

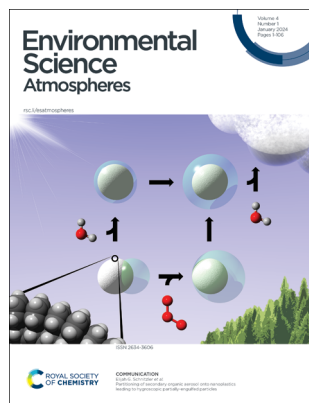
Environmental Science: Atmospheres

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(1) 1–106 (2024)



Cover
See Elijah G. Schnitzler *et al.*, pp. 9–17. Image reproduced by permission of Elijah G. Schnitzler from *Environ. Sci.: Atmos.*, 2024, 4, 9.



Inside cover
See Max R. McGillen *et al.*, pp. 18–34. Image reproduced by permission of Max R. McGillen from *Environ. Sci.: Atmos.*, 2024, 4, 18.

EDITORIAL

7

Environmental Science: Atmospheres is four and so much more

Neil M. Donahue

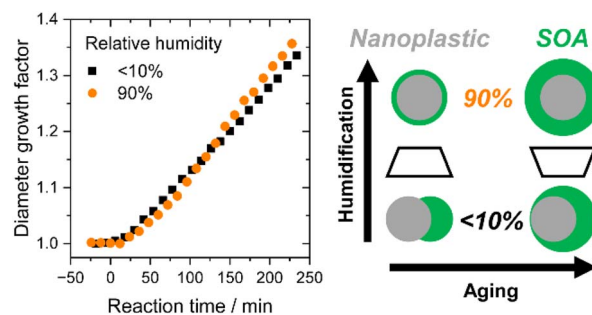


COMMUNICATION

9

Partitioning of secondary organic aerosol onto nanoplastics leading to hygroscopic partially-engulfed particles

Katrina L. Raincrow, Habeeb H. Al-Mashala and Elijah G. Schnitzler*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training

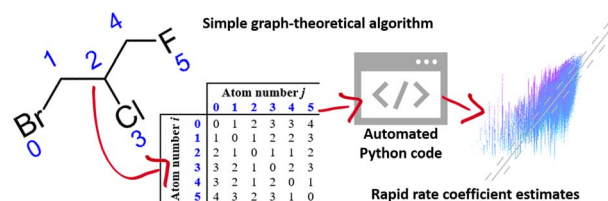


**SAVE
10%**

18

The use of the electrotopological state as a basis for predicting hydrogen abstraction rate coefficients: a proof of principle for the reactions of alkanes and haloalkanes with OH

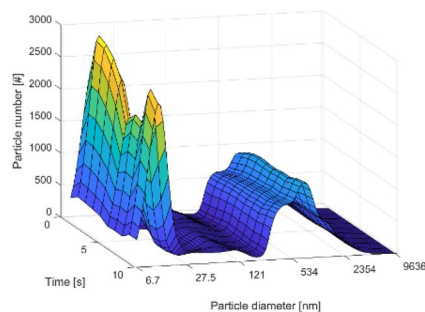
Max R. McGillen,* Lisa Michelat, John J. Orlando and William P. L. Carter



35

Ultrafine particle emissions from dry clutches: number concentration, size distribution and chemical composition

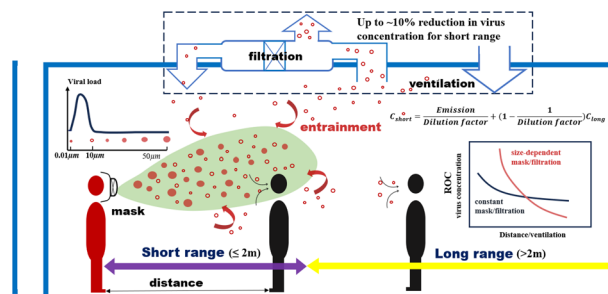
Rikard Hjelm,* Yezhe Lyu, Alessandro Mancini, Bozhena Tsyupa, Minghui Tu, Ulf Olofsson and Jens Wahlström



