

Interactive comment on “Do vibrationally excited OH molecules affect middle and upper atmospheric chemistry?” by T. von Clarmann et al.

Anonymous Referee #2

Received and published: 4 August 2010

This paper evaluates the role of vibrationally-excited OH in affecting middle and upper atmospheric chemistry. In my initial review of the work, I was critical of the completeness of the reactions that were considered, and particularly of a purported three-body reaction involving $O(^1D)$ and O_3 . This latter point has been clarified by the authors; this was a typo, and in the analysis it was not included as a three-body reaction. Regarding the important reactions that were not mentioned, a number of reactions were excluded in the tables, but they were left out because they only repartition energy in the odd oxygen family, and thus did not need to be considered. The important point that has been made is that vibrationally-excited OH has little effect on the basic chemistry of the middle/upper atmosphere. The paper is ready for publication.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 11449, 2010.

C6093