

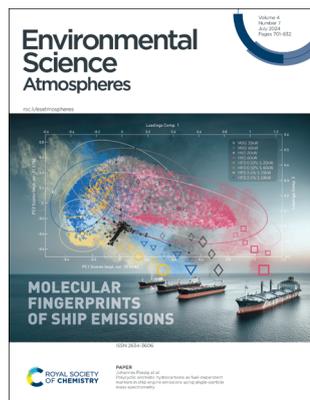
Environmental Science: Atmospheres

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(7) 701–832 (2024)



Cover
See Johannes Passig *et al.*, pp. 708–717. Image reproduced by permission of Johannes Passig, Photonion GmbH from *Environ. Sci.: Atmos.*, 2024, 4, 708.

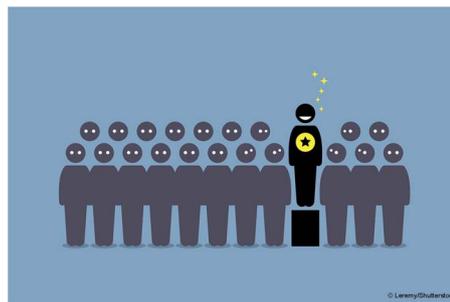


Inside cover
See Hendryk Czech *et al.*, pp. 718–731. Image reproduced by permission of Anika Neuman from *Environ. Sci.: Atmos.*, 2024, 4, 718.

EDITORIAL

707

Outstanding Reviewers for *Environmental Science: Atmospheres* in 2023

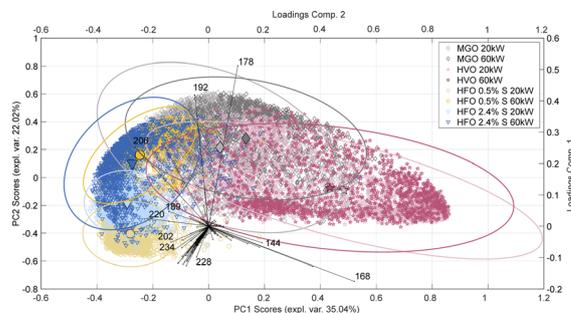


PAPERS

708

Polycyclic aromatic hydrocarbons as fuel-dependent markers in ship engine emissions using single-particle mass spectrometry

Lukas Anders, Julian Schade, Ellen Iva Rosewig, Marco Schmidt, Robert Irsig, Seongho Jeong, Uwe Käfer, Thomas Gröger, Jan Bendl, Mohammad Reza Saraji-Bozorgzad, Thomas Adam, Uwe Etzien, Hendryk Czech, Bert Buchholz, Thorsten Streibel, Johannes Passig* and Ralf Zimmermann



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

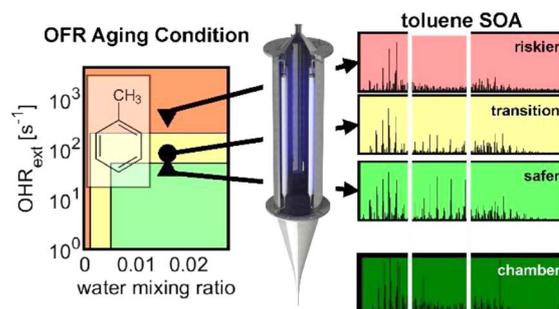


**SAVE
10%**

718

The effect of aging conditions at equal OH exposure in an oxidation flow reactor on the composition of toluene-derived secondary organic aerosols

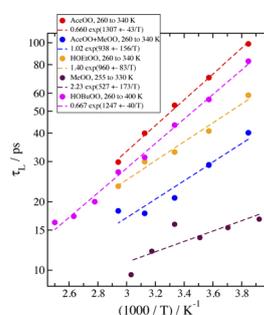
Hendryk Czech,* Pasi Yli-Pirilä, Petri Tiitta, Mika Ihalainen, Anni Hartikainen, Eric Schneider, Patrick Martens, Andreas Paul, Thorsten Hohaus, Christopher P. Rüger, Jorma Jokiniemi, Ralf Zimmermann and Olli Sippula



732

Lifetimes of pre-reactive complexes of peroxy radicals revisited: thermostat effects, temperature dependence and highly oxygenated molecules

Christopher David Daub,* Robert Skog and Theo Kurtén



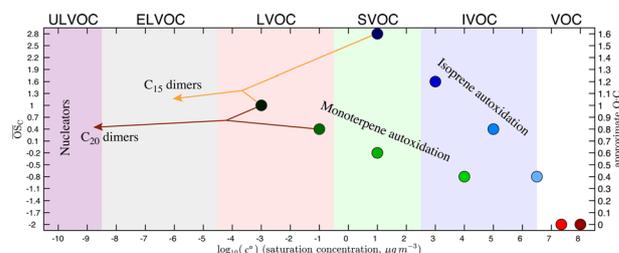
Pre-reactive complex lifetime \propto reactivity +

Matches experimental T dependence!

