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Comment

## ***Interactive comment on “Parameterization of sea-salt optical properties and physics of the associated radiative forcing” by J. Li et al.***

J. Li et al.

Received and published: 16 June 2008

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

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

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. Form 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.

S3790

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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.

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

ACPD

8, S3790–S3791, 2008

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