**Atmospheric
Chemistry
and Physics
Discussions**

Interactive comment on "Reactions of $H^+(pyridine)_m(H_2O)_n$ and $H^+(NH_3)_1(pyridine)_1(H_2O)_n$ with NH_3: experiments and kinetic modelling under tropospheric conditions" *by* M. J. Ryding et al.

M. J. Ryding et al.

pan@chem.gu.se

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

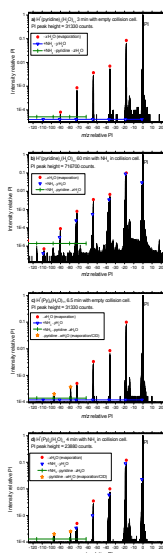Interactive comment on Atmos. Chem. Phys. Discuss., 11, 24535, 2011.

Figure 3. Mass spectra of $H^+(pyridine)_m(H_2O)_{11}$ 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 kJmol^{-1}. c) $m = 2$, background measurement. d) $m = 2$, the cluster ion reacting with NH_3 at 8 kJmol^{-1}. The product $H^+(NH_3)_1(pyridine)_1(H_2O)_{11-y}$ peaks are
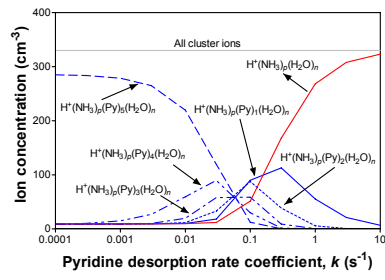
Fig. 1. Figure 3.

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 9.83×10^7 cm^{-3}.

Fig. 2. Figure 9.

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