Table 10.2 Basic Method 1: Calculations for Preparation of Nutrient Diffusing Substrata

Date _____	Project _____
Stream _____	Investigators _____

(A) target nutrient	(B) salt A	(C) salt B	(D) molecular weight salt A	(E) molecular weight salt B	(F) desired molarity (M)	(H) g salt A per L agar solution	(I) g salt B per L agar solution	(J) g agar/L solution	(K) total number cups	(L) mL/cup	(M) total volume solution needed (L)
NH_4^+-N	NH_4Cl	--	53.5	--	0.5	26.7	--	20	5	30	0.15
NO_3^--N	KNO_3	--	101.1	--	0.5	50.6	--	20		30	
NO_3^--N	$NaNO_3$	--	85	--	0.5	42.5	--	20		30	
PO_4^{3-}-P	KH_2PO_4	--	136.1	--	0.5	68	--	20		30	
NH_4^+-N and	NH_4Cl	KH_2PO_4	53.5	136.1	0.5	26.7	68	30		30	
NO_3^--N and	KNO_3	KH_2PO_4	101.1	136.1	0.5	50.6	68	30		30	
NO_3^--N and	$NaNO_3$	KH_2PO_4	85	136.1	0.5	42.5	68	30		30	
Calculation						D*F	E*F				(K*L)/1000
Explanation					0.5 M unless specific change			when adding two nutrients, an additional 10 g/L of agar should be dissolved into solution	generally 5 reps per treatment per stream	volume of agar solution to fill each Polycon cup	