Interactive comment on “Measurement-based modeling of daytime and nighttime oxidation of atmospheric mercury” by Maor Gabay et al.

Anonymous Referee #3

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Two basics:

1. The reaction Hg\(^{+}\) + NO\(_3^-\) → HgO + NO\(_2\) is endothermic by 190 KJ/mol. The bonding energy of HgO is a mere 4 Kcal/mol (Shepler & Peterson, 2003, JPC) dismissed the validity of this study. There is no point to go further with a study that calculates HgO as a product of GEM oxidation by NO\(_3^\). Peleg et al. (2015), the paper preceding the present one, should not have been published in the first place.