

Standard Operating Procedures

Laboratory Specific – Biochemistry Shared Instrumentation Facility

Sonicator

Please fill out the form completely. Print a copy and insert into your
Laboratory Safety Manual and Chemical Hygiene Plan.
Refer to instructions for assistance.

Department: Chemistry and Biochemistry Date when SOP was written: Sept 20, 2012

Date when SOP was approved by the lab supervisor: _____

Supervisor Name and Signature: Margot Quinlan _____

Internal Laboratory Safety Coordinator/Lab Manager: Matthew Graf

Laboratory Phone: 310- Office Phone: 323-447-6288

Emergency Contact: Margot Quinlan (310) 206-8064

Location(s) covered by this SOP: Young Hall 5044, 5048A, 5048B

Type of SOP: Process Hazardous Chemical Hazardous Class

Purpose

The sonicator makes use of high-energy sound waves to cause lysis of cell cultures as well as homogenization of other solutions.

The Primary Hazard risk is damage to the ears caused by exposure to high-frequency sound waves. Additionally, the sonicator can cause local heating of the solution, which could result in a sudden splashing of the sonicated solution.

Potential Hazards/Toxicity

Inhalation – N/A

Skin – N/A

Eyes – N/A

Ingestion – N/A

Additional – Standard Electrical Hazard for all instruments - avoid touching electrical junctures and mind liquid spills which could damage electrical components.

Basic Training Requirements

- Lab personnel working with the **any facility instrument** must have attended the 'Laboratory Safety Fundamental Concepts' classroom training course offered by EH&S and have read and signed the Shared Instrument Facility General Use Safety Policy.

- Lab personnel must have attended an instrument specific training session with the Biochemistry Instrument TA or Instrument facility approved manager prior to any use, covering general use and safe practices of the instrument in question.

Personal Protective Equipment (PPE)

Use of the Sonicator requires use of ear protection in addition to standard PPE.

Hand protection

None required unless by the demands of a users personal experiment.

Eye protection

Standard Goggles.

Skin and body protection

Lab coat, long pants, closed-toed shoes.

Hygiene measures

Avoid touching instrument surfaces with gloved hands. Wipe instruments with 20% EtOH - dampened towel following use.

NEVER TOUCH Computer surfaces (mouse, keyboard etc) with gloved hands.

Engineering Controls

None required.

First Aid Procedures

Treat if possible in accordance with the type of injury, consult a physician or seek emergency care if necessary.

Spill and Accident Procedure

Clean any spill according to the demands of the chemical nature of the experiment being conducted. See the General Use Safety Policy.

Medical Emergency Dial 911 or x52111

Life Threatening Emergency, After Hours, Weekends And Holidays – Dial 911

(or 310-825-1491 from cell phone) or contact the Ronald Reagan UCLA Medical Center (emergency room) directly at **x52111** (located at 757 Westwood Plaza, enter from Gayley Avenue). *Note: All serious injuries must be reported to EH&S at **x59797** within 8 hours.*

Non-Life Threatening Emergency– Go to the Occupational Health Facility (OHF),

x56771, CHS room 67-120 (This is on the 6th floor, 7th corridor, room 120. Enter through the School of Dentistry on Tiverton Drive and proceed to the "O" elevator to the 6th floor.)Hours: M - F, 7:30 a.m. to 4:30 p.m. At all other times report to Ronald Regan UCLA Medical Center (emergency room) at **x52111**. *Note: All serious injuries must be reported to EH&S at **x59797** within 8 hours.*

Needle stick/puncture exposure

N/A

Decontamination/Waste Disposal Procedure

Label Waste

N/A

Store Waste

NO WASTE STORAGE ALLOWED IN FACILITY

Dispose of Waste

CHEMICAL WASTE TO BE DISPOSED OF BY USER OUTSIDE OF FACILITY

Gloves and towels free from exposure to Hazardous chemicals may be disposed of in provided trash cans.

Safety Data Sheet (SDS) Location

Copies Located in the "Facility Safety Binder" in Young Hall 5044

Protocol/Procedure

- 1) Close all doors that provide access to the room housing the sonicator.
- 2) Use Ear protection, found in labeled drawer, in addition to standard PPE.
- 3) Ensure that anyone in the sonicator room has ear protection, if not, ask them to get some or to leave the room.
- 4) To change the tip, use the special wrenches provided in the sonicator draw. Ensure that the new tip is securely fastened to the sonicator head. Never operate the sonicator without a tip or cap -
THERE SHOULD NEVER BE VISIBLE SCREW THREADS AT THE TIP
- 5) Place sonicator into solution. It is highly suggested that the solution be kept on ice during sonication to keep temperature low and prevent spashing.
- 6) Run sonication according to personal experimental protocols; then shut off instrument
- 7) Wipe any solution from sonicator tip and dispose of towels as chemical nature demands.
- 8) Wipe sonicator tip with towels dampened with clean water, followed by towels dampened by 20% EtOH.
- 9) Return ear protection to proper place, and reopen doors to the room.

NOTE

Any deviation from this SOP requires approval from a Facility Manager.

Documentation of Training (signature of all users is required)

I have read and understand the content of this SOP and have undergone training by an approved Facility Manager. I also attest that I have read and signed the Instrumentation Facility General Use Safety Policy prior to this instrument specific training.

Name

Signature

Date
