Table 1 Selected published methods for $\delta^{15}NH_4^+$ measurement

Reference	NH_4^+ extraction method	conversion to IRMS analyte	$\delta^{15}N$ measurement
Feast and Dennis 1996[2]	distillation	Rittenberg oxidation	$\delta^{15}N_2$ on IRMS
Feast and Dennis 1996[2]	distillation	Dumas combustion	$\delta^{15}N_2$ on IRMS
O'Deen and Porter 1980[4];	diffusion	Rittenberg oxidation	$\delta^{15}N_2$ on IRMS
isgaard-Petersen et al.1995[7]	diffusion	Rittenberg oxidation	$\delta^{15}N_2$ on IRMS
Holmes et al. 1998[6];	diffusion	Dumas combustion	$\delta^{15}N_2$ on IRMS
Sebilo et al. 2004[8]	diffusion	Dumas combustion	$\delta^{15}N_2$ on IRMS
isher and Morrissey 1985[10]	Hg precipitation	Dumas combustion	$\delta^{15}N_2$ on IRMS
Lehmann et al. 2001[3]	cation exchange collection	Dumas combustion	$\delta^{15}N_2$ on IRMS
Dudek et al. 1986[9]	indophenol	Dumas combustion	$\delta^{15}N_2$ on IRMS
Preston et al. 1996[5]	indophenol	indophenol derivative	GC/MS
Norlin et al. 2003[21]	solid phase extraction	headspace equilibration	$^{15}NH_3$ on GC/C/IRMS

REFERENCES

21 Norlin, E.; Irgum, K.; Ohlsson, K.E. *Rapid Commun Mass Spectrom.* **2003,** 17, 936-942

Table.2 DON oxidation yield (%) in DIW

DON in DIW	oxidation yield
Glycine	30.75%
Alanine	12.30%
Serine	14.38%
Cysteine	1.99%
Proline	2.99%
Aspartic Acid	5.00%
Arginine	9.40%
Phenylalanine	6.30%
Glucosamine	8.70%
Egg Lysozyme	3.14%
Nicotinic	3.42%
Urea	4.24%

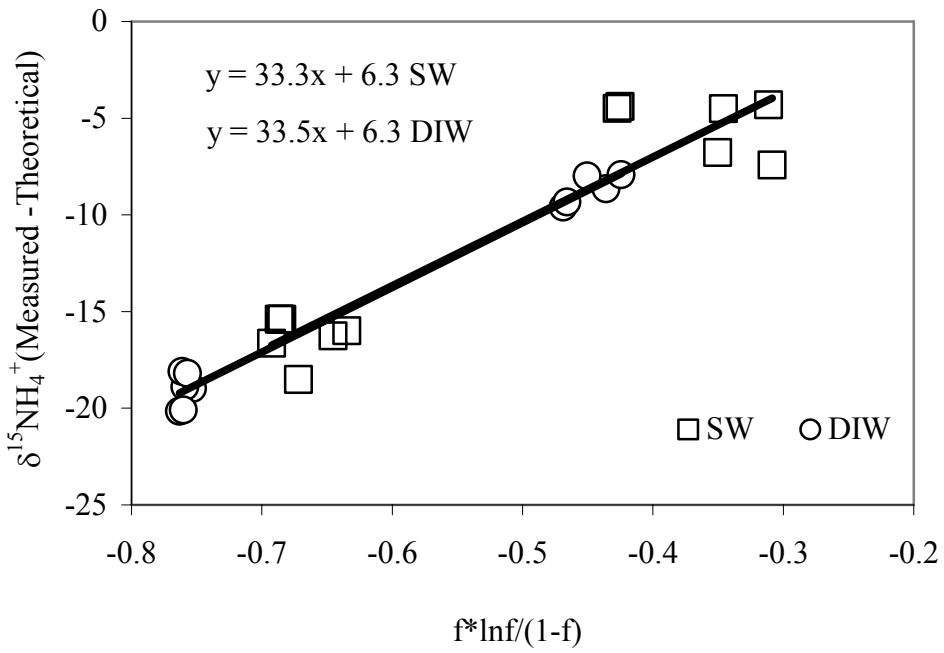

Fig.1. Fractionation effects on $\delta^{15}NH_4^+$ in DIW and SW caused by incomplete oxidation. "f" is the fraction of unreacted NH_4^+. The fractionation factor is estimated by the slope of the regression.

