Atmos. Chem. Phys. Discuss., 4, S761–S762, 2004
www.atmos-chem-phys.org/acpd/4/S761/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Heterogeneous freezing of single sulphuric acid solution droplets: laboratory experiments utilising an acoustic levitator" *by* M. Ettner et al.

Anonymous Referee #2

Received and published: 19 May 2004

The authors developed a interesting technique to observe the droplet freezing process. The results show a significant difference between homogeneous and heterogeneous freezing temperature. However, comparison with literature data was not done in this paper for both homogeneous and heterogeneous nucleation. As stated by the authors, the droplets observed in this paper is orders of magnitudes larger than usual aerosol particles and also other studies, the authors should quantity their data to compare with other studies such as optical microscope, aerosol flow tube and continuous flow thermal diffusion chamber experiments. A discussion about such comparison should be given.

As described in Figure 4, the droplet with graphite freezes with graphite on the surface.

Is this fact common for other impurity?

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 1887, 2004.