First I would like to thank Dr. Lewis for his comment on the growth curve and the accuracy of the Lewis & Schwartz parameterization (LS). Dr. Lewis mentioned LS is based on the result of Tang et al (1997) as growth rate

\[
\eta = \left( \frac{\rho_d}{\rho} \frac{1}{x} \right)^{\frac{1}{3}}
\]

where \( \rho_d \) is the dry sea salt density and \( \rho \) is the density of the droplet, \( x \) is the mass fraction of the salute in the solution. From Tang97, \( \rho \) can be obtained as function of \( x \).

Through discussion with Dr. Lewis, we are convinced that the above bulk equation is a correct approach to sea salt hygroscopic growth. Therefore we have switched to use the bulk growth equation and re-calculated all figures and Table 1.
We use the exact growth equation shown above not the parameterization proposed by LS. Therefore we don’t discuss the accuracy of LS parameterization in the paper.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 5813, 2008.