

Dear the referee #2,

We gratefully thank referee for the review of our manuscript and enclose responses to the various comments and suggestions by reviews.

Page 1379, line 19. Not sure if “scavengers” is the right word. “catalysts” might be better.

We modified the word to the “catalysts”

Page 13801, line 3. You might explain why you picked 10% in this discussion.

This value is tentative value. Therefore, we added word of “tentatively” in the sentence.

Following suggestions by the referee are accepted and manuscript is revised.

Page 13788. Abstract

Line 1. Suggest “collected on quartz fiber filters: : :”

Line 6. Suggest “For 10 samples,: : :”

Line 7. Suggest “Mt. Tai site ranged from: : :”

Line 10. Suggest “: : :suggesting that reactions with minor components: : :”

Line 12. Suggest “: : :could significantly affect atmospheric HO_x concentrations: : :”

Introduction

line 20. Suggest “: : :radicals have been made recently: : :”

Line 21. Suggest “: : :from these measurements are lower than: : :”

Line 24. Suggest “This indicates the possible presence of missing loss processes for HO₂.”

Page 13789

Line 22. Suggest “This result implies that: : :”

Page 13790

Line4. Suggest “: : :chemical evolution of particle composition: : :”

Line 9. Suggest “: : :they hypothesized the importance: : :”

Line 16. Suggest “: : :in China, in laboratory experiments: : :”

Line 17. Suggest “: : :of HO₂. We determined overall HO₂ uptake coefficients for realistic: : :”

Line 20. Suggest “: : :processes on tropospheric chemistry.”

Line 25. Suggest “: : :as part of intensive field campaigns: : :”

Page 13791

Line 19. Suggest “: : by photochemical processes during the daytime.”

Page 13792

Line 4. Suggest “: : prior to the experiment.”

Line 20. Suggest “: : into pieces and the loaded particles: : ”

Page 13793

Line 20. Suggest “: : dry air flow with a flow of air that had been passed through a water bubbler.”

Page 13795

Line 24. Suggest “: : Eq. (4), gas-phase diffusion has not: : ”

Page 13796

Line 4. Suggest “: : from a least-squares fit: : ”

Line 14. Suggest “: : the uptake coefficient should be < 0.01 under tropospheric: : ”

Page 13798

Line 1. Suggest “: : estimate the uptake: : ”

Line 15. Suggest “: : similar, that being 0.01-0.3%...”

Page 13800

Line2. Suggest “: : which we present here: : ”

Line 11. Suggest “: : airborne study of aerosol: : ”