

**Thank you to the authors for their considerate responses. The revised version is ready for publication; I only noticed a couple of language issues/typos.**

Thank you very much for the valuable suggestions. Our point-by-point replies are given as below, and the corresponding revisions are made in the previous manuscript. **Line number below refers to the clean version**, while changes are tracked in the tracked version.

In the abstract, and again later, you still say "with the increase in the aerosol number concentration, the conversion rate of cloud water to rain in clouds is enhanced at first"

My understanding is that you are attempting to say that the conversion of cloud water to rain is enhanced with small increases from the very pristine aerosol environment, but that with larger increases it is suppressed. The way it's written, it could be misinterpreted as first \*in time\* which is not the case. This is why I said it's confusing. I would suggest rewording this.

Response: Authors agree with reviewer and sentence has been modified in abstract and corresponding text. Line 31-33, 42-43, 416-418

“A detailed analysis of the microphysical processes shows that the conversion of cloud water into rain is enhanced by small increases in aerosol concentration, while it is suppressed by larger increases in concentration.”

“The response of cloud water to rain conversion process to aerosol number concentration is non-monotonic.”

line 137: typo, analyse should be analysis or analyses

Response: It has been corrected. Line 137

line 366: you say are twice here

Response: Repetition has been removed. Line 365-367

We also went through the entire manuscript and corrected some language issues/typos. Line 81-82, 85, 137, 155, 254, 406, 409-410, 420.