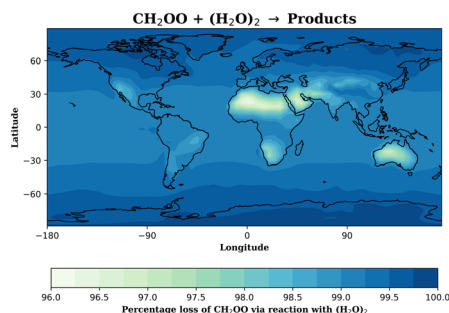
1283



### Evaluating emissions and meteorological contributions to air quality trends in northern China based on measurements at a regional background station

Weiwei Pu, Yingruo Li, Xiaowan Zhu, Xiangxue Liu, Di He, Fan Dong, Heng Guo, Guijie Zhao, Liyan Zhou, Shuangshuang Ge and Zhiqiang Ma\*

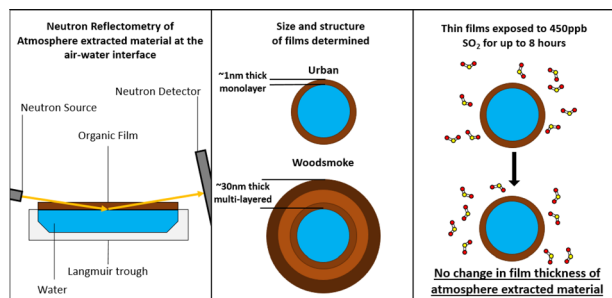
1294



### Kinetics of the reactions of the Criegee intermediate CH<sub>2</sub>OO with water vapour: experimental measurements as a function of temperature and global atmospheric modelling

Rachel E. Lade, Mark A. Blitz, Matthew Rowlinson, Mathew J. Evans, Paul W. Seakins and Daniel Stone\*

1309



### Does gas-phase sulfur dioxide remove films of atmosphere-extracted organic material from the aqueous aerosol air–water interface?

Edward J. Stuckey, Rebecca J. L. Welbourn, Stephanie H. Jones, Alexander J. Armstrong, Matthew Wilkinson, James I. L. Morison and Martin D. King\*

