In general, the author's answer and revised sentences are much clearer than before. However, I still need some clarification regarding the authors' responses to resolve some of the possible confusion. I have several more comments that the authors should address before publication of this manuscript. Please see below.

- 1. I confused on the definition of the phase state of the field samples. It must be contain various phases inside the particles as shown in the figures. Do you mean the particle is overall solid, semisolid or liquid? A clear definition of the concepts for the real aerosol particles in the introduction should be added.
- 2. The authors mentioned that the samples were analyzed less than one year after collection. One year maybe enough time to change the chemical compositions and related phase states of the collected samples. Can you provide some previous work to solve this issue?
- 3. Still I am confusing how you described/concluded the phases for the filter samples collected from FT even the experimental condition was different. During the experiment, the experimental conditions of RH and temperature were significantly different compared to the environment conditions of FT (higher RH and lower temperature). This should be stated clearer.