43

Size dependent effectiveness of engineering and administrative control strategies for both short- and long-range airborne transmission control

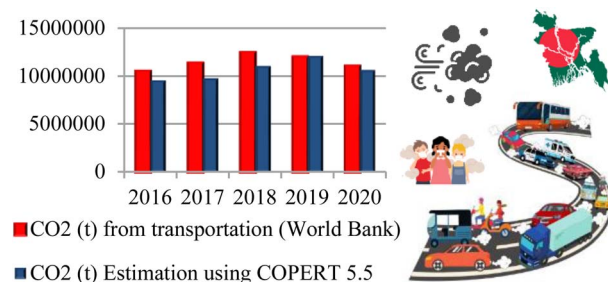
Xiaowei Lyu, Zhiwen Luo* and Li Shao



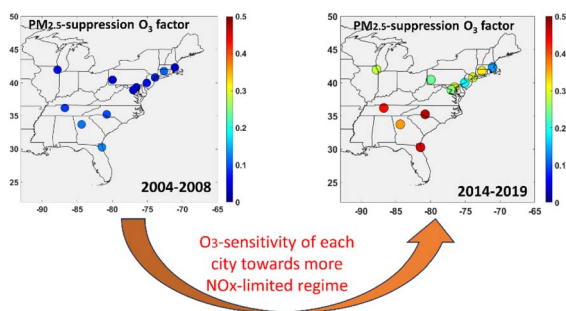
57

Investigating the applicability of COPERT 5.5 emission software in Bangladesh and developing countrywide vehicular emission inventories

Sakie Kawsar,* Sourav Biswas, Muntasir Noor and Md. Shahid Mamun



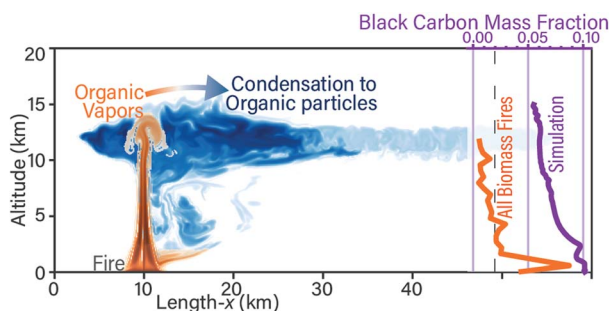
73



Enhanced summertime PM_{2.5}-suppression of O₃ formation over the Eastern U.S. following the O₃-sensitivity variations

Jie Zhang,* Junfeng Wang, Alexandra Catena, Margaret J. Schwab, Matthew Ninneman, Dirk Felton and James Schwab*

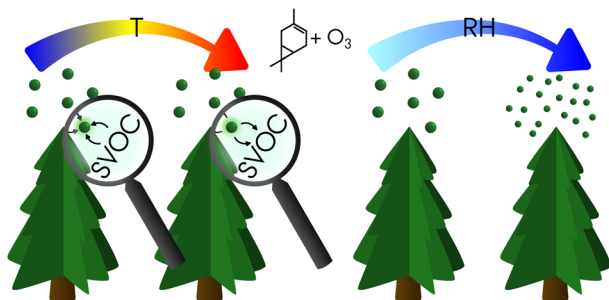
80



Insights into Pyrocumulus aerosol composition: black carbon content and organic vapor condensation

Kyle Gorkowski,* Eunmo Koo, Spencer Jordan, Jon Reisner, Katherine B. Benedict and Manvendra Dubey

88



The effect of temperature and relative humidity on secondary organic aerosol formation from ozonolysis of Δ^3 -carene

Ditte Thomsen, Emil Mark Iversen, Jane Tygesen Skønager, Yuanyuan Luo, Linjie Li, Pontus Roldin, Michael Priestley, Henrik B. Pedersen, Mattias Hallquist, Mikael Ehn, Merete Bilde* and Marianne Glasius*

