Atmos. Chem. Phys. Discuss., 12, C13760–C13761, 2013 www.atmos-chem-phys-discuss.net/12/C13760/2013/ © Author(s) 2013. This work is distributed under the Creative Commons Attribute 3.0 License.



## *Interactive comment on* "Relationship between snow microstructure and physical and chemical processes" by T. Bartels-Rausch et al.

## T. Bartels-Rausch et al.

thorsten.bartels-rausch@psi.ch

Received and published: 12 April 2013

We like to thank the two referees and the editor for their valuable feedback and wellreceived comments on "Relationship between snow microstructure and physical and chemical processes". Generally, we agree to your judgement of the manuscript and will carefully address your comments in a revised version. Indeed, I think your comments are most usefull to significantly improve the review.

In particular we have started to:

\* Include much more pictures, graphs, and figures throughout the manuscript. Improve Figure 1, by more clearly separating the true picture of ice grains from illustrations of the domains.



12, C13760–C13761, 2013

> Interactive Comment



Printer-friendly Version

Interactive Discussion

**Discussion Paper** 



\* Rewrite section 3 (physical processes) to make it more review like, similar to the way section 4 (chemistry) is written.

\* Combine description of MD simulations and of thermodynamic models of the QLL in section 2. Move discussion on liquid and brine from sections 3 and 2 to section 2. Highlight and separate the discussion ons pure ice vs. frozen solutions more clearly.

\* Overall condense, improve readability, and state vision clearer.

\* Shorten the conclusions of each sections and formulate a few short take-home messages (as we had done in section 4).

Taken the number of authors involved, I hope for you understanding that this will take a little longer. And I hope for your of this rather short reply. We will highlight in detail how we have considered your comments when we submit a revised version.

Kind regards, Thorsten Bartels-Rausch

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 30409, 2012.

## **ACPD**

12, C13760–C13761, 2013

> Interactive Comment

Full Screen / Esc

**Printer-friendly Version** 

Interactive Discussion

**Discussion Paper** 

