

README for gas_toolbox

Version 1.0

Please check our GitHub page: https://github.com/whoi-glider/oce_tools/oce_tools for the most recent version of these functions.

To use these functions, you must also install of the Gibbs-Seawater (GSW) Oceanographic Toolbox Version 3.05 (released 16 Feb 2015), available at <http://www.teos-10.org/software>. Version 3.05 has an error in the solubility functions for Ne, which we have manually corrected for in our function `gasmoleq.m`.

These functions calculate the air-sea flux of several gases using several different gas exchange parameterizations, including three that explicitly include bubble-mediated exchange.

These MATLAB functions are provided as supporting information to the publication Manning, C.C., R.H.R. Stanley, D.P. Nicholson, and M.J. Squibb (2016). Quantifying air-sea gas exchange using noble gases in a coastal upwelling zone. *J. Phys. Conf. Ser.*

If you use these functions in a publication, please cite or acknowledge our paper or our GitHub website, and also cite the references listed in the headers of the individual functions.

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