

ADDITIONS AND CORRECTIONS

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Q. Shi, P. Davidovits,* J. T. Jayne, D. R. Worsnop, and C. E. Kolb: Uptake of Gas-Phase Ammonia. 1. Uptake by Aqueous Surfaces as a Function of pH

In this paper,¹ we quoted a value of the Henry's law coefficient (H) for NH_3 which is about a factor of two lower than the value recommended by Clegg and Brimblecombe.² Our quoted value of H was obtained by fitting the time-dependent NH_3 uptake data. In order to obtain an adequate global fit to the data we assumed the existence of an NH_3 surface complex. The lower value of H is in part due to that assumption.

We stated that the lower value of H obtained from the global fit was in apparent agreement with the measurements of Sherwood³ and Sorina⁴ shown in our plot of H vs $1/T$ (Figure 10 of ref 1). However, as was pointed out by Clegg,⁵ we misinterpreted the Sherwood data by not taking the NH_3 activity coefficient into account, resulting in an underestimate of the Henry's law coefficient and its temperature dependence. Further, in our comparison of H values we used Sorina's data set at pH 14. However, this data set is likely to be incorrect because of the inaccurate determination of the NH_3 partial pressure.

In view of these comments, we now consider the lower values of H quoted in ref 1 incorrect. We are in the process of conducting experiments to ascertain the existence of the surface complex. We thank S. L. Clegg for detailed technical discussions on this matter.

(1) Shi, Q.; Davidovits, P.; Jayne, T. J.; Worsnop, D. R.; Kolb, C. E. *J. Phys. Chem. A* **1999**, *103*, 8812.

(2) Clegg, S. L.; Brimblecombe, P. *J. Phys. Chem.* **1989**, *93*, 7237.

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(4) Sorina, G. A.; Minovich, V. M.; Efremova, G. D. *Zh. Obshch. Khim.* **1967**, *37*, 2150.

(5) Clegg, S. L. Private communication, 1999.

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