

Bulk and Size-Fractionated Aerosols from GEOTRACES GN01



OCE-1438047
OCE-1437266

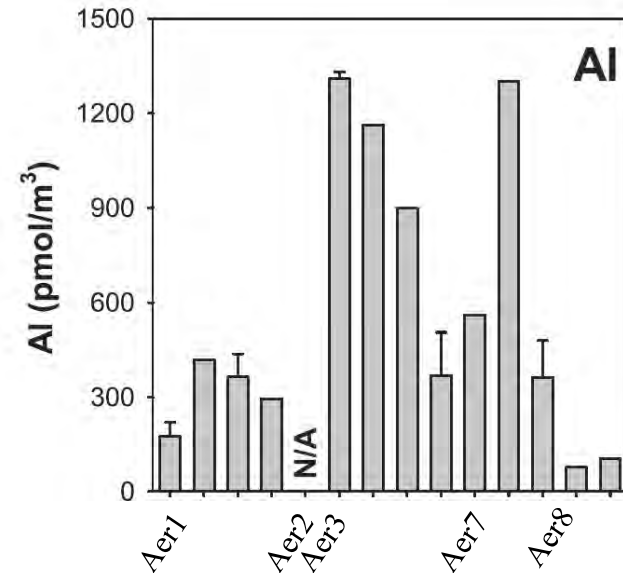
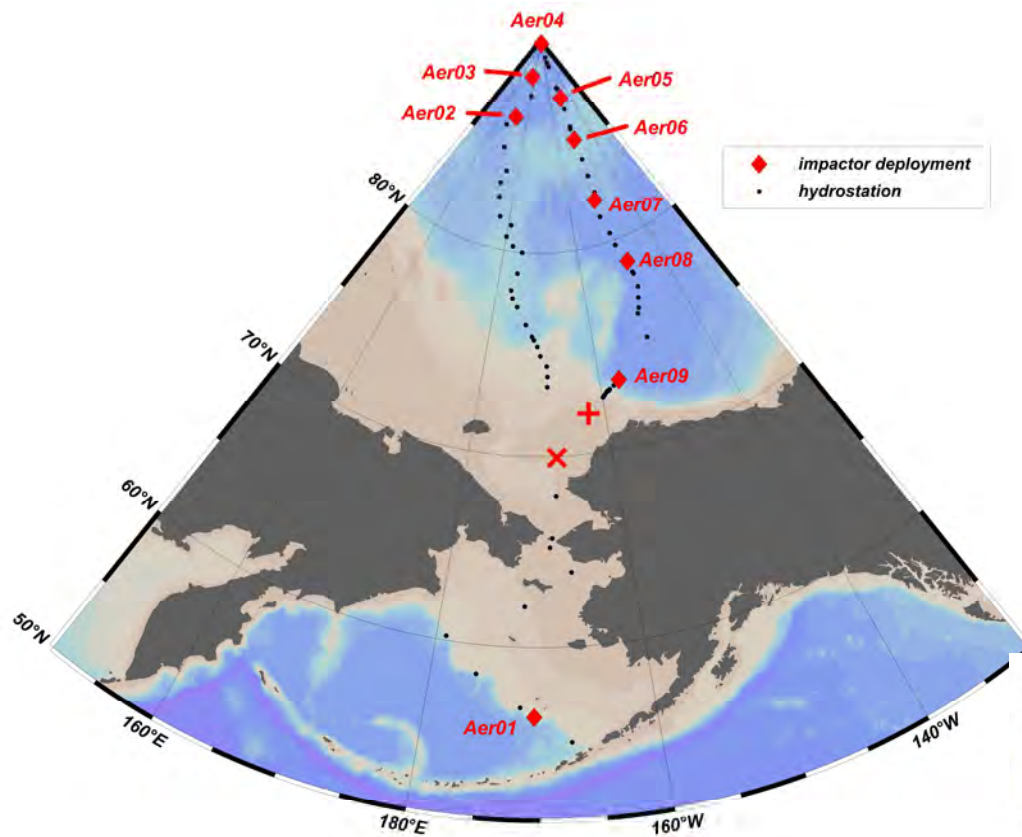