740

Interactions of peroxy radicals from monoterpene and isoprene oxidation simulated in the radical volatility basis set

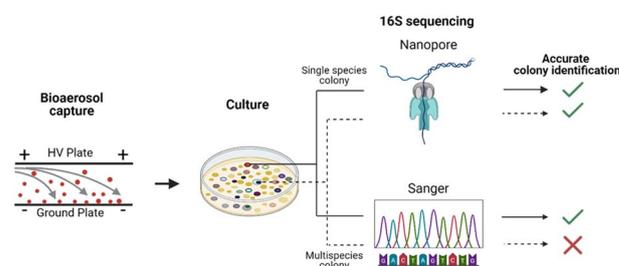
Meredith Schervish, Martin Heinritzi, Dominik Stolzenburg, Lubna Dada, Mingyi Wang, Qing Ye, Victoria Hofbauer, Jenna DeVivo, Federico Bianchi, Sophia Brilke, Jonathan Duplissy, Imad El Haddad, Henning Finkenzeller, Xu-Cheng He, Aleksander Kvashnin, Changhyuk Kim, Jasper Kirkby, Markku Kulmala, Katrianne Lehtipalo, Brandon Lopez, Vladimir Makhmutov, Bernhard Mentler, Ugo Molteni, Wei Nie, Tuuka Petäjä, Lauriane Quéléver, Rainer Volkamer, Andrea C. Wagner, Paul Winkler, Chao Yan and Neil M. Donahue*



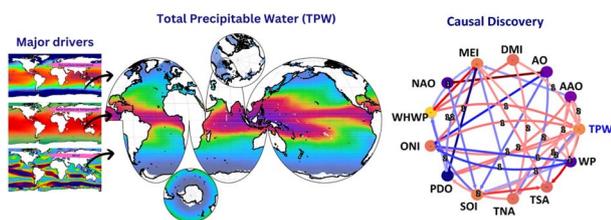
754

Application of nanopore sequencing for accurate identification of bioaerosol-derived bacterial colonies

Austin Marshall, Daniel T. Fuller, Paul Dougall, Kavindra Kumaragama, Suresh Dhaniyala and Shantanu Sur*



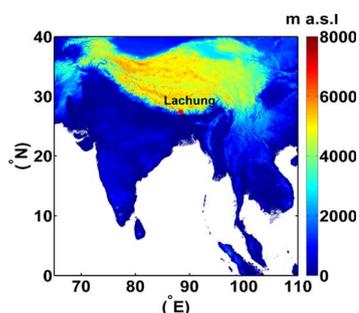
767



Quantifying the drivers and heterogeneity of global total precipitable water

S. Maishal*

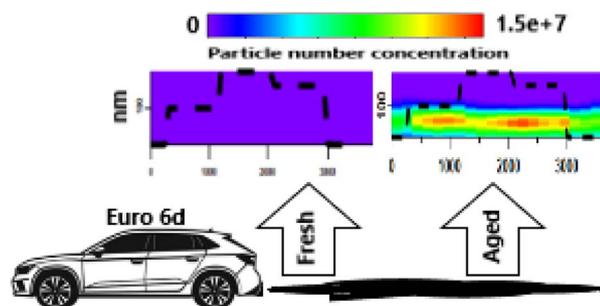
782



Enhanced light absorption by ambient brown carbon aerosols in the eastern Himalayas

B. S. Arun, Mukunda M. Gogoi,* Dhananjay Kumar Deshmukh, Prashant Hegde, Suresh Kumar Reddy Boreddy, Arup Borgohain and S. Suresh Babu

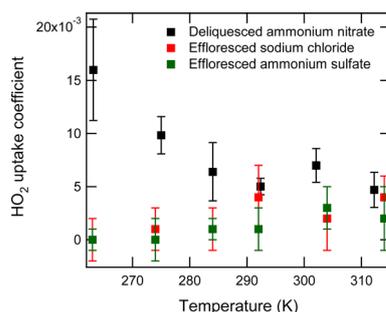
802



Formation of secondary aerosol from emissions of a Euro 6d-compliant gasoline vehicle with a particle filter

Andreas Paul,* Zheng Fang, Patrick Martens, Arya Mukherjee, Gert Jakobi, Mika Ihalainen, Miika Kortelainen, Markus Somero, Pasi Yli-Pirilä, Thorsten Hohaus,* Hendryk Czech, Markus Kalberer, Olli Sippula, Yinon Rudich, Ralf Zimmermann and Astrid Kiendler-Scharr

813



Towards a better understanding of the HO₂ uptake coefficient to aerosol particles measured during laboratory experiments

P. S. J. Lakey, T. Berkemeier, M. T. Baeza-Romero, U. Pöschl, M. Shiraiwa and D. E. Heard*

