

***Interactive comment on “Reactions of
 $\text{H}^+(\text{pyridine})_m(\text{H}_2\text{O})_n$ and $\text{H}^+(\text{NH}_3)_1(\text{pyridine})_1(\text{H}_2\text{O})_n$
with NH_3 : experiments and kinetic modelling
under tropospheric conditions” by M. J. Ryding
et al.***

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Please find our answers in the supplement.

Please also note the supplement to this comment:

<http://www.atmos-chem-phys-discuss.net/11/C13951/2012/acpd-11-C13951-2012-supplement.pdf>

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 24535, 2011.

C13951

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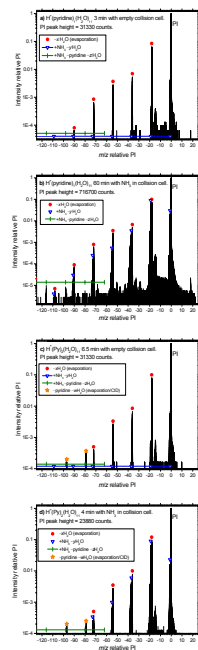


Figure 3. Mass spectra of $\text{H}^+(\text{pyridine})_m(\text{H}_2\text{O})_{11}$ with peak intensities expressed relative to the parent ion (PI) mass and height. a) $m = 1$, background measurement. b) $m = 1$, the cluster ion reacting with NH_3 at 8 kJ mol^{-1} . c) $m = 2$, background measurement. d) $m = 2$, the cluster ion reacting with NH_3 at 8 kJ mol^{-1} . The product $\text{H}^+(\text{NH}_3)_\gamma(\text{pyridine})_1(\text{H}_2\text{O})_{11-\gamma}$ peaks are

Fig. 1. Figure 3.

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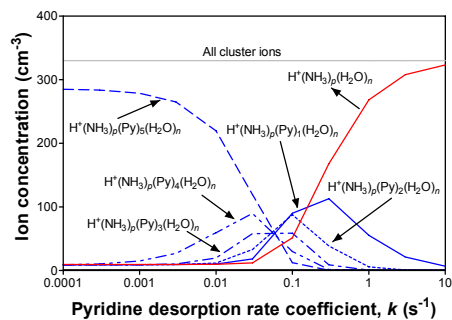


Figure 9. Concentration of most abundant cluster ions as a function of pyridine desorption rate coefficient. The values were calculated using Model B with inclusion of evaporation of pyridine. The initial concentrations are given in Table 2 except the concentration of pyridine that was kept at $9.83 \times 10^7 \text{ cm}^{-3}$.

Fig. 2. Figure 9.