After reading through the replies and revised manuscript, I feel that the first two major comments of the reviewer were not adequately addressed.

R1-1: Lines 234-235. If boundary air convection to the size is a trigger for NPF events, why the cluster mode particles appeared half hour earlier than the BC increase? What about CO? Is such a delay common for all NPF events? Maybe it is worthwhile to provide similar figures for more days in the appendices.

"We suggest that nucleation is not initiated within the BL (because of this 30 min delay between cluster mode particles and BC), but at the interface between BL and FT where a mixing of air masses of different composition may be promoting nucleation." We now add this sentence to the discussion at line 235.

The original comments in red were not addressed at all. The modified conclusion should be supported by the presentation of more cases.

R1-2: Lines 263-268. It is interesting to see that NPF occurred on almost every day in April. Figure A4 is helpful. I strongly suggested that the authors present AIS data for both positive and negative ions in Figure A4. As I understand, ACP requires statement about the availability of the data used in the paper. Are these data available to the community after the publication of the manuscript?

Unfortunately the positive ions were not properly measured by the AIS and we only have data for the negative ion size distributions. Moreover, the AIS was non-operational in April so we cannot add the spectra to the Figure A4.
DMPS data are already available on the EBAS data center. AIs data will be made available on request for the moment, until a clear data submission protocol is provided by the ACTRIS community.

Then it is necessary to point out in Section 2.4 the periods when valid measurements for various instruments are available. If AIS was non-operational in April, it would be helpful to present another month that both AIS and DMPS data are available.