AZ 400K Developer Process

The CEPSR Clean Room stores one gallon bottles of AZ 400K developer solution. They are located in the large and small yellow rooms under the fume hoods with the other solvents and developers. AZ 400K is an odorless, aqueous, inorganic, alkaline solution, free of phosphates and sodium. It is compatible with batch and in-line spray-developing processes. This developer is a concentrate thus to achieve high resolution/contrast features, it will be diluted with DI water; for high contrast it is recommended to use 1 part 400K and 4 parts DI water; mixed well.

**Process**

*Note:* Variables such as developing/rinsing time as well as ratio of 400K and choice of resist should be optimized.

1) After exposure, fully immerse substrate or sample into the 400K solution (1:3) developer solution for 2min (4.5um thickness of resist) or 4min (20um resist). Manual agitation or sonication may assist in development in some cases - this again should be chosen to best fit the purpose of the device. 1-3 minutes should work in the high contrast recipe.

2) Remove sample and immerse or rinse with DI water for 2minutes, repeating this step again.

3) Remove sample and blow dry with nitrogen gun.

4) Place bottle of 400K back under the hood with other solvents.

5) Any used 400K solution during your process should be poured into its proper AZ 400K developer waste container. Place the waster container under the hood along with the other waste bottles.

*Note:* To remove AZ photoresist, AZ 300T/400T or typical solvents such as acetone, PR thinner, may be used. These are also found with other solvents in the small and large yellow rooms under the fume hoods.