Centrifugation Standard Operating Procedure

 Procedure: Super-speed centrifugation with Thermo Scientific RC6+

|  |
| --- |
| Personal Protective Equipment1. Lab coat
2. Gloves
3. Safety glasses or goggles if handling eye hazards
4. Enclosed footwear
 |
| Safety Precautions and Core Facility Centrifuge Regulations**1.Please do not use this equipment unless you have been trained by the GACF core coordinator (Ana Betancourt, X6130,** **abetancourt@utep.edu****) and have gained access to the core facility through required orientation**2. Inspect rotor before each use for:* Corrosion in cavities or external surfaces
* Scratches to base metal
* Damage to thread hubs and screws
* Missing or damaged anodizing

3. Rotor imbalance can cause centrifugation failure. Always balance the tubes using the provided electronic scale and place tubes in opposing positions in the rotorInspect rotor before each use for:* Corrosion in cavities or external surfaces
* Scratches to base metal
* Damage to thread hubs and screws
* Missing or damaged anodizing

4. Know the speed required by your protocol and speed limit on the rotor you are trying to use, NEVER use a rotor above its rated speed and compartment mass. Rotors used above maximum speed are to be removed from service immediately5. **Rotor lid and spindle knob have to be very tightly locked (by hand)** 6. Avoid dropping or striking the rotor on spindle or table surface7. Never use pliers to unscrew spindle lock or lid knob, if knobs become over-tightened a strap wrench is available inside the core, please ask for help8. Inspect lid and tube O-rings before starting any run9. Ensure you use the correct type of tubes for each rotor and sample type and never spin broken or damaged tubes.10. Do not walk away from centrifuge until it reaches desired speed11.Wipe centrifuge chamber with 70% ethanol after each run12. Close chamber lid and return rotor to core facility |
| Spills, Decontamination and Storage* Clean rotors, lids and adapters with 1% mild non-alkaline solution, rinse with distilled water and dry thoroughly AFTER EACH USE.
* If rotor cavities have encrusted material present, remove with a soft brush and 1% rotor cleaning solution
* Remove all tubes and adapters after each use
* Dry, and store upside-down on core bench

Decontamination* Biological contamination of rotors requires use of 2% glutaraldehyde solution or ultraviolet radiation
* 70% ethanol will suffice if sterilization is not necessary followed by water and drying with a soft cloth
* Do not immerse Fiberlite rotors
 |
| For any questions regarding this SOP or training please contact Ana Betancourt at 747-6130 or abetancourt@utep.edu .For after-hours emergencies contact campus police at X5611.Environmental Health and Safety: 747-7124 |