

Response to amt-2018-412-SC1:

Comment:

It has been reported that the measurements of ammonia around livestock facilities by PAS could be interfered by the VOCs, a systematic calibration is still in great need. This research conducted precisely test and calibration on the interference of VOCs on the measurement of NH₃, NO₂, CH₄ by PAS method. The results confirmed the significant influence of the VOCs on the measurement of these compounds. Moreover, the authors dedicate to building correction factors for the interference and verifying the factors in the field tests successfully. Overall, this is high-quality research and the results deserve to be carefully read by researches on field measurement of NH₃, NO₂, CH₄ by PAS method.

Response: Thanks for the comment. The interference was investigated previously indeed and we here performed a more systematic calibration and possible correction. Although the usage of correction factors require additional measurements on VOC concentrations, it still make a possibility to correct the PAS data, since PAS is widely applied for measuring ammonia and greenhouse gas concentrations.