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|  | <b>SAFE WORK<br/>PROCEDURE:</b> | Doc No           |  | SWP-COE-20 |               |  |
|   |                                 | Last Rev/Date    |  | 00         | 14 April 2010 |  |
|   | <b>Wet Bench</b>                | Current Rev/Date |  | 00         | 14 April 2010 |  |
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**1. Application to:**

All personnel working on the wet bench

**2. Pre-requisite for Operation of sputter :**

- 2.1. Must have attended operation and safety training.
- 2.2. Must know how to read MSDS of Chemical.
- 2.3. Must be physically fit.
- 2.4. Must know location of first-AID box, spill kit, eye-wash and shower.
- 2.5. Able to handle chemical bottle with care.

**3. Hazards that may be present:**

- 3.1. Chemical spill, leak and explosion.
- 3.2. Inhalation chemical vapours.
- 3.3. Chemical burn.

**4. Personal Protection Required:**

- 4.1 Safety Glove
- 4.2 Goggles
- 4.3 Apron
- 4.4 Tweezers to handle wafers
- 4.5 **Buddy System**

The **buddy system** is a procedure in which two people, the buddies, operate together as a single unit so that they are able to monitor and help each other. (In adventurous or dangerous activities).

**5. Procedures:**

**5.1 Operating the wet bench**

- 5.1.1. Put on the PPE and compliant to the buddy system as per section 4 before start work.
- 5.1.2. Check chemical level before heat up the chemical bath.
- 5.1.3. Mix other acid (not for standard chemical) in Beaker or single wafer container
- 5.1.4. Proper label on any chemical mixture during using in the bench.
- 5.1.5. Always Add Acid to water.
- 5.1.6. After process, collect waste chemicals on the designated bottles and keep in the acid cabinet.
- 5.1.7. Keep clean and dry beakers, container and wafer containers after process.
- 5.1.8. Inform or discuss process to PI, Lab Staff or lab Supervisor if there is any change on chemical processing.
- 5.1.9. Record the user log chart.

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|  | <b>Wet Bench</b>                |                  |               |               |

## 5.2 Maintenance of the wet bench

- 5.2.1 Put on the PPE as per section 4 before start work
- 5.2.2 Put up signage to indicate wet bench under maintenance
- 5.2.3 Cleaning of the station, servicing of DI water system and servicing of exhaust.
- 5.2.4 Inform super user/Lab staff if there is leak on DI water or Dry nitrogen

## 5.3 Specific Processes of the wet bench

- 5.3.1 Introduce to new process, student must study chemical (MSDS) and fully understand before he or she starts to use.

## 6. Communication Frequency:

The Lab Supervisor shall arrange for this Safe Work Procedure to be communicated every once a year and as & when required.

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