Organic Carbon Determination
Analysis of Soil Organic Matter by Wet Combustion

Reagents

In 1 L volumetric flask
49.04 g Potassium Dichromate (K₂Cr₂O₇)
Bring to volume with DI water

36 N Sulfuric Acid (H₂SO₄)

Standard

In 1 L volumetric flask
9.5 g Sucrose
Bring to volume with DI water

Add 1, 2, 4, 6, and 8 ml of the 4 mg C ml⁻¹ sucrose standard solution into five 250 ml Erlenmeyer flasks.

Add 10 mL Potassium Dichromate, swirl
Add 20 mL Sulfuric Acid
Add 100, 99, 98, 96, 94, and 92 ml of H₂O to the 0, 4, 8, 16, 24, and 32 mg C standards
Standards: 0, 4, 8, 16, 24, and 32 mg C

Procedure

Add the following to 250 mL Erlenmeyer flask
1.0 g Soil (0.5 g if samples is dark)
10 mL Potassium Dichromate

Swirl (make sure soil is completely covered)
20 mL Concentrated H₂SO₄

Swirl & let sit for 10 minutes
100 mL DI water

Centrifuge for 5 min at 2000 rpm
Using a pipette, transfer supernatant 200 µl into each well in one column on a clear well plate

Measure absorbance at 620 nm