The melting points of the semihydrate and anhydrous crystals were found to be 29.32° and 42.35°, respectively; and their rates of crystallization, respectively, 2.6 cm. and 33.3 cm. per minute at 20°.

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NOTES

Preparation of Nitric Oxide from Sodium Nitrite.—The usual method of preparing nitric oxide by the action of nitric acid on copper is rather tedious in operation and gives a product contaminated with nitrogen dioxide or nitrous oxide unless the concentration of the acid and the conditions are carefully controlled. The gas may be generated rapidly and in nearly pure condition by dropping concd. sulfuric acid into a flask or distilling bulb containing sodium nitrite covered with two or three times its weight of water. The nitrous acid liberated decomposes almost quantitatively according to the equation, $3HNO_2 = HNO_3 + 2NO + H_2O$.

A small amount of nitrogen dioxide which the gas contains may be removed by passing it through a wash bottle containing concd. sulfuric acid or by collecting it over water.

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The Solubility of Urea in Water.—While working with concentrated aqueous solutions of urea at various temperatures, it was found that the solubility of urea as recorded in Seidell's "Solubilities of Inorganic and Organic Compounds,"[1] is considerably too low. Upon examining the original reference,[2] it was found that the results were expressed as "per cent. gram molecules, that is, to the number of gram molecules of solute in 100 gram molecules of solution." In recalculating these results for Seidell's book, this expression had been misconstrued, the data being calculated as moles of solute in 100 moles of solvent, instead of solution.[3] We have recalculated Speyers' data and have also determined the solubility of urea in water at various temperatures.

Our method consisted in heating about 300–400 cc. of urea solution in a water-bath in the presence of solid urea[4] to a temperature a few degrees above that at which the solubility was to be determined. The solution

[1] W. Seidell, "Solubilities of Inorganic and Organic Compounds," D. Van Nostrand Co., New York, N. Y., 2nd ed., **1919**, p. 737.

[2] Speyers, *Am. J. Sci.*, [IV] **14**, 293 (1902).

[3] Speyers determined the solubilities of a number of carbon compounds in various solvents; we find that the same error has been made in recalculating the solubility data for Seidell's book.

[4] Synthetic urea purified by two recrystallizations from water was used.