GEOTRACES



The University of Georgia
Skidaway Institute
of Oceanography

Western Arctic Section – GN01



Chemical Geology

Volume 502, 10 December 2018, Pages 1-14



VSI: ConwayGEOTRACES

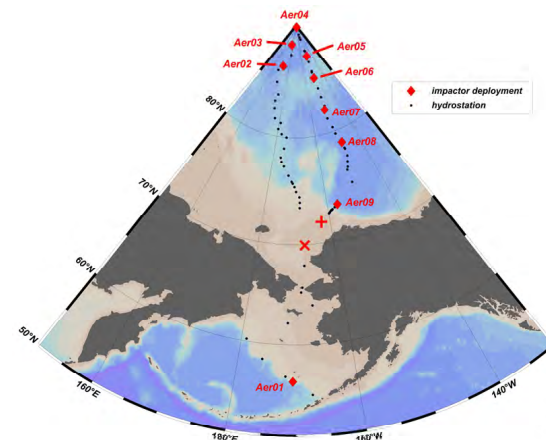
Concentrations, provenance and flux of aerosol trace elements during US GEOTRACES Western Arctic cruise GN01 ☆

Chris M. Marsay ^a, David Kadko ^b, William M. Landing ^c, Peter L. Morton ^d, Brent A. Summers ^e, ¹, Clifton S. Buck ^a

