

N-mineralization

Mixing 0.5M K₂SO₄:

F.W = 174.27g K₂SO₄/M

Multiply F.W. by desired molarity

174.27g K₂SO₄/M x 0.5M K₂SO₄ = 87.135 g K₂SO₄/L DI H₂O

So, weigh out 87.135 g K₂SO₄ per 1 liter DI H₂O

1. Weigh out 10g of field moist soil into two specimen cups. One labeled t0 and the other t1.
2. Extract t0 soil immediately with 50ml of 0.5M K₂SO₄.
3. Hand shake about 20 times.
4. Let sit in air-conditioned lab for 18-24 hours.
5. After 18-24 hours, filter extract using a Whatman GF/A filter and the suc-vac system.
6. Save filtrate in two 20ml scintillation vials (set A and B).
7. Keep samples frozen until they are ready to be run on autoanalyzer for concentrations of inorganic N (NO₃ and NH₄).
8. For the t1 sample, incubate soil in an ambient lab for 7 days.
9. After 7 days extract the samples exactly the same way as the t0 samples.
NOTE: t1 samples can be stored in 5ml plastic test tubes instead of scintillation vials.