

Interactive comment on “Reactive quenching of electronically excited NO_2^* and NO_3^* by H_2O as potential sources of atmospheric HO_x radical” by Terry J. Dillon and John N. Crowley

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The authors have carried out a thorough and comprehensive study and showed that there is no evidence that NO_2 excited by visible light can react with H_2O to form $\text{OH} + \text{HONO}$. The present study has lowered the upper limit for OH formation and implies that this reaction has no atmospheric impact.

In addition, the possibility that the reaction between NO_3 excited by visible light and H_2O can form OH was investigated. No evidence for OH formation from this reaction was observed. However, the assigned upper OH yield for this reaction does not wholly rule it out from having some atmospheric impact. The other potential reactive channel

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HO₂ + HONO is discussed but not investigated.

This paper is fine for publication with just a few minor corrections.

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