

Atmos. Chem. Phys. Discuss., referee comment RC2  
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## **Comment on acp-2022-280**

Anonymous Referee #2

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Referee comment on "Collective geographical ecoregions and precursor sources driving Arctic new particle formation" by James Brean et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2022-280-RC2>, 2022

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The manuscript provides some useful scientific contribution associated with new particle formation (NPF) in the Arctic. It is a similar idea like the paper from Sellegri et. al., 2019 [Atmosphere 2019, 10, 493; doi:10.3390/atmos10090493] for different high mountain research stations. This paper was not cited. a reference to this paper would have been very helpful here and also a short introduction of the theory to explain the key processes. This is totally missing. The manuscript concentrates too much on statistics and source area and the information on the specific aspects for the different locations are more or less missing. This is much better explained by the Sellegri paper. Some changes in the structure and presentation would be nice. The following questions/concerns should be satisfactorily addressed prior to final publication, see specific comments....

Please also note the supplement to this comment:

<https://acp.copernicus.org/preprints/acp-2022-280/acp-2022-280-RC2-supplement.pdf>