

EDDIES large volume particulate methods

From Buesseler, K.O., C. Lamborg, P. Cai, R. Escoube, R. Johnson, S. Pike, P. Masque, D. McGillicuddy and E. Verdeny (2008). Particle fluxes associated with mesoscale eddies in the Sargasso Sea. *Deep-Sea Research II*, 55: 1426-1444.

We deployed up to 4 battery powered in-situ pumps at different depths to filter 200-400L of seawater sequentially through a 53 μm pore size screen followed by a 1 μm nominal pore size quartz filter (both are 142mm diameter). Details of this sampling method have been published elsewhere (Buesseler et al. 2001). As with total ^{234}Th in seawater, particulate samples are beta counted for initial ^{234}Th activities and later for background corrections. Beta counting efficiencies for particulate samples are calibrated by complete sample digestion and radiochemical purification of selected samples using traditional methods (Rutgers Van Der Loeff et al. 2006).

Buesseler, K. O. and others 2001. Upper ocean export of particulate organic carbon and biogenic silica in the Southern Ocean along 170°W. *Deep-Sea Research II* **48**: 4275-4297.

Rutgers Van Der Loeff, M. and others 2006. A review of present techniques and methodological advances in analyzing ^{234}Th in aquatic systems. *Marine Chemistry* **100**: 190-212.