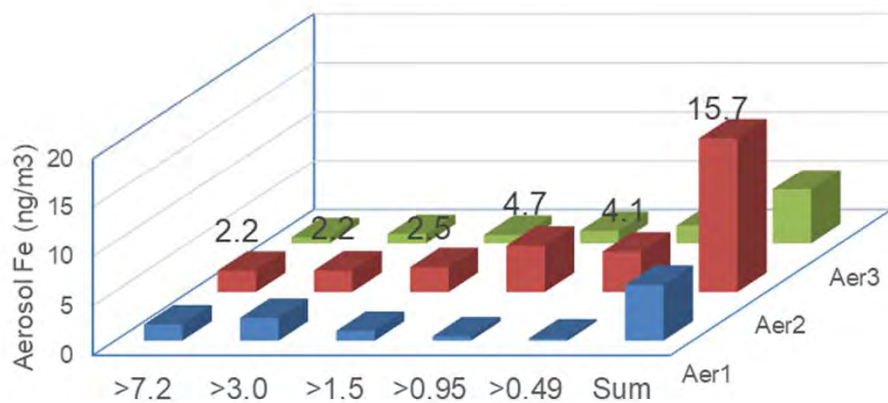


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Northbound

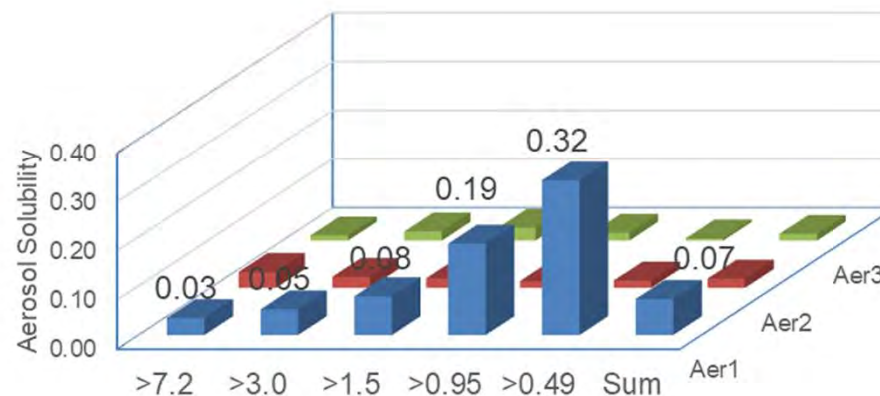


Northbound - Aerosol Iron



Large → Small

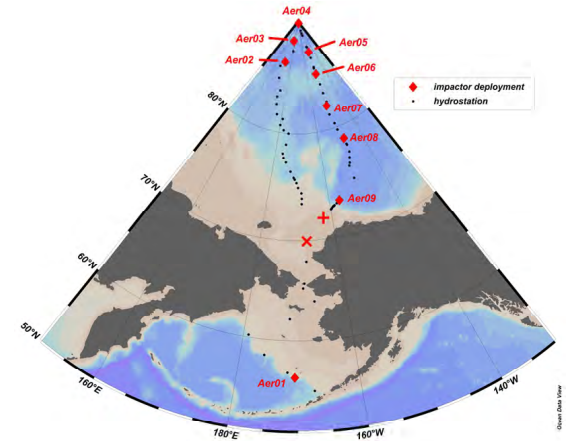
Northbound - Fractional Iron Solubility



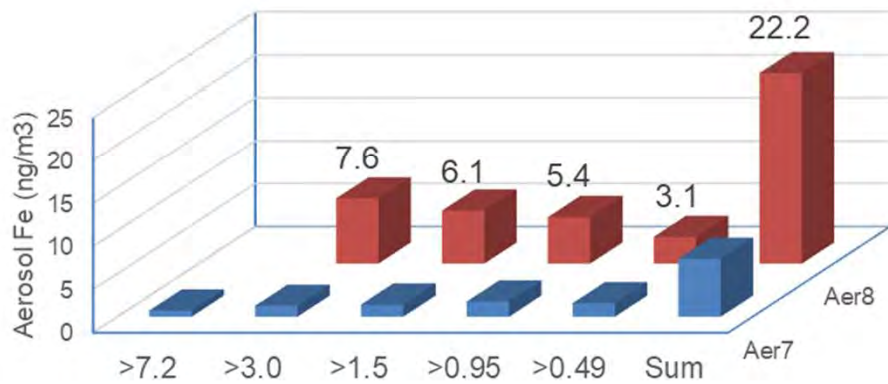
Large → Small



Southbound

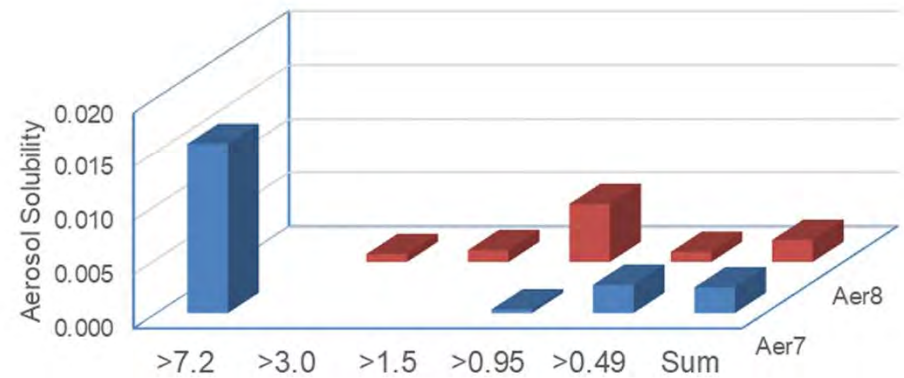


Southbound - Aerosol Iron



Large → Small

Southbound - Fractional Iron Solubility



Large → Small



Arctic Summary

- Size distribution varied with aerosol source
- In one case solubility was higher in small particles but not so in other cases
 - 32% in particles between 1.0 and 0.5 μm
 - Solubility was less in other samples; $\sim 1\text{-}4\%$
- GFF filters are available from all collections
- Some W41 filters available from some deployments
- Strips from impactor filters are available

