

Materials List for:

Determination of the Settling Rate of Clay/Cyanobacterial Floccules

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Materials

Name	Company	Catalog Number	Comments
cyanobacteria (in this study: <i>Synechococcus</i> sp. PCC 7002 and <i>Synechocystis</i> sp. PCC 6803)	Pasteur Culture Collection	PCC 7002 or PCC 6803	used to inoculate the plates
agar	Thermo Scientific	CM0003	used to fill two petri dishes
Petri plates (standard bacteriology, 100 x 15 mm)	Sarstedt	82.1473.001	2 required
1 L heat resistant Erlenmeyer flask	Pyrex	4980-125	1 required
250 mL heat resistant Erlenmeyer flask	Pyrex	4980-250	1 required
Nichrome inoculating loop with handle	Fisher Scientific	14-956-103	1 required
tinfoil	Reynolds Wrap Aluminum Foil	89079-067	50 cm required; used to cover foam stopper and neck of erlenmeyer flasks
growth media (e.g. A+)			1050 mL required; produced using composition described in tables 1-4
Bunsen Burner	Fisher Scientific	S95941	1 required
plastic tubing	Fisher Scientific	S504591	1 m required; used to create the bubbling apparatus
sponge stopper	Jaece Industries Inc	14-127-40E	1 required; hole made in center for pipette; used for constructin the bubbling apparatus
acrylic sheet	Home Depot	Optix clear acrylic sheet model # MC-102S	1 required; used to construct acrylic tank (20 x 30 x 5.1 cm)
clear waterproof silicone adhesive	Home Depot	Loctite clear silicone model # 908570	1 required; used to construct acrylic tank (20 x 30 x 5.1 cm)
camera or video recorder	Panasonic	HC-V770 HD camcorder	1 required
tripod	Magnus	VT-300	1 required
black cloth	primomart	EAN 0726670162199; Part number 680254blacknappedfr	1 required; duvetyne light block-out cloth; approximately 152 x 213 cm to cover tank experiment
heat resistant serological pipet	corning incorporated C708510	13-671-101G	1 required; used to create the bubbling apparatus
sample vials	Dynalox	S30467	at least 12 (will vary with time interval chosen)
heat resistant glass pipette	Fisher Scientific	Corning Incorporated C708510, 13-671-101G	1 required; used to create the bubbling apparatus; Polystyrene serological pipet would also work, but should be connected to the

			tubing and stopper after the rest of the apparatus is autoclaved.
microcentrifuge	Eppendorf	22 62 120-3	1 required; Comparable products may be used if capable of centrifuging 1.5 -2 mL microfuge tubes at 13,000 x g
vortex machine (Vortex-Genie 2)	Scientific Industries, Inc	SI-0236	1 required
100% methanol	Fisher Scientific	A412-500 SDS	at least 12 mL (1mL per sample) required; Caution: Flammable, toxic. Wear gloves and safety glasses. Do not use or store near ignition source. Alternate sources may be used.
cuvettes (1.6 mL, polystyrene)	Sarstedt	67.742	at least 12 required
spectrophotometer	Fisher Scientific	222-271600	1 required; Pharmacia Biotech Novaspec II could also be used.
light bulbs	Home Depot	model # 451807; internet #205477895; store SKU #1001061538	6-8 bulbs required to provide light for the tank experiments
pipette (Pipetman Classic P1000)	Gilson	F123602	used to collect samples
37 % Hydrochloric acid	Sigma-Aldrich	258148	Caution: Corrosive and toxic. Wear lab coat, safety glasses and acid-resistant gloves while using. Prepared to 4 N before use by dilution into deionized water in a chemical fumehood.
Foam stopper (small)	Canlab	T 1385	
Foam stopper (large)	Canlab	T 1387	Requires some intact stoppers and some with a single hole through the centre
30 °C incubator/growth room with continuous illumination			1 required
70 % Ethanol	Fisher Scientific	BP8201500	30 mL required; Caution: Toxic and flammable. Wear lab coat and safety glasses
hydrophobic air filter (Midisart 2000, 0.2 µm)	Sartorius	17805	1 required
clay (e.g. kaolin)	Fisher Scientific	MFCD00062311	at least 50 g required
microfuge tubes (2 mL, polypropylene)	Sarstedt	72.695.500	Comparable products may be used. At least 12 (will vary with time interval chosen)
1000 µL pipet tips	Sarstedt	70.762	1 required