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Interactive comment on "Spatial distribution and occurrence probability of regional new particle formation events in eastern China" *by* Xiaojing Shen et al.

Anonymous Referee #2

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Shen et al. reported the spatial distribution and occurrence probability of regional new particle formation events in eastern China. Regional new particle formation play a profound role in the haze formation over North China Plain. The manuscript is well-written and easy to understand. I suggest that it can be accepted for publication as ACP paper. Here one question was concerned: The high concentration of pre-existing particles may scavenge the condensable vapors and impede the NPF occurrence. As we know, NCP region contains a city cluster. In the atmosphere of urban areas, the particle concentration may be higher than rural or regional background areas. As a result, the NPF may not take place in the urban atmosphere due to a higher condensation sink of condensable vapors. How the heterogeneity of NPF caused by the heterogeneous

pre-existing particle concentrations over a large areas is considered in Nanomap?

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