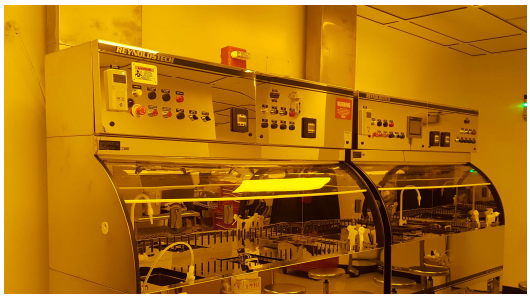
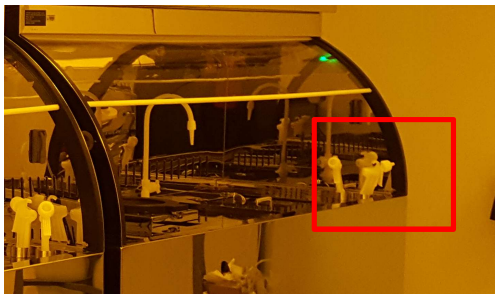
COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK
COLUMBIA NANO INITIATIVE / CENTER FOR INTEGRATED SCIENCE AND ENGINEERING

SU8 Developer Processing Standard Operating Procedure

These instructions are intended for reference only and recipe optimization is always needed per process and sample needs.

Updated by Dr. Nava Ariel-Sternberg

1.	**INTRODUCTION:** SU8 developer is a fruity, ester-like odor with a yellowish appearance, aqueous, organic solvent solution. The main ingredient is: 1-Methoxy-2-propyl Acetate.	
2.	**PRE PROCESS COAT AND EXPOSE:** Use the clean room spinners and mask aligners to coat and expose your sample. Refer to the SU8 SOP or data sheet for coat and bake recipes.	

3.	**IMMERSE and RINSE:** After exposure prepare a beaker of fresh SU8 developer. Strong agitation Is recommended for thick films or high aspect ratios. The recommended develop time for thicknesses of up to 7um is 60 seconds. Recommended time for 10um is 120 sec, and for 15 micron 180 seconds. The sample is developed when the resist "cloud" stops coming up from the sample into the developer. Don't over immerse your sample in the developer. When it's ready use tweezers and rinse briefly with IPA, then dry with a gentle stream of nitrogen.	
4.	**DRY:** Hold the sample with tweezers on its edge and dry it by using a nitrogen gun.	
5.	**INSPECTION:** Inspect the sample surface (using an optical microscope) for underdeveloped (areas exposed but not fully dissolved) which will appear as a white film during rinsing, or overdeveloped areas (some dissolving of the pattern edges).	