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Atmospheric Measurement Techniques Discussions

Interactive comment on "Standard source of atmospheric black carbon aerosol generated from ultrasonic spray of BC suspension" *by* Ruchen Zhu et al.

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1. Motivations. Our research aims to develop a BC aerosol generator of low concentrations without large amount of dilute gas such as nitrogen. The concentrations of BC aerosols produced by this generator can be as low as 0.5 ïA■g/m3, and the theoretical lower limit of the generator we developed is 0. 2. Technical description. Technical information and descriptions can be further added in the revised paper. 3. The generator and its performance. First, the operating principle, technical details and other information can be added in the revised edition as said above. Second, the calculated relative humidity of the aerosol sample is below 12% at ambient temperature, which is

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Discussion paper

much small than atmospheric humidity and has little influence on the aerosol generated so we didn't remove the water from the sample. Third, the membrane test can show that nebulization efficiency is nearly 100%, error can be further calculated. 4. Data treatment. We have done many experiments and the repeatability is very good. Not all data are shown in this article due to the limited thesis length. 5. Conclusions. This part will be rewritten in the revised article to demonstrate the motivations, achievement, limitations and also future developments.

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