

Atmos. Chem. Phys. Discuss., author comment AC12  
<https://doi.org/10.5194/acp-2020-1266-AC12>, 2021  
 © Author(s) 2021. This work is distributed under  
 the Creative Commons Attribution 4.0 License.



## Reply on CC8

Paul S. Monks et al.

---

Author comment on "Opinion: Papers that shaped tropospheric chemistry" by Paul S. Monks et al., Atmos. Chem. Phys. Discuss.,  
<https://doi.org/10.5194/acp-2020-1266-AC12>, 2021

---

Thank you for the comments, in respect of

### 1. Measurement techniques

1. The ECD detector (Lovelock), which enabled the detection of halocarbons	Reference to the Lovelock work on ECD added to VOC section
2. PTR-MS – already mentioned in 2.12 in the VOC context	PTR-MS discussed in section 2.12
3. OH measurements – LIF etc.	References and discussion added, on instrumentation and OH measurement
4. The chemiluminescence technique for NO and NO <sub>x</sub>	Reference to original work from Kley and McFadden added
5. Dobson method for O <sub>3</sub> (admittedly stratospheric)	Added full historical context of stratospheric ozone
6. Satellite retrievals – satellite global mapping of composition has been a real revolution.	The section on satellite measurements reflects this.

2. Greenhouse and climate-relevant gases (and aerosols) - The long-term measurements of GHG and other climate relevant gases was missing. A small section highlighting some of the main measurement networks has been added, plus additional information on the value of long-term measurements.