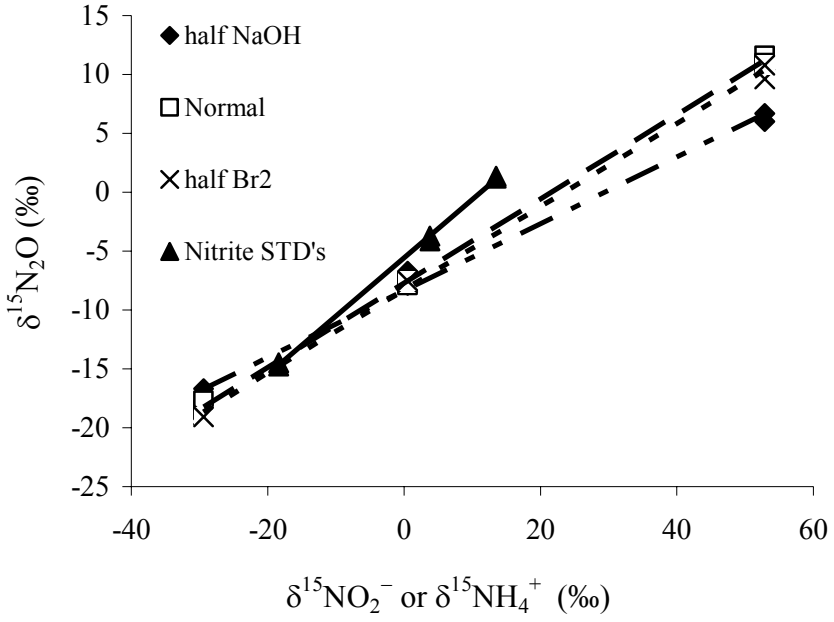

Fig.2. Changes in blank effect on $\delta^{15}N$ for changes in reagent addition in DIW. Low $[NH_4^+]$ (0.5μM) was used to accentuate the blank effect.

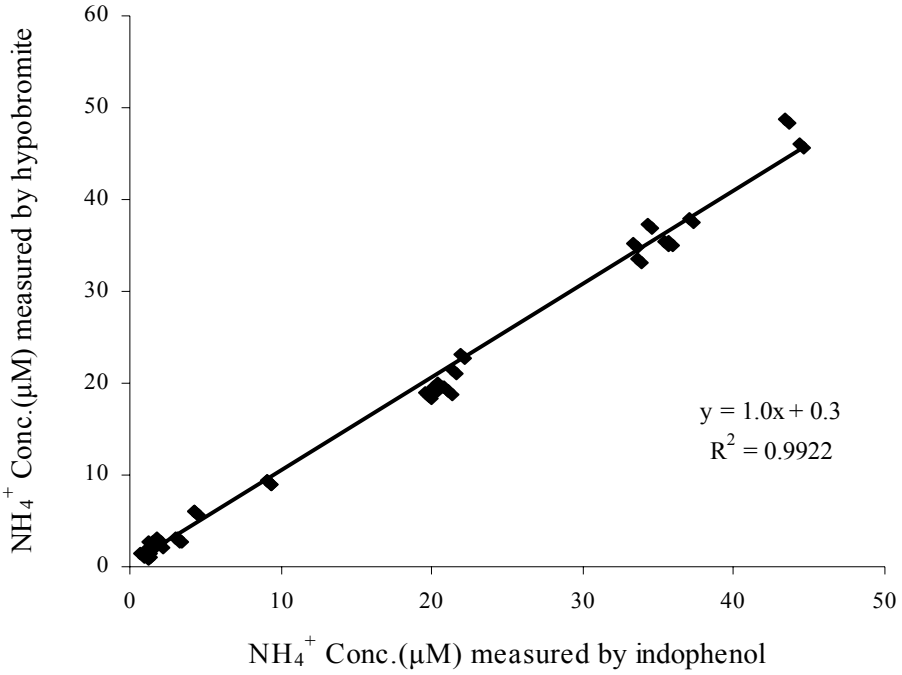

Fig.3. Comparison of NH_4^+ Conc. (µM) in Lake Kinneret water samples measured by hypobromite and indophenol method respectively.