Supplementary information for**: Determination of trace metal (Mn, Fe, Ni, Cu, Zn, Co, Cd and Pb) concentrations in seawater using single quadrupole ICP-MS: A comparison between offline and online preconcentration setups**

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Includes:

- Supplemental Figure: Figure S1
- Supplemental Figure: Figure S2

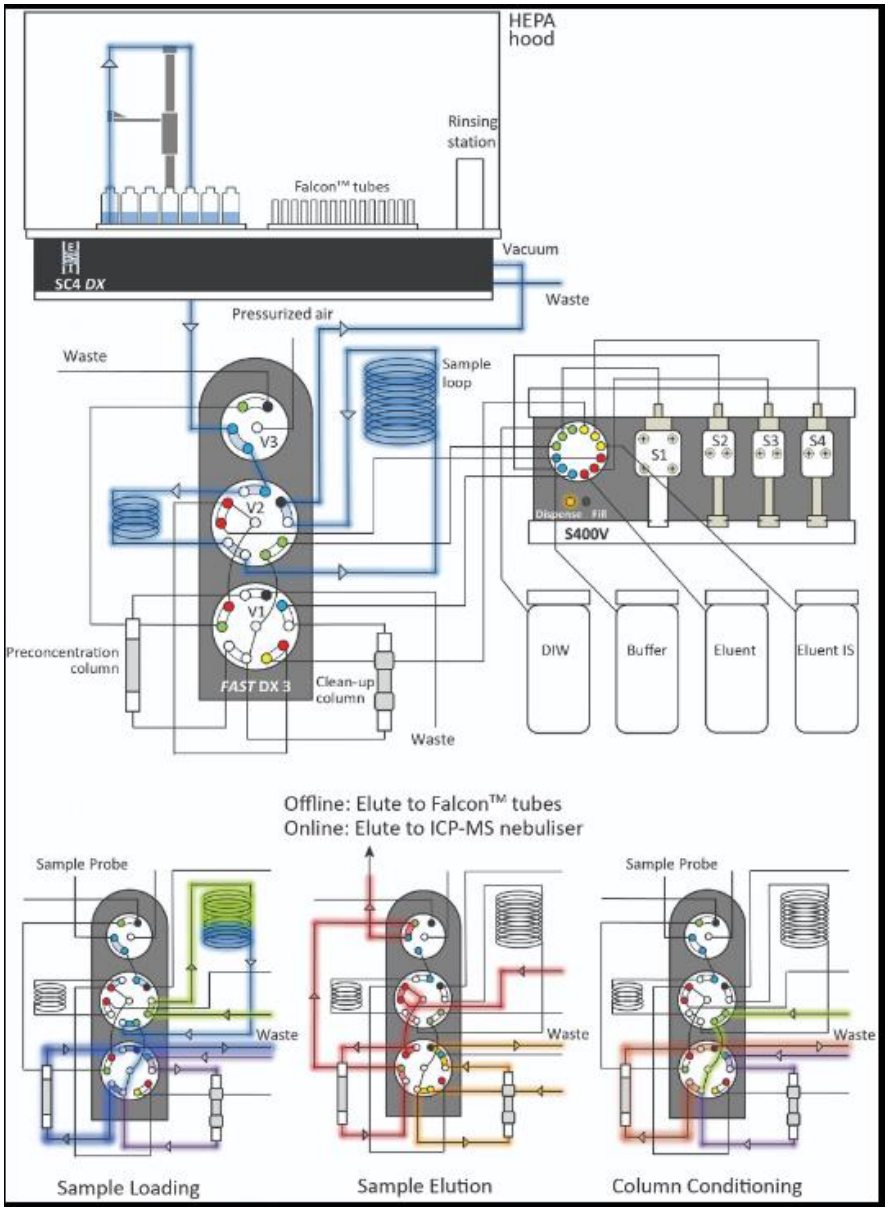

Figure S1. Schematic setups of online and offline seaFAST systems, modified from previous study [1], represent the different steps of seaFAST operation. Blue line in the top panel shows the sample uptake into the sample loop. Green line in the bottom panels: DIW, Purple: Buffer, dark blue line in the bottom left column: sample and buffer mixture, red line bottom middle panel: Eluent. For offline setup, eluent is collected in falcon tube kept in the sample rack in SC-4DX module. For online, eluent is directly introduced to the nebulizer of ICP-MS.

