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Interactive Comment

Interactive comment on "Boundary layer physics over snow and ice" by P. S. Anderson and W. D. Neff

Anonymous Referee #1

Received and published: 18 July 2007

This review paper presents a concise summary of atmospheric boundary properties over snow and ice that will be useful for those conducting and analyzing atmospheric chemistry experiments in these environments. The emphasis is clearly on experimental concerns, although the article includes brief descriptions of relevant underlying theory. Numerous references are given, allowing interested readers the opportunity to quickly obtain further information on specific topics.

The article would benefit from the inclusion of references on "drifting or blowing snow" and "wave and wind pumping", topics mentioned in section 3.2.3 but without any details. The following references would be appropriate:

Albert, M.R., A.M. Grannas, J. Bottenheim, P. Shepson, 2002. Processes and Prop-

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Interactive Discussion

Discussion Paper

EGU

erties of Snow-Air Transfer in the High Arctic With Application to Interstitial Ozone at Alert, Canada. Atmospheric Environment (36) 2779-2787.

Bowling LC, Pomeroy JW, Lettenmaier DP, 2004: Parameterization of blowing-snow sublimation in a macroscale hydrology model. JOURNAL OF HYDROMETEOROLOGY 5 (5): 745-762 OCT 2004

Pomeroy JW, Essery RLH, 1999: Turbulent fluxes during blowing snow: field tests of model sublimation predictions. HYDROLOGICAL PROCESSES 13 (18): 2963-2975 DEC 30 1999

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 7625, 2007.

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