Comments to the revision of manuscript with ID number "acp-2020-159"

I would recommend the publication of this manuscript after the authors carefully discuss the following comments again.

1. I disagree with the response to my comment about the "novel methodology". Again, the method presented in this manuscript is DNS with large artificial kinetic viscosity, which is not a new method.

   Since this is a DNS study, let us put the LES aside. Eq.4-9 in the manuscript show the standard scaling argument of the scale separation of turbulence. DNS (finite difference numerical method or spectral method) of turbulence is limited by Re. To study how large scales of turbulence affect supersaturation fluctuations by means of DNS, the authors increased both the integral length scale and Kolmogorov length scale of turbulence simultaneously so that Re can be kept unchanged. This is very well described by Eq.4-9. What is the novelty regarding numerical methodology in DNS simulations with this configuration? In other words, how can I see the novelty from Eq.4-9?

   The Reynolds number is defined as Re=u_rmsL/\nu. One can simply increase L and \nu at the same time in a DNS simulation to check how large eddies affect supersaturation fluctuations.

   I don't understand the comment about the numerical dissipation for finite difference method and the spectral method. Both methods deal with the physical dissipation, i.e., energy dissipation in the dissipation range of turbulence. How exactly increasing L and \nu simultaneously in a spectral DNS code makes the simulation novel?

   To my knowledge, statistical convergence tests of the superdroplet method in such large simulation domain of DNS (large air viscosity though) has never been done. This is new and useful for the study of diffusional growth of cloud droplets.

2. The authors responded that "Yes, the eddy dissipation rate is a small-scale quantity, but this is how intensity of turbulence is expressed in models and in observations".

   Indeed, in the models and observations, \epsilon has been used to characterize the intensity of turbulence. However, I disagree that turbulence intensity is determined by \epsilon.

   My understanding of the present study is that DNS combined with superdroplet approach is used to study the diffusional growth of cloud droplets. DNS means one solve the Navier-Stokes equation to the native scale of turbulence. Even though Re is small in DNS studies and scale contamination is inevitable, intermittency still exists, i.e., the inhomogeneous distribution of energy dissipation rate in turbulence. This intermittency is determined by the Reynolds number. That is, the energy dissipation rate is determined by the Reynolds number.
   I encourage the authors to have a look at this seminal paper https://doi.org/10.1103/PhysRevLett.72.336 and numerous laboratory experimental evidence and observational evidence on this topic.