

Bhupesh's recipe for making Mueller Catalyst:

- Mix 5 mg of dry yellow colored Mueller particles with 20mL of ethanol
- This gives a solution with 10^{16} catalyst particles per mL of solution
- We typically dilute down by orders of 2 so:
 - Sonicate the original 10^{16} solution for 5 min then mix
 - 10mL of ethanol with 10 μ L of solution
 - This yields a concentration of 10^{14} catalyst particles per mL of solution
- Repeat this process all the way down from 10^{16} , 10^{14} , ..., 10^6 , 10^4 sonicating at every step for 5 min
- To make the polymer mix
 - 0.85g Pluronic with 10mL of ethanol
 - Heat on a hotplate or in a convection oven at 60 degrees F for 15 min
 - Make sure the solution is clear and no longer milky
- Now to mix the polymer with the desired concentration of catalyst
 - Sonicate the desired concentration of catalyst solution for 5 min
 - Heat the polymer mix for 15 min at 60 degrees F on a hotplate until the solution is clear
 - Mix in a 2:1 ratio of polymer to catalyst solution using 500 μ L of catalyst solution with 1mL of polymer solution
 - Place a clean magnetic stirring rod into the final solution
 - To clean a previously used stirring rod put in clean ethanol then sonicate for 5 min
- Before using the final solution heat at 60 degrees F while stirring at 350 rpm on a hotplate for around 7 min
- Apply to slit chip using a broken wooden Q-tip