

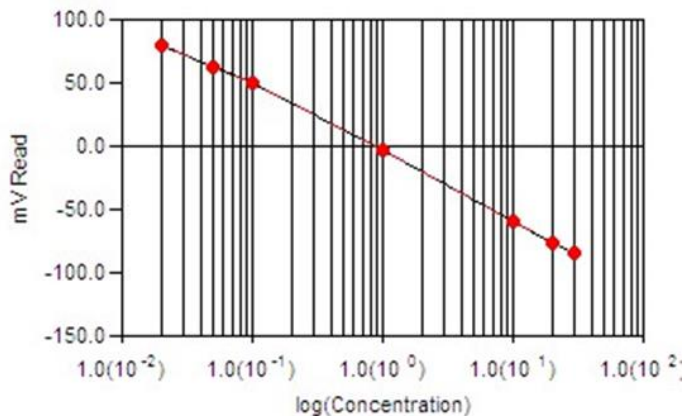
Method Abstract #75

Ammonia by Direct Measure

Scope and Application This method conforms to Standard Methods 4500-NH₃ D and ASTM D 1426 (B). It determines the concentration of ammonia in a water sample.

Method Summary The concentration of ammonia is determined by an ammonia ion selective electrode. After calibrating with known standards, the sample's response can be compared to the calibration curve and a concentration determined. Both the standards and the samples are pre-treated with sodium hydroxide to convert all the ammonium ions into ammonia.

Sample Calibration Curve



Method Performance

Parameter	Specification
Measuring Range*	0.1 – 17,000ppm
MDL**	0.05ppm
RSD @ 0.1ppm	14.41% or +/- 0.016ppm
RSD @ 1ppm	1.54% or +/- 0.02ppm
RSD @ 10ppm	2.93% or +/- 0.293ppm
RSD @ 100ppm	2.15% or +/- 2.15ppm

*Data for this measuring range was obtained using laboratory prepared standards formulated from ammonium chloride. The measuring range may be increased by using auto-dilution.

**The Method Detection Limit (MDL) was determined based on data obtaining a coefficient of variance better than 30%. Results may differ depending on laboratory practices and sample matrix.

RSD values are better than those specified in Standards Methods.