

Dear Masashi Niwano,

Thank you for your positive feedback and constructive guidance. We sincerely appreciate the thorough review process and are pleased to hear that our revisions have addressed the referees' concerns.

Regarding your editorial comment about the Greenland dust comparison (P.21, L.19), we will add the following reference to support this statement:

Polashenski, C. M., Dibb, J. E., Flanner, M. G., Chen, J. Y., Courville, Z. R., Lai, A. M., Schauer, J. J., Shafer, M. M., and Bergin, M.: Neither dust nor black carbon causing apparent albedo decline in Greenland's dry snow zone: Implications for MODIS C5 surface reflectance, *Geophys Res Lett*, 42, 9319-9327, <https://doi.org/10.1002/2015gl065912>, 2015.

This reference provides detailed characterization of Greenland dust properties, including the MAC values and hematite content we referenced. We will incorporate this citation in the final version.

Please let us know if any additional modifications would be helpful. We greatly appreciate your editorial oversight and the reviewers' insights that have strengthened our paper. Best regards,

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Tenglong Shi and co-authors