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Comment

Interactive comment on “Submicron aerosols at thirteen diversified sites in China: size distribution, new particle formation and corresponding contribution to cloud condensation nuclei production” by J. F. Peng et al.

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The MS is very interesting one. However, before publication in ACP it is crucial to improve several items: 1) Page 15152, line 11 .. few nanometers ... This is not correct. Size of atmospheric particles starts from ca 1.5 nm (see Kulmala et al. Science, 2013) 2) Page 15153. It is important to add references to recent nucleation studies made by Hermann et al. (2014, ACP) as well as other studies performed at SORPES station in Nanjing. 3) Page 15159. Authors should give references for equations 3 and 4. E.g

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Kulmala et al. 2012 (Nature Protocols) 4) The instruments start to measure at 15 nm. Since it takes up to several hours to reach that size from nucleation (ca 1.5-2 nm), it would be good to discuss where and when nucleation have been occurred. 5) Page 15165: why there is not NPF if air mass is coming from ocean? 6) Page 15166 line 9. GR one time higher? I do not understand this. 7) Page 15168: How many days or hours it takes from NPF to CCN? It is crucial to look whether CCN concentrations are increasing in the second or even in the third day. 8) It would be good to speculate what are formation rates at 3 nm . It is possible to calculate formation rates at 15 nm, although they probale have nothing to do with atmospheric nucleation.

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 15149, 2014.

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