1693. Cyanobacteria Medium ES

Minerals	Volume [ml/l]	Stock Solutions [g/l]
Soil Extract	30	see recipe below
KNO_3	10.5	19
K_2HPO_4	4.6	4.35
$MgSO_4 \times 7H_2O$	2.7	7.5
Micronutrient solution	5.0	see recipe below

Adjust to 1000mL with H_2O dist. and autoclave.

Micronutrients Component 1	Volume [g/50ml]	
$FeSO_4 \times 7H_2O$	0.7	(solutions remains slightly turbid)
Na-EDTA x $2H_2O$	2.0	(solution remains slightly turbid)

Combine both solutions (yields a clear solution)

Micronutrients Component 2	Volume [ml/l]	[g/l] stock solution
$ZnSO_4 \times 7H_2O$	1.0	1.0
$MnSO_4 \times H_2O$	2.0	0.76
H_3BO_3	5.0	2.0
$Co(NO_3)_2 \times 6H_2O$	0.2	5.0
$Na_2MoO_4 \times 2H2O$	5.0	0.2
$CuSO_4 \times 5H_2O$	0.02	0.250
	[g/L]	
Na-EDTA x $2H_2O$	0.4	

For Micronutrient solution combine Component 1 and Component 2 and adjust to 1 l

Freeze aliquots for storage

Recipe for the preparation of soil extract:

- Fill 300ml garden soil in a 1 l laboratory flask and fill up with H_2O_{dist} to 700 ml

  (The soil should not contain too much humus and not too much clay – avoid soil contaminated with fertilizers, herbicides or fungicides)

- Shake vigorously
- Autoclave for 1 h at 121 °C and let cool down
- After 24 h autoclave for a second time (for 1 h at 121 °C)
- Remove bigger particles and debris by centrifugation
- Filter through Whatmanfilter 595 (1/2, 320 mm) to remove residual particles
- Filter sterilize (PES membrane, pore size 0,22 µm)
- Store at 4°C – 10°C