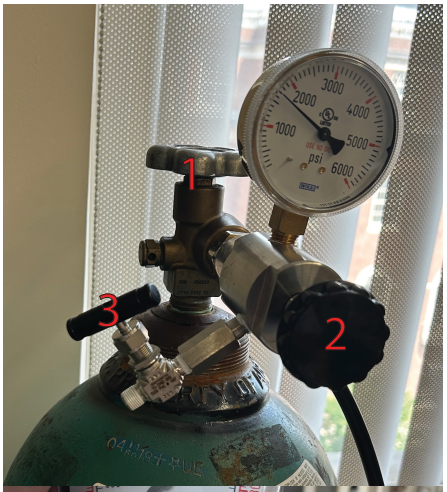
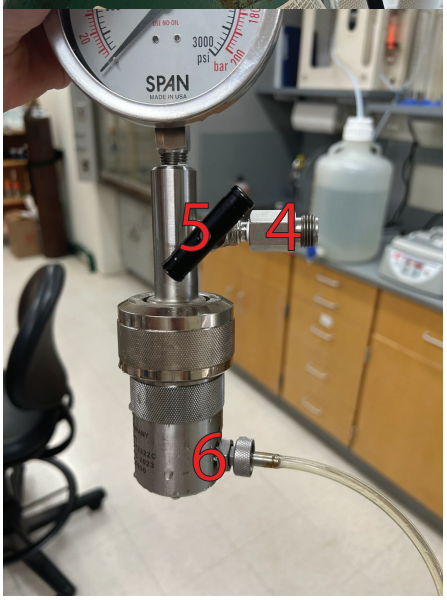
Nitrogen cavitation protocol





1. Close bottom sample outlet (#6) and the gas valve (#5) on cavitation chamber
2. Cool the cavitation chamber on ice
3. Unscrew the top of the chamber and insert sample. Screw the top back
4. On the N_2 tank make sure all valves are closed (#1, #2, #3)
5. Connect cavitation chamber to N_2 tank (#4)
6. Open main valve (#1). The pressure should go up to about 2000 psi
7. Open front valve (#2). You should hear a hiss and the tubing should move slightly, indicating that it is filled with N_2
8. Close front valve (#2)
9. Very carefully open the valve of the cavitation chamber (#5) to let N_2 in. get the pressure to 1000 psi. After you close the valve the pressure will drop slightly, so adjust to 1000 psi
10. Make sure cavitation chamber valve (#5) is closed.
11. Close main valve (#1)
12. Release pressure by opening side valve (#3)
13. Open front valve #2 to release pressure from the tube
14. Make sure all tank valves are closed (#1, #2, #3)
15. Disconnect cavitation chamber and incubate for 5 minutes. You can do this on your bench.
16. Insert outlet tube of cavitation chamber into a 15 ml tube (you can use a cap with a hole in it)
17. Very slowly release valve #6 to let sample out
18. Wash chamber with DI water twice and then with 70% ethanol.
19. Make sure to also wash the outlet tube by opening valve #6