

A second review of “Australian Bushfire Emissions Result in Enhanced Polar Stratospheric Ice Clouds” by S. Prasanth et al.

< General Comments >

I felt that the authors have made a great effort to revise the manuscript. The quality of the paper has improved a lot after the revision, and the authors answered most comments which the reviewers raised. I think the paper is almost ready to be accepted, after some technical points, which are shown below, are corrected.

< Specific Comments >

- 1) P.3, L.66: In the title of Section 2, “Polar stratospheric clouds” should be “polar stratospheric clouds” (lowercase).
- 2) P.3, L.70: making up 3-15%: this number doesn’t match the previous 20-100 tons per day.
- 3) P.4, L.106: Hoyle et al. 2013 → Hoyle et al. (2013)
- 4) P.4, L.115: lidar on board, the HALO → lidar on board the HALO
- 5) P.6, L.184: After the title: (i) Selection of ice and liquid-NAT mixture PSCs, insert a new line.
- 6) P.6, L.195; measured between 12:56 → measured between 12:55 ?
- 7) P.7, L.229: by Hanson and Mauersberger (1988) → by Marti and Mauersberger (1993)
- 8) P.10, L.291: discussed in Sect. 3.3 → discussed in Sect. 4.3
- 9) P.13, L.361: discussed in Sect. 3.2 → discussed in Sect. 4.2
- 10) P.14, L.377: from the Black Summer → from the black summer
- 11) P.14, L.381: (Figure 7 caption) PSC monthly mean areal → PSC areal
- 12) P.14, L.385: methodology Sect. 2.3 → methodology Sect. 3.3
- 13) P.14, L.388: Peak positive anomaly of up to 4×10^6 → Peak positive anomaly of up to 6×10^6
- 14) P.15, L.398: Fig. 7 (e and f)) → Fig. 7 (e and f))

15) P.15, L.416: case no.5 and 6 respectively → case no.5 and 6, respectively

16) P.25, L.621: by (Luo et al., (2003) → by Luo et al. (2003)

17) P.35, L.828: 13.86 % → 14%

18) P.35, L.829: 38.02 % → 38%

19) P.35, L.831: 43.42 % → 43%

20) P.35, L.832: 4.69 % → 5%

21) P.35, L.840-844: Delete all the references here.

22) P.36: L.853: liquid-NAT mixture pathways → liquid-NAT mixture PSCs

23) P.36, L.872: 13.86 % → 14%

24) P.36, L.873: 38.02 % → 38%

25) P.36, L.875: 43.42 % → 43%

26) P.36, L.877: 4.69 % → 5%

27) P.37, L.905: and Dr. Dr. Farahnaz → and Dr. Farahnaz