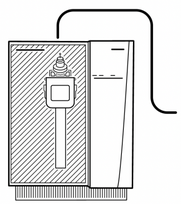
Procedure 1

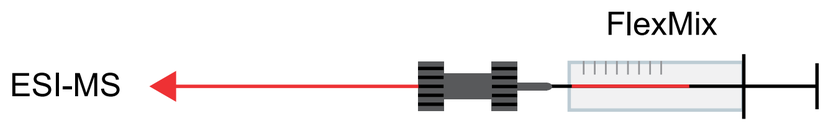
Direct infusion

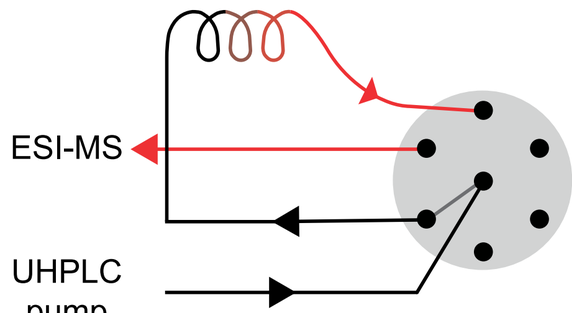
Procedure 2

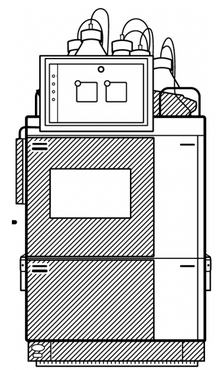
Automated flow injection

Instrument setup









Acquisition settings

TFA

MS 1 | **ESI NEG**

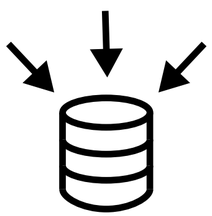
MRFA peptide

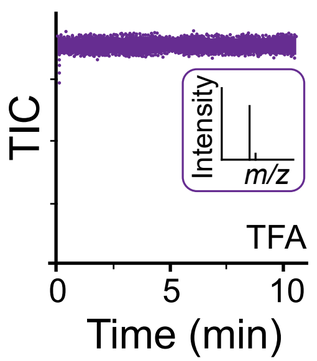
MS 2 | **ESI POS**

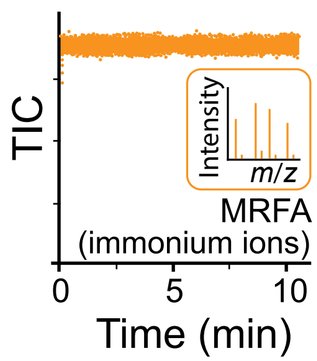
Nitrate samples

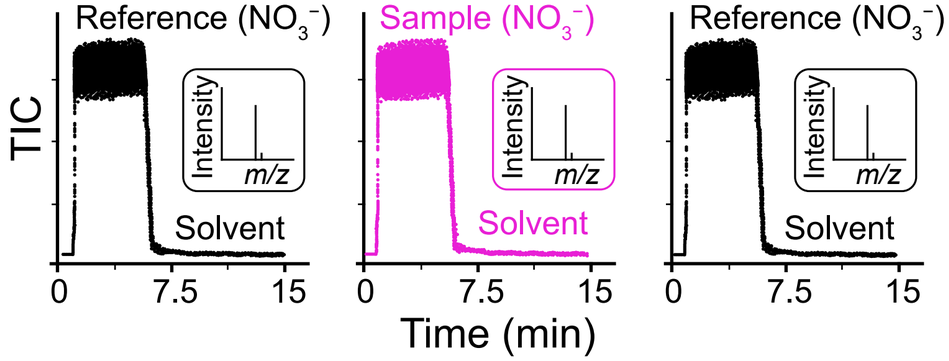
MS 1 | **ESI NEG**

Data acquisition









Data analysis

Assess basic IRMS performance

- Relative IRMS precision
- Poisson noise analysis

Assess IRMS performance

- Sample/reference standardization
- Geochemical $\delta^{15}N$ and $\delta^{18}O$ values