

Materials List for:

An Ultra-clean Multilayer Apparatus for Collecting Size Fractionated Marine Plankton and Suspended Particles

Liang-Saw Wen¹, Chih-Ping Lee¹, Wen-Huei Lee¹, Alan Chuang²

¹Institute of Oceanography, National Taiwan University

²Sino Instruments Co., Ltd.

Correspondence to: Liang-Saw Wen at lswen@ntu.edu.tw

URL: <https://www.jove.com/video/56811>

DOI: [doi:10.3791/56811](https://doi.org/10.3791/56811)

Materials

Name	Company	Catalog Number	Comments
thermoplastic elastomer (C-Flex) Tubings	Cole Palmer	EW-06424-67	O.D. 0.635 cm, Opaque White 1/8"ID x 1/4"OD, 25 ft/pack
LDPE Bottle (Nalgene)	ThermoFisher Scientific	2103-0004	125 mL, Nalgene Wide-Mouth LDPE Bottles with Closure
anionic protease enzyme detergent detergent (Tergazyme)	Alconox	1104-1	1×4 lb box (1.8 kg)
Hydrochloric Acid	Sigma-Aldrich	258148	Reagent grade
Nitric acid	Sigma-Aldrich	695025	Reagent grade
alkaline detergent (Micro)	Cole Palmer	EW-99999-14	Micro-90 Cleaning Solution
polycarbonate filter, 47 mm, 0.4 μm	Sigma-Aldrich	WHA111107	Whatman Nuclepore Track-Etched Membranes, diam. 47 mm, pore size 0.4 μm, polycarbonate
polycarbonate filter, 47 mm, 10 μm	Sigma-Aldrich	WHA111115	Whatman Nuclepore Track-Etched Membranes, diam. 47 mm, pore size 10 μm, polycarbonate
PFA vessel, 60 ml capacity	Savillex	300-060-03	60 mL Digestion Vessel, Flat Interior, Flat Exterior, Buttress Threaded Top
Nitric acid, ultrapure	Seastar Chemicals	N/A	BASELINE Nitric Acid
HF, ultrapure	Seastar Chemicals	N/A	BASELINE Hydrofluoric Acid
Boric acid, ultrapure	Seastar Chemicals	N/A	BASELINE Hydrobromic Acid
polyethylene (PE) gloves	Safty Zone	GDPL-MD-5	Clear Powder Free Polyethylene Gloves
Multiple layer filtering and collecting device	Sino Instrumnets Co. Ltd	not available	Multiple layer filtering and collecting device, CATNET
10 um Nylon filters, Nitex	Dynamic Aqua-Supply Ltd.	NTX 10	Nitex - Standard Widths (40 - 44 inches)
60 um Nylon filters, Nitex	Dynamic Aqua-Supply Ltd.	NTX 60	Nitex - Standard Widths (40 - 44 inches)
150 um Nylon filters, Nitex	Dynamic Aqua-Supply Ltd.	NTX 150	Nitex - Standard Widths (40 - 44 inches)
torque wrench	Halfords	200238	Halfords Professional Torque Wrench 8-60Nm
multi-bottle sampling array, Rosette	General Oceanics	Model 1018	Rosette Sampler
PTFE-coated sampling bottles, GO-Flo	General Oceanics	108020T	GO-Flo water sampler teflon coated
Marine sediment reference materials	National Research Council Canada	MESS-3	

Estuarine sediment standard reference material	National Institute of Standards and Technology	1646a	
Plankton reference material	The European Commission's science and knowledge service	CRM414	