Atmos. Chem. Phys. Discuss., 8, S2195–S2196, 2008
www.atmos-chem-phys-discuss.net/8/S2195/2008/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Multiphase modeling of nitrate photochemistry in the quasi-liquid layer (QLL): implications for NO_x release from the Arctic and coastal Antarctic snowpack" *by* C. S. Boxe and A. Saiz-Lopez

C. Christopher Boxe

Christopher.Boxe@jpl.nasa.gov

Received and published: 30 April 2008

Author Response to Editor V. Faye McNeill’s comments on “Multiphase Modeling of nitrate photochemistry in the quasi-liquid layer (QLL): implications for NOx release from the Arctic and coastal Antarctic snowpack,” by C. S. Boxe and A. Saiz-Lopez.

C. S. Boxe and A. Saiz-Lopez

1. We are most certainly thankful for Editor V. Faye McNiell’s comments on our

paper since they are very constructive (as the previous comments have also been thus far).

2. Chemistry of QLL vs. liquid water, page 6012, line 28: (i) As suggested by V. Faye McNeill, select literature will be included in the revised version of the manuscript that measure physical parameters that better illustrate some of the factors that contribute to the ‘nature’ of the QLL. (ii) A short section contextualizing our findings within the context of our model parameterizations will also be included.

3. Representation of QLL volume: As suggested by V. Faye McNeill, a short section will be included (likely synthesized with the discussion that will be included as stated in “2” above) to contextualize our model parameterization with respect to available model and laboratory.

4. Trace gas-induced disordering of ice, page 6103, line 6: As it is appropriate, short discussion will be included in this section to discuss trace gas-induced QLL formation.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 6009, 2008.

ACPD

8, S2195–S2196, 2008

Interactive Comment