Atmos. Chem. Phys. Discuss., 9, C2128–C2128, 2009
www.atmos-chem-phys-discuss.net/9/C2128/2009/
© Author(s) 2009. This work is distributed under
the Creative Commons Attribute 3.0 License.

Atmospheric Chemistry and Physics Discussions

Interactive comment on "A simple model for cloud radiative forcing" *by* T. Corti and T. Peter

T. Corti

thierry.corti@env.ethz.ch

Received and published: 23 June 2009

We thank Bernd Kärcher for his comment. As pointed out by Ulrich Schumann [Atmos. Chem. Phys. Discuss., 9, C1113–C1117, 2009], our Eq. (13) can be reconciled with Twomey's expression under the assumption that the reflectivity of the cloud layer for direct and diffuse solar radiation (R_c and R_c') are equal. In contrast to Twomey, we do not use this assumption, but estimate R_c and R_c' separately in Eq. (11) and (12). We are grateful to both colleagues and will mention the difference between Eq (13) and the expressions by Paltridge and Platt (1976) and Twomey (1977) in the revised version of our manuscript.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 8541, 2009.