

## ***Interactive comment on “Observation of nocturnal NO<sub>3</sub> during vehicular activities in the medium sized city of Calicut in coastal India” by Kuttoth Suhail et al.***

### **Anonymous Referee #2**

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The manuscript “Observation of NO<sub>3</sub> due to vehicular pollution activities in the medium sized city of Calicut in coastal India” by K. Suhail et al, reports on NO<sub>3</sub> measurements carried out in the city of Calicut in a polluted environment in autumn 2018 by using OP-IBBCEAS.

The instrumental set up and calibration procedures are well described and referenced and do not significantly differ of those already reported in previous and recent papers of some of the authors, in particular by Suhail et al., Spectrochimica Acta, Part A, 2019.

Apart from the experimental chapter and the verification of the performance of the instrument indicated by instrumental parameters, the analysis of results in the rest of the

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manuscript is poor. Provided that the measurement technique and the instrument have already been reported elsewhere, the present work must focus on the interpretation of the NO<sub>3</sub> ambient data encountered, and this is definitely insufficiently treated.

Over the text the authors identify themselves most of the deficiencies in the analysis due to measurements and data which are either not available or not shown. The hypotheses are generally supported by qualitative assumptions or partly based on private communications about potential existing information. Furthermore the authors do not attempt to deepen in any explanation of the variability of the NO<sub>3</sub> concentrations observed; the relation with vehicular activities although plausible is not really documented.

In summary, I recommend to reject the present manuscript as it remains descriptive and does not provide scientific new findings which deserve publication in AMT. I would encourage the authors to use this work as a preparatory study for a re-designed new campaign with a clear scientific focus and a critical number of simultaneous measurements to enable interpretation.

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Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2019-6, 2019.

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