Any experience in this area? Preliminary results? Reference?


- Shown below (Fig. 2) is recent result on glutathione derivatization with one-pot reaction in aqueous solution, using 1 µM GSH as reductant. It is a standard curve of GSH processed as an algal culture sample with the derivatization procedure: i.e. use sonication to extract GSH from cell, heat to 70°C in pH2 solution to denture protease, and derivatize with 150:1 mole ratio of mBBr:GSH.

![Fluorescence, blank subtracted ex: 380 nm and Em: 470 nm slit 2.5nm](image)

- We have many years of experience with glutathione analysis for phytoplankton samples (Ahner et al., 2002; Wei and Ahner, 2005; Wei et al., 2003; Wei et al., 2010). Shown below are more recent HPLC chromatograms for various thiols using different thiol reductants (DTT and Cys).
Fig. 3. Use DTT as a reductant. Standards: 0.05 nmol Cys, rEC, GSH, PC2, PC3. 50 min/run. Column has been used extensively for 2 years. Shown here are the separation of target thios. γEC and GSH are not well separated as the column gets older. R donates reagent peaks.

Fig. 4. Use Cys as a reductant to make PCs be less of derivatization interferences. 50 min/run. Showing here are cleaners peaks of larger thiols. Column is old – has been used for 3 years – ready to be replaced.
**Reference:**


