LabMembers Meeting  
9 February 2012  
8 members and 7 staff attended  
Recognition to BNLA member Alphabet Energy for having 6 members attend.

Previous Meeting Thurs September 8, 2011

Member recognitions

Members recognized for their help, support and volunteering work received lunch gift certificates - John Gerling, Sarah Brittman, Michael Eggleston and Tae Joon Seok - Thank you for your willingness to go the extra mile.

Safety Review

A discussion was held with lab members about a recent safety incident involving a possible acid burn to a lab member’s forearm. No serious injury resulted. The discussion broadened to cover gowning protocols and ways to prevent inadvertent chemical exposures. See appended Sinks and chemical section.

New equipment coming:

- “primaxx” - new HF vapor etch tool is being installed in 382. This tool will replace “hfvapor”. hfvapor is available in 582A until “primaxx” is released. Thank you Professors Nguyen and King Liu.

- “fei-sem” – new inspection SEM to lighten load on leo. Delivery expected end of February. Unique features include in-situ plasma clean and advanced secondary back scattered electron detector. This tool can take up to 200mm (8”) wafers. Thank you all faculty of E3S

- “gnpcmp” - new CMP installed in 582A. This tool will provide metal CMP capability, will be set up to capture CMP byproducts for proper disposal. Thank you Professor Dornfeld.

- “cha-evap” – new 6 pocket ebeam evaporator. Scheduled to deliver mid April. This tool will let us retire one of our oldest bell jar thermal evaporators “nrc”. Thank you again to E3S.

- “jeol” – SEM with ebeam writing capability, relocated from 218 Cory Hall to 380.

- New “msink5” – an upgrade for current msink5. Will continue to have portions restricted to BNLA project. Will have fluorinated liquid drying station which is an alternate to critical point drying. Thank you to Alphabet Energy.
• We will be consolidating available probe stations into two units, and rearrange equipment in 380 to accommodate fei-sem and jeol.

• “disco” – new dicing saw is released and seeing regular use. See staff if you have special dicing requests. A surfactant and lubricant injection system has been added to disco and is available for testing.

Sinks and chemicals

• Lab policy for sinks will be amended as follows: if you are working at any sink, you must have a face shield on, even if you are not handling chemicals. This is to address the potential hazard of other members handling chemicals or using spinners adjacent to you. In summary: Working at a sink – you must wear a faceshield; Handling chemicals – you must wear a face shield, chemically resistant apron and chemically resistant gloves.

• Some aspects of new organic waste collection are going well – members are following procedures for bottle labeling and transport. However, members must be more attentive to logging EVERY chemical deposit to an organic waste bottle. There are designated inventory clipboards at msink1, 3, 16, and 18 – USE them for every chemical addition to the organic waste bottle. Failure to do so jeopardizes the integrity of our entire operation. Remind each other – this is important.

• There are plans to test a rod over msink16 to hang face shields on and suspend N2 guns for less conflict with the DI guns.

Lab member requests

• Member pointed out control knobs on the hot plates may accidently get turned up, and a locking mechanism could prevent accidental temperature spike, specifically at msink16 and msink18. Staff will evaluate and develop proposed solutions - friction clutch or transparent covers were proposed.

• Additional chemcal storage cabinets on third floor, especially in bay 382.
  - Staff will evaluate the stored material, and pink label bottles (many related to lift off process that may have great redundancy). A possible solution would be a robust lift off process that could consolidate various lift off processes into one, and reduction of pink label bottles in 382.
  - Staff will evaluate chase 383 for additional chemical storage cabinets. Additional under sink storage will be provided with new msink5.
  - Staff will review under sink storage spaces for specialty chemicals (e.g. Au etch) not regularly used and should be returned to special chemical storage cabinets.
• Bottle wash on third floor was requested. This need is acknowledged and we should be able to accommodate, possibly after the new tool arrival/installations are complete. East end of chase 381 most likely location.

• A member requested that process data – especially related to general use sputter and evaporation tools can be collected and made available for others to use. Members are requested to send process parameters, recipes and any collected process data to process manager (parsa@silicon.eecs.berkeley.edu). Lab staff will investigate making a google docs site to encourage collecting this information. Staff will review and screen and make select information available under Process Modules section of the Lab Manual.

• The hotplate-oven enclosure’s exhaust in Bay 382 will be altered for increased exhaust velocity.

Next Meeting Scheduled for June 14, 2012