

ADDITIONS AND CORRECTIONS

2003, Volume 107A

David F. Underwood and David A. Blank*: Ultrafast Solvation Dynamics: A View from the Solvent's Prospective Using a Novel Resonant-Pump, Nonresonant-Probe Technique

Page 959. We have recently discovered that the time origin about the abscissa (the time delay labeled t) in the reported data set was incorrectly offset from zero by 203 fs. The data are replotted here with the correct time delay and should replace Figures 4 and 6, respectively, in the original paper. The main content, which was to demonstrate a new method for probing the intermolecular motions in the local environment of an ultrafast event in solution, the main conclusions, and the majority of the discussion presented in the paper remain unaffected by this error. However, at one point in the discussion we made a qualitative assignment of the positive feature in Figures 4 and 6 as the inertial response of the solvent. Although we are confident that the inertial response resides within the time frame of this feature, correction of the time delay centers the positive response along the $t = 0$ time axis. On this axis three of the four laser pulses overlap in time, allowing for the contribution of additional nonlinear signals that are not discussed in the paper. As a result of these additional signals, we can no longer confidently ascribe this portion of the measured response solely to the inertial solvent response.

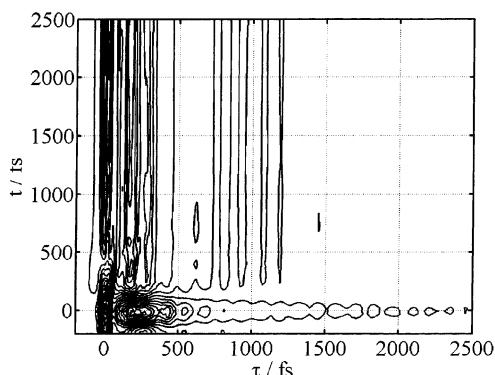


Figure 4. Two-dimensional RaPTOR spectrum of 9,10-DPA in chloroform.

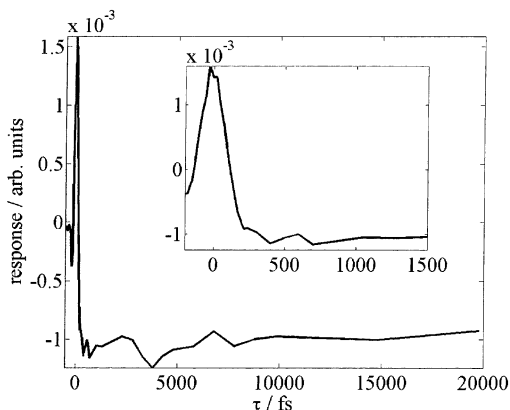


Figure 6. Slice along t for $\tau = 200$ fs from the data in Figure 4.

10.1021/jp031015x

Published on Web 10/16/2003

2002, Volume 106A

D. B. Dickens and J. J. Sloan*: The Nucleation and Freezing of Dilute Nitric Acid Aerosols.

Page 10547. It has been brought to our attention that the dashed curve in Figure 8 of our recent paper¹ was plotted incorrectly. This curve is a plot of the temperatures at which ice is predicted to form using the criterion that only water activity determines the nucleation temperature, as defined in the model of Koop et al.² The water activity corresponding to each nitric acid mole fraction was calculated using the equilibrium thermodynamic model of Carslaw et al.³ When these were added to the plot of measured freezing temperatures, however, the values were plotted against the HNO_3 axis rather than the water activity axis. Because the water activity is not a linear function of $x\text{HNO}_3$, this distorted the predicted freezing curve and lead us to the erroneous conclusion, stated in the last paragraph of the "Results" section of ref 1, that our measurements did not agree with the predictions of the Koop et al. model. The correct curve is shown in the revised Figure 8 below, showing that the theory of Koop et al. provides a satisfactory description of the freezing behavior of dilute nitric acid aerosols in the range $x\text{HNO}_3 < 0.12$.

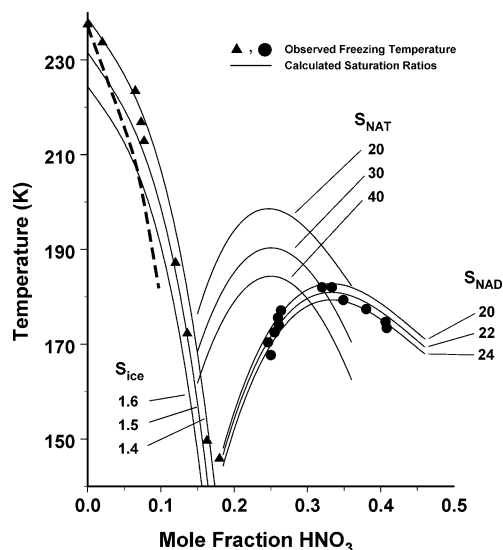


Figure 8. Solid curves: selected saturation ratios for NAD, NAT, and ice. Points: nucleation temperatures reported in Figure 7. Dashed curve: the predicted ice freezing curve using the criterion that only water activity determines the nucleation temperature.

(1) Dickens, D. B.; Sloan, J. J. *J. Phys. Chem. A* **2002**, *106*, 10543–10549.

(2) Koop, T.; Luo, B.; Tsias, A.; Peter, T. *Nature* **2000**, *406*, 611–614.

(3) Carslaw, K. S.; Clegg, S. L.; Brimblecombe, P. *J. Phys. Chem.* **1995**, *99*, 11557–11574.

10.1021/jp031083j

Published on Web 10/22/2003