

Total Suspended Matter (TSM)

Sample collection

Water samples collected from either Niskin bottles or from a surface bucket sample are filtered under low vacuum (<5 in Hg) into pre-weighed (± 0.001 mg) 47mm, 0.2 μ m pore size Nucleopore polycarbonate filters. Before removal from filtering apparatus samples are rinsed with filtered seawater unless otherwise indicated. Filter samples with retained material from a known filtrate volume (± 1 mL) are stored in plastic petri dish at -20°C (-80°C , if available) until processing in the laboratory.

Laboratory sample processing

Filters samples are dried on drying oven at $55-65^{\circ}\text{C}$ for 2-3 days, after which filters are transferred to a desiccator to reach room temperature. Filters are weighed (± 0.001 mg) in small batches (6-8) to limit moisture absorption and returned to desiccator. After all filter weights have been recorded, the filters are returned again to desiccate on the drying oven overnight. The preceding drying and re-weighing procedure is repeated at least three times.

Calculations

Total suspended material (TSM) is calculated by subtracting the weight of the pre-weighed filter where the sample was collected on, to the average of the sample plus filter weights. Estimates of TSM are not corrected for salts retained in filter and retained material.