## Comments on Manuscript

Title: CHARACTERIZATION OF MINERALS IN AIR DUST PARTICLES IN THE STATE OF TAMILNADU, INDIA THROUGH FTIR SPECTROSCOPY

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Authors have demonstrated the characterization of minerals in air dust particles for 111 samples in Vehicular, Residential and Industrial areas in the state of Tamil Nadu, India through FTIR spectroscopy. I believe, it is not easy to carry out 111 samples in all parts of Tamil Nadu and also I encourage the author for his ability to demonstrate not only the structural analysis of the collected particles but also the applications extinction co-efficient and crystallinity index through FTIR spectra. The paper is quite good and is worth to be published in ACP, after some minor revisions are performed by the authors.

- 1. It is found some grammatical errors in the manuscript such as presents, were die, is exhibit, sample were.
- 2. The author should give deposition time of the collected samples at 20ft in three different areas.
- 3. In Results and Discussion, Fig.2 is not quoted in the description of the manuscript.
- 4. In Table 2 whether the third column is total number of samples or sample ID.
- 5. The author has stated that Quartz is common and invariably presents in all the samples. But in column three of Table 2 indicates Quartz appears only 9 samples (at 101, 90, 104, 45, 55, 13, 9, 1, 7). Also, Imogolite is present nearly 50 samples, whether it is 50<sup>th</sup> number or totally 50 samples. Similarly, Magnetite-60 samples, Gibbsite- 16 samples, Vermiculite is present in nearly 90 samples out of 111, but it shows only two samples (89, 1), Sepiolite, Imogolite, Hemalite also quoted some samples only.
- 6. In column 3 of Table 2, the sample ID's should be arranged in ascending order.
- 7. In section 3.1, the statement "The quartz is present in almost all samples", is repeated. Similarly some statements are also repeated in the manuscript.
- 8. Author has assigned the vibrations such as 2516 cm<sup>-1</sup>, 2570 cm<sup>-1</sup>, 2873 cm<sup>-1</sup> and 2982 cm<sup>-1</sup> due to OH stretching mode vibration. Whether the peaks are correspond to OH or Calcite?
- 9. In section 3.14, Goethite (FeOH), it is to be corrected as FeOOH

The manuscript will be acceptable after making the corrections noticed above.