Standard Operating Procedure

Acetic Acid Leeching

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| **Department:** | Earth and Environmental Sciences |
| **Date SOP was written:** | 9/19/2013 |
| **Date SOP was approved by PI/lab supervisor:** | 9/19/2013 |
| **Principal Investigator:** | Steven Goodbred |
| **Internal Lab Safety Coordinator/Lab Manager:** | Richard Bradshaw |
| **Lab Phone:** | Click here to enter text. |
| **Office Phone:** | S. Goodbred (615) 322-4511 (campus phone: 2-4511) Bradshaw (615) 343-0839 (campus phone: 3-0839) |
| **Emergency Contact:** | S. Goodbred (615) 916-9259  R. Bradshaw (208) 260-2792 |
|  |
| **Location(s) covered by this SOP:** | *SC1110* |
| *(Building/Room Number)* |

**Type of SOP:** ☒ Process ☐Hazardous Chemical ☐ Hazardous Class

**Purpose**

**Personal Protective Equipment (PPE)**

**Respirator Protection**

**Eye Protection**

ANSI approved, tight-fitting safety glasses/goggles and/or face shield.

**Body Protection**

Remove any loose jewelry around your neck or any jewelry on your hands and wrists. Tightly secure long hair in ponytail.

**Ear Protection**

Ear protection in the form of ear muffs or ear plugs must be worn during operation.

**Engineering Controls**

**Medical Emergency**

To contact the [Vanderbilt University Police Department](http://police.vanderbilt.edu/) in an emergency:

* Call **911** from any campus phone.
* Call **(615) 421-1911** from any other phone.

**Protocol/Procedure**

**Report any problems or abnormalities with the equipment immediately to the PI or LM.**

**\*\*\*NEVER leave the machine unattended while operating\*\*\***

After your sample has been oven dried at 50-60°C:

1. Place your sample in a 50 mL beaker.
2. *Under the fume hood*, add 10% acetic acid to the beaker until the sediment surface is covered. Stir with a glass stir rod. The reaction will happen immediately and the sample will fizz, depending on how much carbonate is present.
3. Allow the sample to sit under the fume hood (either a few hours or overnight) in order for the mud to settle.
4. Decant the liquid from the beaker into an acetic acid waste jar.
5. Repeat step 2 three times (or until the sample stops fizzing with the addition of acetic acid).
6. Decant liquid as before into waste jar.
7. Rinse sample with DI and decant.
8. Repeat rinse with DI and decant again until all the acetic acid is gone.
9. Place beakers in the oven to dry at 50-60°C.

**NOTE**

Any deviation from this SOP requires approval from PI.

**Documentation of Training** (signature of all users is required)

* Prior to conducting any work with Acetic Acid Leeching, LM or designated personnel must provide training to his/her laboratory personnel specific to the hazards involved in working with this substance, and emergency procedures.
* The Principal Investigator must provide his/her laboratory personnel with a copy of this SOP.
* The Principal Investigator must ensure that their laboratory personnel have attended appropriate laboratory safety training and are current with any refresher training required.

I have read and understand the content of this SOP:

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| **Name** | **Signature** | **Identification** | **Date** |
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