# Cellulose Grinding Protocol

## Authorship

Ashley Campbell and Chris Gaby (2011)

## Materials

1. Bacterial cellulose pellicules
2. Scissors
3. Bead beater jars
4. Bead beater
5. Weighboats/weigh paper
6. Scale
7. 250 um Sieve
8. Scintillation vials for holding ground cellulose

## Procedure

1. Cut cellulose with sterilized scissors into small confetti pieces
2. Weigh out 50 mg portions for grinding
3. Add to appropriate vial (12C or 13C), mark with red and yellow tape respectively.
4. Place in bead beater machine (in Laurie Drinkwater lab) and bead for 1.5 min.
5. Sift through 250 um sieve, anything that goes through gets put in a jar.
   * Anything that remains in the sieve needs to be re-ground.
   * The sieving is to make sure the particle size is representative of particulate organic matter (POM) that microbes would experience in their natural environment.
6. Do until all cellulose confetti has been ground.