

Interactive comment on “Improving aerosol interaction with clouds and precipitation in a regional chemical weather modeling system” by C. Zhou et al.

Anonymous Referee #4

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1. Introduction: The sentence "Hygroscopic aerosols can act as cloud condensation nuclei (CCN) or ice nuclei (IN)" should be revised as "Aerosols....", it is more general. Since cloud nucleation processes are sometime involved into a very complicated microphysical process, such as freezing nucleation, not only for "hygroscopic aerosols".

2. Introduction: authors should notice that WRF-CHEM model has same aerosol-cloud interaction scheme, which should be mentioned in this part. One of weak points is that WRF-CHEM uses a relatively rough emission scheme for regions in China, so authors also should clearly state what emission source is used in your model.

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3. Section 3.2 Numerical experiment designs: please give the horizontal resolution of simulation, which is important to simulation cloud and precipitation processes.

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