The authors extend the dataset and the paper has been improved significantly. However, there are some issues that the author should give more explainations. There are also some grammatical and spelling errors in manuscript. The authors need to check through the manuscript carefully.

Major concern:

- 1. The accumulaiton mode particles number was reported to be ~700 cm⁻³ on NPF days on urban site, which is almost 50% lower than the mountain site. The author should check the data, as it was also reported the CS on NPF days at both sites was ~0.01 s⁻¹. As the CS values are quite similar and dominated by the accumulaiton mode, why the difference in acumulaiton mode concentration between the two sites is so large? Also, it should be clear that the size range of each mode in the text.
- 2. In the summer campaign, which is rainy season in Beijing, the precipitation should be addressed as it is an important scavenging process of particles. Also, for Mounatin site, the fog/cloud process is another particle scavanging process that can influence the CS.

Sepcific comments:

- 1. Line 27, it's not necessary to give the reference in the abstract.
- 2. Line 38-40, The author addressed the CS during the first two hours of NPF, indicating the concentration level of the pre-existing particles. However, why the formation rates during the first two hours of NPF are compared?
- 3. Line 110, please shorten "particle formation rate, particle growth rate" to "formation rate and growth rate". Check these words through the manuscript.
- 4. Line 125, the site S60 and LQ should be illustrated in the site discribiton, not in the figure caption. In the discussion, S60 station is not mentioned.
- 5. Line 138, it should be Salma et al., (2011)
- 6. Line 156-157, PNSD meausred by PSD and DMPS matched with a factor of 2...it is not clear which PNSD is higher? The ratio of 2 is derived by the total number concentration or what else? In Fig.3, it seems the PSD is higher below 20 nm and 300-600 nm, but lower above 600 nm. Which data is referred as the true value?
- 7. Line 346, As shown in Figure ?? which figure? Line 351, in Figure 8a. The initial letter of Table and Figure should be capitalized. Please check all through the manuscript. Figure and Fig are both used, it should be consistent.
- 8. Section 3.4 I suggest to revise the end Dp as $D_{p,end}$, also be consistent with figure caption.
- 9. I suggeted each subplot in Fig.14 and other figure pannels should be marked as a, b, c, d,..., in order to be referred easily. Please also check the figure captions as some are not complete, e.g., Fig. 18, the marker of mode diameters is not given.
- 10. The value of CS is suggested to be added in Table 1.
- 11. Spelling check (including the below, but not limited to):
 - Line 112, "favorable conditions";
 - Line 114, conditions those... could help to minimize...

Line 295, NPF characteristics;

Line 239, said times??

Line 388, is considered to be one of the most...

Line 511, please check Fig. R12c

Line 568, This is a common...