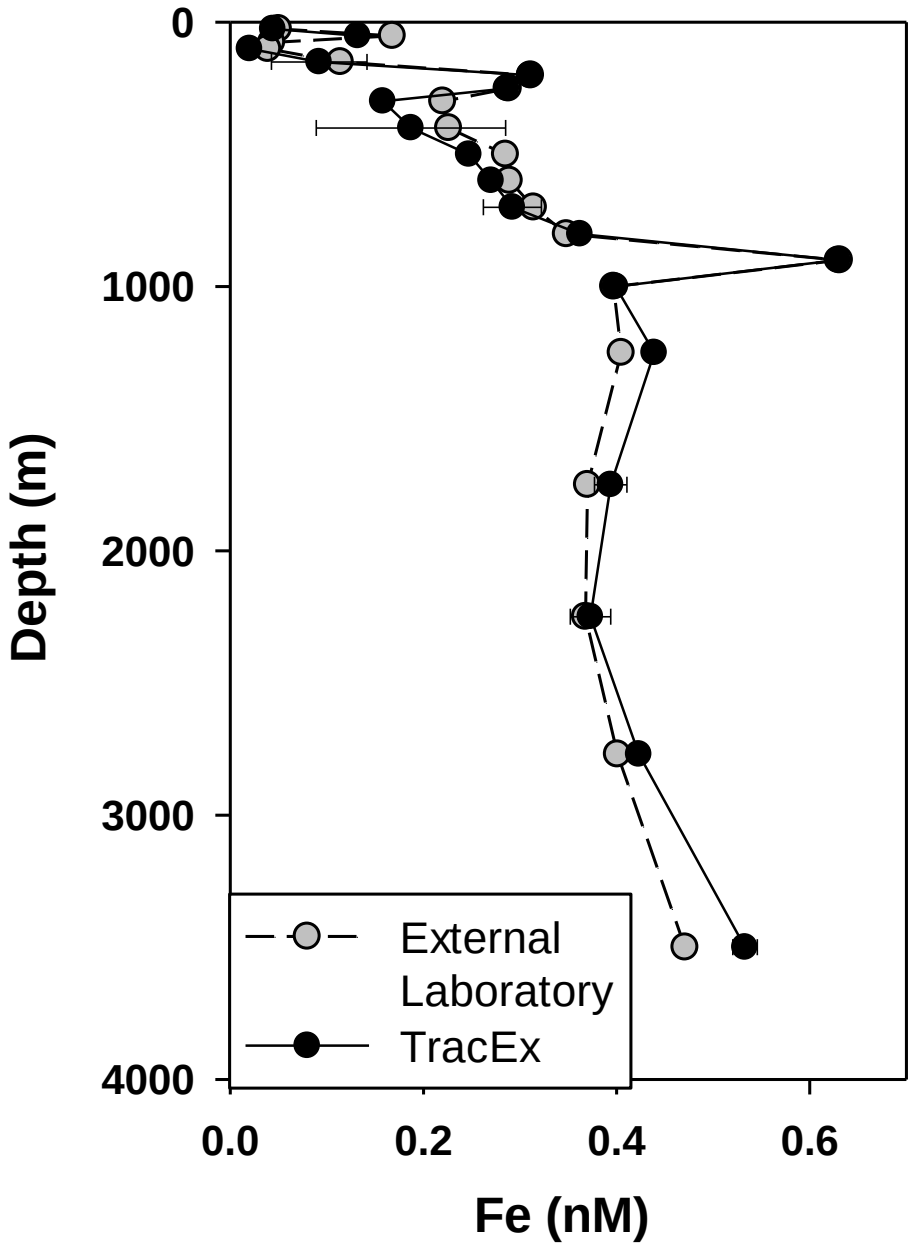

Figure S2. Comparison of Fe measurements from this study and an external laboratory. Samples were collected from 56°S; 30°E (Southern Ocean) and were analysed via the offline preconcentration method described in this study as well as by an external laboratory using an offline preconcentration and SF-ICP-MS technique.

Supplementary References

1. Rapp, I.; Schlosser, C.; Rusiecka, D.; Gledhill, M.; Achterberg, E.P. Automated preconcentration of Fe, Zn, Cu, Ni, Cd, Pb, Co, and Mn in seawater with analysis using high-resolution sector field inductively- coupled plasma mass spectrometry. *Anal. Chim. Acta* **2017**, 976, 1–13, doi:10.1016/j.aca.2017.05.008.